1983

The influence of nursing faculty role models in predominately black colleges on students' professional practice expectations

Dorothy Lewis Powell

College of William & Mary - School of Education

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Powell, Dorothy Lewis

THE INFLUENCE OF NURSING FACULTY ROLE MODELS IN
PREDOMINATELY BLACK COLLEGES ON STUDENTS' PROFESSIONAL
PRACTICE EXPECTATIONS

The College of William and Mary in Virginia

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THE INFLUENCE OF NURSING FACULTY ROLE MODELS
IN PREDOMINATELY BLACK COLLEGES ON
STUDENTS' PROFESSIONAL PRACTICE
EXPECTATIONS

A Dissertation
Presented To The
Faculty of the School of Education
The College of William and Mary

In Partial Fulfillment
Of the Requirements for the Degree
Doctor of Education

Dorothy Lewis Powell
May 6, 1983
THE INFLUENCE OF NURSING FACULTY ROLE MODELS IN PREDOMINATELY BLACK COLLEGES ON STUDENTS' PROFESSIONAL PRACTICE EXPECTATIONS

by

Dorothy Lewis Powell

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Abstract

This study examines the relationship between nursing faculty role models and students in Predominately Black Colleges (PBCs) and students' expectations for professional practice, including choices to work in healthcare underserved urban communities. The following questions guided this research: (1) Does the interaction between students and their role models influence students' expectations for professional practice; (2) Do role models' involvement with lower income patients in urban settings influence students' preferences to work or not to work in such settings; and (3) Do recent graduates accept employment in the settings they preferred as students?

A 35 item questionnaire derived, in part, from Albert Bandura's theory of role modeling and a 10 item mail questionnaire designed to assess work setting choice was developed. In the first phase of the study, the data were collected through group administration from 214 generic senior nursing students in 15 of the 17 nursing programs at PBCs during April and May of 1982. During the second phase in October, 1982 respondents from phase one were mailed work setting choice surveys. This resulted in a response rate of 80% (172 useable questionnaires).

Data were factor analyzed resulting in four factors characterizing student role model interaction (interpersonal/instructional, functional, personal, and interpersonal/informal-individual) and three factors describing students' professional practice expectations (nursing process, nursing research, and projected professional activities). The two sets of factors were correlated resulting in functional characteristics (i.e., knowing subject area) of role models relating moderately with professional practice expectations. The two interpersonal factors involved in the student-role model relationship correlated weakly with the factors pertaining to professional practice expectations, while personal characteristics of role models such as race and sex did not correlate significantly.

Other analyses using Chi-square and t statistics found insignificant relationships between role models' involvement with lower income patients in urban settings and students' choices of work setting. In further analysis, no significant relationship was found between students' work setting choices and their actual job placements as recent graduates. Job selection was associated more closely with salary and job availability than the influence of role models.

Hence, the findings of this study underscore the value of role models to the complex process of professional socialization of nursing students. However, the even more complex process of job selection extends beyond intrinsic professional values instilled by role models to include, as Bandura explained, concrete extrinsic incentives (i.e., salary and benefits). Finally, the results of this study points to the need for further research to clarify the complexity of factors which explain the student role-model relationship and the actual extent to which role models influence the careers of students in PBCs as well as in other types of institutions.
Dedication

In loving memory of my aunt,

Mrs. Lottie Allen Parham

1907 - 1982

who modeled a life for me full of the qualities essential to the completion of this project
ACKNOWLEDGEMENTS

I am indebted to many individuals and agencies who have given assistance and support during my doctoral studies and the completion of this dissertation. To them I wish to express my thanks.

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Chapter 1
INTRODUCTION

Background and Statement of Problem

The socialization process among baccalaureate nursing students and their teachers, often referred to as role models, has been found to be important in formulating students' attitudes, values, and preferences regarding the practice of professional nursing (Jacobson, 1966; Kelly, 1979; Melick and Bellinger, 1979; Ondrack, 1975; Pieta, 1976; Waltz, 1978). Buckley (1980) has singled out this relationship between teacher and student as a primary factor in the success of black nursing students, who at the baccalaureate level, continue to be educated in Predominately Black Colleges (PBCs) in greater proportions than at other classifications of institutions. (National League for Nursing, 1978; Vaughn and Johnson, 1979). More specifically, Buckley identified racial identity, counseling, and tutoring as the major variables contributing to the association between black nursing students and their teachers. These same variables also characterized the student-teacher relationship in PBCs, as noted by Gurin and Epps (1975) and Thompson (1973).

Within the PBC, the interaction between student and teacher tends to be particularly important in influencing career choices and aspirations of black students. This is especially so for low income students, who comprise the majority of students in PBCs. Parents of these students are frequently less able, than parents of other college students, to influence the career decisions of their children because of their lack of exposure to careers requiring a college degree (Gurin and Epps, 1975; Thompson, 1973). Conse-
quently, faculty in PBCs are known to be influential role models. However, the complex interactional process which explains how influence is conveyed is not well understood.

In the career development and education of nurses, the decision to become a nurse is usually made prior to entering college (Davis, 1964; Sees, 1975). However, the impact of nursing faculty on other important career-related decisions such as the choice of work location is not well understood. Waltz (1978) found that the nursing faculty has some influence on a student's preference for type of practice, but little additional research has been done to investigate whether a relationship exists between the influence of nursing faculty and where nurse graduates choose to work. This query is a particularly important one when considered within the context of the types of work setting choices made by black nursing students. Over half of the 1028 black nursing students in a recent national survey of students in schools of nursing (Feldbaum and Levitt, 1980) expressed a preference for employment in urban areas, which are frequently characterized as underserved urban health care settings. Doyle (1978) and Sloan (1975) also documented that baccalaureate nursing graduates of PBCs are more willing to work in communities characterized by poverty, unemployment, and crime than other groups.

Why nursing graduates of PBCs are willing to work in such agencies more so than other groups is a complex question. However, a partial explanation may be related to the influence of nursing faculty role models, especially when considered in conjunction with previous research. This research links the role of nursing faculties with the socialization of nursing students (Jacobson, 1966; Kelly, 1979; Melick and Bellinger, 1975; Ondrack, 1975;
Pieta, 1976) and highlights black faculty in PBCs as a potentially strong source of influence on career related matters (Gurin and Epps, 1975; Thompson, 1973). Such evidence gives rise to the following problems addressed in this study:

(1) whether baccalaureate nursing faculty role models in PBCs influence work setting preferences of their students, particularly for urban underserved communities, and

(2) whether baccalaureate nursing students in PBCs actually accept employment upon graduation in work settings for which they indicated a preference as students.

Statement of Purpose

Given the problems identified for study, three purposes guided this research. They were: (1) to examine the relationship between students' perceptions of their interaction with role models and the students' expectations of professional practice; (2) to determine if a relationship existed between the role models' involvement with lower income patients in urban settings and students' preferences for employment in such settings; and (3) to determine if a relationship existed between the preferred work setting of students and their actual work setting choices as recent graduates.

Need for the Study

To date much of the research on the socialization of nursing students has concentrated on the student/role model relationship as it pertains to the development of attitudes, skills, and values regarding the practice of professional nursing. Minimal systematic investigation has extended beyond these traditional socializing practices to consider the influence of role models on students or on the development of work setting preferences. This may
have occurred, in part, because of difficulties associated with attempting to measure a complex relationship such as that between role model and student.

However, research findings indicated that there is a particularly strong and influential relationship between faculty and students in PBCs, Gurin and Epps (1975) and Thompson (1973) found in their studies of black college students and faculties that students from lower socio-economic backgrounds were more likely to be influenced in their occupational decisions and aspirations by faculty than by any other significant persons, including parents. Although the initial career decision by nursing students to become nurses has usually been made prior to college, the intense relationship between faculty and students, structured by nursing education, would tend to support the supposition that nursing faculty in PBCs may also have some influence on students' preference for type and location of nursing practice. How faculty influence students through this socialization process was a matter in need of study.

The question of nurse-faculty role model influence on the socialization of baccalaureate nursing students in PBCs was salient, because it has implications for the health care delivery system and especially for urban underserved areas. Among the areas most likely to be underserved by nurses, and especially those nurses with baccalaureate degrees, are central cities of major metropolitan areas (Burgess, 1978; Elliott, 1978; Sloan, 1975). However, of the nurses employed in these areas, Burgess (1978), Doyle's (1978), and Feldbaum and Levitt's (1980) studies concluded that the majority represented racial minority groups. Furthermore, Bellinger (1969), Feldbaum and Levitt (1980) and Sloan (1975) found that these nurses had a greater sustained impact on the health care delivery system than white nurses. In particular, they
spent a higher proportion of their career time working in inner cities caring for the poor and the minorities than did nurses of other races.

These trends suggested the desirability of recruiting minority nurses for service to these underserved communities. Moreover, there is evidence which indicated that black nursing students are desirous of working in such communities. In a recent national survey of nursing schools, over 90% of the black nursing students indicated that they would probably select employment in an inner city after graduation as compared with 56 percent of the white nursing students (Feldbaum and Levitt, 1980, pp. 72-73). Of particular importance to the present investigation was the fact that the authors noted that the majority of the black nursing students were enrolled in predominately black schools of nursing.

This latter finding was further substantiated when the numbers of blacks receiving the baccalaureate degree in nursing from PBCs was compared with the total number of black recipients from all colleges. A conclusion drawn from data compiled by the National League for Nursing (NLN) (1980) demonstrated that the PBCs accept a disproportionately large share of the responsibility for educating black nurses. According to this researcher's analyses, which were made on the basis of 1978 NLN data merged with statistics from the National Center for Educational Statistics (Turner and Michael, 1977) (See Appendix A for statistical analyses), the 13 baccalaureate nursing programs in PBCs graduated approximately 33 percent of the 992 black baccalaureate nursing graduates in the United States in 1978. Further, analysis of the statistics for the District of Columbia and the 12 southern and border states where the predominately black baccalaureate programs are located demonstrated that these schools graduated approximately 333 or 71%
of all black baccalaureate nursing graduates in the region in 1978. Thus, these data offered convincing evidence that the predominately black baccalaureate nursing programs make a major contribution to the productivity of black baccalaureate nurses, particularly in the south.

The potential of these nurses for service to underserved urban communities was a matter which warranted further study. What happens in the socialization of this particular group which made them prefer or not prefer to be employed in such settings needed to be explored. Previously mentioned evidence supported the theory that faculty in PBCs were the primary sources of influence on the career decisions of black college students (Gurin and Epps, 1975; Thompson, 1973), and in particular, on the success of black nursing students (Buckley, 1980). Therefore, this research, which investigated the relationships between the influence of nursing faculty role models and the preferred and actual work setting choices of baccalaureate nursing students in PBCs, contributed to explaining factors which influence a certain group of nursing graduates to make a decision to practice or not to practice in underserved urban health care settings. As such, this study has been timely for the following reasons. First, it underscored the significance of the interactive process between nursing faculty and students in the education of professional nurses. Second, it addressed the health care delivery system in major urban communities which is not expected to be altered substantially, although attracting more registered nurses with baccalaureate and higher degrees is anticipated to have a positive effect in promoting health maintenance and disease prevention (Odegaard, 1979). Third, the study drew attention to the relatively stable number of black nurses receiving baccalaureate degrees from PBCs (NLN, 1978, 1980). It also suggested that,
for the foreseeable future, PBCs will remain a viable source of nursing man­power with the greatest potential for practicing in underserved urban health care settings. Fourth, the study focused on a paramount commitment of PBCs to foster positive student-teacher relationships which have the potential for influencing students' occupational aspirations and preferences. Fifth, the study advanced research into an area of nursing education which had been addressed minimally in previous research. As such, it made a case for additional exploration into the process of educating nurses in PBCs.

Overview of Theoretical Framework

Bandura's (1977) theory of social learning offered a useful framework for exploring the relationship between the influence of nurse-faculty role models in PBCs and the preferred and actual work setting choices of baccalaureate nursing students. While it is a conceptual orientation that has been widely accepted for explaining learning during childhood and adolescence, its applicability to young adults and college age students has recently been documented. Although these recent studies do not focus on the socialization of nursing students, the theory has been used effectively to frame research on the sports socialization of collegiate women. Greendorfer (1977), found that teachers and coaches are the primary socializing agents for college age women participants in sports. Furthermore, Taylor (1976) in an extensive analysis of various socialization theories, found that Bandura's theory was an integral element in formulating a conceptual model to explain the socialization of black adolescents into vocational roles.

Similarly, the relationships between teachers and students, as espoused in Bandura's theory, were apparent in the literature on black
colleges (Gurin and Epps, 1775; Thompson, 1973). This body of literature showed that black college students, especially from lower socio-economic backgrounds were strongly influenced in their occupational aspirations and preferences by faculty models, particularly when they shared a common identity. As evidence of this identity factor, Buckley (1980) found that black nursing faculties were a primary factor in the success of black nursing students enrolled in PBCs.

While there were data demonstrating a relationship between faculty influence and student career preferences in PBCs, there was less research explaining the dynamics of the relationship. Bandura's theory offered a framework for examining the complex interactive processes between faculty and students in PBCs as well as how students assimilated preferences modeled by faculty who served as guides in future decision making.

Modeling, according to Bandura (1977), is a systematic process occurring within the context of socialization through which individuals acquire knowledge, skills, values, and preferences. These acquisitions occur through information processing mainly by symbolic identification and imitation of others. The persons with whom the individual identifies or imitates becomes the role model. Kemper describes this person as

one who possesses skills and displays techniques which the actor lacks... and from whom, by observation, and comparison with his own performance, the actor can learn (1968, p. 33).

The role models, according to Bandura, serve to influence behavior in three ways. First, the modeling effect may be to establish new patterns of behavior through what he terms, observational learning. Second, modeling can inhibit or disinhibit previously learned responses, largely through vicarious reinforcement. Third, modeling can facilitate the release responses already in the observer's repertoire (Muuss, 1976, p. 80).
To operationalize these possible outcomes, Bandura (1977) refers to four articulating subsystems. First are the **attentional processes**. They "determine what is selectively observed in the profusion of modeling influences to which one is exposed and what is extracted from such exposure" (p. 24). Several categories of variables tend to influence attention; among which are characteristics of the observer, characteristics of the model, features of the modeled activities, incentive for the modeled behavior, and structural arrangement of human interaction (p. 24). Furthermore, among those characteristics of the model/observer relationship, Bandura finds personal, interpersonal, and functional competence of the model to be the most critical to attention.

Following attention, the second subsystem involves the **retention processes**. These have value because of their long term or memory effect. According to Bandura (1977), through the medium of symbols, transitory modeling experiences can be maintained in permanent memory. "It is (this) advanced capacity for symbolization that enables humans to learn much of their behavior by observation" (p. 25).

The demonstration of retention is explained through the third subsystem, the **motor reproduction processes**. These processes involve the converting of symbolic representation into appropriate actions (p. 27). Bandura shows that in this manner, observed behavior is refined through self-corrective adjustments, mental or actual rehearsal, and information feedback to approximate eventually desired learning.

A determinant of the motor reproductive processes is the last of the subsystems, the **motivational processes**. In these processes, Bandura distinguishes between acquisition and performance. To illustrate, "observers
are more likely to adopt modeled behavior if it results in outcomes they value than if it has unrewarding or punishing effects" (p. 28). As such, those behaviors of a model that seem to be effective for others are favored over behaviors that seem to have negative consequences" (p. 28).

Thus, Bandura's systematic framework tends to link logically the modeling influence with decision making, such as making an employment choice. The present study sought to ascertain whether there was a relationship between the student-role model relationship and the students' actual work setting choice. This was done by determining if students' preferences for a particular work setting and type of patient were fostered in baccalaureate nursing students in PBCs through socialization with nursing faculty role models.

Bandura's theory of modeling was found to be a relevant theory for explaining the relationship between student-faculty role model interaction and work setting choice. Its relevancy was evidenced by its consideration of students' attitudes and preferences through symbolic and vicarious learning, which are enhanced through prolonged and intense "associational" patterns, a feature characteristic of nursing education and PBCs. In addition, the theory provided for the internalization of standards which serve as evaluators and guides in decision making. This theory was further relevant in its concern with characteristics of models and observers. Its designation of personal, interpersonal, and functional characteristics as important variables in the model/observer relationship was applicable and supported by nursing and PBC literature. Another feature of the theory, its provision for actual and mental rehearsal, permitted the relationship between the environment in which learning experiences occurred and work setting preferences to be explored. Similarly, the attention in the theory to the retentional and motivational
processes allowed for investigation into the relationship between preferred work settings identified by students and their actual work setting choices upon graduation. This, coupled with the theory's attention to the role of internal and external incentives, made Bandura's theory particularly useful as a framework for this study.

Research Questions

The study addressed the following research questions which emerged from relevant literature in nursing, the PBCs, and Bandura's theory:

1. Does the interaction between students and their role models influence students' expectations of professional practice?

2. Does role models' involvement with lower income patients in urban settings influence students' preferences to work or not to work in such settings?

3. Do recent graduates accept employment in the settings they preferred as students?

Sample and Methodology

These three research questions guided this exploratory descriptive study. The questions corresponded to the broader issue of educating baccalaureate nursing manpower who have the potential for practice in underserved urban health care settings. Whereas, most nurses employed in such settings are blacks or other racial minorities, and since the PBCs constitute the largest single source of black baccalaureate prepared nurses, it was appropriate that the target population for this research would be nursing programs in PBCs.

The PBCs are composed of 85 public and private senior colleges and universities located primarily in the South and border states. Founded principally to educate blacks, these institutions continue to assume a sig-
significant role in the education of this ethnic group. As evidence, in 1976, they accounted for 18 percent of the total number of black students enrolled in colleges and universities in the United States (National Center for Educational Statistics, 1977) and 39.8% of all blacks receiving bachelor's degrees in the same year. Furthermore, in 1976, they awarded 69% of all Bachelor of Arts degrees to blacks in the South (Thomas, 1980).

Seventeen of these institutions award the baccalaureate degree in nursing. As previously noted, 13 of them were responsible for the education of approximately 33% of all black nurses in the United States and 71% of all black nurses in the South in 1978 prepared at the baccalaureate level. All 17 programs were invited to participate in this study and 15 of the 17 responded positively to the invitation. Two hundred fourteen (214) or approximately 90% of the potential generic nursing graduates of these schools were involved in this two phased study.

Prior to implementation of the study, a 35 item questionnaire, which assessed perceptions of the student-role model relationship and work setting preference was developed and pilot tested. Following this, the initial phase of the study consisted of administering the instrument in a group setting two to three weeks prior to graduation. A designated faculty member at each institution was responsible for implementing this phase of the study.

During the second phase, a mail survey was sent to each of the 214 participants five months after graduation to determine their actual work setting. One hundred seventy-two (172) or 80% of the sample returned the surveys and all were useable. Based on the research questions, the data were analyzed by a variety of descriptive and inferential statistical techniques.
Definition of Terms

For the purposes of this study, the following terms were operationally defined.

1. **Students**: individuals classified as seniors in baccalaureate nursing programs and who were in their final semester of study. Further, the terms identified persons who were generic (basic) as opposed to those who were registered nurses on admission to the program.

2. **Role Models**: the nursing faculty members identified by students to have most influenced their professional development as nurses.

3. **Underserved Urban Health Care Setting**: a health care agency located in an urban community and whose patient population was primarily lower income.

4. **Involvement** (As used in research question 2): the actual/or theoretical attention of role models to physical care, concepts, principles, or content related to lower income patients in urban settings.

5. **Interactive Process**: the ongoing relationship occurring between nursing faculty role models and students during their educational program in nursing.

6. **Perceptions**: the students’ sensory awareness of the effect of their role model/student relationship and its impact on their professional practice expectations.

7. **Influence**: the perceived effect held by students relative to how nursing faculty role models affected their professional practice expectations.
Limitations

Several limitations were recognized in this study. First, the study was limited to students and role models in one type of institution, PBCs, thereby limiting its generalizability to other types of higher education institutions. Second, the study was restricted to students' perceptions of their relationships with role models and the importance of their influence. No other constituencies were surveyed. Third, no attempt was made to control for students' work setting preferences prior to college and therefore, preferences identified at the end of the college experience cannot be attributed solely to the socialization.

Fourth, the relationships measured in this study may have represented an oversimplification of a very complex process - socialization. Further, the influence of one faculty role model was related to students' development of professional practice expectations. However, no attempt has been made to control or to measure the influence of other faculty members within or beyond students' academic department, professional staff in health care agencies, peers, or any other persons or experiences potentially affecting professional socialization.

Fifth, several limitations were apparent relative to the survey instrument. The items, emerging from the literature, pertaining to the student-role model relationship permitted a general description of what occurs between students and their role models. However, it lacked the power to discriminate the specific characteristics of this recognizably complex interactive process. Furthermore, the instrument was not tested for reliability. Thus, its usefulness in replicating this study is cautioned until a reliability index has been determined. Moreover, the validity of the instrument was limited to content validity.
Organization of Remainder of Study

A review of the related literature is presented in Chapter 2. Chapter 3 presented the design employed in conducting the study, including explanations of the sample, instrumentation, methodology, and data analysis. Findings of the study were presented in Chapter 4. Chapter 5 discussed the results and identified additional research needs. Finally, Chapter 6 summarized the results and stated conclusions.
Chapter 2

RELATED LITERATURE

Teachers are role models whether or not he or she chooses to do so; (they) serve as models which influence the student in a career decision. (Sanford, 1962)

This statement by Nevitt Sanford about the student-faculty relationship addressed the purposes of the study. The purposes of the study were: (1) to examine the relationship between students' perceptions of their interaction with their role models and students' professional practice expectations; (2) to determine if a relationship exists between the involvement of role models with lower income patients in urban settings and students' preferences or lack of preferences for employment in such settings; and (3) to determine if a relationship exists between the preferred work settings of students and their actual work setting choices as recent graduates. Albert Bandura's theory is summarized in Chapter 1.

The tenets of Bandura's theory directed inquiry into three related bodies of literature. These included the following: Socialization, The Predominately Black College, and Poverty-Oriented Work Settings. A discussion of each of these bodies of literature follows.

Socialization

Socialization is that process by which individuals acquire the values, attitudes, norms, knowledge, and skills needed to perform their roles
acceptably in the group or groups in which they are or seek to become members (Bloom, 1963; Bragg, 1976; Merton, 1957). Similar to Bandura's operationalization of modeling, socialization is further described as a learning process which relies on the motivation of the individual to achieve a goal, on the application of positive and negative sanctions to insure conformity, and on the need for practice of acceptable responses by the individual (Bragg, 1976, p. 12).

Instrumental to this process is the role model. He or she has been described as a person or persons, real or idealized chosen by the student to imitate (Bragg, 1976, p. 28). Kemper further characterizes a role model as a person who possesses skills and displays techniques which the actor lacks... and from whom, by observation and comparison with his own performance, the actor can learn (1978, p. 33).

Socialization within the collegiate setting. The literature on socialization within the collegiate setting places great importance on the departmental faculty as a role model. Research pertaining to the student-faculty relationship shows that the faculty in the student's academic department has a potent influence on the student's career development and career decisions (Bragg, 1976; Feldman and Newcomb, 1969; Gurin and Katz, 1966; Hearn, 1968; Weidman, 1979). In fact, Feldman and Newcomb (1969) found that faculty ranked along with parents as one of the most significant influences on student's vocational planning.

In related research, faculty authority and accessibility was found to be important variables in the modeling influence. Elkin and Handel's (1972) study of role models as socializing agents documented that role models who command authority were more influential in shaping behavior of individuals
Further, on the matter of accessibility, Chickering (1969) found that institutions in which the faculty was accessible had a "high impact" on students. These institutions also tended to be those with a "well articulated purpose, a high degree of goal and value consensus among participants, and a structure congruent with the institution's purposes" (Chickering, 1969; Clark, et al, 1972; Heath, 1968).

In addition, Pascarello (1980) related that student-faculty interaction outside of the classroom was associated with high faculty influence. Furthermore, Astin (1977) and Phelan (1976) suggested that students who were most likely to interact with faculty in non-classroom settings tended to have a personal and a career orientation which led them to regard faculty as potentially important personal role models. Similarly, the greater the familiarity with the instructor, as measured by personal acquaintance, informal contact (Astin, 1968; Reisman and Jacob, 1959), and one-to-one small group interaction (Bragg, 1976), the greater the impact of the instructor on career decisions made by students.

These characteristics of a high impact student-teacher relationships are commonly evident in professional schools. A discussion of socialization in professional schools follows.

**Professional socialization.** Research on the professional socialization of medical, law, nursing, and education students has consistently identified the faculty member or another professional mentor as the primary socializing agent for the neophyte professional (Becker, 1961; Bloom, 1973; Corwin, 1961; Davis and Olsen, 1964; Fife, 1971; Gattlick, 1961; Horowitz, 1964; Hughes, 1973; Lortie, 1959; Mayhew and Ford, 1974; Merton, 1957; Ondrack,
Serving as role models, faculty members and other professional mentors transmit their attitudes, values, behavioral norms, and professional commitment formally through the structure they establish and the courses they teach and informally through individual advising and supervision of social activities (Bragg, 1976, p. 28).

