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ROLE CONFLICT AND AMBIGUITY AMONG BACCALAUREATE NURSING STUDENTS

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ROLE CONFLICT AND AMBIGUITY AMONG BACCALAUREATE NURSING STUDENTS

A DISSERTATION

SUBMITTED TO THE GRADUATE FACULTY

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By

LEILANI McCLAIN IRBY

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ROLE CONFLICT AND AMBIGUITY AMONG

BACCALAUREATE NURSING STUDENTS

A DISSERTATION

APPROVED FOR THE

DEPARTMENT OF HIGHER EDUCATION

By

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ABSTRACT

ROLE CONFLICT AND AMBIGUITY AMONG
BACCALAUREATE NURSING STUDENTS

By: Leilani McClain Irby

Major Professor: Paul F. Sharp, Ph.D.

Registered nurse students in baccalaureate nursing programs have been characterized as hostile, angry, and resentful (Hillsmith, 1978; Woolley, 1978).

Nursing educators have attributed registered nurse students' feelings and behavior to resistance to change, conflict between values systems, and culture shock (Shane, 1980). Registered nurse students identify anger about the "professional" nurse--"technical" nurse dichotomy and about the personal sacrifices they are forced to make in order to return to school as the reasons for their negative feelings (Hillsmith, 1978).

The problem for this study is: Do registered nurse students in baccalaureate nursing programs report more role conflict and role ambiguity than generic students when both kinds of students are experiencing similar learning activities? The relationships among role conflict, role ambiguity, stress, and semester grade point averages were also examined.

The study sample consisted of thirty-four registered nurse students and three groups of thirty-four generic students randomly selected from senior nursing students at four universities in Oklahoma which admit both types of students to their baccalaureate nursing programs. Three study instruments were used: a demographic inventory; Rizzo, House, and Lirtzman's Role Conflict and Role Ambiguity Scale; and Organ's Stress Scale. Data were analyzed using one-way analysis of variance, correlational procedures, and Hotelling's T^2.

The registered nurse students did not report significantly more role conflict and role ambiguity than the generic students. There were small, but significant, positive correlations among role conflict, role ambiguity, and stress. Stress and semester grade point average were negatively correlated to a moderate degree.

Although the study did not identify role conflict and role ambiguity as factors which influence the emotional responses of registered nurse students to the experience of baccalaureate education, the concept of role stress requires further investigation before its influence can be disregarded.

CHAPTER I

INTRODUCTION

After almost twenty years of discussion and debate, the American Nurses' Association has mandated that by 1985 minimum preparation for entry into professional nursing practice shall be the baccalaureate degree in nursing. The majority of nurses in actual clinical practice at this time were associate degree graduates or graduates of diploma nursing programs associated with hospital schools of nursing. Their status as registered nurses will be protected by a "grandfather" clause in the American Nurses' Association Resolution, but the professional versus technical definitions of nursing practice established by the resolution have made many diploma nurses feel that their educations and their contributions to nursing have been devalued. As a result, when they enter the university setting to work toward a baccalaureate degree in nursing they are resentful, frustrated, and hostile. Shane (1980) describes registered nurse students in baccalaureate programs as people who are experiencing culture shock. Woolley (1978) describes them as individuals who are undergoing a process of resocialization.

Much has been written about the negative behaviors exhibited by registered nurse students in baccalaureate

programs, but little has been done to attempt to establish the underlying causes of their behavior. Corwin (1961b) studied recent graduates of both hospital and collegiate schools of nursing and found that they responded differently to the conflict between the ideal perceptions of their roles as professional nurses that they had developed in school and the realistic roles that they were expected to fill when they became employees in hospital bureaucracies. His conclusion was that:

> . . . the professional allegiance of diploma nurses declines after graduation, while their initial loyalty to the hospital is maintained; but the reverse is true for degree graduates who maintain professional conceptions while increasing their allegiance to the bureaucracy after employment (Corwin, 1961b, p. 13).

Although Corwin's study is over twenty years old, Shane's (1980) conclusion that registered nurse students in baccalaureate programs are experiencing culture shock and Woolley's (1978) idea that they are experiencing resocialization is consistant with the hypothesis that role conflict may be one of the causes for their negative approach to baccalaureate nursing education.

A review of the literature indicates that role conflict and role ambiguity result in tension, stress, loss of self-confidence, and a sense of futility (Brief and Aldag, 1976). Other authors have suggested methods that might be employed to counteract those undesirable affective states (Kahn et al., 1964).

If it can be established that registered nurse students in baccalaureate nursing programs do experience more role conflict and role ambiguity than basic generic students, then nursing educators can use concepts from role theory to plan intervention strategies which will make these students' educational experiences less stressful.

Because of the American Nurses' Association's requirement that the baccalaureate degree will be the minimum preparation for entry into professional nursing practice by 1985, the next decade will bring increasing numbers of registered nurse students to colleges and universities to prepare for career advancement. Registered nurse students must attend institutions of higher education in order to earn their baccalaureate degrees. If administrators and faculty members in these institutions can become sensitive to the special needs of registered nurse students, teaching strategies to meet their special needs can be created.

Registered nurse students come to the university setting unprepared for the changes that will take place in themselves as individuals. Previous research indicates that the following changes occur with relative consistency as a result of students' experiences in institutions of higher education:

> These add up to something like increasing openness to multiple aspects of the contemporary world, paralleling wider ranges of contact and experience. Somewhat less consistently, but nevertheless evident, are increasing intellectual interests and capacities, and declining

> commitment to religion, especially in its more orthodox forms. Certain kinds of personal changes--particularly toward greater independence, self-confidence, and readiness to express impulses--are the rule rather than the exception (Feldman and Newcomb, 1976, p. 326).

Perhaps these changes are experienced as more traumatic by registered nurse students than by generic students because they are older and their value systems are more stable than those of younger students. Activities that would help students understand and integrate the changes they experience could be planned.

The likelihood that registered nurse students occupy multiple social roles is great; their most important role may be that of parent, spouse, or nurse. Like other nontraditional students, they do not perceive of themselves primarily as students. As Stern points out, "If we are to teach them well, we cannot afford to disregard the realities of their lives" (Milton and Associates, 1978, p. 343). Advisement procedures can be revised so that registered nurse students are given factual and very concrete information about what will be expected of them while they are in the university setting. They can then anticipate the changes that will be required in their life styles and plan more effectively for coping with those changes. Special courses and/or instructional activities can be planned that will help registered nurse students deal with their anger in a supportive setting. Activities can be arranged to help registered nurse students cope with role conflict and role

ambiguity if these factors do inhibit their performance in the student role. Educators in institutions of higher education are responsible for improving the quality of students' learning experiences whenever possible. The literature describing the learning experiences of registered nurse students who are working toward their baccalaureate degree indicates that their learning experineces are in need of study and concerned, enlightened intervention. Administrators in institutions of higher education are responsible for facilitating the learning efforts of students and the teaching efforts of faculty members. Their decisions about how to do so will be more effective if they are based on empirical data about what the students are actually experiencing.

Statement of the Problem

The problem with which this study is concerned is: Do registered nurse students in baccalaureate nursing programs report more role conflict and role ambiguity than generic students when both kinds of students are experiencing similar learning activities? The study is also planned so that the relationships among role conflict, role ambiguity, stress, and semester grade point averages can be examined.

Definition of Terms

To facilitate reading the remainder of the study, terms are defined below that are either unique to role theory literature or are operationalized for the purposed study.

1. Registered nurse student is a student who is enrolled in a baccalaureate nursing program to acquire the degree of bachelor of science in nursing subsequent to having acquired licensure as a registered nurse.
2. Generic student is a student who is enrolled in a baccalaureate nursing program to acquire basic preparation for nursing practice and the degree of bachelor of science in nursing simultaneously.
3. Role conflict is "the perceived incongruence between role requirements placed on a focal person and his/her orientations, interests, and values" (Miles, 1976, p. 174). Role conflict will be operationally measured in this study by Rizzo, House, and Lirtzman's (1970) Role Conflict Scale, which will be referred to throughout the remainder of the study as the RCS.
4. Role ambiguity is "the degree to which information is lacking on expectations, methods, and consequences of role performance" (Latack, 1981, p. 89). Role ambiguity will be operationally measured in this study by Rizzo, House, and Lirtzman's (1970) Role Ambiguity Scale, which will be referred to throughout the remainder of the study as the RAS.
5. Stress is "a person/environment interaction in which a stressor situation (demand, constraint,

or opportunity) is perceived by the individual as potentially exceeding his/her resources for responding appropriately" (Latack, 1981, p. 91). Stress will be operationally measured in this study by Organ's (1981) Stress Scale, which will be referred to throughout the remainder of the study as SS.

6. Grade point average is the number of points a student achieves on a possible four-point scale during the fall semester of his/her senior year in a baccalaureate nursing program.

Hypotheses

The hypotheses to be tested in this study were developed from three research questions. Each research question is followed by its related operational hypothesis:

1. When both registered nurse students and generic students are enrolled in baccalaureate nursing programs, do the registered nurse students report more role conflict than the generic students?

   H_{01} There will be no significant difference between the role conflict scores of registered nurse students and generic students as measured by the RCS.

2. When both registered nurse students and generic students are enrolled in baccalaureate nursing

programs, do the registered nurse students report more role ambiguity than the generic students?

H_{02} There will be no significant difference between the role ambiguity scores of registered nurse students and generic students as measured by the RAS.

3. When both registered nurse students and generic students are enrolled in baccalaureate nursing programs, is there a relationship between the degree of role conflict, role ambiguity, stress, and semester grade point average reported by the students?

H_{03} There will be no significant relationships among scores on the RCS, the RAS, the SS, and semester grade point average reported by registered nurse students and generic students in baccalaureate nursing programs.

Assumptions Underlying the Study

1. Registered nurse students in baccalaureate nursing programs experienced socialization to the nursing role prior to their decision to seek the baccalaureate degree.
2. Generic students in baccalaureate nursing programs experience socialization to the nursing role concurrent with their baccalaureate nursing education.