In conjunction with this process, the socializing environment is also critical in the internalization of professional values. The environmental conditions of professional schools, according to Bragg, are much like that of "high impact" schools mentioned previously. That is, they have a well-articulated purpose, are goal-oriented, have easily identifiable role models who encourage one-to-one and small group interaction, and have a relative homogeneity of students (pp. 9-10).

Furthermore, in these schools there is a strong relationship between professional socialization and clinical experiences. Lortie (1959) and Horowitz (1964) regarded student contact with actual practice essential for full recognition of the professional role to be learned. Also, location and type of learning experiences were found to be indicative of commitment and social responsibility. Bragg (1976) identified several professional programs which provided learning experience in areas of social concern (i.e., rural areas, disadvantaged settings) for the purpose of modeling social responsibility to less fortunate situations.

Similarly, professional nursing programs, although at the undergraduate level, demonstrate a comparable socialization process and outcomes. The next section discusses the literature on professional socialization in nursing.

**Professional socialization in nursing.** Socialization research in nursing furnishes evidence that nursing students take on the values of their
teachers during the course of their educational program (Davis and Olsen, 1964; Gliebe, 1973; Sees, 1974; Siegel, 1968). Related to this, Davis (1964) (N = 75) and Siegel (1968) (N = 297) found that the longer students were enrolled in the program, the more their value-orientation converged with that of faculty.

However, value-oriented studies of nursing students have a major limitation because of their inability to differentiate the values and practice preferences of students beyond traditional nursing orientations, regardless of type of program (baccalaureate, associate degree, or diploma). Studies by Allutto, Hrebincah, and Alonso (1971); Blomquist (1980); Dustan (1964); Jones (1976); O'Neil (1973); and Redman (1966), using a variety of value instruments, (Allport-Vernon/lindzey, Corwin and Rokeach) show a common value of nursing students to service and social concerns. Only one study by Blomquist (1980) found baccalaureate students in the religious schools to be slightly "more helpful" in their orientation than baccalaureate students in the secular schools.

Another group of nursing studies looked more closely at the relationship between nursing students and nursing faculty role models. These studies (Jacobson, 1966; Kelly, 1979; Melick and Bellinger, 1979; Ondrack, 1975; Pieta, 1976; Waltz, 1978) supported the supposition that the faculty in the major department and in particular, the clinical faculty, was the most important role model for nursing students. Furthermore, Buckley (1980), Jacobson (1966), and Melick and Bellinger (1979) found personal, interpersonal, and functional characteristics of role models important to the perceived influence of models by students. Baccalaureate nursing students in three schools of nursing rated the following as preferred characteristics of primary role models: having a broad clinical experience background; giving
actual nursing care; possessing certain specified attitudes such as patience and professionalism, and having certain characteristics or skills as a teacher. Jacobson found similar functional characteristics of role models preferred by 806 baccalaureate nursing students in her study, but also found additional personal and interpersonal qualities desirable. The subjects in the study regarded highly availability to students, effective interpersonal relationships with students and others, apparent general knowledge, professional competence, teaching and evaluation practices, and personal characteristics.

Personal characteristics of faculty were found to be particularly important to black nursing students. Buckley (1980), in his study of 40 schools of nursing, found the presence of black faculty role models for black nursing students to be the most important factor in their completing nursing school. As such, the counseling and retention-oriented practices of the black faculty along with racial identity were the critical reasons noted which contributed to students' success.

Closely associated with these latter findings, Waltz (1978), in a study of 170 students and 14 faculty members, found a relationship between the intrinsic values of students and the choice of primary role models. That is, she found that the assimilation of faculty viewpoints and standards was largely a function of students' values, cognition, and prior experiences. In the case of nursing students, Waltz demonstrated that students were positively influenced by role models who practiced a type of patient care consistent with their own expectations. Similarly, Heidgarken (1970) found that senior nursing students (N = 410) in 21 baccalaureate programs would adopt or modify their values and preferences by seeking out models who possessed attitudes, emotions, and behaviors they would like to possess.
This literature suggested that some modeling is selective. Selectivity in role models, whether of nursing students or students in general, is a subject suitable for discussion within the context of Predominately Black Colleges (PBCs). The success of the PBC in educating black students has been due largely to the ability of students to identify with institutional goals and with its faculty, most of whom share a common heritage with students.

In the next section the literature related to the PBC, with particular emphasis on variables that influence the student-faculty relationship, is discussed. It should be noted further that in the absence of literature specific to the socialization of nurses in PBCs, the literature presented will advance the case, by inference, that nursing faculty role models in PBCs may influence the work setting preferences and choices of baccalaureate nursing students.

**The Predominately Black College**

Drawing upon the theoretical basis of this study and the related literature discussed thus far, the literature on the PBC was organized under three selected headings. These included the purpose of the PBC, students common to the PBC, and faculty role models common to the PBC.

**The purpose of the PBC.** Bragg (1976) has been noted previously as saying, "institutions with high impact on students are those with a well articulated purpose" (p. 9). Such is the case of the PBC. Founded during an era of overt racial segregation and lack of higher educational opportunities for black Americans, the PBC was established to promote "equal opportunity and equal justice in American society through attention to the educational and social needs of black Americans" (Bolden, 1972, p. 7).
As such, its mission is committed to the preparation of youth for service and leadership, with special attention to the needs of the black community. However, the PBC currently finds itself in a unique position of addressing a dual mission; that of preparing students for equal status and opportunity within the mainstream of society while at the same time continuing to be concerned about those disadvantaged and underprivileged blacks who because of the circumstance of their lives, are still excluded from the mainstream of society (Cook in Willie and Edmond, 1978).

It is this concern for the disadvantaged that has continued to appeal to a relatively stable student clientele. These institutions are committed to attracting students from economically and educationally deprived backgrounds and equipping them with the knowledge and skills necessary for productive lives (Blake, 1979; Thompson, 1973; Walton, 1980; Willie, 1979).

Students common to the PBC. The overwhelming majority of students in PBCs are members of families in the lower income category (Astin, 1977; National advisory Committee on Black Higher Education and Black Colleges and Universities, 1979; Thompson, 1978). Austin and Cross (1977), Carnegie (1971), and Padilla (1979) found that the majority of black students attending PBCs come from families with annual incomes below the poverty level, particularly at the public institutions. Furthermore, black students at PBCs are poorer than black students attending non-black institutions.

Additional evidence by Gurin and Epps (1975) in their study of students in 10 PBCs supported the reality of lower income backgrounds of PBC students. In their six year cross-sectional study, they found black college enrollees to be primarily first generation college students, products of semi-
skilled and unskilled parents, and recipients of financial aid. This latter fact was also evidenced by Williams (1978) who noted that 70 percent of black college students received some type of financial aid.

The matter of black students' income status is important to their susceptibility to modeling influences regarding career decisions. Gurin and Epps (1975) and Thompson (1973) determined that students of lower income backgrounds were more likely to be influenced by faculty role models than students of higher income parents and parents with educational attainment beyond high school. Furthermore, Scott (1980) noted the importance of the role model in developing interpersonal skills in first generation black college students (p. 227).

In addition to being poor, many students entering PBCs come with inadequate basic academic skills. Carnegie (1971) and Padilla (1979) found that black students had lower standardized tests scores than their white counterparts despite their standing in their high school classes. However, Gurin and Katz (1966), who related demographic variables to student performance, noted that there was no significant correlation between the variables, either separately or combined when related to entrance test scores, grades in college, or scores on an anagram task (a test frequently used in achievement motivation research).

Faculty in PBCs have been credited with being the key factor in the success of these students. Their characteristics and roles in the socialization of students is discussed in the following section.

Faculty role models common to the PBCs. Faculty in PBCs have been singled out as the primary factor in the success of black students (Buckley, 1980). Thompson (1978) found that nearly 70 percent of the faculty members
in PBCs were black, were previously from lower income backgrounds, and were products of black colleges. Concomitantly, these faculty members were in a unique position to identify with students and influence them (p. 189). Furthermore, black faculty members expressed a personal and professional commitment to the "frequently academically handicapped black youth of socio-economically poor backgrounds who attended black colleges" (p. 190). As such, Thompson found the emphasis in the PBCs to be on teaching.

The emphasis on teaching, coupled with opportunities for persistence with significant student-teacher relationships, according to Williams (1978), placed the black college teacher in a unique position to "understand the problems of black students and relate the curriculum to their needs and future roles" (p. 12). Keeton (1971) agreed with this and further suspected that "student learning proceeds more deeply, congenitally, and rapidly under circumstances of a congenial ideological sponsorship and climate" (p. 8). In addition, Branch (1977) and Burgess (1978) indicated that blacks, other racial minorities, and socially disadvantaged groups were successful where there were faculty role models who were empathetic, believed in their abilities, expected them to achieve, and provided educational and social support systems.

Furthermore, the nature of the interpersonal interaction between the faculty and students in PBCs has been identified as an important variable in the socialization process (Scott, 1980). Buckley (1980) reported the prevalence of one-to-one tutoring and counseling in PBCs which resulted in persistent faculty-student contact. Further, Gurin and Katz (1966) found that the frequency of faculty-student contact in PBCs was related to higher occupational aspirations and expectations than infrequent contact. Also,
positive development was fostered through informal contact outside of the classroom (Gurin and Epps, 1975; Pascarella, 1980; Scott, 1980). In a related study of 480 black and white secondary students, Sizemore (1981) found that black students (N = 240) regarded highly teachers they perceived as warm, nice, and helpful "with the work after it had been presented" (p. 52). Such characteristics also tended to be highly regarded by students in PBCs.

Thus, it has been documented that faculty role models in PBCs have a major influence on the career aspirations and preferences of students. With nursing students, where the decision to become a nurse is usually made prior to college, it was suspected that nursing faculties have less influence on the choice of a career, but that they were influential in matters concerning where to work and the type of practice to be undertaken. It was further inferred that faculty influence personal development and commitment to service, as nursing students are demographically similar to all students in PBCs. In addition, by virtue of the expected, persistent and intense student-faculty relationship, characteristic of nursing education, it was suspected that students would model the behaviors and professional commitments of their faculty members.

In addition to faculty influence, Bandura identified socialization site or environment as a factor in modeling. Astin, (1968) in an extensive national survey of all kinds of colleges and universities, found the particular college environment to be a significant variable in the socialization of students. The PBC, by virtue of its mission, which is in part, to "prepare graduates for service and leadership to the black community" (Hamilton, 1978; Harris, 1979) is in a unique position to influence student commitment to the needs of the poor and underprivileged. The final major section of related literature
focused on the effect of the socializing environment on work preference in poverty-stricken or poverty-related areas.

**Poverty-Oriented Work Settings**

A uniqueness of the black college environment is its expressed commitment to prepare, in part, graduates for service and leadership to the black community. Furthermore, the Carnegie Commission (1971) has suggested that these institutions continue to "serve as centers for the intellectual leadership and knowledge that will strengthen the Negro community as it adjusts to new levels of competition and equality" (p. 18). Among the roles the Carnegie Commission found feasible for black colleges to play were the following:

1. Assume leadership in 'outreach' programs and consultation and service to the Black community; and
2. Assume leadership in the development of techniques for overcoming handicaps of the educationally disadvantaged.

These expectations have always been a part of the mission of the PBC, but during the turbulent sixties, black students called for an even greater responsiveness to the needs of the black community. Of the PBCs located in central cities, several writers characterized them as being non-responsive to community needs. Thompson (1973) and Le Melle and Le Melle (1969) documented that the PBC was not addressing the critical needs of the surrounding underserved communities and was not preparing students with a sensitivity to upbuilding and enhancing the equality of poor black communities. Further, Hamilton (1967) called for the PBC to "get involved in the ghetto" (p. 6). He also supported the belief that black colleges should foster "a set of values, a spirit of social service, social consciousness, moral sensitivity, and a sense of personal and social responsibility" (p. 54).
However, there has been conflicting evidence to suggest how graduates of the PBCs respond to the needs of underserved communities. In a study of 103 black graduate students in business and education at predominately black and predominately white colleges, Daniel (1980) found that most students at both types of institutions preferred to work in white-oriented work settings upon graduation. However, education students showed slightly more inclination for black-oriented work settings than business students.

By contrast, Craig (1976) found that black college students who participated in a federally funded work project in poverty-stricken communities either elected to work in poverty communities after graduation or to attend graduate school with an intent to major in a social service discipline or public health administration. Similarly, in Amos (1977) study of 373 nurses working in a New England inner city health care delivery system, she found a positive correlation between nurses working in inner cities and clinical experience in inner cities as nursing students. As such, students with positive learning experiences in inner cities preferred inner city work environments more so than students who had not had meaningful experiences in similar settings.

This latter study is particularly relevant to the socialization of nurses in PBCs. Since the majority of nurses in inner cities are black and graduates of PBCs, do modeling experiences in inner cities create a preference for the inner city as a work setting? Current research findings are not available to address this important questions.
Summary

Three bodies of literature were reviewed which provided insight into the complex phenomena affecting the socialization of nurses in PBCs for underserved urban health care settings. The first body of literature on socialization concluded that faculty, in general, and in professional schools such as nursing, in particular, influenced the values, beliefs, and professional commitment of their students. Furthermore, the clinical instructor in nursing programs was found to be the most significant role model, particularly when he/she was perceived as competent. In addition, several studies documented a direct relationship between accessibility, informal contact, and the modeling influence.

Opportunities for a high degree of personal contact was evident within the second body of literature on black colleges. This literature demonstrated a commitment on the part of PBCs to prepare students from educationally and economically disadvantaged backgrounds for service and leadership within the "mainstream of society" as well as in "underserved settings". Most studies indicated that the emphasis on teaching coupled with the expectations of intense advisement and counseling by faculty were key factors in the success of black college students.

The third body of literature on poverty-oriented work settings stressed the philosophical commitments of black colleges to such settings. However, there was contrasting evidence to support the relationship between learning experiences as students in poverty-oriented settings and career decisions.

In short, these bodies of literature collectively support the notion that nursing faculty in PBCs served as role models for students and that
through the interactive process role models may, in part, influence the types of work decisions made by students after graduation. The fact that little of the literature explained fully the complexity of the role model-student relationship, suggested the value of this exploratory study.
Chapter 3

METHODOLOGY

Research Question

This exploratory survey was conducted to determine the perceived influence of nursing faculty role models in Predominately Black Colleges (PBCs) on the employment choices of their baccalaureate nursing students; particularly choices to work in underserved urban health care settings. To achieve this, three related research questions were tested. These were as follows:

1. Does the interaction between students and their role models influence students' expectations of professional practice?

2. Do role models' involvement with lower income patients in urban settings influence students' preferences to work or not to work in such settings?

3. Do recent graduates accept employment in the settings they preferred as students?

A need to document the potential impact of the nursing faculty in PBCs on students' employment choices was desirable in light of the paucity of literature on faculty-student relationships in nursing programs in PBCs and because of the findings of Feldbaum's national survey, which found that a relatively large number of black baccalaureate nursing students desired to work in underserved urban health care settings. These findings plus, the facts that (1) the majority of registered nurses participating in underserved urban health care settings have been minorities (Burgess, 1978; Doyle, 1978;
Feldbaum and Levitt, 1980; Sloan, 1975) and (2) over the years, the PBCs have accounted for the majority of black baccalaureately prepared nurses (National League for Nursing, 1980), made the PBCs an appropriate target population in which to test the specified research questions.

The Population

The PBCs include a group of 85 public and private senior colleges and universities located exclusively in the south and border states and which were founded to educate blacks, but never to the exclusion of others (Carnegie Commission, 1971; Clayton, 1979; Mingle, 1978; Turner and Michael, 1977). Of these, 32 are public and 53 are private institutions ranging in size from several hundred students to over 15,000 students (Turner and Michael, 1977, p. 2). According to the Carnegie Council's (1976) institutional classification, these institutions span the range from liberal arts colleges, through comprehensive colleges and universities to one research institution.

The PBCs, generally, are situated in areas reflecting the diversity of southern communities. Approximately half are in urban areas while 42% are in areas of less than 50,000 people. Relatedly, most students are residents of the states and localities in which the institutions are located. Also, according to Clayton (1979), most students tend to live on campus.

The teacher-student ratio within these institutions approximates 1:15 with the private institutions maintaining a slightly lower ratio than the public institutions (Barron, 1976). However, as a result of accreditation requirements of nursing programs, the ratio tends to be even less. Most approximate a 1:10 teacher-student ratio (Powell, Note 1).

Seventeen (17) of these PBCs offer a baccalaureate degree in nursing. Twelve (12) of the programs are in public institutions and five in private
institutions. However, five of the 12 public programs are of recent origin and have relatively few students (NLN, 1980).

The nursing programs tend to be geographically clustered in the upper and lower sections of the southern region of the United States. Although some are in rural areas, most are situated in cities with populations above 50,000. Most of the nursing programs, 15, are in institutions classified according to the Carnegie Council as Comprehensive Colleges and Universities I or II. One is in a Liberal Arts II college and one is in a Research II institution (Carnegie Council, 1976).

The Sample

The sample consisted of 214 senior generic baccalaureate nursing students who planned to graduate in the spring of 1982. Although participation of all eligible students at each institution was sought, the sample represented the sum of those for whom it was convenient to be present at the time the study was implemented in a group setting. However, even with the use of this convenience method of sample selection, the sample approximated 90% of the students from the 15 schools who were eligible for graduation.

Selection of the sample. Efforts to obtain as much cooperation in the study as possible began with an orientation of nursing program heads to the proposed plans for the study. In as much as most of the programs are located in the southern region of the United States, 13 of the program heads were members of the Southern Council on Collegiate Education for Nursing. All were invited to a luncheon hosted by the researcher during its fall 1981 meeting in Atlanta, Georgia. Ten (10) of the directors or their designates attended the luncheon during which time the researcher explained the purpose of the research, reviewed the tentative instrument, received suggestions, and
requested participation of the schools. In addition, an informal survey was conducted on enrollment, potential number of graduates, graduation dates, convenient times for administration of the questionnaire at the participating schools, and the name of the person who could administer the instrument. All in attendance pledged their support to the project.

A letter explaining the research project, a copy of the tentative instrument, and a survey card containing the items described above were sent to the three program directors not in attendance at the luncheon as well as the four program directors at schools outside of the southern region. (See Appendix C for letter and survey card) Positive responses were received from all directors except one. (One additional program did not respond during the implementation phase of the study).

Characteristics of the sample institutions. Data were gathered on each of the participating programs from the literature and by the informal survey conducted by the researcher. Table 1 presents a summation of the characteristics of the sample institutions.

Table 1 shows that the participating institutions are located in municipalities with populations ranging from nearly 12.5 thousand to slightly more than 1.5 million people (See Appendix D for list of sample institutions). Ten (10) of the institutions were located in cities with more than 100,000 people and five of these were located in major urban centers with a census greater than 500,000. By contrast, five institutions were located in towns with less than 100,000 people. Of these, three had populations less than 50,000 while two were somewhat larger with a census of 55,000 and 77,000.

The institutional size ranged from 1,186 to 10,277 with most having enrollments of less than 5,000 students. Nearly half of the PBCs were small
Table 1

Summary Characteristics Of The 15 Participating Baccalaureate Nursing Programs In PBCs

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<td>105,054</td>
<td>4,918</td>
<td>Public</td>
<td>Comp. I</td>
<td>56</td>
<td>18</td>
</tr>
<tr>
<td>J*</td>
<td>1,572,981</td>
<td>5,101</td>
<td>Public</td>
<td>Comp. I</td>
<td>297</td>
<td>11</td>
</tr>
<tr>
<td>K</td>
<td>425,424</td>
<td>4,712</td>
<td>Public</td>
<td>Comp. I</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>L</td>
<td>12,437</td>
<td>3,505</td>
<td>Private</td>
<td>Comp. I</td>
<td>209</td>
<td>36</td>
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<tr>
<td>M</td>
<td>55,857</td>
<td>2,599</td>
<td>Public</td>
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<td>146</td>
<td>5</td>
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<tr>
<td>N</td>
<td>671,001</td>
<td>2,204</td>
<td>Public</td>
<td>Comp. II</td>
<td>250</td>
<td>11</td>
</tr>
<tr>
<td>O</td>
<td>104,438</td>
<td>2,204</td>
<td>Public</td>
<td>Comp. II</td>
<td>60</td>
<td>8</td>
</tr>
</tbody>
</table>

eInformal Survey by Researcher, Fall, 1981.
fInformal Survey by Researcher, Fall, 1981.

*Location of Nursing Program, University in a smaller locality.
with less than 3,000 students while only one indicated an enrollment greater than 10,000.

Most institutions were public. In fact, 10 of the participating schools were state supported while five were privately governed. Furthermore, 13 were classified by the Carnegie Council as a Comprehensive College or University I or II, while one was coded as a Liberal Arts II institution, and one as a Research II University.

The 15 nursing programs had enrollments ranging from 8 to 297 students. Six programs had in excess of 200 students and an equal number had less than 100 students enrolled. Interestingly, all but one of the small programs (less than 100) were publically controlled while an equal number (3) of the larger programs (greater than 200) were either private or public.

The number of potential spring graduates ranged from 8 to 52. At least in one case, the number (52) included 32 non-generic students or those who were already Registered Nurses. Therefore, the number of potential spring 1982 generic graduates of the 15 programs approximated 266 students, after correcting for potential non-generic graduates.

**Characteristics of respondents.** The actual study consisted of 214 respondents. Table II contains a composite of their demographic characteristics. The majority, 126 or 60% of the respondents were between the ages of 22 and 25. Nine percent or 19 were younger, between ages 18 and 21 while 32 or 16% were between 26 and 29. Another 33 or 16% were 30 years of age or older.

The sample was predominately female and black. Some 200 or 95% were female while 11 or 5% were male. Also, as expected, the vast majority, 182 or 87% of the respondents were black. This was followed by 25 or 12% who were white, and three or about 1% who represented other races.
Table 2

Composite of Demographic Characteristics Of Sample

(N = 214)

<table>
<thead>
<tr>
<th>Age</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age Range</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 - 21</td>
<td>21</td>
<td>9.0</td>
</tr>
<tr>
<td>22 - 25</td>
<td>126</td>
<td>59.7</td>
</tr>
<tr>
<td>26 - 29</td>
<td>32</td>
<td>15.6</td>
</tr>
<tr>
<td>30 and Above</td>
<td>33</td>
<td>15.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>200</td>
<td>94.8</td>
</tr>
<tr>
<td>Males</td>
<td>11</td>
<td>5.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>182</td>
<td>86.7</td>
</tr>
<tr>
<td>White</td>
<td>25</td>
<td>12.0</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>1.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description of Home Community</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>27</td>
<td>12.7</td>
</tr>
<tr>
<td>Small Town</td>
<td>54</td>
<td>25.5</td>
</tr>
<tr>
<td>Suburban</td>
<td>48</td>
<td>22.6</td>
</tr>
<tr>
<td>Urban</td>
<td>83</td>
<td>39.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number in Household</th>
<th>Mean - 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Educational Attainment of Parents</th>
<th>Mother</th>
<th>Father</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did not complete high school</td>
<td>59</td>
<td>28.6</td>
</tr>
<tr>
<td>High school graduate</td>
<td>59</td>
<td>28.6</td>
</tr>
<tr>
<td>Attended college</td>
<td>33</td>
<td>16.0</td>
</tr>
<tr>
<td>College or university graduate</td>
<td>55</td>
<td>26.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grade Point Average</th>
<th>Mode - 3.00</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median - 2.92</td>
</tr>
<tr>
<td></td>
<td>Mean - 2.89</td>
</tr>
</tbody>
</table>
When respondents were asked to describe their home communities, 27 or 13% indicated that they were from a rural community, 54 or 25% from a small town, 48 or 23% from a suburban area, and 83 or 39% from an urban area. The mean number of people residing in the household was 5 with a range of 1 to 15.

In analyzing the data on highest educational attainment of parents, mothers of respondents had achieved higher levels of education than fathers, a finding consistent with other research on students in PBCs. Nearly 27% or 55 of the mother had earned a bachelor's degree compared to approximately 17% or 35 of the fathers. Another 33 or 16% of the mothers had attended college as compared to 23 or nearly 11% of the fathers. In addition, fathers were more likely to have not completed high school. Seventy-four (74) of them or 37% had not earned a high school diploma compared with 59 or 29% of the mothers. Furthermore, 68 or 34% of the fathers were high school graduates while this was the educational level of 59 or slightly more than 28% of the mothers.

The self-reported grade point averages ranged from 2.0 to 3.97 on a 4-point scale. Of the 180 respondents reporting, the modal GPA was 3.00, the median 2.92, and the mean 2.89. Thirty-two or 6.6% of the respondents chose not to report their GPA.

**Procedure**

The study was conducted in two phases. The initial or on-campus phase consisted of collecting data on student-faculty interactions and work setting preferences. This was followed five months later by the second phase which consisted of administrating a mail survey to ascertain the actual work
setting of respondents. Each phase is specifically described below.