3. Given anonymity, individuals will respond to questionnaires in a manner that reflects their perception of the degree of role conflict, role ambiguity, and stress they are experiencing.

Limitations of the Study

The results of this investigation are limited by characteristics of the population studied. Results of this study can be generalized to other populations only if they are representative of the study sample. All subjects in this investigation were senior students enrolled in baccalaureate nursing programs during the fall semester of 1982. All subjects were students in universities in Oklahoma which admit both registered nurse students and generic students to their nursing programs. Participation in the study was on a voluntary basis. Factors related to the sample should be considered before the results of the study are generalized to other populations.

The results of this study are also limited by characteristics of the testing instruments used. Instruments such as those used to determine degree of role conflict, role ambiguity, and stress are limited in their ability to assess a subject's actual status in terms of the variables being studied. Even though subjects were guaranteed anonymity, subjects differ in their willingness to express personal opinions. For that reason, responses are limited by what the subjects choose to reveal.

Characteristics of both the study sample and the testing instruments may have influenced the findings of the study and should be considered before making generalizations to other populations.

CHAPTER II

REVIEW OF RELATED LITERATURE

Primary sources that provide information relevant to the problem being studied were selected for inclusion in the review of related literature. In several cases, secondary sources were used to provide background information relating to the study.

The investigator will introduce the problem and provide a brief history of its development, describe the problematic behavior exhibited by registered nurse students in baccalaureate programs from the points of view of both the students themselves and of nursing educators, discuss the phenomenon of career transition, and relate relevant concepts from role conflict and role ambiguity theory to the registered nurse student who is experiencing a career transition.

History and Introduction

In 1965, after five years of study, the Board of Directors of the American Nurses' Association adopted the recommendation that the baccalaureate degree in nursing should be the basic educational preparation for entry into the practice of professional nursing. The recommendation

was published in the American Journal of Nursing in December, 1965, under the title, "American Nurses' Association's First Position on Education for Nursing." The statement was popularly known as the "Position Paper."

There was an immediate reaction to the American Nurses' Association's position on nursing education. In 1965 the majority of registered nurses had been prepared for their careers in hospital schools of nursing; now they were being referred to as "diploma grads," prepared to do only technical nursing tasks. Hospital schools of nursing began to close their doors to new applicants, and departments of nursing in the community colleges flourished, producing still another kind of registered nurse, the associate degree graduate. The American Hospital Association and the American Medical Association opposed the American Nurses' Association proposal.

Even though it aroused such a furor, the 1965 Position Paper did not succeed in accomplishing its aim. The "entry into practice" issue continued to threaten to divide the profession throughout the decade of the seventies. Nursing leaders continued to struggle with the issue of basic nursing education, and in 1978 the House of Delegates of the American Nurses' Association approved a resolution which mandated the Association to identify and develop titles for two categories of nursing practice--technical and professional--by 1980. The resolution also stated that by 1985 minimum preparation for entry into professional nursing practice should be the

baccalaureate degree in nursing. At the same time, a motion was passed that the American Nurses' Association endorse "grandfathering" for all registered nurses licensed prior to 1985.

Support for the American Nurses' Association's position was by no means unanimous, but one month prior to the annual convention in 1980, the president of the American Nurses' Association reported, "It's still controversial, but it seems to me that most nurses now believe a bachelor's degree is inevitable as the entry requirement because it is needed. There does seem to be concensus on that" (American Journal of Nursing, 1980, p. 881).

Problems remain that must be confronted and solved if nursing is to become a mature profession. One of these problems is that once graduates of diploma and associate degree programs make the decision to return to school to work toward the baccalaureate degree, they encounter obstacles that seem overwhelming to them. They find that different programs, even programs in the same geographic area, demand different core requirements; they have problems transferring credit from one institution to another; they find that many institutions insist upon a full-time course of study; and they have difficulty obtaining financial assistance. Understandably, these nurses feel frustrated and express anger toward the professional organizations, ". . . the ANA and state nursing associations, who call for

the mandatory BSN, haven't put enough pressure on schools that make it practically impossible for RNs to get it" (LeTourneau, 1980, p. 80).

Another, and even more potentially devastating, problem is that many diploma and associate degree nurses feel that they are regarded as "second-class nursing citizens" (Schauer, 1980, p. 69). The professional-technical definitions of nursing practice established by the 1965 Position Paper have created factions in the nursing profession and threatened individual nurses. Even though the "grandfather" clause would protect the legal status of registered nurses licensed prior to 1985, the professional status of diploma and associate degree nurses is vulnerable. The question of whether one practices nursing as a technician or as a professional is highly emotionally charged; ". . . there is more opposition to the label 'technical nurse' than there is to the mandatory BSN itself" (RN, 5/1981, p. 26). In 1979, Thelma Schorr, at that time the editor of the American Journal of Nursing, described the situation in the following editorial statement:

> I could have wept. The speaker was a top leader in the profession. She had been a prime mover in founding one of the specialty nursing organizations and was now its executive director. Obviously, she could only have done this if she had the full respect of her peers, administrative and political talent, wisdom, charisma, creative energy, and sharply honed leadership skills.
>
> She does indeed have all of these.