**On-campus Phase** -- The on-campus phase of the study consisted of administrating a 35 item questionnaire entitled "Survey of Student/Faculty Interaction" to generic senior baccalaureate nursing students at 15 institutions. Before the survey was administered, several important preparatory procedures took place. First, permission to conduct the study was obtained from the program heads of the nursing programs in late fall, 1981. Sixteen of the 17 baccalaureate nursing programs in PBCs agreed to participate. A letter reminding schools of their previous willingness to participate was sent to the program head or her designate in mid-March, 1982. This letter also confirmed the expected arrival date for the survey materials. These materials consisted of the questionnaire, an information card to be completed by each student for follow-up purposes, an instruction sheet to be read by the person administering the survey, a report of administration form, and a self-addressed prepaid envelope for returning all materials. (See Appendix E-1 - E-4)

The dates for administrating the questionnaires at each institution had been determined previously and subsequently, the questionnaires were administered two to three weeks prior to graduation. Eligible respondents (generic seniors) were requested by the director of the program or her designate to assemble as a group to complete the questionnaire. Initially, the information card which was stapled to the front of the questionnaire was completed, detached, and collected by the administering person. The purpose of the coding system was to match data collected during the on-campus phase with that collected during the mail phase. Anonymity of responses was assured. However, the coding system was not explained and one school questioned it before returning the questionnaires.
Following completion of the information cards, respondents were asked to read each of the items on the questionnaire carefully and select appropriate answers. Answers were to be marked directly on the questionnaire — no separate answer sheet was used. The questionnaire took approximately 20 minutes to complete. Completed questionnaires were collected and returned by mail to the researcher along with a report of administration. Comments on the report of administration indicated that collectively, approximately 90% of all eligible respondents participated in the study.

By mid-June, 1982, questionnaires had been returned by 15 or the 16 nursing programs. Follow-up telephone calls were required in the case of the three institutions, one of which failed to administer the instrument prior to graduation. Collectively, 214 questionnaires were returned and all were useable.

Mail Survey — The second phase of the study was initiated the first of October 1982, approximately six months following graduation. This date was chosen to closely follow the receipt of State Board results, since the study, at this phase, dealt with employed nurses. A 10 item survey, (See Appendix F) along with an explanatory letter, were sent to each of the 214 respondents to the initial questionnaire. Addresses were obtained from the information cards completed previously. Also, each mail survey was coded with the same number as in the initial phase for matching of data. Furthermore, the accompanying letter explained that a check for $5.00 would be sent to each respondent who returned the survey. The decision to offer a monetary incentive was based on Dillman's (1978) finding that mail returns tend to be greater when a monetary incentive is offered.
Within two weeks of the initial mailing, 50% of the surveys had been returned. At this point, a reminder post card (See Appendix G) was sent to all non-respondents. By late October, approximately 62% of the surveys had been returned. In an effort to further increase returns, a second mailing was conducted. November 23, 1982 was established as the last day on which returns would be accepted. As of that date, 172 responses or 80% of the respondents had returned the surveys.

Ethical Safeguards and Considerations

Initial approval for the survey was granted by the Human Subjects Research Committee of the College of William and Mary. In addition, approval for the study was obtained from the program heads of the nursing programs at each institution. Upon review of the instrument, all program heads with the exception of one, felt that no additional approval at their institution was required. In the case of the one program head, a student release form was desired and because of time constraints, an agreeable form was devised over the telephone. (See Appendix H).

Furthermore, confidentiality of responses was assured verbally by the person administering the questionnaire who read a statement from the researcher. (See Appendix E-3) Confidentiality was respected and once mail surveys were returned, information cards were destroyed.

Instrumentation

Two survey instruments were developed by the researcher to gather data pertaining to the three research questions. The items for these instruments were drawn from 35 questions based on Bandura's theory and the
related literature. The first instrument, "Survey of Nursing Students/Faculty Interactions," contained 35 items, and addressed the three research questions: student/faculty interaction, work setting preference, and actual work setting. However, since most respondents, as expected, were unaware of their actual work setting prior to graduation, the second questionnaire, "Survey of Nursing Student/Faculty Interactions — Part II: Work Setting Choice," was developed to include the 10 items pertaining to where graduates chose to work.

The 35 items were designed to gather data in five areas. First, seven items pertained to the identification and characterization of the member of the nursing faculty (role model) whom respondents believed most influenced the kinds of commitments, skills, and qualities they believed important to their professional nursing practice. (See Appendix E-1, questions 1 - 7). Question one, which asked respondents to list this person by position was extremely important in creating a mind-set of an individual whom the respondents would refer to in answering subsequent questions. This item was followed by questions 2 - 7 which were all multiple choice type items and focused on the following characteristics of the role model; position, age, sex, race, nursing specialty area, and socio-economic background of the role models' parents.

Second, four questions, 8 - 11, specifically addressed the first research question — does the interaction between students and their role models influence students' expectations of professional practice? Questions 8 - 10 addressed the interactive dynamics based on the three dimensions of Bandura's attentional processes: interpersonal, personal, and functional characteristics. Question 11 addressed professional practice expectations and was based on competencies of baccalaureate nurse graduates devised by the
National League for Nursing (1980). All four questions consisted of a series of descriptive variables and were similarly structured using a five point rating scale where 1 was very unimportant and 5 was very important to ascertain the perceived importance of each variable (See Appendix E-1, questions 8 - 11).

The third set of items focused on the second research question -- does role models' involvement with lower income patients in urban settings influence students' preferences to work or not to work in such settings? Questions 12 - 17 addressed this focus (See Appendix E-1, questions 12-17). Question 12 determined whether respondents planned to work or not to work in nursing following graduation. If working in nursing was planned, respondents were directed to continue to questions 13 and 14 which identified work setting preference by location and income level of patients, using a forced choice format. The next items, questions 15 and 16 were included to determine if respondents had learning experiences involving lower income patients in urban settings and if these were provided by the role model. Respondents who had such experiences provided by the role model were instructed to answer question 17 which focused on the perceived importance of the role models' involvement with lower income patients in urban settings. In this question, a five point rating scale where 1 was very unimportant and 5 was very important was employed to test the perceived importance on seven variables which described the nature of the role models' involvement.

The fourth set of items addressed the last research question -- do recent graduates accept employment in the settings they preferred as students? Questions 18 - 26 addressed this focus in the first instrument and comprised totally, the second or mail questionnaire (See Appendix E-1,
questions 18 - 26, and/or Appendix F, questions 1 - 10). Items 18 - 21 (1 - 4 in the mail survey) ascertained if employment had been accepted and if it had, the number of positions considered, the address of the employer, and salary. The next two questions were forced choice items and were used to identify work setting by location and major type of patient served. The format of these latter items was consistent with similar questions in other sections of the questionnaire to allow for comparisons between work setting preferences and actual work settings. The remaining questions determined specialty area in which respondents were employed, the importance of 11 variables in influencing the work setting decision, and the length of time the respondents planned to remain with their employers.

Finally, the fifth set of items was designed to gather demographic data on the respondents. Questions 27 - 35 were utilized for this purpose (See Appendix E-1, questions 27 - 35). The variables tested included age, sex, race, location of home community, income level of parents, number in household, educational attainment of parents and grade point average.

**Pilot Testing**

The two instruments were pilot tested for clarity and objectivity. The first instrument "Survey of Nursing Student/Faculty Interaction" was piloted twice, first in the summer of 1981 with a group of 11 senior nursing students at Hampton Institute and again in the winter of 1982 with 12 students at Norfolk State University. While the initial pilot study was conducted with baccalaureate students and the latter with associate degree nursing students, both sets of students had similar demographic characteristics.
The second instrument, "Survey of Nursing Student/Faculty Interaction - Part II: Work Setting Choice" was pilot tested with 10 1981 generic baccalaureate nursing graduates of Hampton Institute. The group selected to participate in most cases, had local addresses and were chosen for convenience of follow-up interviews.

Generally, the pilot tests found the instruments to be understandable and objective. However, the testing revealed several unclear items which were clarified in the actual questionnaire. Furthermore, a couple of demographic questions were felt to be too personal to elicit accurate responses. These were eliminated in the final form of the questionnaire. In addition, the pilot testing was used to assess, in a general sense, some measure of reliability. Although, no statistical index of reliability was calculated, respondents tended to answer similar questions with consistent ratings.

**Validity of the instrument.** Content validity of the 35 items used in the instrument was determined by a panel of four nursing experts. The panelists were provided with a copy of the instrument along with a brief proposal of the research which included a discussion of Bandura's theory (See Appendix I). Adjustments were made in the instrument where three out of four comments were similar.

Generally, the panel of experts believed that the theoretical framework was clearly reflected in the instrument. However, several substantive comments were directed towards making the theoretical constructs more explicit within items. Other consistent comments were of an editorial nature.
Data Analysis

The data generated by this study allowed several descriptive and inferential techniques to be applied in analyzing the three research questions. The process was facilitated by the computer using the Statistical Analysis System (SAS). Furthermore, with all statistical tests, the .05 level of significance was established.

The first question, which related student-faculty interaction to professional practice expectations, utilized simple frequencies and percentages to describe characteristics of role models and to explain the relative importance of the various aspects of the interactive process. This was followed by the application of factor analysis using the varimax rotation to the 29 variables which characterized the interaction between role models and students. Similar procedures were employed in describing and analyzing the 13 professional practice expectation variables. Following the isolation of four interactive factors and three professional expectation factors, the two were correlated.

The second research question, which addressed the relationship between role models' involvement with lower income patients in urban settings and students' preferences to work or not to work in such settings, was analyzed descriptively by cross tabulations. The Chi square statistic was employed to determine the significance of the relationship between role models' involvement and work setting preference. Furthermore, the t-test was utilized to compare the mean scores of respondents who preferred and who did not prefer lower income/urban work settings on seven variables describing the importance of role models' activities in health care underserved urban settings.
The third research question, which investigated if graduates accept employment in the settings they preferred as students, also made use of cross tabulations to describe the results. Likewise, the Chi square statistic was applied to determine the significance of the relationship between preferred and actual work settings.
Chapter 4

RESULTS

An exploratory survey was conducted with nursing students in Predominately Black Colleges (PBCs) to determine the influence of nursing faculty role models on the work setting preferences of their students. Specifically, the survey was guided by three related questions. These questions were as follows:

1. Does the interaction between students and their role models influence students' expectations of professional practice?

2. Does role models' involvement with lower income patients in urban settings influence students' preferences to work or not to work in such settings?

3. Do recent graduates accept employment in the settings they preferred as students?

Two hundred fourteen (214) of the anticipated 1982 generic nursing graduates at 15 of 17 predominately black baccalaureate nursing programs in the United States participated in the two phased study. The initial phase consisted of administering a 35 item questionnaire on student/faculty interaction and work setting preference. Student respondents were administered the questionnaire in a group setting on their campuses two to three weeks prior to graduation. This was followed in September 1982 with a 10 item mail survey to determine actual work setting of each of the 214 graduates. One hundred seventy-two (172) (80%) of the mail surveys were
returned and were useable. All 214 of the on-campus instruments were useable although there were some unanswered questions.

Data pertaining to each of the three research questions were analyzed. Each question is discussed in sections which follow:

**Question 1: Student/Role Model Interaction**

**Characteristics of the role model.** The identification and characteristics of the nursing faculty role models were elicited during the on-campus phase of the study using one completion and six multiple choice items. The initial item, which was to identify the nursing role model by position, asked the respondents to think of the one teacher who had the greatest influence on the kinds of commitments, skills, and qualities they believed important to their professional nursing practice. As subsequent questions in the questionnaire referred to the identified role model, respondents were asked to keep his/her identity in mind.

Following the identification of the role model, the next six multiple choice items, focused on characteristics of the role model and pertained to the following variables; position, age, sex, race, nursing specialty area, and economic background of the role models' parents.

The data showed that nursing respondents in PBCs do identify with a particular nursing faculty role model during their educational program. In fact, 213 of the 214 respondents were able to identify one nursing faculty member whom they believed had the greatest influence on the kinds of commitments, skills, and qualities they believed important to their own professional practice. Furthermore, they were able to characterize these role models according to the descriptor variables.
Table 3
Perceived Characteristics Of Nursing Role Models
Selected By Baccalaureate Nursing Students In
Predominately Black Colleges
(N = 214)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Positions Held By Role Models</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty member with classroom/</td>
<td>184</td>
<td>86.4</td>
</tr>
<tr>
<td>clinical responsibilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty advisor with teaching</td>
<td>12</td>
<td>5.6</td>
</tr>
<tr>
<td>responsibilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursing Administrator with teaching</td>
<td>17</td>
<td>8.0</td>
</tr>
<tr>
<td>responsibilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>38.5</td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td>27-65</td>
<td></td>
</tr>
<tr>
<td><strong>Sex</strong></td>
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<td></td>
</tr>
<tr>
<td>Male</td>
<td>1</td>
<td>.47</td>
</tr>
<tr>
<td>Female</td>
<td>211</td>
<td>99.53</td>
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<tr>
<td><strong>Race</strong></td>
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<td></td>
</tr>
<tr>
<td>Black</td>
<td>183</td>
<td>85.9</td>
</tr>
<tr>
<td>Chicano</td>
<td>1</td>
<td>.5</td>
</tr>
<tr>
<td>White</td>
<td>29</td>
<td>13.6</td>
</tr>
<tr>
<td><strong>Specialty Area</strong></td>
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<td></td>
</tr>
<tr>
<td>Medical/Surgical</td>
<td>117</td>
<td>56.8</td>
</tr>
<tr>
<td>Maternal/Child</td>
<td>30</td>
<td>14.6</td>
</tr>
<tr>
<td>Psychiatric/Mental Health</td>
<td>37</td>
<td>18.0</td>
</tr>
<tr>
<td>Community Health</td>
<td>22</td>
<td>10.7</td>
</tr>
<tr>
<td><strong>Socio-economic Background of Parents</strong></td>
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<td></td>
</tr>
<tr>
<td>Lower Income</td>
<td>14</td>
<td>6.6</td>
</tr>
<tr>
<td>Middle Income</td>
<td>182</td>
<td>85.9</td>
</tr>
<tr>
<td>Upper Income</td>
<td>15</td>
<td>7.1</td>
</tr>
</tbody>
</table>
Table 3 indicates that the overwhelming majority of respondents, 184 (86.4%) selected a faculty member with classroom or clinical responsibilities as their most influential role model. This was followed by 17 (8%) who selected a nursing administrator with teaching responsibilities, while 12 (5.6%) respondents selected a faculty advisor with teaching responsibilities. Based on these data, it can be concluded that all the nursing role models had some teaching responsibilities, although they may have had other primary responsibilities such as administration or advisement.

Further, Table 3 shows that role models were perceived by their respondents as having a mean age of 38.5 with a range of 27 to 65. In addition, the overwhelming majority of the role models were female and black. All except one of the role models were females. One hundred eighty three (183) (85.9%) of the nursing faculty selected as role models were black while 29 (13.6%) were white with one (0.5%) being Chicano.

A closer look at the correlation between race of role model and race of respondent was determined. Table 4 describes the results of this correlation by frequency and percentage.

Table 4
Correlation Of Race Of Students And Race Of Role Models By Frequencies and Percentages
(N = 210)

<table>
<thead>
<tr>
<th>Race Of Role Model</th>
<th>Black</th>
<th>Race Of Students</th>
<th>White</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>f</td>
<td>f</td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>166</td>
<td>11</td>
<td>3</td>
<td>100</td>
</tr>
<tr>
<td>Chicano</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>White</td>
<td>16</td>
<td>13</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
The analysis found in Table 4 reveals that of the 183 black student respondents in the sample, 166 (91%) selected a black role model, one (0.5%) respondent selected a Chicano role model, while 16 (9%) respondents identified with a white role model. By contrast, of the 24 white respondents in the sample, 11 (46%) selected a black role model while 13 (54%) selected a white role model. No white respondents selected a Chicano role model. In addition, all of the respondents classified as other, selected a black role model. In summary, the data showed that black respondents were much more likely to select a role model of their same racial group than were white respondents or respondents of other races.

Additional descriptive characteristics of role models are discussed in Table 3. Specialty area of the role model is one such variable.

The majority of the respondents, 117 (56.8%), selected a medical/surgical instructor as their role model. Thirty-seven (37) (18%) of the respondents identified with a psychiatric/mental health instructor, while 30 (14.6%) respondents selected a maternal/child teacher as compared to 22 (10.7%) who identified with a community health teacher.

Lastly, 182 (85.9%) of the respondents, thought that the pre-college socio-economic status of their role models was middle income. Another 14 (6.6%) rated the role models’ background as lower income while 15 (7.1%) perceived their background as being upper income.

The role model/student relationship. Respondents were asked to rate the importance of 29 variables in influencing their identification and interaction with their role model. A 5-point scale ranging from very unimportant to very important was used to elicit the perceived importance of each variable. The variables were organized into three major questions (See
Appendix E-1, questions 8-10) each reflecting a dimension or subset of Bandura's attentional processes -- interpersonal, personal, and functional.

Initially, the data were analyzed to determine which of the 29 variables respondents perceived as important in influencing their relationship with their role model. To achieve this, percentages of positive responses were computed. That is, the percentage of respondents selecting either 4 or 5 on a 5-point scale where 1 was very unimportant and 5 was very important was determined. Table 5 presents the results of this analysis.

Table 5 shows that the respondents perceived most of the 29 variables as important in influencing their identification and interaction with their role model. In fact, if 70% positive was designated arbitrarily as the minimal percentage point suggesting importance, 22 of the 29 variables were found to be important. Those variables achieving less than 70% included three variables listed under interpersonal characteristics and all four of the variables classified as personal characteristics. The interpersonal variables identified which achieved less than 70% included, being accessible (1) during extracurricular activities, (2) during social activities, and (3) at home. Their positive percentages were 42, 49, and 21 respectively, while specialty area of the role model received a positive percentage of 63 -- considerably closer to the specified 70%.

By contrast, the strongest variables, or those above 90% were found among the interpersonal and functional characteristics. Specifically, in descending order, the following variables listed under interpersonal characteristics were perceived as strong influences: motivating me to do my best; being accessible in the classroom/clinical area; seeming to enjoy seeing me progress; being dependable, providing constructive criticism; telling me
Table 5
Percent of Positive Responses To 29 Variables Describing The Identification and Interaction of Role Models and Students
\( (N = 214) \)

<table>
<thead>
<tr>
<th>Theoretical Dimension</th>
<th>Variables</th>
<th>Percentage Of Positive Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal</td>
<td>Motivating to do best</td>
<td>97</td>
</tr>
<tr>
<td></td>
<td>Being Accessible:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- in classroom/clinical area</td>
<td>94</td>
</tr>
<tr>
<td></td>
<td>Seeming to enjoy seeing progress</td>
<td>94</td>
</tr>
<tr>
<td></td>
<td>Being dependable</td>
<td>93</td>
</tr>
<tr>
<td></td>
<td>Providing constructive criticism</td>
<td>93</td>
</tr>
<tr>
<td></td>
<td>Telling when not done well</td>
<td>92</td>
</tr>
<tr>
<td></td>
<td>Telling when done well</td>
<td>91</td>
</tr>
<tr>
<td></td>
<td>Causing to feel good about self</td>
<td>89</td>
</tr>
<tr>
<td></td>
<td>Being warm/friendly</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>Being accessible during conference with an appointment</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>Taking a personal interest</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>Willing to spend unrushed time with personal problem</td>
<td>79</td>
</tr>
<tr>
<td></td>
<td>Being accessible during conferences without an appointment</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>Being accessible through extracurricular activities</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>Being accessible during social activities</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Being accessible at his/her home</td>
<td>21</td>
</tr>
<tr>
<td>Personal Characteristics</td>
<td>Nursing specialty</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>Race</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>Age</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Sex</td>
<td>22</td>
</tr>
<tr>
<td>Functional Characteristics</td>
<td>Seeming to know subject area</td>
<td>98</td>
</tr>
<tr>
<td></td>
<td>Giving guidance in new/difficult situations</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>Providing organized/informative/interesting lectures</td>
<td>93</td>
</tr>
<tr>
<td></td>
<td>Evaluating objectively</td>
<td>93</td>
</tr>
<tr>
<td></td>
<td>Identifying challenging learning experiences</td>
<td>92</td>
</tr>
<tr>
<td></td>
<td>Demonstrating competent patient care</td>
<td>91</td>
</tr>
<tr>
<td></td>
<td>Creating enjoyable learning environment</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>Seeming to know patient assignments in clinical</td>
<td>87</td>
</tr>
<tr>
<td></td>
<td>Helping to plan proper patient care in clinical</td>
<td>85</td>
</tr>
</tbody>
</table>

*Positive responses are defined as selection of 4 or 5 on a 5 point scale where 1 is very unimportant and 5 is very important.*
when I have not done well; and telling me when I have done well. Similarly, the hierarchy of strong influences for functional characteristics were as follows: knows subject area; provides guidance in new and difficult situations; provides organized, interesting and informative lectures; evaluates objectively; provides challenging learning experiences; and demonstrates competency in giving patient care.

Other variables were perceived as moderately strong sources of influence, as determined by receiving a positive percentage rating between 80 and 89. Two such variables -- knows patient assignments in the clinical area and helps plan patient care in the clinical area -- were among the functional characteristics. Among the interpersonal characteristics, four variables were classified as having moderate influence. These included the following: causing me to feel good about myself; being warm and friendly; being accessible for a conference with an appointment; and taking a personal interest in me. Only two variables, willing to spend un rushed time when I have a personal problem and being accessible for conference without an appointment fell below 70% and 80%. These two variables were listed under interpersonal characteristics.

Following descriptive analysis of the data, an exploratory factor analysis of the 29 variables was implemented. The purpose of this statistical procedure was to reduce the data and determine the number of constructs or factors that underlie or explain the variables. (Hinkle, 1979, p. 431). Following the preparation of a correlation matrix, the initial extraction of factors was done. At this stage of factor analysis "the chief concern is whether a smaller number of factors can account for the covariation among a much larger number of variables" rather than "whether the factors extracted
are interpretable or meaningful" (Kim and Mueller, 1978, p. 78). Furthermore, Kim and Mueller indicated that at this stage the criteria should be set to determine the number of factors which will be extracted. To achieve this, eigenvalues and proportions were used. That is, only factors achieving an "eigenvalue greater than or equal to 1" (Kim, p. 49) would be used. Also, only proportions (eigenvalue divided by number of variables) which explained more than 5% of the variance (Null, Note 3) would be utilized in identifying the number of relevant factors. Given these criteria, Table 6 shows the results of the initial extraction of the exploratory factor analysis.

Table 6

<table>
<thead>
<tr>
<th>Principle Factors</th>
<th>Eigenvalues</th>
<th>Proportions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8.73</td>
<td>.30</td>
</tr>
<tr>
<td>2</td>
<td>2.69</td>
<td>.09</td>
</tr>
<tr>
<td>3</td>
<td>2.34</td>
<td>.08</td>
</tr>
<tr>
<td>4</td>
<td>1.95</td>
<td>.07</td>
</tr>
<tr>
<td>5</td>
<td>1.31</td>
<td>.04</td>
</tr>
<tr>
<td>6</td>
<td>1.20</td>
<td>.04</td>
</tr>
</tbody>
</table>

*Eigenvalue refers to the amount of variance reflected in each principle axis of plotted measures. "The largest eigenvalue represents the amount of variance explained by the first principle axis (or first factor), the second largest eigenvalue represents the amount of variance explained by the second axis (or second factor) and so on." (Kim and Mueller, 1972, p. 18).
As Table 6 shows, the 29 variables were reduced to six principle factors when the specified criteria were applied. The largest eigenvalue of 8.73 accounted for 30% of the variance explained by the first principle axis or factor one. The second largest eigenvalue was 2.69 and accounted for 9% of the variance explained by factor two. Similarly, the third eigenvalue of 2.34 explained 8% of the variance of factor three. The next smallest eigenvalue of 1.95 or factor four explained 7% of the variance. Because these two latter factors accounted for less than 5% of the variance, the results of the initial factor extraction indicated that there were four major factors which should be utilized in subsequent steps.

Following the extraction of initial factors, the factor matrix was rotated to find simpler and more easily interpretable factors. More specifically, the rotation procedure was a transformation of the factor matrix to another matrix that provided a better fit between factors and variables (Hinkle, p. 434). As the initial extraction showed considerable factorial complexity, the orthogonal rotation of the varimax type was used to simplify the columns of the factor matrix. As a method, varimax maximizes the variance of the squared loadings for each factor (Kim and Mueller, p. 35). Table 7 provides the varimax rotated matrix for the 29 identification/interaction variables. It should be noted that .40 was set as the minimum correlation coefficient for establishing factor loading as .40 is considered low positive correlation (Hinkle, 1979, p. 85). From the table it is apparent that some factor complexity remained in the case of five variables between factors one and three. On the other hand, factors two and four were factorially pure, measuring only one construct.

Variables loading exclusively on factor one (that is, achieving a
Table 7

Varimax Rotated Matrix Of 29 Variables Describing The Identification
And Interaction Of Role Models And Students

(Factor loadings have been rounded off to 2 places)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being Accessible:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-in classroom/clinical area</td>
<td>.45</td>
<td>.11</td>
<td>.45</td>
<td>.03</td>
</tr>
<tr>
<td>-during conferences with an appointment</td>
<td>.52</td>
<td>.08</td>
<td>.09</td>
<td>.18</td>
</tr>
<tr>
<td>-during conferences without an appointment</td>
<td>.37</td>
<td>.02</td>
<td>.08</td>
<td>.53</td>
</tr>
<tr>
<td>-through extra-curricular activities</td>
<td>.03</td>
<td>-.03</td>
<td>.03</td>
<td>.71</td>
</tr>
<tr>
<td>-during social activities</td>
<td>-.08</td>
<td>.26</td>
<td>.01</td>
<td>.75</td>
</tr>
<tr>
<td>-at his/her home</td>
<td>.01</td>
<td>-.02</td>
<td>-.03</td>
<td>.68</td>
</tr>
<tr>
<td>Taking a personal interest</td>
<td>.36</td>
<td>.12</td>
<td>.19</td>
<td>.47</td>
</tr>
<tr>
<td>Being warm/friendly</td>
<td>.60</td>
<td>.04</td>
<td>.15</td>
<td>.32</td>
</tr>
<tr>
<td>Being dependable</td>
<td>.60</td>
<td>.05</td>
<td>.20</td>
<td>.03</td>
</tr>
<tr>
<td>Willing to spend unrushed time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>with personal problem</td>
<td>.50</td>
<td>.03</td>
<td>.13</td>
<td>.37</td>
</tr>
<tr>
<td>Telling when done well</td>
<td>.79</td>
<td>.09</td>
<td>.16</td>
<td>.06</td>
</tr>
<tr>
<td>Telling when not done well</td>
<td>.77</td>
<td>-.05</td>
<td>.19</td>
<td>.06</td>
</tr>
<tr>
<td>Motivating to do best</td>
<td>.78</td>
<td>.13</td>
<td>.11</td>
<td>-.10</td>
</tr>
<tr>
<td>Causing to feel good about self</td>
<td>.74</td>
<td>.12</td>
<td>.13</td>
<td>.03</td>
</tr>
<tr>
<td>Providing constructive criticism</td>
<td>.76</td>
<td>-.10</td>
<td>.21</td>
<td>.20</td>
</tr>
<tr>
<td>Seeming to enjoy seeing progress</td>
<td>.75</td>
<td>-.05</td>
<td>.30</td>
<td>-.08</td>
</tr>
<tr>
<td>Age</td>
<td>.14</td>
<td>.75</td>
<td>-.04</td>
<td>.23</td>
</tr>
<tr>
<td>Sex</td>
<td>.12</td>
<td>.78</td>
<td>.07</td>
<td>.12</td>
</tr>
<tr>
<td>Race</td>
<td>.15</td>
<td>.76</td>
<td>.01</td>
<td>-.05</td>
</tr>
<tr>
<td>Nursing specialty</td>
<td>-.11</td>
<td>.62</td>
<td>.12</td>
<td>-.03</td>
</tr>
<tr>
<td>Providing organized/informative/interesting lectures</td>
<td>.30</td>
<td>.01</td>
<td>.59</td>
<td>-.02</td>
</tr>
<tr>
<td>Seeming to know subject area</td>
<td>.40</td>
<td>.04</td>
<td>.53</td>
<td>-.18</td>
</tr>
<tr>
<td>Identifying challenging learning experiences</td>
<td>.47</td>
<td>.03</td>
<td>.56</td>
<td>.09</td>
</tr>
<tr>
<td>Seeming to know patient assignments in clinical</td>
<td>.06</td>
<td>.10</td>
<td>.79</td>
<td>.06</td>
</tr>
<tr>
<td>Helping to plan proper patient care in clinical</td>
<td>-.07</td>
<td>.13</td>
<td>.79</td>
<td>.18</td>
</tr>
<tr>
<td>Demonstrating competent patient care</td>
<td>.07</td>
<td>.05</td>
<td>.86</td>
<td>.06</td>
</tr>
<tr>
<td>Giving guidance in new/difficult situations</td>
<td>.29</td>
<td>.03</td>
<td>.74</td>
<td>.00</td>
</tr>
<tr>
<td>Evaluating objectively</td>
<td>.44</td>
<td>.24</td>
<td>.57</td>
<td>.08</td>
</tr>
<tr>
<td>Creating enjoyable learning environment</td>
<td>.45</td>
<td>-.22</td>
<td>.44</td>
<td>.12</td>
</tr>
</tbody>
</table>

NOTE: Underscore denotes high loading (.40 or above)
An underscore on two factors by the same variable denotes factor complexity.
correlation coefficient of at least .40) were the following: being accessible during conferences with an appointment; being warm and friendly; being dependable; willing to spend unrushed time with a personal problem; telling when done well; telling when not done well; motivating to do best; causing to feel good about self; providing constructive criticism; and seeming to enjoy seeing progress. All of these variables achieved loadings ranging from .50 to .79.

By contrast, the five variables with factorial complexity loaded on factor one in the range of .40 to .47. However, these variables, when loading on factor three, achieved higher loadings in three of five cases and essentially the same loadings in the other two situations. The three variables loading more strongly on factor three than factor one were the following: seeming to know his/her subject area; identifying challenging learning experiences; and evaluating objectively. Their correlation coefficients on factor three were .53, .56, and .57 respectively compared with values of .40, .47, and .44 on factor one. The variables having common loadings between factors one and three were being accessible in the classroom and/or clinical area and creating an enjoyable learning environment. Both variables loaded on the two factors with correlation coefficients of about .45.

Furthermore, factor three loaded five other variables independent of significant loadings on any other factors. These variables were as follows: providing organized, informative and interesting lectures; seeming to know about patients in the clinical area; helping to plan proper care of patients in the clinical area; demonstrating competent patient care; and giving guidance in new and difficult situations. Factor loadings ranged from .59 to .89.

The other two factors, two and four, which were factorially pure
loaded four and five variables respectively. Factor two loaded the variables age, sex, race, and nursing specialty area. Their loadings ranged from .62 to .78. Factor four arrayed the following variables: being accessible during conference without an appointment; being accessible during extracurricular activities; being accessible at home; taking a personal interest; and being accessible during social activities. Correlation coefficients for these variables ranged from .42 to .75.

The manner in which all variables arranged themselves is fairly consistent with Bandura's framework. Specifically, the four factors reflect the three subprocesses of the attentional process: interpersonal, personal, and functional characteristics. Factor one is essentially a reflection of the interpersonal characteristics of the role model with an emphasis on the instructional process. That is, the factor seems to identify those interpersonal skills effective in conveying instruction. Similarly, factor four seems to characterize interpersonal skills as well, but with attention to the more informal and individual levels of interaction.

Factor three, which has commonalities with factor one is primarily a reiteration of Bandura's functional characteristics. Specifically, all the variables loading on the factor are related to the role models' performance in the teaching-learning process. Furthermore, it is consistent with theory that those variables involved in factorial complexity and which reflect interpersonal traits, are modes through which one may demonstrate functional abilities.

Lastly, the four variables loading on factor two reflect personal characteristics. As such, the factor is consistent with Bandura's personal subprocess.
In summary, based on this analysis and a review of the variable groupings, the names given to the four factors are as follows:

Factor 1: Interpersonal Characteristics: Instructional Processes
Factor 2: Personal Characteristics
Factor 3: Functional Characteristics
Factor 4: Interpersonal Characteristics: Informal/Individual Processes

The relative variances of each factor is a reflection of the order in which variables loaded. Specifically, according to Kim and Mueller "the first factor accounts for as much variance as possible, the second factor accounts for as much of the residual variance left unexplained by the first factor, and the third factor accounts for as much of the residual left unexplained by the first two factors, and so on" (p. 49). Thus Table 8 summarizes the variance of each factor by listing the eigenvalues and converted proportions of variance.

Table 8
Variance Explained By Each Factor Based On 29 Variables Describing The Identification and Interaction Of Role Models and Students

<table>
<thead>
<tr>
<th>Factors</th>
<th>Eigenvalues</th>
<th>Proportions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6.27</td>
<td>22%</td>
</tr>
<tr>
<td>2</td>
<td>2.42</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>4.57</td>
<td>16</td>
</tr>
<tr>
<td>4</td>
<td>2.45</td>
<td>8</td>
</tr>
<tr>
<td>Total Explained Variance</td>
<td></td>
<td>54%</td>
</tr>
<tr>
<td>Residual</td>
<td></td>
<td>46%</td>
</tr>
</tbody>
</table>
Evident from Table 8, the four factors collectively accounted for 54% of the variance explained by the loading of the 29 identification/interaction variables. Forty-six (46) percent was unexplained. Factor one explained the greatest amount, 22%, followed by 16% which was explained by factor three. Factors two and four each accounted for 8% of the variance.

**Role models' influence on professional practice expectations.** Respondents were asked to rate the perceived influence of the role model on their professional practice expectations. That is, to what extent did the role model influence them on 13 variables regarding nursing practice. Twelve of the variables were adapted from the *Characteristics of Baccalaureate Nurse Graduates*, (National League for Nursing, 1979, pp. 2-3). One preference, regarding where to work, was added to approximate the dimension of work setting which is a key concept in this study.

Initial analysis of the data was intended to determine which of the 13 variables were perceived by respondents as important in influencing their expectations of professional nursing practice. To achieve this, percentages of positive responses were computed. That is, the percentage of respondents selecting either 4 or 5 on the 5-point scale where 1 is very unimportant and 5 is very important was calculated. Table 9 gives the results of this analysis.

Table 9 shows that the respondents perceived most of the 13 variables as important in influencing their professional practice expectations. In fact, using the 70% criterion to categorize a variable as being important 10 of the variables met this criterion.

The strongest variables were intention to maintain high standards of nursing care, recognition of responsibility for nursing action, and ability to make independent nursing judgements which acquired percentages of 95, 94,
Table 9
Percent of Positive Responses To 13 Variables Describing The Influence of Role Models On Students' Professional Nursing Expectations

<table>
<thead>
<tr>
<th>Variables</th>
<th>Percentage Of* Positive Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intention to maintain high standards</td>
<td>95</td>
</tr>
<tr>
<td>Recognition of responsibility for own actions</td>
<td>94</td>
</tr>
<tr>
<td>Ability to make independent nursing judgements</td>
<td>94</td>
</tr>
<tr>
<td>Ability to set nursing priorities</td>
<td>88</td>
</tr>
<tr>
<td>Expectation to collaborate with other health professionals</td>
<td>87</td>
</tr>
<tr>
<td>Ability to implement nursing care</td>
<td>86</td>
</tr>
<tr>
<td>Ability to assess health status</td>
<td>85</td>
</tr>
<tr>
<td>Expectation to demonstrate effective leadership</td>
<td>85</td>
</tr>
<tr>
<td>Expectation to work toward improving health care delivery</td>
<td>84</td>
</tr>
<tr>
<td>Ability to plan nursing care</td>
<td>84</td>
</tr>
<tr>
<td>Ability to utilize research findings</td>
<td>68</td>
</tr>
<tr>
<td>Intention to evaluate relevant research</td>
<td>66</td>
</tr>
<tr>
<td>Work setting preference</td>
<td>39</td>
</tr>
</tbody>
</table>

*Positive responses are defined as selection of 4 or 5 on a 5 point scale where 1 is very unimportant and 5 is very important.
and 94 respectively.

Six (6) variables fell into the moderately strong category or those with ratings between 80 and 89%. These variables included ability to set nursing priorities, expectation to collaborate with other health professionals, ability to implement nursing care, ability to assess health status, expectation to demonstrate effective leadership, expectation to work toward improving health care delivery, and ability to plan nursing care. All received relatively homogeneous percentages ranging from 84 to 88.

Next, three variables received percentages of less than 70%. These were the two related to research: (1) intention to evaluate relevant research and (2) ability to utilize research findings in improving nursing practice. These two variables received ratings of 66 and 68 percent respectively. Only one variable, preference regarding where to work, received a very low percentage of importance, 39%.

Additional data analysis procedures were utilized to determine other interpretations of the data. An exploratory factor analysis was calculated to reduce the data and to find out how the data clustered.

Following preparation of a correlation matrix, initial factors were extracted. Eigenvalues 1 or above and proportions which explained at least 5% of the variance were set as the criteria for isolating the number of factors. Table 10 shows the results of the initial extraction where the 13 variables were reduced to 3 when the data were factor analyzed.

The first factor extracted, as noted in Table 10, had an eigenvalue of 5.35 and explained 41% of the variance. The second factor achieved an eigenvalue of 1.75 and accounted for 13% of the variance. Finally, the third factor acquired an eigenvalue of 1.33 and explained 10% of the variance.
Table 10

Eigenvalues and Proportions (Variance) Of Relevant Components: Based On Factor Analysis Of 13 Variables Describing The Influence Of Role Models On Students' Professional Practice Expectations

<table>
<thead>
<tr>
<th>Principle Factors</th>
<th>Eigenvalues</th>
<th>Proportions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5.35</td>
<td>.40</td>
</tr>
<tr>
<td>2</td>
<td>1.75</td>
<td>.13</td>
</tr>
<tr>
<td>3</td>
<td>1.33</td>
<td>.10</td>
</tr>
</tbody>
</table>

Thus, resulting from the initial extraction, three factors were isolated which met the specified criteria.

Next, the factor matrix was rotated orthogonally using the varimax procedure to simplify the data and make it more interpretable by maximizing factor loadings. Table 11 summarizes the terminal solution of orthogonally rotated factors using the varimax procedure. Three discreet factors were identified when .40 was set as the minimal correlation coefficient for factor loading. Only in the case of two variables -- ability to make independent nursing judgements, and expectation to demonstrate effective leadership -- was there factor complexity. The first variable loaded on factor one with a loading of .45 and on factor two with a loading of .65. The second complex variable loaded on factors two and three with coefficients of .40 and .57 respectively. With these exceptions, other loadings were closer to being factorially pure.
Table 11
Varimax Rotated Matrix of 13 Variables Describing The Influence Of Role Models On Students' Professional Practice Expectations
(Factor loadings have been rounded off to 2 places)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work setting preference</td>
<td>.44</td>
<td>.38</td>
<td>-.12</td>
</tr>
<tr>
<td>Ability to set nursing priorities</td>
<td>.66</td>
<td>-.01</td>
<td>.29</td>
</tr>
<tr>
<td>Ability to implement nursing care</td>
<td>.83</td>
<td>.10</td>
<td>.25</td>
</tr>
<tr>
<td>Ability to assess health status</td>
<td>.87</td>
<td>.05</td>
<td>.24</td>
</tr>
<tr>
<td>Ability to plan nursing care</td>
<td>.87</td>
<td>.09</td>
<td>.24</td>
</tr>
<tr>
<td>Ability to make independent nursing judgements</td>
<td>.45</td>
<td>.11</td>
<td>.65</td>
</tr>
<tr>
<td>Expectation to collaborate with other health professionals</td>
<td>.37</td>
<td>.21</td>
<td>.63</td>
</tr>
<tr>
<td>Expectation to work toward improving health care delivery</td>
<td>.35</td>
<td>.27</td>
<td>.58</td>
</tr>
<tr>
<td>Intention to maintain high standards</td>
<td>.14</td>
<td>.11</td>
<td>.84</td>
</tr>
<tr>
<td>Intention to evaluate relevant research</td>
<td>.07</td>
<td>.89</td>
<td>.15</td>
</tr>
<tr>
<td>Ability to utilize research findings</td>
<td>.55</td>
<td>.90</td>
<td>.18</td>
</tr>
<tr>
<td>Expectation to demonstrate effective leadership</td>
<td>.09</td>
<td>.40</td>
<td>.57</td>
</tr>
<tr>
<td>Recognition of responsibility for own actions</td>
<td>.11</td>
<td>-.10</td>
<td>.71</td>
</tr>
</tbody>
</table>

NOTE: Underscore denotes high loading (.40 or above)
An underscore on two factors by the same variable denotes factor complexity.
As evidence, factor one loaded six variables. Two variables, preference regarding where to work and ability to make independent nursing judgements (previously mentioned as having factor complexity) loaded with coefficients of .44 and .45 respectively. In addition, ability to set nursing priorities achieved a loading of .66; ability to implement nursing care received a high loading of .83; while ability to assess health status, and ability to plan nursing care obtained factor loadings of .87 and .88 respectively.

Interestingly, all the variables loading on factor one with the exception of preference regarding where to work, relate to the phases of the nursing process. The nursing process or a protocol for nursing care involves the steps of assessing, planning (which includes setting priorities), implementing, and evaluating patient care situations. It is also the basis upon which independent nursing judgements are made. In the education of nurses, these phases are constantly stressed and practiced. However, making independent judgements, which achieved a lower factor loading than the others, is a higher order ability which depends upon confidence in being able to perform accurately the basic phases of the nursing process.

Similarly, there was obvious resemblance between two of the three variables loading on factor two. The variables, intention to evaluate relevant research and ability to utilize research findings to improve nursing practice, loaded with very strong correlation coefficients of .89 and .90 respectively. Their central theme, of course, is nursing research. However, in addition, the variable expectation to demonstrate effective leadership loaded very weakly on factor two with a coefficient of .40 (the minimal acceptable loading). It loaded stronger on factor three, and therefore, should be considered more closely related with that factor.
Factor three produced a logical clustering of variables. As with factor one, it loaded six variables. Although overall, the correlation coefficients were not as strong as in factor one, two of the variables received high loadings while four received moderate loadings between .50 and .70 (Hinkle, p. 85). Those variables with high loadings were recognition of responsibility for own nursing actions and expectation to maintain high standards of nursing care which received correlation coefficients of .84 and .71 respectively. Moreover, the four variables with moderate loadings included expectation to work toward improving the health care delivery system, expectation to collaborate with other health professionals, ability to make independent nursing judgements, and expectation to demonstrate effective leadership. These variables received coefficients of .65, .53, .58, and .57 respectively.

The uniting construct among the variables loading on factor three is projected professional activities. All are expectations or intentions to carry out activities which characterize professional nursing. Furthermore, they represent competencies (particularly those with moderate loadings) which receive less practical attention in generic baccalaureate programs than those skills associated with the nursing process.

Therefore, in summary, the orthogonal factor analysis procedure isolated three distinct factors which were labeled as follows:

Factor 1: Nursing Process
Factor 2: Nursing Research
Factor 3: Projected Professional Activities

Each factor accounted for a relative amount of variance. Table 12 summarizes the variance of each factor by listing the eigenvalues and converted proportions of variance.
Table 12

Variance Explained By Each Factor: Based On Factor Analysis Of 13 Variables Describing The Influence Of Role Models On Students' Professional Practice Expectations

<table>
<thead>
<tr>
<th>Factors</th>
<th>Eigenvalues</th>
<th>Proportions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3.35</td>
<td>26%</td>
</tr>
<tr>
<td>2</td>
<td>2.08</td>
<td>16%</td>
</tr>
<tr>
<td>3</td>
<td>3.00</td>
<td>23%</td>
</tr>
<tr>
<td>Total Explained Variance</td>
<td>65%</td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>35%</td>
<td></td>
</tr>
</tbody>
</table>

According to Table 12, the three factors combined explained 65% of the variance explicated by loading the 13 variables on the factors. Specifically, factor one explained 26% of the variance, factor two accounted for 11% and factor three amassed 23%.

The interaction of the student/role model relationship and professional practice expectations. The preceding analysis on the role model/student relationship and professional practice expectations prepared the data for addressing the first research question, does the interaction between students and their role models influence students' expectations of professional nursing practice? To determine the relationship between these variables (interaction between students and their role models and students' expectations of professional nursing practice), a correlation coefficient was calculated.

The four factors pertaining to the role model/student relationship, were correlated with three factors describing the professional practice
expectations. The results of this correlation are found in Table 13.

Table 13
Correlation Of Student/Role Model Relationship
And Students' Professional Practice Expectations

<table>
<thead>
<tr>
<th>Student/Role Model Relationship</th>
<th>PROFESSIONAL PRACTICE EXPECTATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Factor 1</td>
</tr>
<tr>
<td></td>
<td>Nursing Process</td>
</tr>
<tr>
<td>Factor 1:</td>
<td></td>
</tr>
<tr>
<td>Interpersonal/Instructional</td>
<td>.36</td>
</tr>
<tr>
<td>Factor 2:</td>
<td></td>
</tr>
<tr>
<td>Personal Characteristics</td>
<td>.18</td>
</tr>
<tr>
<td>Factor 3:</td>
<td></td>
</tr>
<tr>
<td>Functional Characteristics</td>
<td>.57</td>
</tr>
<tr>
<td>Factor 4:</td>
<td></td>
</tr>
<tr>
<td>Interpersonal/Informal-Individual</td>
<td>.37</td>
</tr>
</tbody>
</table>

Table 13 shows a low to moderate positive correlation between the two sets of factors. Specifically, the first of the interaction factors, interpersonal/instructional, had low positive correlations with the three factors pertaining to professional practice expectations -- nursing process, nursing research, and projected professional activities -- by achieving coefficients of
.36, .30, and .43 respectively. However, when the second of the interaction factors, personal characteristics, was correlated with the three professional practice expectation factors, low coefficients of .18, .21, and .13 resulted for nursing process, nursing research, and projected professional activities respectively.

By contrast, functional characteristics of the role models achieved moderate correlation with professional practice expectations. Specifically, functional characteristics correlated most highly with projected professional activities with a coefficient of .59, followed by nursing process with a value of .57 and finally, nursing research with a low positive coefficient of .34.

Lastly, low positive coefficients were evident also when the fourth of the interaction factors, interpersonal/informal-individual, was correlated with the three factors of professional practice expectations. Values of .37, .40, and .37 were computed for factors one through three respectively -- nursing process, nursing research, and projected professional activities.

In short, there was a low positive correlation between the student/role model relationship and professional practice expectations. Two factors describing the interaction process or role model/student relationships, interpersonal/instructional and interpersonal/informal-individual had low positive correlations with the three factors comprising professional practice expectations. However, the interaction factor, functional characteristics, showed moderate correlation with the expectations variable; while the interaction factor, personal characteristics, realized little or no correlation with any of the factors describing professional practice expectations.
QUESTION 2: Role Model's Influence On Work Setting Preferences

Work setting preference. The work setting preference was determined for all respondents who planned to work following graduation. Of the 214 sample respondents, 195 or 93% indicated that they planned to be employed in nursing; whereas 15 or 7% of the respondents stated they planned to enter graduate school or be unemployed in nursing following graduation.

Respondents who indicated that they would be working as nurses after graduation were asked to indicate their work setting preference in terms of location and patient income group. First, a forced choice question required respondents to circle the location which best described where they would most prefer to work. Four choices, including rural, small town, suburban, and urban were listed. Second, a similar question requested the respondents to indicate their preference of income group with which they most desired to work. Three choices, including lower, middle, and upper were offered. (See Appendix E-1, questions 13-14). The data generated by these questions were aggregated to correspond directly with the research question. That is, the four categories of data pertaining to location of work setting preference were collapsed into two, urban and non-urban settings. Similarly, data concerning the preferred income level of patients was organized into lower income and other categories. The results of this aggregated data are found in Table 14.

According to Table 14, the majority of the respondents who planned to work as nurses after graduation, preferred working in an urban setting. In fact, 99 (51.83%) of the respondents desired to work in the urban setting as compared with 92 (48.16%) who preferred to work in a setting other than an urban one. Furthermore, a greater number of respondents wanted to work with patients from income groups other than the lower income group. In fact
Table 14
Work Setting Preference Of Respondents
By Location and Income Level Of Patients
(N = 195)

<table>
<thead>
<tr>
<th>WORK SETTING PREFERENCE</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>99</td>
<td>51.83</td>
</tr>
<tr>
<td>Non-urban</td>
<td>92</td>
<td>48.16</td>
</tr>
<tr>
<td>INCOME LEVEL OF PATIENTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>70</td>
<td>36.84</td>
</tr>
<tr>
<td>Other</td>
<td>120</td>
<td>63.16</td>
</tr>
</tbody>
</table>

70 (36.84%) respondents preferred the lower income patient while 120 (63.16%) hoped to work with other income groups. It is interesting to note, however, that nearly all respondents in the other group, preferred to work with middle income patients.

Following this descriptive analysis, the data pertaining to location and income group of patients were cross-tabulated. Table 15 summarizes the results of this analysis.