> Now I was listening to her say that in 1985, when nursing's educational system is standardized, she will resign from her position so as not to threaten the status of her organization because she does not have a baccalaureate degree.
>
> If a person in her position, who has so many symbols of achievement to bolster her ego, is feeling this devalued, what a major task looms before us: keeping this generation of nurses cognizant and respectful of their own and their peers' strengths without compromising our efforts to standardize education for tomorrow's generation of nurses. . . .
>
> But a grandfather clause ensures only legal protection; it will offer no shield if nurses let themselves be goaded into separate camps of "haves" and "have-nots," trashing instead of trusting, hurting instead of helping one another. . . .
>
> For a caring profession, we don't do very well in showing that we care about one another. Somehow along the way, we have institutionalized discouragement and this has weakened our abilities to cope with change.
>
> The baccalaureate requirement for professional practice is inevitable. The disunity its introduction is causing is not. But we have to get our values straight. A first-rate nurse doesn't become a second-class citizen because educational and societal requirements change. What matters are her competence and her commitment and her confidence. No legislation can change that (1979, p. 1223).

Registered Nurse Students Describe Themselves

Descriptions of the behavior and feelings of registered nurse students enrolled in baccalaureate programs indeed indicate that they are feeling devalued by their peers, and are, as a result, resentful, frustrated and angry. The first study of registered nurse students who had returned to school to work toward the baccalaureate degree was done by Katherine Hillsmith while she was a registered nurse student in the

baccalaureate program in nursing at the University of Bridgeport. She sent questionnaries to 119 nurses who were enrolled full-time or part-time at the University of Bridgeport for the academic year 1976-77. She received 76 usable returns, and she published the following findings:

> . . . The majority of nurses (72 percent) considered the BSN a credential, while 83 percent also saw the BSN requirements as obstacles. "Challenge exams" and "cost" tied for first place as the chief obstacle and the next were, in order: "time," "rigidity of curriculum," "money," "other," and "family strain." Only 47 percent felt that the BSN had not been imposed by others.
>
> Frustration and anger boiled over in the 40 percent who indicated that they were resentful of the imposition of the BSN by others in their answers to "To what degree do you feel resentful?" I felt instinctively that these were cris du coeur: "Most of it is bullshit!"; "I greatly resent being told that I can't hold a position (head nurse, supervisor) without the BSN when I have proven myself capable of performing the duties that go with the position"; "I am being forced to do this to remain professional with appropriate salary"; "They impose the BSN but don't make it desirable, practical, or realistic"; "It is a rushing tactic one does not need"; and "The resentment comes from the devaluation and criticism of the diploma program and its grads."
>
> With that we come full circle, back to the semantic, emotional dilemma with which we began. Most of the nurses in this survey have been unable to see nursing as a whole, apart from task-oriented work or technical skills. They grudgingly admit to having been given a broader background in nursing and personal enrichment, yet cling to old loyalties, semantics, and values, whether diploma school or AD graduate. These nurses have considered nursing per se to be a profession; they felt that when they became RNs, by whatever route, they had indeed become "professional," and it is obvious from their answers that the majority continue to think of themselves as "professional" now. At the same time, they accepted the reality of the BSN as the basic nursing credential--enough to apply to college, take challenge exams, and acquiesce in the discipline of a program which states plainly enough that only at the end of the course is one a "professional." Intellectually,

> these nurses have accepted the BSN; emotionally, they have not (Hillsmith, 1978, p. 101).

Hillsmith's findings are supported by individual nurses who have described their own feelings and experiences. For example, House (1973, p. 297) states, "Many of us approach a degree program with the belief that we are just as good and just as professional as any other nurse and we are going to prove it!"

Another description of the feelings experienced by registered nurse students in a baccalaureate program is provided by twelve nurses who recently graduated from Boston State College:

> . . .All we knew at the time was that we were going through much emotional turmoil. . . . The response was one of silent, angry compliance. . . .Our attitude was, "We'll do whatever we have to do to get through this program." Nevertheless, despite our anger and discomfort, we never considered anything other than acquiescence in response to the course as it was presented. . . (Balogh et al., 1980, p. 104).

Nursing Educators Describe Registered Nurse Students

Woolley (1978, p. 104) has provided a description of the behavior of registered nurse students in a baccalaureate program from the point of view of the instructors who were working with them:

> Although the students who survived the first year met the course requirements, they exhibited certain behaviors which surprised, disappointed, and exhausted the faculty who worked with them.
>
> They participated minimally in class, although they were encouraged to do so, and actually had much to offer. They were passively resistant to involvement in new ideas under discussion and resorted to that ultimate student weapon, sullenness.