Table 15 shows that comparable numbers of respondents desired to work in urban and non-urban settings, but a disproportionate number of respondents expressed a preference for working with patients other than those from lower income backgrounds. Specifically, 97 (52%) respondents preferred the urban setting while 91 (48%) preferred a non-urban setting. However, 69 (36%) respondents wanted to work with lower income patients compared with 119 (64%) who desired otherwise.
Table 15
Cross-Tabulation of Work Setting Preference By Location And Income Groups Of Patients
(N = 188*)

<table>
<thead>
<tr>
<th>WORK LOCATION</th>
<th>INCOME GROUPS OF PATIENTS</th>
<th>TOTALS: WORK SITE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lower</td>
<td>Other</td>
</tr>
<tr>
<td>Urban</td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>39</td>
<td>21</td>
</tr>
<tr>
<td>Non-urban</td>
<td>30</td>
<td>15</td>
</tr>
<tr>
<td>TOTALS: Income Groups</td>
<td>69</td>
<td>36</td>
</tr>
</tbody>
</table>

*188 of the 195 respondents planning to work as nurses after graduation responded to these questions.
Looking more closely at the cross-tabulated data, Table 15 shows that the most preferred work setting was a non-urban setting with other than lower income patients. In fact, 61 (33%) respondents preferred this work setting over 58 (31%) who most desired working in an urban setting but also with non-lower income patients. By contrast, 39 (21%) respondents wanted to work in an urban setting with lower income patients as compared to 30 (15%) respondents who also wanted to work with lower income patients but in a non-urban setting.

**Learning experiences with low income patients in urban settings.**

Data were collected to determine if having the role model provide learning experiences with lower income patients in urban settings made a difference in the location and patient preference of respondents. First, respondents were asked to indicate if they had had an experience during their nursing program in an urban setting with lower income patients. Second, of those who had, the question was asked if such an experience had been provided by the role model. (See Appendix E-1, question 15-16).

The data demonstrated that 183 (93.85%) of the respondents who planned to work as a nurse after graduation, had an experience with lower income patients in an urban setting as a student compared with 11 (5.62%) respondents who had not had the experience. Of those with the experience, 151 (82.07%) had such an experience provided by the role model while 32 (17.39%) had not had such an experience provided by the role model.

Next, a comparison was made between the work location preference of those respondents with a learning experience with lower income patients in an urban setting provided by their role model and those without such an experience. Table 16 shows the results of this comparison. As evident from
the table, there is disparity in the size of groups. Those with the experience provided by the role model consist of 145 (78%) respondents of the sample while those without the experience consist of 41 (22%) respondents of the sample.

Furthermore, Table 16 shows that of those with the experience, 54 (37%) respondents preferred to work with lower income patients and that the majority of them, 32 (22%), wanted to do so in an urban setting while 11 (16%) hoped to do so in a non-urban setting. In addition, 91 (62%) of the respondents or those with the role model led experience wanted primarily to care for patients other than those from lower income groups. Of these, 52 (35%) respondents hoped to practice in an urban setting compared with 39 (27%) who expected to work in a non-urban setting.

These figures were compared with those of respondents who did not have a role model led experience. Among this group, 14 (34%) respondents preferred to work with lower income patients of which equal numbers, 7 (17%), wanted to do so in urban and non-urban settings. Moreover, the majority of 27 (66%) respondents preferred not to work with lower income patients. Of this number, 21 (51%) expected to work in a non-urban setting while 6 (15%) wanted to work in an urban setting.

In summarizing the results from Table 16, both groups had similar preferences for working with lower income and other groups of patients. That is, the relative percentages for the lower income and other category of patients varied only slightly. However, those with the role model led experience had a greater preference for an urban work setting than did the group without the role model led experience. Likewise, the non-role model led group had a proportionally greater preference for a non-urban setting over
Table 16
Comparison Of The Work Setting Preference Of Respondents With and Without A Role Model Led Experience With Lower Income/Urban Settings

<table>
<thead>
<tr>
<th>Work Location</th>
<th>With Experience (N=145)</th>
<th>Without Experience (N=41)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lower</td>
<td>Other</td>
</tr>
<tr>
<td>Urban</td>
<td>32</td>
<td>22</td>
</tr>
<tr>
<td>Non-urban</td>
<td>22</td>
<td>16</td>
</tr>
<tr>
<td>Total Income</td>
<td>54</td>
<td>37</td>
</tr>
</tbody>
</table>
those in the role model led group.

To determine if there were statistically significant differences in these data, an additional analysis was performed utilizing the Chi-square statistic. Since the research questions were concerned with the influence of the role model on students' preferences for working or not working in urban underserved health care settings, the work setting variables were transformed into a dichotomous variable: preference for working with lower income patients in urban settings (LOWURBAN) and all other preferences (NON-LOWURBAN). This variable was then cross-tabulated with the dichotomous experience variable: with role model led experience and without role model led experience. The results of these analyses are found in Table 17.
Table 17
Preference For Lower Income/Urban Work Setting Versus Other Preferences By Type Of Learning Experience
(N = 194)

<table>
<thead>
<tr>
<th>Work Setting</th>
<th>LEARNING EXPERIENCE</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>With Role Model</td>
<td>Without Role Model</td>
<td>Total Preference</td>
<td></td>
</tr>
<tr>
<td></td>
<td>f  %</td>
<td>f  %</td>
<td>f  %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOWURBAN</td>
<td>32 17</td>
<td>7 4</td>
<td>39 20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NON-LOWURBAN</td>
<td>119 61</td>
<td>36 19</td>
<td>155 80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Experience</td>
<td>151 78</td>
<td>43 23</td>
<td>194 100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
It is apparent from Table 17 that only 39 (20%) respondents of the sample preferred working with lower income patients in urban settings, regardless of the type of experience they had. Although those having experiences in urban settings with a role model achieved the higher percentage, 17, as compared with 4% for those without the role model experience, its relative importance to the entire sample was weak. As evidence of this, 155 (80%) respondents of the sample wanted to work in situations other than with lower income patients in urban settings. Also, even with the role models' influence, 119 (61%) respondents favored employment elsewhere. Similarly, 36 (19%) respondents or those without the role model led experience preferred work settings other than with lower income patients in urban settings.

When the Chi square statistic was applied to these data ($x^2 = 0.4782$, $p = 0.4782$), the results indicated that there was no significant relationship between the type of experience and a student's preference or lack of preference for working with lower income patients in urban settings. Therefore, having the role model provide lower income urban experiences for students did not relate to their work setting preference.

A cross-tabulation was run to determine if the preference for an urban setting, when controlled for income level of patients, was related to the role model's involvement in urban settings. The decision to perform this analysis was based on the assumption that in urban health care settings, there is a strong likelihood that patients cared for will reflect all income levels of patients. Furthermore, such agencies, particularly teaching hospitals, would serve large numbers of lower income patients in addition to other income groups (Burgess, 1978; Doyle, 1978). Results of the second cross-tabulation are presented in Table 18.
Table 18
Preference For Urban Work Setting Versus All Others By Type Of Learning Experience
(N = 187)

<table>
<thead>
<tr>
<th>Preferred Work Setting</th>
<th>LEARNING EXPERIENCE</th>
<th>Total Preference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>With Role Model</td>
<td>Without Role Model</td>
</tr>
<tr>
<td></td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>Urban</td>
<td>84</td>
<td>45</td>
</tr>
<tr>
<td>Non-urban</td>
<td>61</td>
<td>33</td>
</tr>
<tr>
<td>Total Experience</td>
<td>145</td>
<td>78</td>
</tr>
</tbody>
</table>

$x^2 = 9.495 \quad df = 1 \quad p = .0021$

Table 18 demonstrates that there is a relationship between a respondent's preference for working in an urban versus a non-urban setting and the type of learning experience provided. Of the 145 respondents who were provided an urban experience by the role model, 84 (45%) preferred to work in an urban setting while 61 (33%) preferred a non-urban setting. By contrast, of the 42 respondents who did not have the role model experience, 13 (7%) expressed a preference for an urban work setting while 29 (15%) preferred a non-urban setting.

Furthermore, the results of the Chi square test showed that there was a positive relationship between the type of experience provided and the respondents' preference for or against an urban work setting. Thus, respondents who had an urban experience led by the role model were more likely to prefer an urban work setting than were respondents who did not have the experience.
Relationship of work-setting preference to respondents' perceptions of role model led experiences with lower income patients in urban locations.

The respondents who engaged in learning experiences involving lower income patients in urban settings with their role model were asked to rate the importance of seven variables that had influenced their work setting preference. The seven variables pertained to activities of the role model in providing the experience (See Appendix E-1, question 17). The respondents rated the importance of each variable on a 5 point scale where 1 was very unimportant and 5 was very important. After scoring the responses, a t-test was done to compare the scores of respondents who had indicated a preference for working with lower income patients in an urban setting with those who did not have such a preference. A summary of these results is found in Table 19.

Table 19 shows the results of t-tests applied to scores achieved on 7 role model activity variables by respondents who were separated into groups based on their work setting preference. First, respondents' scores who preferred to work in an urban setting with lower income patients were compared with scores of respondents who preferred to work in a non-urban setting with other than lower income patients. The N for lowurban was 32 compared with N = 144 for non-lowurban. However, the mean for lowurban ($\bar{x} = 4.05$), was slightly higher than for the non-lowurban group whose $\bar{x} = 3.80$, while the standard deviations were .90 and .98 respectively. The resulting t value was 1.18 with 144 df and where $p = .6142$. The .05 was the minimal level of significance acceptable and therefore, the results of the t-test indicated no significant relationship between the perceived importance of the role models' activities with lower income patients in urban settings and the respondent's work setting preferences.
Table 19
Comparison Of Importance Of Role Model Experience
And Work Setting Preference
(N = 146)

<table>
<thead>
<tr>
<th>GROUPS</th>
<th>N</th>
<th>x</th>
<th>s</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Lowurban</td>
<td>32</td>
<td>4.05</td>
<td>.90</td>
<td>1.18</td>
<td>144</td>
<td>.6142</td>
</tr>
<tr>
<td>Non-lowurban</td>
<td>144</td>
<td>3.80</td>
<td>.98</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Preference for Urban versus Non-urban

<table>
<thead>
<tr>
<th>GROUPS</th>
<th>N</th>
<th>x</th>
<th>s</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>83</td>
<td>3.90</td>
<td>1.00</td>
<td>1.19</td>
<td>144</td>
<td>.4833</td>
</tr>
<tr>
<td>Non-urban</td>
<td>63</td>
<td>3.80</td>
<td>.92</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*LOWURBAN means lower income/urban work setting
A second t-test was done to compare scores of respondents who preferred to work in an urban setting, regardless of income group of patients and respondents who preferred a non-urban setting, regardless of income group of patients. The results are found in Table 19. From Table 19, the urban group, of which $N = 83$, had a $\bar{x} = 3.90$ with $s = .90$. Similar results were produced for the non-urban group where $N = 83$, $\bar{x} = 3.80$, and $s = .92$. The resulting t value was 1.19 with a 144 df and where $p = .4833$. Thus, when the .05 level of significance was applied, no statistically significant difference was found between means of respondents who preferred to work in urban versus non-urban work settings.

In summary, based on these analyses, the perceived importance of the role models' activities with lower income patients in urban settings did not make a difference in the type of work setting preferred by respondents. This was true whether the respondent preferred to care for lower income patients in urban settings, in any other setting, or for any other income group.

**QUESTION 3: Relationship of Work Setting Preference Prior To Graduation And Actual Work Setting After Graduation**

Actual work setting of respondents. A 10 item mail survey (Appendix F) was posted in September 1982 to the 214 baccalaureate nurse graduates who participated in the initial phase of the study. One hundred seventy-two (172) or 80% of the respondents returned the survey or were able to complete the section on the initial questionnaire pertaining to actual job selection. Sixty-one (61) or 34% of the respondents were able to complete these questions on the original survey. However, to validate their responses, they were sent the mail survey along with all others. Of the 61, 51 or 84% returned the mail survey. Because there was a high degree of consistency between the former and the latter responses, all 61 respondents were included in subsequent analyses.
(Appendix E-1, questions 18-26). Of those responding to these questions, 162 (93.06%) were employed in nursing and 12 (6.94%) were not employed in nursing although all planned to enter nursing at a future date.

To determine if the respondents had a choice in the selection of their work setting, the second item on the instrument required the respondents to indicate the actual number of nursing positions they considered accepting. The results showed a range of one to six positions with a mean of 2.12. The standard deviation was 1.04; thus suggesting that most respondents were able to make a choice regarding the nursing position accepted.

Furthermore, because salary is frequently an important consideration in selecting a work setting, data on the contracted 12 month salary were collected. Some respondents reported salaries in terms of dollars per hour. Such salaries were converted to yearly income based on 40 hours per week times 52 weeks. (Luloff, Note 4; Zayer, Note 5). In cases where shift differentials were given, a mean hourly wage was computed and then converted to yearly income based on 40 hours per week times 52 weeks.

Reported annual salaries ranged from a low of $10,000 to a high of $23,400. The mean annual salary was $17,545.60 with a standard deviation of $2,351.02. Similarly, the median annual salary was $17,527.00.

In addition, respondents were asked to give the names and location of their employing institutions. These data were gathered to validate the setting in which they indicated employment. Generally, they verified employment in large cities and in major health care facilities. Most places of employment were recognized as major health care facilities, and many of them were also recognized as major teaching institutions.
Another demographic variable examined was the major specialty area selected by respondents for practice. Respondents were asked to indicate in which of the following four specialty areas they were employed: medical/surgical, maternal/child, psychiatric/mental health, or community health. The results are reported in Table 20.

Table 20

<table>
<thead>
<tr>
<th>Specialty Area</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical/Surgical</td>
<td>123</td>
<td>78</td>
</tr>
<tr>
<td>Maternal/Child</td>
<td>22</td>
<td>14</td>
</tr>
<tr>
<td>Psychiatric/Mental Health</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>Community Health</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 20 shows that most respondents, 123 (78%) were employed in medical/surgical settings. In a distant second, 22 respondents (14%) were employed in maternal/child practice while 11 (7%) of the respondents chose a psychiatric/mental health milieu. Only three respondents (2%) elected to work in community health settings.

Next respondents were asked to indicate their actual work setting by location and primary income level of patients. These questions were structured in the same manner as the work setting preference questions previously discussed to permit comparative analyses. (See Appendix E-1, questions 22-23 and/or Appendix F, questions 5-6). As mentioned previously, the selection of work setting was limited to rural, small town, suburban, or urban.
Similarly, respondents indicated the income group that best represented their patient population as either lower, middle, or upper. These data were then aggregated by location as urban or non-urban and by income group of patient as lower or other.

Table 21 demonstrates that the majority of respondents selected employment in an urban setting and cared for patients primarily from income groups other than lower income. Specifically 101 respondents (62%) worked in an urban setting compared with 61 (38%) who elected to work in a non-urban settings. Furthermore, 61 (38%) respondents chose to work with lower income patients while 101 (62%) worked with patients of other income groups, of which almost all were middle income.

Table 21

<table>
<thead>
<tr>
<th>WORK SETTING PREFERENCE</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>101</td>
<td>62</td>
</tr>
<tr>
<td>Non-urban</td>
<td>61</td>
<td>38</td>
</tr>
<tr>
<td>INCOME LEVEL OF PATIENTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>61</td>
<td>38</td>
</tr>
<tr>
<td>Other</td>
<td>101</td>
<td>62</td>
</tr>
</tbody>
</table>
Relationship between preferred work setting and actual work setting.

Data were analyzed to determine the relationship between the work setting preference of respondents prior to graduation and the actual settings selected for employment after graduation. Data regarding employment location and income level of patients were tabulated separately. Table 22 shows the analysis of preferred and actual work setting while Table 23 compares preferred and actual income level of patients.

Table 22
Cross-Tabulation Of Preferred And Actual Work Setting Of Respondents
(N = 147)

<table>
<thead>
<tr>
<th>Preferred Work Setting</th>
<th>ACTUAL WORK SETTING</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban</td>
<td>Non-urban</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>Urban</td>
<td>63</td>
<td>43</td>
<td>14</td>
<td>10</td>
<td>77</td>
<td>52</td>
</tr>
<tr>
<td>Non-Urban</td>
<td>25</td>
<td>17</td>
<td>45</td>
<td>31</td>
<td>70</td>
<td>48</td>
</tr>
<tr>
<td>TOTAL-ACTUAL</td>
<td>88</td>
<td>60</td>
<td>59</td>
<td>40</td>
<td>147</td>
<td>100</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 32.437 \]
\[ df = 1 \]
\[ p = .0001 \]
Review of Table 22 reveals that respondents made changes in the work settings they preferred as students and the settings they selected for employment as graduates. Specifically, 77 (52%) respondents showed a preference for an urban setting but 88 (60%) indicated actual urban employment. Similarly, 70 (48%) respondents indicated they wanted to work in a non-urban setting; however, only 59 (40%) actually accepted positions in such settings.

The body of the table reflects the magnitude of work setting changes made by respondents. Of the 77 respondents who indicated a preference for an urban work setting, 63 (43%) realized their preference while 14 (10%) switched to a non-urban setting. However, of the 70 respondents who voiced a preference as a student to work in a non-urban setting, 25 (17%) accepted nursing positions in urban settings while the remaining 45 (31%) manifested their preference by selecting employment in a non-urban setting.

The results of the Chi square test showed that there was a significant difference between respondents' preferred work setting and their actual work setting. Based on these data, respondents tended to gravitate toward urban employment more so than toward any other setting, even when an urban work setting had not been their preference as a student.

The second descriptor of work setting was income level of patients. Table 23 displays the relationship between the income level of patients respondents preferred to care for and the primary income level of patients they actually cared for in their current employment.
Table 23
Cross-Tabulation Of Preferred And Actual
Income Levels Of Patients Cared For
By Employed Respondents
(N = 147)

<table>
<thead>
<tr>
<th>Actual Income Of Patients</th>
<th>PREFERRED INCOME LEVEL OF PATIENTS</th>
<th>Actual</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LOWER</td>
<td>OTHER</td>
<td>f</td>
</tr>
<tr>
<td>Lower</td>
<td>29</td>
<td>20</td>
<td>27</td>
</tr>
<tr>
<td>Other</td>
<td>24</td>
<td>16</td>
<td>67</td>
</tr>
<tr>
<td>Total-Preferred</td>
<td>53</td>
<td>36</td>
<td>94</td>
</tr>
</tbody>
</table>

\[ x^2 = 9.710 \quad df = 1 \quad p = 0.0018 \]

Table 23 demonstrates similarity between the preferred income level of patients and the actual income level of patients that respondents care for in their present employment setting. This is apparent by comparing preferred totals and actual totals. Fifty-three (53) respondents (36%) of the sample indicated that they most preferred to work with lower income patients while 56 respondents (38%) reported that they provide care primarily to lower income patients in their actual work setting. Similarly, 94 (64%) respondents reported a preference to work with other income patients and 91 (62%) respondents indicated that their primary patient assignments are patients of other income groups.

Further examination of Table 23 shows that 29 (20%) respondents of the sample realized their preference to care for lower income patients by accepting employment in a setting which primarily served this particular
income group. However, 27 (18%) respondents who originally expressed a desire to care for other income patients, reported actually caring for lower income patients. However, a relatively large number of respondents, 67 (46%), remained consistent in their preference and actual care of other income patients. Moreover, 24 (16%) respondents who originally wanted to care for lower income patients changed by electing employment primarily with other income patients. Furthermore, when the Chi square statistic was applied to these data ($\chi^2 (1) = 9.710, p = 0.0018$), the results indicated that there was no relationship between the income level of patients preferred by students and the primary income level of the patients they cared for in their actual work settings.

In partial summary, the results of the cross-tabulated data regarding preferred work settings and actual work settings, showed that respondents did make changes between the work settings they preferred as students and the actual settings they accepted as new graduates. Also, there was change in their preference for income levels of patients and the patients to whom they actually provide nursing care. Thus, student preference was not found to be a good indicator of the type of work settings selected by recent graduates.

Factors influencing selection of work setting. To determine factors respondents considered to be important in influencing the work settings they actually selected for employment, they were asked to indicate on a five point scale, where 1 was very unimportant and 5 was very important, how the importance of each of 10 variables influenced their job selection. (See Appendix E-1, question 25). The percentage of positive responses on each of the variables was then determined by summarizing responses coded by respondents as either 4 or 5.
Table 24 presents the rank-ordered percentages of positive responses to 10 variables influencing actual job selection. The highest ranking factor was salary and benefits which 69% of the respondents considered important. Salary and benefits were followed closely by job availability, which was considered a positive influence by 68% of the respondents; while 65% thought closeness to opportunities for furthering education was an important influence. Next, closeness to home received a 61% positive response and location of agency received a percentage of 58%. The least important five factors included pending state board results, major type of patient served, special friends, family's approval, and valued by most influential teacher which received positive responses of 44%, 41%, 25%, 21%, and 10% respectively.

**Expected length of employment.** Data were collected on the length of time respondents expected to remain in their current work setting. This was included to provide some information on the expected length of time respondents would contribute nursing care in the settings selected. To achieve this, respondents were asked to indicate how long they planned to remain at their work setting by selecting one of four time frames. The time frames included the following: six months or less; more than six months but less than one year; more than one year but less than three years; and more than three years. Table 25 summarizes these results.

Table 25 shows that the vast majority of the respondents planned to maintain their current employment for a period greater than one year but less than three years. Specifically, 85 respondents (53%) of the sample fell into this category. Next in terms of time, 45 respondents or 28% expected to stay at their current jobs more than three years. This was followed by 25 (16%)
Table 24
Percent Of Positive Responses To 10 Variables Influencing Work Setting Selection Of Employed Respondents (Percents have been rank-ordered)

<table>
<thead>
<tr>
<th>Factors (Rank-ordered)</th>
<th>% of Positive Response*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary and benefits</td>
<td>69</td>
</tr>
<tr>
<td>Job availability</td>
<td>68</td>
</tr>
<tr>
<td>Closeness to opportunities for furthering education</td>
<td>65</td>
</tr>
<tr>
<td>Closeness to home</td>
<td>61</td>
</tr>
<tr>
<td>Location of agency</td>
<td>58</td>
</tr>
<tr>
<td>Pending state board results</td>
<td>44</td>
</tr>
<tr>
<td>Major type of patient served</td>
<td>41</td>
</tr>
<tr>
<td>Special friends</td>
<td>25</td>
</tr>
<tr>
<td>Family's approval</td>
<td>21</td>
</tr>
<tr>
<td>Valued by most influential teacher</td>
<td>10</td>
</tr>
</tbody>
</table>

*Positive responses are defined as selection of 4 or 5 on a 5-point scale where 1 is very unimportant and 5 is very important.
Table 25
Expected Length Of Employment Of Respondents At Current Work Settings

<table>
<thead>
<tr>
<th>Expected Length Of Employment</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Six months or less</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>More than six months but less than one year</td>
<td>25</td>
<td>16</td>
</tr>
<tr>
<td>More than one year but less than three years</td>
<td>86</td>
<td>53</td>
</tr>
<tr>
<td>More than three years</td>
<td>45</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>161</td>
<td>100</td>
</tr>
</tbody>
</table>

respondents who planned to keep their current jobs more than six months but less than one year; while five (5) respondents (3%) in the sample expected to maintain their employment for six months or less. In summary, over 80% of the respondents expected to remain in active nursing practice at their current work settings for periods exceeding one year.
Chapter 5

DISCUSSION

Does the interaction between students and their role models influence students' expectations of professional practice?

Does role models' involvement with lower income patients in urban settings influence students' preferences to work or not to work in such settings?

Do recent graduates accept employment in the settings they preferred as students?

This exploratory survey examined the relationship between the interactive process of nursing-faculty role models and students and the perceived influence of this relationship on students' work setting preferences and choices. This Chapter presents an interpretation of framework and previous research about the socialization of nursing students.

This Chapter is organized into four parts. The first section discusses and summarizes the research findings in relation to the role models' influence on professional practice expectations. The second section focuses on the role models' influence on students' preferences for working in underserved urban health care settings. In the third section, comparisons are made between preferred and actual work setting choices of recent graduates. In the final section, implications for future research are discussed.
Role Models' Influence On Professional Practice Expectations

Role modeling, according to Bandura (1977), is a systematic process occurring within the context of socialization and through which individuals acquire knowledge, skills, values, and preferences. This process is facilitated by role models who through their actions transmit to learners or observers knowledge, skills, and techniques (Kemper, 1978).

These two complimentary concepts were useful in discussing the perceived influence of nursing faculty role models on students' expectations of professional nursing practice. An examination of the data showed that almost all respondents were able to identify one member of their nursing faculty who had great influence on the kinds of commitments, skills, and qualities they believed important to their professional nursing practice. However, for respondents to credit one faculty member with having the greatest influence on their professional development should be viewed with some caution, given the complexity of phenomena that influence professional development.

This is particularly so when role modeling is differentiated from mentoring. The latter tends to reflect more relevant, personalized, and specialized interaction than the former (Safilios-Rothchild, 1980). The point to be made is that the exclusive influence of any one teacher in an educational program is difficult to measure. Several reasons account for this, including the following: (1) goals and expectations of educational programs are generally a reflection of the entire faculty rather than one teacher; (2) the selection of a teacher by a student is usually not completely a reflection
of personal choice; and (3) students are exposed to a variety of teachers
during their educational experience, all of whom impact upon students in
some way. Therefore, interpretation of the data in this study should be made
with these limitations in mind.

However, the application of factor analysis to data pertaining to the
student-role model interactive process and professional practice expectations
provided a meaningful way to interpret the findings and place them in proper
perspective. In this connection, the remainder of this section is divided into
three parts. First, data about student-role model interaction are discussed.
Second, implications from the professional practice expectations of students
are considered. Third, and finally, interpretations resulting from the
correlation of the two sets of data are suggested. Also, in this final section,
the results are analyzed in relation to Bandura's theory of role modeling.