> They held class meetings in which they complained about the amount of work, method of teaching, and personalities of faculty within the program.
>
> They made no effort to discuss their problems with the faculty but, instead, went to the dean of the division with their complaints. He listened, but referred them back to their instructors.
>
> A few of the more mature students attempted unsuccessfully to act as peacemakers within the group. Eventually, because they talked with us about the problem, they were ostracized by the group.
>
> They gave all faculty very poor evaluations, even those of whom they had informally expressed approval. I learned about this from non-nursing faculty, who remarked about the devastating comments they had made; these teachers were surprised and hurt.

In an effort to cope with their students' behavior, the faculty in the program tried to discover the cause of all the tension their students were expressing. They found that their students were indeed under intense pressure, which they described as follows:

> For one thing, there was the need to discard old ways of thinking and behaving in order to take on new ways which they were not convinced were better. This also meant that the students had to look at many different sides of a question and consider many different opinions about issues that were not clear cut. As one more recent student said after three weeks of the first course, "I thought you were going to give us a lot of answers, but all we get is gray, not black and white. I don't know what to think anymore."
>
> The realization of how little free time they were going to have for the next two years was another source of tension. Many students came to school full time and worked part time. . . .They also experienced conflicts between the traditional role of homemaker and the new role of student. Some students with families received poor support from them and endured much complaining about being neglected.
>
> Finally, there was a loss of friendships due to conflicts at work with their peers, who ridiculed and ostracized .

them because they were going to school" (Woolley, 1978, pp. 104-5).

Woolley approached the problem of helping registered nurse students deal with their negative feelings by describing the baccalaureate educational experience as a process of resocialization. She combined Kelman's and Simpson's theories of socialization and used their concepts to analyze what happens to students during their resocialization from technical to professional status. During the first phase of resocialization, which Kelman refers to as compliance and Simpson calls anticipatory role expectation, registered nurse students are postulated to be individuals who are not committed to a role change but who allow their behavior to be influenced "because he sees the new behavior as a way of getting what he wants--promotion, status, money, job security" (Woolley, 1978, p. 107). This first phase is further complicated by the fact that most registered nurse students have observed that new baccalaureate graduate nurses commonly require longer periods of orientation or internship than new diploma graduates when they take their first jobs. For that reason, the registered nurse student is not totally convinced that baccalaureate preparation is really so valuable. The second phase of resocialization Kelman refers to as identification and Simpson describes as attachment to significant others in the social system. During this phase, the students identify attitudes and behaviors of a role model that they imitate,

but those attitudes and behaviors are not internalized. Woolley states that this second phase is characterized by conflicts between the student's new and old value systems. The conflicts the students are experiencing result in the hostile and sullen behavior that has been described, and Woolley (1978, p. 108) points out that "a successful role model who can demonstrate the integration of conflicting systems is crucial to this stage." Both Kelman and Simpson refer to the third stage of resocialization as internalization; during this phase the registered nurse students believe in the new concepts they have been taught and integrate them into their own value systems.

Another nursing educator working with registered nurse students in a baccalaureate program has described the Returning-to-School Syndrome (Shane, 1980). Shane bases her characterization of what the registered nurse student experiences on the concept of culture shock. This is particularly meaningful to nursing educators because Kramer (1974) also used the concept of culture shock to develop her ideas about reality shock, which explains why new graduates have difficulty adjusting to their initial experiences as employees. Shane (1980, p. 120) defines culture shock as:

> . . .a form of anxiety-ranging in severity from mild irritability to panic and crisis-precipitated by the loss of the familiar signs and symbols of social interaction of one's "home" culture when one becomes immersed in a different and unknown culture.

Culture shock can be perceived as a negative and alienating experience by the individual who is undergoing it, but Shane believes that it can also be a growth-producing experience if it is handled effectively. Shane believes that all registered nurse students experience some degree of culture shock when they leave the world of work to return to school to work toward the baccalaureate degree.

Like Woolley, Shane identifies three phases that registered nurse students encounter during their baccalaureate nursing education. She describes the first phase of the returning-to-school syndrome as the "honeymoon phase." During this phase, the student's sense of self-esteem is high because he or she has finally made a concrete commitment to earning a baccalaureate degree. The student's values as a nurse are not being challenged, and he or she experiences congruence between previous and present educational experiences. Shane (1980, p. 121) feels that these "similarities tend to reinforce her original role identity as a nurse." The length of the honeymoon phase may vary, but Shane's (1980, p. 121) observation is "that the honeymoon phase most often terminates during the time the registered nurse student is enrolled in the first class that contains substantial nursing theory or clinical practice."

The second phase of the returning-to-school syndrome is the conflict phase and is characterized by strong negative emotions. Shane (1980, p. 121) describes the registered

nurse student during this phase as "truly, a stranger in a strange land." The registered nurse students recognize that values and attitudes internalized during their previous educational experiences are no longer appropriate, but new and more appropriate values and attitudes have not yet been developed. Shane (1980, p. 121) provides insight into the registered nurse student's feelings during the conflict phase with the following description:

> This alienation is totally unexpected and seems especially cruel to those RNs who experience it ("I'm a good nurse, therefore, I should be a good nursing student; why am I having so much difficulty? Why don't I get excellent grades in my clinical experiences and my examinations with little effort?") She eventually questions her first assumption. ("Maybe I'm not a good nurse. Maybe I never was a good nurse. Maybe I'm a bad nurse. I must be a bad nurse or things would be easier and better for me.") This ego-shattering monologue marks the nadir of the conflict stage and typically gives rise to some form of depression, a frequently overlooked outcome of this stage.

It is during the conflict phase that registered nurse students exhibit the hostile behaviors that have been described by nursing educators. Shane sees the hostile behavior as the beginning of reintegration, and she believes that it is a healthy sign of positive reconstruction. Typically, registered nurse students reject the new culture and project the difficulties they are having onto the baccalaureate program itself. Shane (1980, p. 122) states, "My favorite example, from an RN who had performed poorly on an important exam: 'I felt good about this program when things were going OK for me, but now I think it's a stinko program, and I'm going to tell everyone how really stinko it is.'"

There are several possible resolutions to the conflict phase; two of these resolutions Shane identifies as maladaptive. In one instance, registered nurse students may exhibit "false acceptance"; the student's ego image as a nurse remains threatened; the student manages to complete the program but never accepts the worth of the educational experience. The second maladaptive resolution is "chronic hostility"; students continue to vigorously defend their original nursing ego-identities and are never able to experience real growth and change. The positive resolution to the conflict occurs when the student is able to integrate new experiences and continues to grow as a professional nurse. Shane (1980, p. 122) states,

> The length of time any individual spends in the hostility phase and the mode of resolution probably depend on the overall resiliency of the individual, the intensity of the emotions and experiences she is feeling, and the interpretation and guidance provided by those significant others (faculty, peers, family) surrounding her.

The final phase of resocialization described by Shane (1980, p. 122) is biculturalism, "the ability to be as comfortable and effective in one culture (school) as in another (work)." The registered nurse students have dealt with the ego threats of the conflict phase and feel that they have developed the skills to cope with baccalaureate education. Shane (1980, p. 123) describes the student who has achieved biculturalism thus:

> She has not denied her original values and orientation, but clearly sees herself as an effective citizen in two

> different worlds--that of nursing as she knew it before she entered the B.S.N. program and the baccalaureate program itself, along with the ideals, broad horizons, and liberal viewpoint prized by that world. She recognizes her own growth and realizes that she will function in a different way when she graduates. Her sense of "what nursing is" is forever altered, but contains elements of both the first and second worlds. She is able to analyze herself, the nursing role she assumes, and nursing from a unique perspective--that of a cosmopolitan and sophisticated traveler who knows intimately the terrain, customs, values, mores, language, and dreams of two neighboring countries which have a lot in common but have tenuous diplomatic ties. She recognizes the worth, the internal validity, and the value of each of the two worlds.

Other researchers have documented additional factors which may help to account for some of the conflict registered nurse students experience when they return to school to work on their baccalaureate degrees. In a study of nursing students enrolled in diploma, associate degree, and baccalaureate nursing programs Meleis and Dagenais (1981) found that associate degree and baccalaureate students consistently scored themselves higher on professionalism than diploma students did. Meleis and Farrell (1974) found that students in associate degree and baccalaureate programs reported more positive descriptions of their abilities than diploma students.

In addition to perceiving themselves as less professional and less able while they were students in their original diploma programs, registered nurse students have another reason for experiencing role conflict when they return to school: they have been socialized by their roles

as employees in bureaucratic institutions. Corwin (1961a, p. 72) points out:

> The nurse's bureaucratic role requires a task orientation, loyalty to the hospital, subordination to its routine, hours, and regulations, and incorporation into its system, which is designed to increase efficiency; but her professional role requires a service orientation, loyalty to national associations, and a degree of personal autonomy and authority.

In another article Corwin (1961b, p. 606) states that "potential conflict is particularly evident between the professional and bureaucratic perception of role." Corwin (1961b) differentiates between the professional role and the bureaucratic role on the basis of three characteristics: he states that the bureaucratic role is more concerned with routine tasks, carries less authority, and is largely concerned with procedures. In contrast, students in baccalaureate nursing program are expected to be patient advocates, professionals who are concerned with developing creative solutions to each patient's unique problems; they are expected to assume the necessary authority to make appropriate decisions in regard to the welfare of their patients; they are expected to be less concerned with carrying out technical procedures than with achieving patient care goals. Role conflict seems almost inevitable for the registered nurse student faced with these conflicting demands.

Hillsmith, Woolley, and Shane have provided descriptions of the feelings and behaviors of registered nurse students in baccalaureate nursing programs. Comparable

descriptions written by or about generic nursing students are not found in the nursing literature. Many baccalaureate nursing programs admit both generic and registered nurse students and provide the same learning experience for both kinds of students, but generic students have not been described as hostile and resentful. Something in the experience of these two types of students must account for the fact that registered nurse students exhibit hostility and resentment but that generic students do not.