**Student-Role Model Interaction**

Four factors emerged when 29 variables describing the student-role
model relationship were factor analyzed. These were labeled interpersonal
characteristics: instructional process, functional characteristics, personal
characteristics, and interpersonal characteristics: informal/individual. As
Table 7 showed, the first of these factors accounted for 22% of the variance,
followed by functional characteristics which accounted for 16% of the
variance. The two remaining factors each accounted for 8% of the variance.
Thus collectively, the four factors explained 54% of what was occurring
between student respondents and their role models, leaving 46% unexplained.

Given the complexity of the phenomena of social interaction, it was
significant that 54% of the variance could be explained. The unexplained 46%
suggested that many other dimensions of this interactive process had not been isolated and/or reflected the difficulty in measuring precisely such a complex phenomenon. Other research designs may be helpful in going beyond possible surface perceptions which generally characterize survey research (Kerlinger, 1973).

With these inherent limitations noted, several interpretations of the data can be made. Based on the factor analysis, the strongest factor extracted related to respondents' identification with role models during the instructional process. From Table 6, such variables as providing constructive criticism (.76), telling me when I have done well (.79), motivating me to do my best (.75), and being dependable (.60) produced strong and significant intercorrelations. These same behaviors were perceived by respondents as important. Between 91% and 97% of the respondents rated them as 4 or 5 on an importance scale where 1 was very unimportant and 5 was very important. (See Table 5). Studies by Melick and Bellinger (1979), Jacobson (1966) and in particular, Sizemore, (1981) supported this interpretation of these data.

Following this factor, functional characteristics of role models emerged to explain the second greatest amount of variance, 16%. As Table 6 showed, this particular factor was composed of such correlates as demonstrating competent patient care (.86), seeming to know patient assignments in the clinical area (.79), giving guidance in new and difficult situations (.59), and seeming to know subject area (.53). The observation was made that the strongest correlates were related to instruction in the clinical area and as such, suggested the importance of competent clinical instruction to students' identification with role models. In support of this, Jacobson (1966), Melick and Bellinger (1977), Ondrack (1975), Pieta (1976), and Waltz
(1978) found the clinical instructor to be the most significant role model for nursing students.

Furthermore, this finding was anticipated in as much as nursing is a practice discipline and also because of the relative length of clinical experiences in a nursing program. The latter consideration affords opportunities for one-to-one interactions between students and role models over extended periods of time.

Beyond the importance of the functional characteristics, 8% of the variance was explained by each of the two remaining factors extracted. First, personal characteristics, as evident from Table 6, were comprised of the correlates age (.75), sex (.78), race (.76), and nursing specialty (.75). A further observation from the table showed that this particular factor had no significant complexity with any other factors, making it essentially pure. This means that personal characteristics evidenced little or no commonality with either of the two previously discussed factors or with the remaining factor - interpersonal characteristics: informal/individual. In further clarification, the finding suggested that while personal traits may be important to some degree (Table 5 indicated that from 22 to 63 percent of the respondents believed that personal characteristics were important) in the existence of a 'special' relationship between students and role models, it does not enter into students' perceptions of role models as functionally competent or interpersonally effective during instruction, nor during informal/individual interaction.

This particular interpretation raises some questions relative to Buckley's finding which credited black faculty members as critical to the success of black nursing students. While his finding focused on race, perhaps
it was the attention given by black teachers in tutoring, counseling, etcetera which produced the positive learning results in black students rather than race itself. Similar interpretations might be offered to reconcile the findings of Gurin and Epps (1975) and Thompson (1978) who also stressed the importance of black teachers to black students in predominately black colleges.

Finally, the last of the interactive factors extracted was labeled interpersonal: informal/individual. This particular factor, which accounted for an additional 8% of the variance, was comprised of the correlates being accessible through extra-curricular activities (.71), during social activities (.75), at his/her home (.68), and taking a personal interest in me (.47). Like the previous factor, there was minimal factorial complexity. With the exception of 'taking a personal interest in me' which received a correlation coefficient of .36 on factor 1, none of the other variables achieved coefficients approximating the .40 standard set for inclusion of a variable on a factor. This was interpreted to mean it was a trait essentially not associated with the other factors.

These data also lent themselves to other interpretations. First, the relatively small amount of variance (8%) explained by the interpersonal: informal/individual factor suggested the minimal utility of it in explaining the role model-student relationship. However, a second interpretation might reflect that relatively few respondents were afforded this level of informal interaction with role models. In fact, those respondents that achieved this degree of informal interaction were possibly involved in more than a role model relationship, for example, a mentoring relationship. As previously noted, the personalized and informal dimensions of a relationship are descriptive, in part, of mentoring (Pascarella, 1980; Safilos-Rothchild, 1980).
However, the design of this study did not permit investigation into other aspects of mentoring.

In partial summary, the four factors extracted provided some insight into the varied dimensions of the complex interactive process occurring between students and role models during professional socialization. Of greatest impact were factors pertaining to the interpersonal characteristics role models exhibited during the instructional process and functional characteristics. By contrast, factors relating least were personal characteristics and interpersonal characteristics of an informal and individual nature.

Professional Practice Expectations

A factor analysis of 13 variables, describing the perceived importance of role models to students' professional practice expectations, resulted in the isolation of three factors which accounted for 65% of the explained variance. At a minimum, the unexplained variance was probably related to the influence of other faculty, health care personnel in clinical settings, and the natural maturational process of respondents. In light of these findings and explanations, the results may be further interpreted to mean one of two things. Either the role model, as perceived by respondents, was extremely influential or respondents' perceptions of role models were clouded by the influence of others. Focusing on the latter, it may have been difficult for respondents to separate completely in their minds the actual influence of one teacher when they had completed the entire four year socialization process during which they had contact with several nursing instructors. Nevertheless, it was probably safe to conclude that respondents did perceive a single role model as important in influencing their professional practice expectations in some special way.
Taking into account these possible limitations, Tables 10 and 11 showed that the three factors isolated were nursing process, nursing research, and projected professional activities. These factors accounted for 26%, 16%, and 23% of the variance respectively. Table 10 shows, the largest factor, nursing process, was comprised of such correlates as ability to assess health status (.87), ability to plan nursing care (.87), ability to implement nursing care (.83), ability to set nursing priorities (.66), ability to make independent nursing judgements (.45) and work setting preference (.44).

An interpretation of these data suggested that respondents perceived that the activities of role models were related strongly to their abilities to assess, plan, and implement nursing care and to a lesser degree their abilities to set nursing priorities and to make independent nursing judgements. In addition, the least significant correlate was the role models' influence on students' work setting preference. Furthermore, these findings emphasized the core of Nursing - the ability to provide care - and, as such, probably reflected the relative attention given such skills (assessing, planning, implementing) by nursing faculty in nursing curricula. Setting nursing priorities, and in particular making independent nursing judgements, were believed to be higher order skills (although part of the nursing process) not perfected to the same degree by the end of the educational program as the more basic care giving skills. In addition, the manner in which work setting preference loaded on the three factors (marginal factorial complexity) suggested that the interaction between role models and students relates minimally with students' preferred work location. The fact that it achieved a coefficient of .44 on factor one, interpersonal: instructional characteristics, should not be interpreted as conclusive evidence of the correctness of its apparent
association with the other dimensions of the nursing process. The development of preferences is known to be a complex phenomenon.

Factor three, anticipated professional activities, accounted for the second greatest amount of variance, 23%. As Table 10 showed, the intercorrelation of variables describing the factor included intention to maintain high standards (.84), recognition of responsibility for own actions (.71), ability to make independent nursing judgements (.65), expectation to collaborate with other health professionals (.63), and expectation to demonstrate effective leadership (.57). This factor addressed the higher order expectations of professional nursing as well as some of the ethical issues of nursing. The fact that this factor accounted for 23% of the variance was important because it suggested that a sizeable amount of role models' attention was being directed toward the development of higher order professional traits. Whether this was done through deliberate experiences or through vicarious learning cannot be determined from these data. However it does raise interesting questions about how faculty convey such professional expectations.

Finally, the third factor extracted was nursing research and as Table 11 showed, it accounted for 16% of the variance. Only two variables, intention to evaluate relevant research (.89) and ability to utilize research findings (.90) correlated on this factor. The fact that the factor accounted for only 16% of the variance suggested the relative lesser perceived importance of it as compared with the other two factors. To confirm this, 66 or 68% of the respondents rated the two variables, respectively, as 4 or 5 on a five point scale where 1 was very unimportant and 5 was very important. Two possible explanations were believed to be associated with this interpretation. One was
the tendency in nursing curricula to emphasize research in a single course which is pursued in the senior year. The second explanation of this finding can be related to the low level of undergraduate nursing faculty involvement with ongoing research, especially in PBCs where teaching is emphasized (Thompson, 1973). The former explanation suggested that research was integrated minimally, if at all, prior to the senior year and thus, its relative importance was not fully internalized by respondents. The latter explanation also suggested the absence of researcher role models for undergraduate students. These observations, however, do not infer an inadequacy on the part of undergraduate nursing programs in PBCs as it is generally not the intent of baccalaureate nursing programs to produce competent researchers.

In partial summary, the three factors identified nursing process, nursing research, and projected professional activities, provided insight into the perceived influence of role models on students' professional development. How this influence was conveyed has not been explained. In partial explanation, the next section discusses the relationship between the student-role model interactive process and these professional practice expectations.

**Correlation of Student-Role Model Interactive Factors With Factors Explaining Professional Practice Expectations**

When the two sets of factors were correlated, (student-role model interactive process and professional practice expectations) functional characteristics of role models emerged as the strongest of the correlates with professional practice expectations, particularly with nursing process (.57) and projected professional activities (.59). Nursing research, however, correlated weakly (.34). The moderate correlations suggested two possible interpretations relative to how role models influence students. First,
functional ability of the role model in the clinical setting, as noted by such activities as demonstrating competent patient care and helping to plan proper patient care tended to have linkages with respondents' perceived importance for the steps of the nursing process. Second, certain other functional characteristics seemed to explain respondents' development of projected professional activities or such things as maintaining high standards and recognizing personal responsibility. Whether such influence was conveyed through demonstration, explanation, or vicarious learning was unclear from the results. However, it could be hypothesized that all three methods influenced how and what respondents perceived as important. In support of this, Bandura theorized that the previously described methods were used in modeling behaviors.

This may also explain why functional characteristics correlated minimally with nursing research. As noted previously, limited actual exposure to research activities conducted by role models or perhaps any faculty member, during the undergraduate experience may have accounted, in part, for respondents' perception. This explanation is further supported by the fact that the overwhelming majority of PBCs are not classified as research institutions accounting generally for the absence of faculty involvement with on-going research.

Focusing again on the results of the previously discussed factor analysis, interpersonal skills utilized in the instructional process accounted for the greatest amount of variance (22%) explaining student-role model interactions while functional characteristics accounted for 16%. Why then would functional characteristics be more strongly related to professional practice expectations than interpersonal instructional characteristics? A
possible explanation seemed explicit in the intercorrelation between the two factors. It is evident from Table 6 that there was some factorial complexity between interpersonal: instructional and functional characteristics suggesting that functional ability of the role model was conveyed through the medium of interpersonal/instructional skills. This could be further interpreted to mean that functional ability alone was insufficient to convey influence.

Similarly, interpersonal skills used in the instructional process were insufficient alone to influence any of the professional practice expectations as shown in Table 12. Interpersonal/instructional characteristics correlated in a weak manner with nursing process (.36), nursing research (.30), and projected professional activities (.43). While functional characteristics correlated moderately, the two factors together accounted for much stronger correlations with the three factors explaining professional practice expectations: nursing process (.93), projected professional activities (.89) and nursing research (.77).

This seemingly shared responsibility of the two factors in conveying influence is supported by Bandura's theory. Although Bandura (1978) identified personal, interpersonal, and functional characteristics as important in attending to role models, he stressed the interrelatedness of the characteristics. Moreover, his theory also supported the researcher's finding that functional characteristics emerged as the strongest of the correlates with professional practice expectations. Likewise, other nursing researchers concurred with this finding (Jacobson, 1966; Melick and Bellinger, 1979; Waltz, 1978).
As anticipated from the results of the factor analysis, the two remaining factors describing the student-role model interactive process, correlated in a weak or insignificant manner. The interpersonal informal/individual factor achieved coefficients of .37, .40, and .37 with nursing process, nursing research, and projected professional activities respectively. The fact that there was a slightly stronger correlation with nursing research, (in fact the highest of all correlations on nursing research) could mean that respondents who were involved in an informal and intense relationship with role models had higher perceptions of research. This interpretation would, of course, infer that the role models in these cases were involved in research in some meaningful way. However, given the limited number of respondents who found interpersonal, informal/individual characteristics important to their relationship with role models, it would be presumptuous to draw any conclusions without additional study.

Lastly, personal characteristics of role models did not correlate strongly with professional practice expectations. These findings suggested that there was no relationship between race, sex, age, or nursing specialty area and the importance respondents attached to either of the three factors describing professional practice expectations. However, it was appropriate to analyze the data in terms of the environment in which the study took place. Although the black respondents, who represented 85% of the sample were more likely to select a black role model, the relative homogeneity of students and faculty in PBCs raised questions as to whether students would make racial choices given a more heterogeneous environment. Buckley's (1980) study suggested that they would. However, in as much as the personal characteristics factor in this study described more than race and the other
dimensions (sex, age, and specialty area) were not perceived to be any more important than race, the data upholds the conclusion that personal characteristics were unrelated to respondents' professional practice expectations. But, additional studies in heterogeneous settings should be conducted.

In summary, this study demonstrated that there is a relationship between certain characteristics describing the interaction of students and role models and professional practice expectations. Functional characteristics, in conjunction with interpersonal: instructional characteristics, correlated in a relatively strong manner with two of the three factors, (nursing process and projected professional activities) explaining professional practice expectations. However, the fact that the factors describing the student-role model interactive process produced only weak to moderate correlations speaks to the very complex phenomena being measured. It is difficult in human research, and especially survey research based on perceptions, to isolate and to measure the myriad of possible factors influencing the professional socialization of nurses. Bandura's theory was helpful in designing the study and analyzing certain relationships. However, his theory, which is more applicable to childhood learning, does not systematically explain the terminal behavior of young adults completing nursing school when their behaviors are motivated, in part, by previous learning as well as maturational learning which occurs concurrently with nursing instruction.

Role Models' Influence On Students' Work Setting Preferences

Does role models' involvement with lower income patients in urban settings influence students' preferences to work or not to work in such settings?
This research question was conceptually guided by Bandura's theory which suggested if observers 'attend' to role models and patterned their behaviors after those explicitly or vicariously modeled, the behaviors could be internalized given opportunities of self-refinement and adequate motivation. With this theory as a framework, this study examined whether role models' involvement with lower income patients in urban settings (LOWURBAN) made a difference in students' work setting preferences.

Nearly all respondents (94%) had learning experiences with lower income patients in urban settings with the vast majority (82%) having such experiences provided, at least in part, by role models. Furthermore, over half (52%) of the respondents expressed an interest in working in urban settings, but only 32% hoped to care primarily for lower income patients. Of those having a LOWURBAN experience provided by role models, only 22% had a preference for working in such settings compared with 35% who desired to work in an urban setting but not especially with lower income patients. By contrast, LOWURBAN was preferred by 1% of those without the role model led experience while another 15% hoped to work in an urban setting but with other than lower income patients. In fact, the relationship was not significant ($p > .05$). However, respondents who participated in role model led experiences indicated an overall slightly greater expectation to work in urban settings than those without (52% versus 48%) role model led experiences. This difference was found to be statistically significant ($p < .05$).

These findings suggested that baccalaureate nursing students in PBCs had strong preferences for working in urban settings after graduation but not necessarily with lower income patients. Furthermore, although most had LOWURBAN experiences led by role models during their nursing programs,
these were not related significantly to respondents' preferences for or against such work settings.

Further interpretation of the results suggested that the development of a work setting preference is a far more complex phenomenon than role models' involvement in a particular type of experience. Several possible explanations lend themselves to this conclusion. First, the identification of factors which motivated role models' involvement in LOWURBAN warranted consideration. It was not clear from these data whether the motivating factor for providing LOWURBAN experiences was a preference of role models, a dictate of the curriculum, a reflection of the composition of health care agencies in the schools' geographic region, or some other reason. However, the chief motivating factor would influence the emphasis given the experience by role models and as such, affect the type of perceptions made by students. While motivating factors of role models seem to be involved in developing students' work setting preference, a study should be designed to measure the influence of this particular variable.

Further, a second possible consideration helpful in interpreting the data is related to the development of preferences. Preference might be defined as "the power or opportunity of choosing... the act, fact, or principle of giving advantages to some over others" (Webster, 1973). This definition implied a rather complex process involving what Bandura referred to as intrinsic and extrinsic motivators or incentives. As Bandura theorized, there was a direct relationship between these motivators and their perceived relationship with a series of choices. For example, in this research, the greater the positive incentives attached to a LOWURBAN work setting by respondents, the more likely they would prefer such a setting. The converse
also suggested that if there were fewer perceived positive incentives attached to LOWURBAN work settings, the respondents would be less likely to prefer LOWURBANS. The attachment of positive incentives, as Bandura suggested, could be facilitated through vicariously perceived rewarding outcomes for role models. This survey failed to address adequately this very complex matter and as such, this study can only speculate as to the relationship between incentives and preferences. Thus, because of its probable importance, additional study of the hypothesized relationship is needed.

A third basis of interpretation closely associated with the latter is prior orientation. Bandura's theory suggested that role models were more successful in conveying influence when their value system was similar to that of their observers. This implied that respondents' perceptions of LOWURBANS prior to involvement with role models was related to the extent to which role model led experiences with LOWURBANS affected work setting preferences. More specifically, this interpretation suggested that role models could influence positively respondents' preferences for LOWURBANS if there were a prior interest in the setting. Likewise, the theory also implied that respondents with non-positive prior orientation to LOWURBANS would not be persuaded to a LOWURBAN preference through positive role modeling experiences alone.

The data generated by this study indicated that 39% of the respondents were from urban home settings and 32% from lower income families. These data suggested an orientation by these respondents to LOWURBAN or at least, to urban areas and/or lower income people. Whether these orientations were positive or negative is not known. However, the possible relationship would constitute the basis of further analyses.
In partial summary, while the importance of role models has been documented in the socialization of nursing students, these data do not support the importance of role models' involvement with LOWURBANS and students' preferences or lack of preferences for such settings. However, these data, in conjunction with theoretical analysis, do suggest that the determination of work setting preference is a far more complex matter than measured by the design of this study. The results of this exploratory survey do, nevertheless, establish a case for further research and analysis.

**Relationship Between Preferred And Actual Work Setting Choices**

Do recent graduates accept employment in the settings they preferred as students?

The results of this study showed that the majority of respondents, 62%, selected employment in an urban location and primarily in settings where most patients cared for were other than lower income. Furthermore, Table 21 showed that the number of respondents actually accepting urban employment increased by 8% over the number claiming urban preferences as students. In addition, the percentage preferring to care primarily for lower income patients as students remained essentially unchanged among the new graduates.

There are several possible interpretations of these data. First, why did respondents choose urban work settings over other settings? The interpretation of this finding may, in part, be derived through Padilla's (1979) study of students in the University of North Carolina system (which included
four PBCs). He found that most black graduates accepted employment in major cities as opposed to the rural and small town communities from which they originated. These findings suggested that nursing graduates of PBCs in the current study were not unlike the new graduates in Padilla's study. Although the factors which motivated Padilla's sample to select urban employment were not identified, the current research did assess the reasons respondents selected their jobs. Table 23 indicated that the top five reasons for making job situation decisions, in order of importance, were salary and benefits, job availability, closeness to opportunities for furthering education, closeness to home and location of agency. The ordering of the first three reasons, at least, tended to be associated with urban locations more than with the more sparsely populated small town and rural settings. In the less populated areas, job opportunities are fewer and salaries are less because of a generally lower standard of living. Furthermore, most major institutions offering advanced degrees in nursing are located in major urban cities.

A further explanation seemed to account for the predominance of urban work choices as well as contributed to an interpretation of why respondents' preferences and actual work choices differed. This explanation is related to the concept of intrinsic and extrinsic motivators or incentives inherent in Bandura's theory of role modeling. Bandura explained that behaviors performed by observers were related to competing intrinsic and extrinsic incentives. That is, choices were based on the perceived strength of the incentives wherein the stronger motivators would be defined as the reasons given for job selection, i.e., job availability. By contrast, the intrinsic motivators would be, in part, the work setting preferences identified by respondents while still students. The fact that work setting preferences
and actual work setting choices differed significantly (p < .05) suggested that extrinsic motivators such as salary and benefits, job availability, and closeness to opportunities for furthering education were stronger incentives than the preferences identified while students.

Furthermore, this finding implied that having LOWURBAN experiences as students was not perceived by most respondents as any more important than any other experiences. At least, the perceived importance was insufficient to the development of an internal commitment or a strong intrinsic motivator. Moreover, the fact that only 38% of the respondents felt that they primarily cared for lower income patients may have been a matter of perception rather than reality. Observation of the respondent's work settings by name suggested that most who were employed in urban settings worked in major health care agencies and teaching hospitals. These institutions, and in particular the latter, by definition and by law provide care to significant numbers of indigent patients along with other income groups. Consequently, it appears safe to conclude that essentially all nursing graduates of PBCs devote at least a portion of their nursing careers to caring for those patients classified as lower income.

Finally, this study supported the assertion of PBCs that they educate students for the mainstream of society while simultaneously maintaining concern for the underserved. Clearly, these data appeared to demonstrate that the nursing programs in PBCs are fulfilling the mission of their parent institutions.
Implications For Future Research

This exploratory study has provided some insight into the complex process of socializing nursing students in PBCs. Further, it has begun to investigate the multivariate phenomena describing job selection. However, the exploratory nature of the study raised questions which need further explanation and clarification.

First, the study should be replicated using a heterogeneous sample of nursing programs and institutions. While this study found no relationship between personal characteristics, such as race, and students' identification with role models, other nursing studies of more racially mixed populations have found such relationships to exist. Therefore, it would be important to measure the relationship in varied types of college environments to determine the actual contribution of personal characteristics to the socialization process.

Second, the survey instrument should be subjected to additional tests for reliability and validity. The establishment of a reliability index and construct validity would enhance the credibility of future research findings. Furthermore, more precise variables approximating socialization might be included in revisions of the instrument. This should reduce measurement error and contribute to more accurate analyses of the complex dimensions which characterize the relationship between students and their role models.

Third, the relationship between students and role models should be assessed by using investigative techniques other than a survey. Interviews, case studies, and observations pertaining to the interactive process between role models and students would provide more explicit descriptions of nursing student socialization.
Fourth, longitudinal studies should be designed to examine the practice patterns of nursing graduates of PBCs over time. Initial employment does not measure sufficiently the extent to which this population addresses the needs of underserved communities. The full effect of these graduates can be measured only after opportunities to develop professional competency and confidence in work situations have been satisfied.

Fifth, other longitudinal studies need to be conducted which specifically determine the nature and extent of students' exposure to lower income/urban learning experiences throughout the educational program and the relationship of these to work setting choices. Such variables as those factors motivating instructors and prior orientation of students should be controlled. Such a study should reflect the combined contributions of the total educational enterprise as well as other maturational entities in the development of work setting preferences.

Sixth, a quasi-experimental study comparing diverse teaching-learning techniques with lower income urban patients on students' work setting choices could provide valuable information on the specific socialization of students to meet the needs of health care underserved segments of society. Such a study would be appropriate given the national agenda to alleviate the maldistribution of nurses in underserved urban health care areas.

Finally, a study comparing the socialization process among the various nursing programs in the PBCs might be designed. Such a study could determine if faculty influence differs when such factors as size of school, type of control, location of school (urban versus rural), and preparation of faculty vary.
Chapter 6
SUMMARY AND CONCLUSIONS

This exploratory study examined the relationship between nursing faculty role models and students in Predominately Black Colleges (PBCs) and the perceived influence of role models on students' professional practice expectations. Furthermore, the study investigated the relationship between role models' involvement with lower income patients in urban settings and students' preferences for working or not working in such settings. Finally, the study analyzed the relationship between the preferred work settings of students and their actual work setting choices as graduates.

Albert Bandura's theory of role modeling provided the underlying theoretical basis of the study. Central to the framework, Bandura identified four interrelated processes: attentional, motor reproductive, retentional, and motivational which occur within the context of socialization. It is through this complex process that standards are internalized which serves as evaluators and guides in decision making (Bandura, 1977).

Based on the theoretical framework and related literature, research questions were posed which addressed the purposes. A 35 item questionnaire was developed and pilot tested in the summer and fall of 1981 to measure the relationships inherent within the purposes. The instrument first assessed characteristics of an identified role model, and proceeded to determine the perceived importance of various aspects of the relationship between role models and students. Next, it measured students' perceived importance of
role models to expectations of professional practice. The questionnaire then explored work setting preferences of students followed by the identification of actual work setting choices. This latter section constituted the basis of a mail survey utilized during the follow-up or second phase of the study. Finally, the instrument assessed demographic characteristics of students.