Career Transitions

The registered nurse student enrolled in a baccalaureate nursing program is experiencing a career transition. Hall (1972, p. 476) describes a career as "an accumulation of role-related experiences over time." Louis (1980a, p. 330) defines career transition as "the period during which an individual is either changing roles (taking on a different objective role) or changing orientation to a role already held (altering a subjective state)." The concept of the individual's role, the expected behavior patterns associated with a particular position in an organization or a social system, is central to Louis' discussion of career transition.

Louis (1980a) identifies two categories of career transition. In interrole transition the individual actually adopts a new and different role; in intrarole transition the individual adopts a new and different orientation to an old

role. These categories are not mutually exclusive, and Louis (1980a, p. 336) states, "How a specific transition is to be classified depends on the specific situation and the individual's subjective experience of the transition." Registered nurse students in a baccalaureate program may be thought of as experiencing both interrole and intrarole career transition because, even though they are already registered nurses, they may not be prepared for the different expectations that will accompany the new role they have undertaken. Even though the language used is the same, the registered nurse student will be expected to become more proficient and scholarly in its use. Norms governing interpersonal relationships change, particularly those norms which influence relationships with other professional health care providers. The student's reference group and personal self-identity will change.

Louis (1980b) proposes that major features of the experience of career transition are change, contrast, and surprise. She defines change as "an objective difference in a major feature between the new and old settings" (Louis, 1980b, p. 235). The registered nurse student in a baccalaureate setting experiences many changes; there is a change in identity from that of registered nurse to that of a student, there is a change in status, there is a change in what she is expected to do. Contrasts represent "subjective differences between new and old settings by which newcomers

characterize and otherwise define the new situation" (Louis, 1980b, p. 237). Contrast is pertinent to the registered nurse student in a baccalaureate program because part of the process of contrast is letting go of old roles; the registered nurse student is expected to let go of the old role of diploma or associate degree graduate and assume the role of baccalaureate nursing student despite the fact that she may not be convinced of the superior value of the new role. Surprise "represents a difference between an individual's anticipation and subsequent experiences in the new setting. Surprise also encompasses one's affective reactions to any differences, including contrasts and changes" (Louis, 1980b, p. 237). Woolley's and Shane's descriptions of their registered nurse students reveal several forms of surprise. The students expressed surprise when their conscious expectations about the baccalaureate program were not met; they had expected to receive all the answers, but answers were not forthcoming. Another form of surprise that occurs during a career transition is when expectations about oneself are unmet; that form of surprise is illustrated by the registered nurse student who believes that good grades will come easily because she is a good nurse. Still another form of surprise results when cultural assumptions brought from previous setting fail to serve as operating guides in the new setting. Louis (1980b, p. 238) states, "Since cultures differ between organizations, a cognitive framework for

expressing and interpreting meanings in a particular culture must be developed in and for the specific culture in which it will be used." Shane clearly states that her students were experiencing culture shock. A career transition is a process of transformation in status. Of primary significance in the successful assumption of new status is the grasping of new role conceptions.

Role Conflict and Role Ambiguity

> Organizational roles provide a primary arena in and through which individuals test themselves, work through life issues, fulfill needs for challenge, self development, and interaction, and otherwise construct self identities (Louis, 1980a, p. 336).

Kahn and his associates (1964, p. 6) provide a description of self-identity that is meaningful at this point:

> . . .From the beginning of life we learn what and who we are from the ways in which people in our environment respond to us. A sense of identity is thereby created, and the process of identity formation, once begun, never ends. Each new experience must be somehow made meaningful in terms of the self-identity. Conditions of conflict and ambiguity, therefore, are not merely irritating; in persistent and extreme form they are identity destroying.

Since role is central to the concept of the career, and since registered nurse students in baccalaureate programs are experiencing a career transition which effects their self-identities, it is possible that an exploration of the concepts of role conflict and role ambiguity will shed some light on the reasons for the hostile and angry behaviors they exhibit.

Role conflict is defined as "the simultaneous occurrence of two (or more) sets of pressures such that compliance with one would make more difficult compliance with the other" (Kahn et al., 1964, p. 19). Kahn and his associates identify five kinds of role conflict, but the type that seems most appropriate in the context of this study is interrole conflict in which, "the role pressures associated with membership in one organization are in conflict with pressures stemming from membership in other groups" (Kahn et al., 1964, p. 20). Role conflict is worthy of study as a factor in the description of the registered nurse student in a baccalaureate program for the following reason:

> . . .When. . .pressures are generated and "sent," they do not enter an otherwise empty field; the focal person is already in role, already behaving, already maintaining some kind of equilibrium among the disparate forces and motives which he experiences. Pressures to change represent new and additional forces with which he must cope; by definition they threaten an existing equilibrium. Moreover the stronger the pressures from role senders toward changes in the behavior of the focal person, the greater the conflict created for him (Kahn et al., 1964, p. 21).

Kahn maintains that conflict occurs because the status quo is unacceptable to either the role occupant or to some of his or her role senders, and that the needs, values, and capabilities of the role occupant contribute to the conflict just as externally imposed pressures do. The experience of role conflict results in increased anxiety and decreased self-confidence and self-esteem. It also results in decreased trust, respect, and liking for the role senders. Because trust is diminished, communication is seriously

hampered. This results in the "sullen and angry compliance" that was described earlier (Balogh et al., 1980).