Generic senior nursing students in 15 of the 17 baccalaureate nursing programs in PBCs constituted the sample in this dual phase research study. The initial or on-campus phase occurred in April and May of 1982 and consisted of the administration of the 35-item questionnaire to 214 students in group settings at each institution. This phase was followed by, in October of 1982, a mail survey to each of the 214 respondents requesting them to identify their actual work setting choices. After two follow-up communications, 172 or 80% of the mail surveys were returned and were useable while all 214 of the on-campus questionnaires were useable.

Data were analyzed in relationship to the stated research questions. Initially, data pertaining to the student/role model relationship were factor analyzed and resulted in the isolation of four factors: interpersonal/instructional; functional; personal; and interpersonal/informal - individual characteristics. Collectively, these factors explained 54% of the variance describing the student/role model relationship. This was followed by a factor analysis of multiple variables reflecting the perceived importance of role models to the development of professional practice expectations. Three factors emerged: nursing process, nursing research, and anticipated professional activities, which accounted for 65% of the variance.

Further, the two sets of factors were correlated to determine the extent to which the student-role model relationship was related to the pro-
professional practice expectations. The resulting correlation coefficients suggested that functional characteristics of role models were moderately correlated with students' professional practice expectations. Also, interpersonal/instructional and interpersonal/informal - individual characteristics produced weak correlations. No correlation was evident between personal characteristics of role models and professional practice expectations.

The second research question, which investigated the relationship between the role models' involvement with lower income patients in urban settings and students' preferences for working or not working in such settings, utilized cross tabulations and the Chi square and t statistics to analyze the data. The results indicated that there were no significant relationships between role models' involvement and students' preferences to work with lower income patients in urban settings. However, a significant relationship was realized ($p < .05$) between role models' involvement with lower income patients in urban settings and students' preferences for urban work settings. In a further analysis, a non-significant $t$ value was obtained when a comparison of respondents' perceptions of the importance of role models' involvement was made between students preferring lower income urban work settings and those preferring other work settings. A similar $t$ value was obtained when scores were compared for those preferring urban versus non-urban work settings regardless of income level of patients.

The final research question was related to preferred work settings and actual work settings. As in the previous question, cross tabulations with application of the Chi square statistic were used. The results showed that preferred and actual work settings were not related. Respondents sig-
nificantly differed in their preferred work settings and actual work choices in
terms of both location and income level of patients. Other data revealed,
however, that 62% of the respondents were employed in urban settings and
38% provided care primarily to lower income patients. In addition, the study
showed that respondents believed salary and benefits were the strongest
motivators of job selection followed closely by, job availability and closeness
to opportunities for furthering education. The least important reason was
"valued by most influential teacher".

Discussion of the findings drew from the theoretical tenets advanced
by Bandura, related literature, and the patterns emerging from the data.
Unexplained and unclear findings were expressed with the hope that further
research studies might investigate these uncertainties.

The study partially supported Bandura's theoretical explanation of
role modeling. However, because of the young adult age group investigated
versus the early childhood groups studied by Bandura, the theory failed to
account for the complexity of factors influencing the professional develop­
ment of nursing students over time. Nevertheless, the theory was useful in
interpreting some of the results.

The emergence of the role model's functional ability as the strongest
of the correlates with professional practice expectations was consistent with
Bandura's work and further suggested the importance of competent teachers,
especially in the clinical area, to the development of students' professional
practice expectations. In addition, the data supported the idea of
interpersonal/instructional characteristics of role models as the medium
through which functional competencies are transmitted.

In a related finding, the data suggested the minimal impact of inter­
personal/informal-individual characteristics on students' professional practice
expectations. The importance of this particular characteristic was thought to be reserved for the few students engaged in a more intense relationship with role models, bordering on mentorship. Furthermore, the fact that personal characteristics of role models did not relate to professional practice expectations suggested either the lack of awareness of choice by respondents in the relative racial homogeneity of the black college environment or in reality, reflected a fact that is inconsistent with contemporary research findings.

Further, this study illustrated the minimal influence that faculty exert on students' work setting preferences or actual work setting choices. As Bandura suggested choice is based on the competing strength of various intrinsic and extrinsic incentives or motivators. In the case of job choice, the incentives tended to be more related to extrinsic motivators such as salary and job availability rather than any intrinsically motivated value system. However, the study did reaffirm the tendency of black nursing graduates to work in urban settings.

Finally, the study served to underscore the complexity of the process of socialization of nursing students and their choice of work settings. While role models play an important role in this process, no one faculty member emerged as being solely responsible for the development of a student. What is apparent, at the very least, is that socialization is a shared responsibility of all nursing faculty members. Beyond this, the complex nature of factors influencing professional socialization and the kinds of choices students make are yet to be investigated and explained fully.
REFERENCE NOTES


2. Powell, D. Information Communication With Nursing Program Directors regarding number of graduates, 1981.


REFERENCES CITED


Burgess, A. Baccalaureate nursing education and minority nurses. *Urban Health*, 1978, 7 (6), 35-44.


Dunstan, L. C. Characteristics of students in three types of nursing education programs. Nursing Research, Spring 1964, 159-166.


Gliebe, W. Faculty consensus as socializing agent in professional education. Nursing Research, 1977, 36 (6), 428-432.


Harris, R. A. The applicability of Parson's Theory of the social system in urban places. The Journal of Negro Education, 1979, 48 (2), 144-147.


Walton, C. L. Why black colleges should be involved with CETA. *Norfolk State Grants Update*, 1980, (3), 1-6.


APPENDIX A

Calculation of Productivity of Black Nurses
In Predominately Black Colleges For 1978
Appendix A

Calculation of Productivity of Black Nurses In Predominantly Black Colleges For 1978

I. Total Black Graduates In U. S. In 1978 - 992
   (Vaughn and Johnson, Nursing Outlook, 1979)


   Tuskegee Institute - 24
   University of Arkansas at Pine Bluff - 12
   Howard University - 35
   University of D.C. - 15
   Florida A & M - 61
   Albany State College - 23
   Coppin State College - 20
   North Carolina A & T - 40
   North Carolina Central - 25
   North Carolina - Winston Salem - 27
   Prairie View - 21
   Hampton Institute - 45
   Dillard University - 22

   TOTAL 370

   (Note: No figures given for Delaware State, Bethune-Cookman, Alcorn State)

III. Estimated Enrollment of Blacks In PBCs - 90%
     (National Center for Educational Statistics, 1977)

IV. Calculation of number of black graduates from PBCs in 1978

   Total Graduates Of 13 Schools x Estimated Enrollment of Blacks in PBCs

   370 x 90 = 333
APPENDIX B

Enrollment and Projected Graduation Data
For 16 of 17 Baccalaureate Nursing Programs In PBCs
1981-82
APPENDIX B

Enrollment and Projected Graduation Data
For 16 of 17 Baccalaureate Nursing Programs In PBCs
1981-82

(Informal Survey By Researcher Conducted Fall 1981)

<table>
<thead>
<tr>
<th>Institution</th>
<th>Approximate Enrollment 1981-82</th>
<th>Projected Grads Spring 1982</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>125</td>
<td>9</td>
</tr>
<tr>
<td>B</td>
<td>39</td>
<td>17</td>
</tr>
<tr>
<td>C</td>
<td>75</td>
<td>17</td>
</tr>
<tr>
<td>D</td>
<td>101</td>
<td>22</td>
</tr>
<tr>
<td>E</td>
<td>214</td>
<td>23</td>
</tr>
<tr>
<td>F</td>
<td>72</td>
<td>24</td>
</tr>
<tr>
<td>G</td>
<td>290</td>
<td>52</td>
</tr>
<tr>
<td>H</td>
<td>200</td>
<td>35</td>
</tr>
<tr>
<td>I</td>
<td>200</td>
<td>27</td>
</tr>
<tr>
<td>J</td>
<td>56</td>
<td>18</td>
</tr>
<tr>
<td>K</td>
<td>297</td>
<td>11</td>
</tr>
<tr>
<td>L</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>M</td>
<td>209</td>
<td>36</td>
</tr>
<tr>
<td>N</td>
<td>146</td>
<td>5</td>
</tr>
<tr>
<td>O</td>
<td>250</td>
<td>11</td>
</tr>
<tr>
<td>P</td>
<td>60</td>
<td>8</td>
</tr>
</tbody>
</table>

Totals       | 2342                            | 325                        |

\[ \bar{x} = 158 \]
\[ SD = 90 \]
APPENDIX C

Letter Requesting Participation Of Sample Schools
Dear Colleague,

I am preparing to implement my dissertation research as a requirement for the doctorate in Administration of Higher Education at the College of William and Mary. For many years I have been interested in the impact of the Predominantly Black Colleges on the productivity of nurses to address the health care needs of society. With this as a focal point, my research is entitled The Education of Nurses in Predominantly Black Colleges for Medically Underserved Urban Settings: An Application of Bandura’s Psychological Theory to the Nurse-Faculty Interaction Process. An abstract of the study is attached.

Because of the potential implications of the study, it is important to include all of the predominantly Black baccalaureate nursing programs. Therefore, I am writing you to request the participation of your school. The study is supported by the Division of Health and Human Services making maximum participation even more desirable.

The methodology entails the administration of a survey instrument to all generic senior nursing students during the latter portion of the spring semester or quarter. The questionnaire, a draft of which is included, takes approximately 20 minutes to complete. My request is that you or your designate assemble the students for a group administration of the questionnaire, encourage them to diligently complete the instrument, and collect and return the questionnaires to me.

I recognize the imposition of this request on your already busy schedules. However, your support and cooperation in carrying out this particular aspect of my research will be greatly appreciated. An honorarium will be available to all participating schools.

In preparation for implementing the study, would you please indicate on the enclosed card your willingness to participate. Also, answer the several other questions which will help me finalize plans. Return the card to me in the enclosed stamped envelope as soon as possible. Should you have any questions, feel free to call me at work (804) 623-8525 or at home, collect, after 6:00 PM (804) 877-1377.
Thank you for your cooperation and assistance with regard to this request.

Sincerely,

Dorothy L. Powell

DLP/g

Enclosures
APPENDIX D

Sample Institutions
APPENDIX D

Sample Institutions

Albany State College
Alcorn State University
Bethune-Cookman College
Coppin State College
Dillard University
Hampton Institute
Howard University
North Carolina Agriculture and Technical State University
North Carolina Central University
Prairie View A & M University
Tennessee State University
Tuskegee Institute
University of Arkansas, Pine Bluff
University of the District of Columbia
Winston Salem State University
APPENDIX E

Initial Survey Materials

E-1 Instrument
E-2 Information Card
E-3 Instructions For Administration of Questionnaire
E-4 Report of Administration
E-5 Letter of Transmittal
Now that you are about to complete your baccalaureate education in nursing, it would be helpful if you would share with us some of the experiences that were beneficial to you, particularly those that relate to faculty-student interaction. This information will help nurse educators improve the educational process to make it more meaningful for the students who will follow you.

Your thoughtful responses are important and will be appreciated. This questionnaire should take you no longer than 20 minutes to complete.
1. During your nursing education you have interacted with many nursing teachers on the faculty at your school of nursing. After thinking about all the nursing teachers you have known, select the ONE teacher who you believe has had the greatest influence on the kinds of commitments, skills and qualities you see as important to your professional nursing practice. List this person by position (NOT NAME) in the space provided.

NOTE: The subsequent questions in this questionnaire refer to this person you just identified, SO KEEP HIM OR HER IN MIND.

2. Which of the following positions did this person hold? (Circle one)
   1 A NURSING FACULTY MEMBER WITH CLASSROOM AND/OR CLINICAL TEACHING RESPONSIBILITY
   2 A NURSING FACULTY ADVISOR WITH TEACHING RESPONSIBILITIES
   3 A NURSING ADMINISTRATOR WITH TEACHING RESPONSIBILITIES

3. What is your best estimate of this person's AGE? (List)

4. What is the SEX of this person? (Circle one)
   1 MALE
   2 FEMALE

5. What is the RACE of this person? (Circle one)
   1 BLACK (NEGRO)
   2 CHICANO (MEXICAN-AMERICAN)
   3 WHITE (CAUCASIAN)
   4 OTHER (Please specify) _______________________________________

6. What is the nursing specialty area of this person? (Circle one)
   1 MEDICAL/SURGICAL
   2 MATERNAL/CHILD
   3 PSYCHIATRIC/MENTAL HEALTH
   4 COMMUNITY HEALTH

7. What is your best estimate of the socio-economic background of this person's parents? (Circle one)
   1 LOWER INCOME
   2 MIDDLE INCOME
   3 UPPER INCOME
Based on your interactions with this person, how important were the following characteristics to you? (Circle one for each item where 1 is VERY UNIMPORTANT and 5 is VERY IMPORTANT)

**BEING ACCESSIBLE TO ME**

1. IN THE CLASSROOM AND/OR CLINICAL AREA
   - 1 2 3 4 5

2. DURING INDIVIDUAL CONFERENCES IN AN OFFICE WITH AN APPOINTMENT...
   - 1 2 3 4 5

3. DURING INDIVIDUAL CONFERENCES IN AN OFFICE WITHOUT AN APPOINTMENT...
   - 1 2 3 4 5

4. THROUGH EXTRA-CURRICULAR ACTIVITIES
   - 1 2 3 4 5

5. DURING SOCIAL ACTIVITIES NOT RELATED TO NURSING COURSES
   - 1 2 3 4 5

6. AT HIS/HER HOME
   - 1 2 3 4 5

**TAKING A PERSONAL INTEREST IN ME**

- 1 2 3 4 5

**BEING WARM/FRIENDLY TOWARD ME**

- 1 2 3 4 5

**BEING DEPENDABLE**

- 1 2 3 4 5

**WILLING TO SPEND UNRUSHED TIME WITH ME WHEN I HAVE A PERSONAL PROBLEM**

- 1 2 3 4 5

**TELLING ME WHEN I HAVE DONE WELL**

- 1 2 3 4 5

**TELLING ME WHEN I HAVE NOT DONE WELL**

- 1 2 3 4 5

**MOTIVATING ME TO DO MY BEST**

- 1 2 3 4 5

**CAUSING ME TO FEEL GOOD ABOUT MYSELF**

- 1 2 3 4 5

**PROVIDING ME WITH CONSTRUCTIVE CRITICISM**

- 1 2 3 4 5

**SEEMING TO ENJOY SEEING ME PROGRESS**

- 1 2 3 4 5
9. Based on your interactions with this person, how important were each of the following characteristics of the person in influencing you? (Circle one number for each item where 1 is VERY UNIMPORTANT and 5 is VERY IMPORTANT)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS/HER AGE</td>
<td></td>
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<tr>
<td>HIS/HER SEX</td>
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</tr>
<tr>
<td>HIS/HER RACE</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>HIS/HER NURSING SPECIALTY AREA</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

10. Next, how important were other characteristics of this person, which you may have observed in the classroom or clinical setting, in influencing you. For each of the following items listed below, indicate how important this person was. (Circle one number for each item where 1 is VERY UNIMPORTANT and 5 is VERY IMPORTANT)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROVIDING ORGANIZED, INFORMATIVE, AND INTERESTING LECTURES WHICH I CAN UNDERSTAND</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEEMING TO KNOW HIS/HER SUBJECT AREA</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>IDENTIFYING CHALLENGING LEARNING EXPERIENCES FOR ME</td>
<td></td>
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</tr>
<tr>
<td>SEEMING TO KNOW ABOUT MY PATIENT ASSIGNMENTS IN THE CLINICAL AREA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HELPING ME TO PLAN PROPER CARE OF MY PATIENTS IN THE CLINICAL AREA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEMONSTRATING COMPETENCE IN GIVING PATIENT CARE</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GIVING ME GUIDANCE IN NEW/DIFFICULT SITUATIONS</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>EVALUATING ME OBJECTIVELY</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>CREATING AN ENVIRONMENT WHICH MAKES MY LEARNING ENJOYABLE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
11. Next, how important was this person in influencing your expectations of your own professional nursing practice upon graduation? For each of the possible expectations listed below, indicate how important this person was. (Circle one number for each item where 1 is VERY UNIMPORTANT and 5 is VERY IMPORTANT)

<table>
<thead>
<tr>
<th>Expectation</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>MY PREFERENCE REGARDING WHERE I WOULD LIKE TO WORK</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>MY ABILITY TO SET NURSING PRIORITIES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>MY ABILITY TO IMPLEMENT NURSING CARE FOR GROUPS OF PATIENTS BASED ON A PLAN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>MY ABILITY TO ASSESS THE HEALTH STATUS OR HEALTH POTENTIAL OF GROUPS OF PATIENTS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>MY ABILITY TO PLAN NURSING CARE FOR GROUPS OF PATIENTS BASED ON THOROUGH ASSESSMENTS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>MY ABILITY TO MAKE INDEPENDENT NURSING JUDGEMENTS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>MY EXPECTATION TO COLLABORATE WITH OTHER HEALTH PROFESSIONALS IN PROMOTING THE HEALTH AND WELFARE OF OTHERS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>MY EXPECTATION TO WORK TOWARD IMPROVING THE HEALTH CARE DELIVERY SYSTEM, ESPECIALLY FOR THOSE WITH INADEQUATE HEALTH CARE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>MY INTENTION TO MAINTAIN HIGH STANDARDS OF NURSING CARE WITH ALL PATIENTS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>MY INTENTION TO EVALUATE RELEVANT RESEARCH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>MY ABILITY TO UTILIZE RESEARCH FINDINGS IN IMPROVING MY NURSING PRACTICE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>MY EXPECTATION TO DEMONSTRATE EFFECTIVE LEADERSHIP SKILLS IN WORKING WITH OTHERS TO MEET THE HEALTH CARE NEEDS OF INDIVIDUALS, FAMILIES, AND COMMUNITIES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>MY RECOGNITION THAT I AM RESPONSIBLE FOR MY NURSING ACTIONS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>
NOW WE WANT TO KNOW ABOUT SOME OF YOUR PLANS FOLLOWING GRADUATION

12. Do you plan to enter graduate school or be unemployed in nursing immediately following graduation (within six months)? (Circle one)

1  YES

If Yes, specify which (Circle one)

1  ENTER GRADUATE SCHOOL
2  UNEMPLOYED IN NURSING

Now, Skip to Question 27

2  NO

(If you plan to accept employment as a nurse, continue with Question 13)

13. Which of the following best describes the site in which would you MOST PREFER to work? (Circle one)

1  RURAL
2  SMALL TOWN
3  SUBURBAN
4  URBAN

14. Which of the following income groups best describes the patients with whom you MOST PREFER to work? (Circle one)

1  LOWER
2  MIDDLE
3  UPPER

15. During your nursing education, were you provided learning experiences involving low income clients in urban settings? (These may have included classroom, clinical, or observational experiences)? (Circle one)

1  YES

If your answer is YES, continue with the next question

2  NO

(If your answer is NO, Skip to Question 18)
16. Did the person you identified in Question 1 provide any of your learning experiences involving low income clients in urban settings? (Circle One)

1 YES
2 NO

(If your answer is YES, continue with the next question)
(If your answer is NO, skip to Question 18)

17. You have just indicated your preference for where you would like to work after graduation. Now, we want to know about some of the specific learning experiences the person you identified in Question 1 may have provided you. How important were each of the following experiences to you in selecting where you would like to work after graduation? (Circle one number for each item where 1 is VERY UNIMPORTANT and 5 is VERY IMPORTANT)

- PROVIDED LEARNING EXPERIENCES IN HEALTH CARE AGENCIES WHICH SERVED LARGE NUMBERS OF LOW INCOME PATIENTS IN URBAN SETTINGS

- DEMONSTRATED GIVING CARE TO LOW INCOME PATIENTS IN URBAN SETTINGS

- STRESSED THE SPECIAL HEALTH CARE NEEDS OF LOW INCOME PATIENTS IN URBAN SETTINGS

- PROVIDED POSITIVE FEEDBACK REGARDING MY NURSING CARE OF LOW INCOME PATIENTS IN URBAN SETTINGS

- STRESSED MENTAL HEALTH CONCEPTS IN RELATION TO LOW INCOME PATIENTS IN URBAN SETTINGS

- DEMONSTRATED AN ABILITY TO EFFECTIVELY MANAGE THE NURSING CARE NEEDS OF LOW INCOME PATIENTS IN URBAN SETTINGS

- MADE WORKING WITH LOW INCOME PATIENTS IN URBAN SETTINGS SEEM LIKE A MORE CHALLENGING AND MEANINGFUL EXPERIENCE THAN MOST OF MY OTHER NURSING EXPERIENCES
BECAUSE IT IS NEAR THE TIME OF GRADUATION,
YOU MAY HAVE ACCEPTED EMPLOYMENT.

18. Have you already committed yourself, by verbal agreement or contract to an employer? (Circle one)

1 YES

2 NO

Skip to question 27. Expect to receive a follow-up questionnaire in the fall.

19. How many nursing positions did you consider accepting? (Specify) ______________

20. Please give the name and the address of the agency where you will be employed.

NAME _______________________________

ADDRESS (City) _____________________ (State) ___________________

21. Please list the salary you have agreed upon. (Specify)

SALARY ______________

22. Which of the following locations best describes the site of the agency where you will be employed? (Circle one)

1 RURAL

2 SMALL TOWN

3 SUBURBAN

4 URBAN

23. Which of the following income groups best describes the patients who are served by the agency where you will be employed? (Circle one)

1 LOWER

2 MIDDLE

3 UPPER

24. In what major specialty area of nursing have you accepted employment? (Circle one)

1 MEDICAL/SURGICAL

2 MATERNAL/CHILD

3 PSYCHIATRIC/MENTAL HEALTH

4 COMMUNITY HEALTH
25. How important were the following in influencing your decision about the employment you accepted? (Circle one for each item where 1 is VERY UNIMPORTANT and 5 is VERY IMPORTANT)

- Closeness to Home ...................................................... 1 2 3 4 5
- Location of Agency .................................................... 1 2 3 4 5
- Major Type of Patient Served ................................. 1 2 3 4 5
- Valued by Most Influential Teacher (Identified in Question #1) ........................................ 1 2 3 4 5
- Family's Approval .............................................. 1 2 3 4 5
- Salary and Benefits ................................................ 1 2 3 4 5
- Special Friends (Boyfriend, classmate, etc.)... 1 2 3 4 5
- Pending State Board Results ............................ 1 2 3 4 5
- Closeness to Opportunities for Furthering Education .................................... 1 2 3 4 5
- Job Availability ............................................................ 1 2 3 4 5

26. How long do you plan to remain at the agency you have selected for employment?
1. Six months or less
2. More than six months but less than one year
3. More than one year but less than three years
4. More than three years

Finally, we would like to ask a few questions about you. These responses will be held in strictest confidence.

27. What is your age? (Circle one)
   1. 18 to 21
   2. 22 to 25
   3. 26 to 29
   4. 30 and above

28. What is your sex? (Circle one)
   1. Male
   2. Female
29. What is your race? (Circle one)
   1  BLACK (NEGRO)
   2  CHICANO (MEXICAN-AMERICAN)
   3  WHITE (CAUCASIAN)
   4  OTHER (Please specify) _______________________

30. Which of the following locations best describes the community in which you
    grew up? (Circle one)
   1  RURAL
   2  SMALL TOWN
   3  SUBURBAN
   4  URBAN

31. Which of the following income groups best describes your parent's income
    level? (Circle one)
   1  LOWER
   2  MIDDLE
   3  UPPER

32. How many people live in your parent's household? (Specify)

33. Which of the following descriptions represents the highest educational
    attainment of your mother? (Circle one)
   1  DID NOT COMPLETE HIGH SCHOOL
   2  HIGH SCHOOL GRADUATE
   3  ATTENDED COLLEGE
   4  COLLEGE OR UNIVERSITY GRADUATE

34. Which of the following descriptions represents the highest educational
    attainment of your father? (Circle one)
   1  DID NOT COMPLETE HIGH SCHOOL
   2  HIGH SCHOOL GRADUATE
   3  ATTENDED COLLEGE
   4  COLLEGE OR UNIVERSITY GRADUATE
35. What was your cumulative grade point average at the end of last semester? (List)

THANK YOU FOR YOUR TIME AND ATTENTIVENESS TO THIS QUESTIONNAIRE. YOUR RESPONSES WILL BE EXTREMELY BENEFICIAL IN ADDRESSING SOME ISSUES IN NURSING.

2/24/82
FOR FOLLOW-UP PURPOSES, PLEASE PROVIDE THE INFORMATION REQUESTED BELOW.

Name: ____________________________________________

Social Security Number: ____________________________

Permanent Address (Where you can be reached after graduation)

________________________________________________

Telephone Number: (Area Code) _______ Number _______

PLEASE PROVIDE THE NAME, ADDRESS, AND TELEPHONE NUMBER OF SOMEONE WHO WILL ALWAYS KNOW HOW TO CONTACT YOU

Name: ____________________________________________

Address: __________________________________________

________________________________________________

Telephone Number: (Area Code) _______ (Number) ______
INSTRUCTIONS TO BE READ BY PERSON ADMINISTERING QUESTIONNAIRE

The (School, Department, Program) of Nursing of (Name Institution) has agreed to participate in a research study about how faculty and students interact in nursing programs in predominately black colleges and the relationship of this to students' professional nursing practice. Our school is one of 17 similar institutions involved in this study, which is federally funded. We believe it is an important study and therefore, we urge your cooperation and thoughtfulness in completing the questionnaire which I am about to distribute to you. Please do not begin the questionnaire until I tell you. There are a few instructions that you will need first.

DISTRIBUTE QUESTIONNAIRES

Now that you have your questionnaire, I shall begin the instructions. First, you will find a white card attached to the front of the questionnaire. This asks for your name, permanent address, telephone number, and the name, address, and telephone number of someone who will always know how to contact you (i.e., parents). This is important because it will be necessary for the researcher to contact you in August to find out whether you are working or not. IT IS CRUCIAL THAT YOU RESPOND AT THAT TIME. Let me assure you that the data gathered will in no way identify you as an individual or us as an institution. We have been assured by the researcher that confidentiality of ALL data will be maintained. Only aggregate data will be reported.

Now please complete the attached card.

TAKE CARDS UP
Now, you are about to begin. Please read each item carefully, giving each your thoughtful consideration. There are no right or wrong responses. The researcher is only interested in your honest opinions.

As you proceed through the questionnaire, you will find some items which you are to rate on a scale of 1 to 5 where "1" is VERY UNIMPORTANT and "5" is VERY IMPORTANT. Numbers in between (2 - 4) represent variations between the two extremes "1" and "5". For example, if you think a faculty members' dress is VERY UNIMPORTANT, circle "1". If you think the way he/she dresses is VERY IMPORTANT, circle "5". However, if you think it is neither VERY UNIMPORTANT or VERY IMPORTANT, but somewhere in between, circle 2, 3, or 4. Are there any questions about this?

Now you are ready to start. This should take you about 20 minutes to complete. Please read carefully. YOU MAY BEGIN.
REPORT OF ADMINISTRATION

NAME OF INSTITUTION

NUMBER OF SURVEYS SENT

DATE OF ADMINISTRATION

SETTING IN WHICH ADMINISTERED (Circle One)

1  Classroom
2  Clinical Conference
3  Specially Called Group Meeting
4  Other (Specify) ______________

NUMBER OF STUDENTS PARTICIPATING ___________

NUMBER COMPLETED ADDRESS CARDS BEING RETURNED ___________

NUMBER COMPLETED SURVEYS BEING RETURNED ___________

DATE BEING MAILED ___________

Signature of Proctor

THANK YOU VERY MUCH
Dear

At last the time has arrived to implement my doctoral study, "The Education of Nurses in Predominately Black Colleges for Health Care Underserved Settings." With your help, I feel certain that the study will be successful. Your willingness to allow your school to participate is greatly appreciated.

With this letter I am transmitting to you the following items:

1. **SURVEY BOOKLETS** For your generic senior students;
2. **ADDRESS CARDS** which are attached to the survey booklets;
3. **INSTRUCTIONS** to be read by the proctor at the time of administration;
4. **A SUMMARY OF ADMINISTRATION REPORT** to be completed after the administration; and
5. **A SELF ADDRESSED STAMPED ENVELOPE** in which to return all materials.

In as much as 17 schools are participating in the study, I am asking that the following procedure be followed for standardization.

1. Only generic senior students who are scheduled to graduate at the end of the semester or quarter are to participate.
2. The administration should take place in a group setting such as a portion of a class, a specially called meeting, etc.
3. The instructions for administration should be read as written during the administration. However, additional encouragement to give thoughtful consideration to each item is recommended.
4. The address card attached to the front of the survey booklet is important as a means of follow-up and should be completed as accurately as possible. (The administration of the survey represents the first phase of this two-part study. The second phase will be implemented in August through a mail survey. It is most critical that the address cards be accurate and that students be encouraged to respond to the follow-up mailing).
5. Students should be able to complete the survey in about 20 minutes. However, there is no time limit on completing the instrument.
(6) Upon completing of the administration, the proctor is to collect all materials, complete the "Report of Administration" form, and return all materials to me in the post-paid envelope.

(7) Following the completion of the study, each school will be provided with a summary of the findings.

I am asking that you return the materials to me as soon as possible following the administration. Most of you indicated you would be administering the surveys in early or mid April. Therefore, by the end of April I hope to have all data returned.

Thank you so much for assisting me with this phase of my research. Should you have any questions, please call me (Work: (804) 623-8525; Home: (804) 877-1377).

Good luck!!

Sincerely,

Dorothy L. Powell
APPENDIX F

Mail Survey and Letter of Transmittal
Congratulations on your recent completion of nursing school. I trust that you will find your career in nursing richly rewarding.

You will recall that prior to your graduation from school, you completed a questionnaire entitled, Survey of Nursing Student/Faculty Interactions. At that time you were told that there would be a follow-up mail survey. You are being sent that follow-up at this time.

The enclosed questionnaire is intended to find out where you are working and/or what your plans are as a professional nurse. In the Spring, when you were asked questions regarding your employment plans, you had not made a decision or were unable to provide complete information regarding your work setting choice. Now that you have been out of school for several months, we are interested in knowing what you are doing as a professional nurse. Thus, your response to this questionnaire is needed to complete the research project.

I am sure you recognize the importance of having maximum participation in research studies. This is particularly true with this research, as you are among a small but selected group of recent nurse graduates chosen to contribute to this study. The results of this national federally-funded study could have far reaching implications for meeting some of the nursing care needs of our society. Therefore, I appeal to you to complete the enclosed questionnaire and return it to me immediately in the self-addressed stamped envelope.

Your participation will be greatly appreciated. As your time is valuable, you will be sent a check for $5.00 upon receipt of the completed questionnaire. This will be a small token of my sincere appreciation for your help with the study.

Best wishes with your career.

Sincerely,

[Signature]

Dorothy L. Powell

DLP/g

Enclosures
SURVEY OF NURSING STUDENT / FACULTY INTERACTIONS

PART II: Work-Setting Choice

Now that you have completed your nursing education and practicing as a professional nurse, we would like to find out where you are employed or what your plans for employment are. Your response to this questionnaire is critical since our study will be incomplete without full participation.

Only 5 minutes will be required to complete the questions. Therefore, please give each question your thoughtful consideration and return your responses immediately in the self addressed, stamped envelope. Please know that your individual responses will be held in strictest confidence.
DIRECTIONS: Please read each question carefully and answer by circling the appropriate response or filling in the proper information.

1. Are you now employed as a nurse or made definite plans regarding where you will be working? (Circle One)
   
   1. YES
   2. NO — If your answer is NO, skip to Question 10
   (If YES, continue with the next question)

2. How many nursing positions did you consider accepting?
   (Specify) ______

3. Please give the name and the address of the agency where you will be employed.
   NAME _______________________________________________________
   ADDRESS (City) ________________________(State) ______________

4. Please list the salary you have agreed upon. (Specify)
   SALARY __________________________

5. Which of the following locations best describes the site of the agency where you will be employed? (Circle One)
   1. RURAL
   2. SMALL TOWN
   3. SUBURBAN
   4. URBAN

6. Which of the following income groups best describes the patients who are served by the agency where you will be employed? (Circle One)
   1. LOWER
   2. MIDDLE
   3. UPPER
7. In what major specialty area of nursing have you accepted employment? (Circle One)
   1  MEDICAL/SURGICAL
   2  MATERNAL/CHILD
   3  PSYCHIATRIC/MENTAL HEALTH
   4  COMMUNITY HEALTH

8. How important were the following in influencing your decision about the employment you accepted? (Circle one for each item where 1 is VERY UNIMPORTANT and 5 is VERY IMPORTANT)
   ♦ CLOSENESS TO HOME 1 2 3 4 5
   ♦ LOCATION OF AGENCY 1 2 3 4 5
   ♦ MAJOR TYPE OF PATIENT SERVED 1 2 3 4 5
   ♦ VALUED BY MOST INFLUENTIAL TEACHER 1 2 3 4 5
   ♦ FAMILY'S APPROVAL 1 2 3 4 5
   ♦ SALARY AND BENEFITS 1 2 3 4 5
   ♦ SPECIAL FRIENDS (Boyfriend, classmate, etc.) 1 2 3 4 5
   ♦ PENDING STATE BOARD RESULTS 1 2 3 4 5
   ♦ CLOSENESS TO OPPORTUNITIES FOR FURTHERING EDUCATION 1 2 3 4 5
   ♦ JOB AVAILABILITY 1 2 3 4 5

9. How long do you plan to remain at the agency you have selected for employment?
   1  SIX MONTHS OF LESS
   2  MORE THAN SIX MONTHS BUT LESS THAN ONE YEAR
   3  MORE THAN ONE YEAR BUT LESS THAN THREE YEARS
   4  MORE THAN THREE YEARS
ANSWER QUESTION 10, ONLY IF YOU ANSWERED "NO" TO QUESTION 1.

10. You indicated you were not working as a nurse or had made no definite plans regarding where you will work. Do you plan to enter nursing practice in the future? (Circle One)

1  YES
2  NO

Thank you for your time and attentiveness to this questionnaire. Your responses will be extremely beneficial in addressing some important issues in Nursing.

Dorothy L. Powell
Associate Professor
Norfolk State University
Norfolk, Virginia
APPENDIX G

Follow-Up Correspondences
October 22, 1982

Dear

Several weeks ago I sent you a questionnaire entitled, "Survey of Faculty/Student Interactions: Part II". As you will recall, it was a follow-up survey to a related questionnaire you completed at your school just prior to your graduation. Since I have not heard from you, I thought I would send you another questionnaire as the first may have become misplaced.

In order that the research may be of maximum significance, it is essential that we have your participation. To date the response rate has been about 50 percent and we need to increase that if the results are to represent your select group of Spring 1982 baccalaureate nursing graduates.

Please take the few minutes required to complete the questionnaire and return it in the stamped self addressed envelope. Even if you are not working, please return the questionnaire. As mentioned in my initial mailing, a $5.00 check will be mailed to you following receipt of the returned questionnaire. This is simply my way of saying thank you for your help.

I look forward to hearing from you immediately.

Sincerely,

Dorothy L. Powell

DLP/g

Enclosures
Dear Study Participants,

A little over a week ago you received a questionnaire from me entitled "Survey of Student-Faculty Interactions: Part II." To date, the responses from study participants have been less than adequate to draw valid conclusions about the data. It is vitally important to this study that we have a maximum response rate. Therefore, I am appealing to you to assist me in being able to conclude the study successfully by taking the few minutes necessary to complete the survey and return by mail. Should you have any questions, please call me collect after 6 p.m. at (804) 877-1377. I look forward to hearing from you as quickly as possible.

If you have already mailed your response; please disregard this note. Thank you for your time and interest.

Sincerely,

Dorothy L. Powell
APPENDIX H

Confidentiality Statement
Appendix H

CONFIDENTIALITY STATEMENT

This is an assurance that the identity of students and institutions participating in my doctoral research will not be revealed in the analysis of the data. Data will be reported in aggregate form only. Also, the assurance is made that no harm will come to any participant as the result of completing the questionnaire. Participation is voluntary and students may withdraw at any time by simply not completing the instrument.

The institution will be acknowledged for its participation, and a copy of the findings will be disseminated to participating schools.

____________________  _______________________
DATE                        SIGNATURE OF RESEARCHER
APPENDIX I

Material To Panel Of Nursing Experts For Determination Of Content Validity
January 19, 1982

Dear Colleague,

A few months ago I spoke with you regarding my doctoral research. Specifically, I asked you if you would serve on a panel of experts to determine the content validity of my survey instrument. You indicated that you would and it is at this time that I am requesting your assistance.

In serving as a panel member, it will be necessary for you to (1) review the purposes of the study; (2) read a summary of the theory which guides the study, and then (3) to react to the survey instrument. I want to know, in your expert opinion, if the instrument addresses the purposes and if it reflects the theoretical framework. To accomplish this, it will not be necessary for you and other experts to assemble as a group. Rather, I would appreciate receiving your comments in writing. I would like to receive your comments by the first of February, if at all possible. Should there be major discrepancies in the comments by reviewers, I shall follow-up with you in writing to seek to resolve the differences.

You will find attached to this letter, the items for review. Included are the following:

1. An outline of the dissertation proposal (which includes purposes)
2. A summary of the theory
3. A draft of the survey instrument.

Colleague, I certainly realize the pressure on your time. Therefore, I want you to know how much I appreciate your willingness to assist me. Should you have any questions, please give me a call (Work: 623-8523; Home: 877-1377).

Thanks a million.

Sincerely,

Dorothy L. Powell, Chairman
Department of Nursing

DLP/g
Enclosures
OUTLINE OF DISSERTATION PROPOSAL

BY

DOROTHY L. POWELL

I. TITLE

The Education of Nurses in Predominately Black Colleges for Medically Underserved Urban Settings: An Application of Bandura's Psychological Theory to the Student-Faculty Interaction Process.

II. PROBLEM STATEMENT

A. ... whether the interaction between students\(^1\) and their role models\(^2\) influences students' expectations of professional nursing practice;

B. ... whether role models' involvement\(^3\) with low income clients in urban settings influence students' preferences to work or not to work in such settings; and

\(^1\)The term "students" refers to individuals classified as seniors in baccalaureate nursing programs and who are in their final semester or quarter of study.

\(^2\)For the sake of brevity and clarity, the term "role models" is used in this proposal outline to mean nurse faculty role models. The full text of the dissertation will characterize it in its complete meaning.

\(^3\)"Involvement" in this instance is defined as the actual/or theoretical attention of role models to physical care, concepts, principles, or content related to low income patients in urban settings.
C. ... whether recent graduates accept employment in the settings they preferred as students.

III. PURPOSES

A. To examine the relationship between students' perceptions of their interaction with their role models and the students' professional practice expectations.

B. To determine if a relationship exists between the involvement of role models with low income clients in urban settings and students' preferences or lack of preferences for employment in such settings.

C. To determine if a relationship exists between the preferred work settings of students and their actual work setting choices as recent graduates.

IV. HYPOTHESES

A. There is a relationship between the interaction of students and their role models and the influence of role models on students' professional practice expectations.

B. There is a relationship between students' work setting preferences and their role models' involvement with low income clients in urban settings.

---

4 The term "recent graduates" is defined as individuals who have received the Bachelors' of Science degree in Nursing within the past four months. The term is used to identify the status of the students, defined in Note 1, following their graduation.

5 The term "actual work setting choices" is defined as the first site of employment as a nurse following graduation.
C. There is a relationship between the work setting preferences of students and their actual work setting choices as recent graduates.

V. RELATIONSHIP OF HYPOTHESES TO THEORY

A. Hypotheses A reflects the relationship between the various components of Bandura's modeling theory (collectively termed interaction) and the perceived influence of role models on various expectations of students' professional nursing practice. That is, in theory, the more important the perceived influence of role models, the greater the impact of role models on observers. Of fundamental importance in Bandura's scheme, is the attention afforded role models by the observers. He describes personal, interpersonal and functional characteristics of role models as determinants of the attention given.

B. Hypothesis B investigates the relationship between students' work setting preferences and the types of learning experiences provided by role models. Theoretically, this relationship focuses on the impact of motor reproduction on retention. Bandura explains that through actual and mental rehearsal of observed behavior, one symbolically retains or internalizes behavior. Further, the internalized behavior can surface later in the form of actions, decisions, preferences, etc.

C. Hypothesis C assesses the relationship between preferred work settings of students and actual work setting choices of recent graduates. Theoretically, the hypothesis looks at internalized
preferences or standards (intrinsic incentives) and actual choices, given the presence of certain extrinsic incentives (salary, benefits, approval, etc.). Bandura explains that intrinsic and extrinsic incentives may complement each other but that "extrinsic incentives for activities can reduce intrinsic motivation to engage in them" (Bandura, 1977, p. 107).

VI. RELATIONSHIP OF QUESTIONS TO THEORY AND HYPOTHESES

A. Data to test Hypothesis A will be gathered through questions 2-11. Questions 2-7 assess the personal characteristics of role models while question 8 focuses on the impact of these characteristics on the influence of role models on students.

Next, interpersonal influence will be determined through question 9. This is a multifaceted question which asks students to indicate the importance of various aspects of their interpersonal relationship with role models.

This is followed by another multifaceted question, #10, which assesses the importance students attach to various functional characteristics of role models.

These questions are related to question 11. Question 11 asks students to indicate how important were the influences of role models on certain expectation of their professional

---

All data collected in this study will be based on the self reported perceptions of the subjects (students/recent graduates).
nursing practice (these items are drawn from the NLN Characteristics of Baccalaureate Nurse Graduate).

B. Questions 13-19 are included in the questionnaire to test hypothesis B. Questions 13, 15 and 17 focus on work setting preferences of students, asking how important is it that they work in a variety of settings listed. (Questions 14, 16, and 18 ask for the most preferred settings and will be analyzed in Hypothesis C). Question 19 pertains to the importance of selected learning experiences provided by role models. The items in this multifaceted question are based on descriptors used by Bandura to explain the motor reproductive processes.

C. Questions 21-28 assist in testing Hypothesis C by gathering data on actual work setting choices. Data for preferred work settings are derived from questions 14, 16, and 18. Furthermore, question 27 collects information on the importance of extrinsic motivators or incentives.

VII. ANALYSES OF HYPOTHESES

A. Hypothesis A will be analyzed through descriptive and inferential statistics. First, mean scores will be calculated to describe the data and possibly, to reduce the amount of data. Second, the data generated through questions 8-10 will be factor analyzed to assess how data clusters into categories. This procedure will further reduce the data. Following these two procedures, a series of correlations will be analyzed. Data will be cross tabulated. Significant factors will be correlated with items regarding the importance of
role models on students' expectations of professional nursing practice. The statistical significance of their relationships will be determined by use of the Chi-square statistic.

B. Analysis of Hypothesis B will use similar statistical techniques as A. Data will be described by means initially. Question 19, a question based on Bandura's theory, will be factor analyzed along with those theoretical based questions pertaining to Hypothesis A. As a result of how the data clusters, significant items will be correlated with various work setting preferences of students. The Chi-square statistics will be used to determine significant relationships. Furthermore, the t-test will be used to compare data of students preferring urban underserved settings (urban and low income) and those preferring other settings.

C. Hypothesis C will be first analyzed using mean statistics. Next the relationship between preferred and actual work setting choices will be determined. A t-test will be performed to assess the extent to which actual choices differed from preferred work setting choices. This data will be further correlated. Cross tabulation tables will be prepared relating significant extrinsic motivators (from question 27) with students' responses in which preferred and actual work setting choices were the same versus students' responses in which preferred and actual work setting choices differed.
WORK SETTING CHOICES

<table>
<thead>
<tr>
<th>SAME</th>
<th>DIFFERENCES</th>
</tr>
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<tbody>
<tr>
<td>Extrinsic Motivators</td>
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The Chi-square statistics will be used to determine the significance of relationships.
Overview of Theoretical Framework

Bandura's (1977) theory of social learning offers a useful framework for exploring the relationship between the influence of nurse-faculty role models in predominantly black colleges (PBCs) and the preferred and actual work setting choices of B.S. nursing students. While it is a conceptual orientation that has been widely accepted for explaining learning during childhood and adolescence, its applicability to young adults and college age students has recently been documented. Although these recent studies do not focus on the socialization of nursing students, the theory has been used effectively to frame research on the sports socialization of collegiate women. Greendorfer (1977), in her research, found teachers and coaches to be the primary socializing agents for college age women participants in sports. Furthermore, Taylor (1976) in an extensive analysis of various socialization theories, found Bandura's theory to be an integral element in the formulation of a conceptual model to explain the socialization of black adolescents into vocational roles.

Similarly, the relationships between teachers and students, as espoused in Bandura's theory, are apparent also in the literature on black colleges (Gurin and Epps, 1975; Thompson, 1973). This body of literature shows that black college students, especially from low socio-economic backgrounds are strongly influenced in their occupational aspirations and preferences by faculty models, particularly when they share a common identity. As evidence of this identity factor, Buckley (1980) found black nursing faculty to be a primary factor in the success of black nursing students enrolled in predominantly black colleges.
While there is evidence demonstrating a relationship between faculty influence and student career preferences in PBCs, there is less research explaining how this influence is conveyed. Bandura's theory offers a possible interpretation of the complex interactive processes between faculty and students in PBCs as well as how students assimilate preferences modeled by faculty who serve as guides in future decision making.

Modeling according to Bandura (1977), is a systematic process occurring within the context of socialization and through which individuals acquire knowledge, skills, values, and preferences. These acquisitions occur through information processing mainly by symbolic identification and imitation of others. The person with whom the individual identifies or imitates becomes the role model. Kemper describes this person as —

one who possess skills and displays techniques which the actor lacks... and from whom, by observation and comparison with his own performance, the actor can learn (1968, 33).

The role model, according to Bandura, serves to influence behavior in three ways. First, the modeling effect may be to establish new patterns of behavior through what he terms, observational learning. Secondly, modeling can inhibit or disinhibit previously learned responses, largely through vicarious reinforcement. Thirdly, modeling can have an eliciting effect by facilitating the release of responses already in the observer's repertoire (Muuss, 1976, p. 80).

NOTE 1: It should be noted that Bandura developed his theory primarily through experimental research. The application of his theory to survey research is not extensively documented. Therefore, the use of Bandura's theory in this proposed research does not purport to be a strict reflection of the theory, but rather a guide in explaining the relationship between faculty and students.
To operationalize these possible outcomes, Bandura (1977) refers to four articulating subsystems. First are the attentional processes. They "determine what is selectively observed in the profusion of modeling influences to which one is exposed and what is extracted from such exposure" (p. 24). Several categories of variables tend to influence attention; among which are characteristics of the observer, characteristics of the model, features of the modeled activities, incentive for the modeled behavior, and structural arrangement or human interaction (p. 24). Furthermore, among those characteristics of the model/observer relationship, Bandura finds personal, interpersonal, and functional competence of the model to be most critical to attention.

Following attention, the second subsystem involves the retention processes. These have value due to their long term or memory effect. According to Bandura (1977), through the medium of symbols, transitory modeling experiences can be maintained in permanent memory and called forth as mediators for later responses and reproduction. "It is (this) advanced capacity for symbolization that enables humans to learn much of their behavior by observation" (p. 25). Bandura further adds that rehearsal is an important memory aid in retention.

This aspect of retention is explained through the third subsystem, the motor reproductive processes. These processes involve the converting of symbolic representations into appropriate actions (p. 27). Bandura shows that in this manner, observed behavior is refined through self-corrective adjustments, mental or actual rehearsal, and information feedback to eventually approximate the desired learning.

A determinant of motor reproductive processes is the last of the subsystems, the motivational processes. In these processes, Bandura distinguishes between acquisition and performance. As illustration, "observers are more likely to adopt
modeled behavior if it results in outcomes they value than if it has unrewarding or punishing effects" (p. 28). As such, those behaviors of a model that seem to be effective for others are favored over behaviors that seem to have negative consequences" (p. 28).

This process is further influenced by incentives. Bandura explains that incentives play an important role in motivating the adoption of modeled behavior. He has demonstrated that rewarded modeling is more effective than modeling alone (p. 105). Such incentives may be intrinsic or extrinsic. Intrinsic incentives are related to "self evaluation of the behavior" (p. 106) whereas, extrinsic incentives are externally produced and their relationship to the behavior is arbitrary. Bandura also notes that intrinsic and extrinsic incentives may operate as complements or as opposing sources of influence (p. 153). As such, "extrinsic reinforcement for activities can reduce intrinsic motivation to engage in them" (p. 107).

Hence, Bandura's systematic framework tends to link logically the modeling influence with decision making, such as in making an employment choice. As such, if preferences for a particular type of patient clientele and location of health care setting can be fostered in B.S. nursing students through socialization with nurse-faculty role models in PBCs, with whom they can identify, then a linkage may be demonstrated between the student/role model relationship and the student's actual work setting choice.

Bandura's theory of modeling is relevant to these proposed relationships. As evidence, it takes into account the development of students' attitudes and preferences through symbolic and vicarious learning, which are enhanced through prolonged and intense "associational" patterns (a feature characteristic of nursing education and PBCs). In addition, the theory provides for the internalization of standards which serve as evaluators and guides in decision making. This theory is further relevant in its concern with characteristics of models and observers. Its
designation of personal, interpersonal and functional characteristics as important variables in the model/observer relationship is applicable and supported by nursing and PBC literature. Another feature of the theory, its provision for actual and mental rehearsal, permits the relationship between the environment in which learning experiences occur and work setting preferences to be explored. Similarly, the attention in the theory to the retentional and motivational processes allows for investigation into the relationship between work setting preferences identified as students and the actual work setting choice made upon graduation. This coupled with the theory's attention to the role of internal and external incentives makes Bandura's theory particularly useful as a framework for this study.
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