The literature describing baccalaureate nursing education supports the suggestion that registered nurse students enrolled in baccalaureate programs experience a significant degree of role conflict. Over half of the students studied by Hillsmith (1978) indicated that they felt the requirement for a baccalaureate degree had been imposed by others. Hillsmith (1978, p. 101) also reported that the registered nurse students she questioned were "clinging to old loyalties, semantics, and values." Such behavior is understandable if the students are not sure that the new ideas being introduced are really better (Woolley, 1978). Finally, there is the emotionally charged issue of the professional-technical dichotomy. Registered nurse students believe that, as registered nurses, they have been functioning in a professional role (House, 1973). When they begin work on their baccalaureate degree, they discover that they will attain professional status only when they have completed the prescribed course of study. These are examples of intrarole conflict; the registered nurse student is the focal person in a situation in which her role is defined by different sets of expectations. Role conflict is the result.

Role ambiguity is another concept that may help to explain the stress the registered nurse student in a baccalaureate program experiences. Role ambiguity is "the degree

to which required information is available to a given organizational position" (Kahn et al., 1964, p. 26). When the appropriate information is clearly and consistently communicated to the focal person, he will experience more certainty with respect to his role requirements and his place in the organization. If the appropriate information is lacking he will experience ambiguity. Pearce (1981) states that role ambiguity is related to the predictability of the consequences of an individual's behavior. He believes that role ambiguity occurs in new or unusual organizational environments when there are changing expectations and, simultaneously, an absence or delay of definitive feedback or information (Pearce, 1981). When the consequences of his behavior are important to the individual but the consequences cannot be predicted, the individual experiences role ambiguity. There is a wealth of support for an association between role ambiguity and stress (Brief and Aldag, 1976; Hamner and Tosi, 1974; Miles, 1975, 1976).

The nursing literature provides evidence that registered nurse students experience role ambiguity. Woolley (1978) documents the fact that registered nurse students experience stress when they are expected to employ unfamiliar approaches to patients' problems and consider differing opinions about issues which are not clear cut. Shane (1980) describes the student who changed her perception of the whole

program--from positive to "stinko"--when she did poorly on an important examination.

In recent years a number of studies of the relationship between experienced role conflict and role ambiguity have consistently reported that negative role perceptions are generally associated with adverse personal outcomes.

Kahn and his associates (1964) reported that role conflict was associated with tension and job dissatisfaction as well as with undesirable interpersonal consequences, such as lower levels of liking, trust, and respect for role senders. Tosi (1971) reported role conflict to be related to anxiety and inversely related to job satisfaction. Rizzo, House, and Lirtzman (1970) reported a relationship between role conflict and anxiety, job dissatisfaction, and the likelihood that the individual would leave the organization. Hamner and Tosi (1974) reported a relationship between role conflict and anxiety and job threat.

Studies of the relationship between role ambiguity and personal outcomes report similar results. Kahn and his associates (1964) reported that role ambiguity was related to job tension, dissatisfaction, and a feeling of futility, and inversely related to self confidence. Locke (1968) found that individuals were more comfortable and performed more effectively when they were given specific task instructions than when they were given ambiguous task instructions. Rizzo and his associates (1970) reported relationships

between job tension and job satisfaction and the experience of role ambiguity. Lyons (1971) found a significant relationship between role ambiguity and individuals' expressions about the desirability of their jobs and their propensity to leave the job. Hamner and Tosi (1974) reported a positive relationship between role ambiguity and perceived job threat and anxiety and a negative relationship between role ambiguity and job satisfaction.

These studies provide evidence that role conflict and role ambiguity are associated with anxiety, negative responses to role senders, lower job satisfaction, a greater likelihood of leaving the organization, and lower job performance. In 1975 Miles pointed out that correlation does not prove causation, and he designed a study to empirically verify either a causal basis or causal directionality in the relationships previously reported. He found that the results of the correlational-causal analyses he carried out provide general support for causal relationships between role perceptions of conflict and ambiguity and job satisfaction, job-related tension, and attitude toward role senders (Miles, 1975, p. 337).

As a result of his study, Miles (1975, p. 338) also cautioned that "the relationships between many of these variables are more complex than hypothesized." Perhaps that complexity explains the fact that Kahn and his associates (1964) found that not all individuals respond negatively to

role conflict and role ambiguity. Rizzo, House, and Lirtzman (1970) postulated that the roles of the individuals being studied should be taken into consideration because of the possibility that individuals in managerial or boundary spanning roles may associate role conflict with an indication that they are performing effectively. Other research indicates that personality variables may also mediate the effects of role conflict and role ambiguity. In a study involving nurses in a general community hospital, Lyons (1971) found that role clarity is significantly related to reports of tension, and that the relationship is much more pronounced for those nurses with a high need for clarity. Ivanevich and Donnelly (1974) reported the results of a study which indicates that subjects with a high need for role clarity require significantly more role clarity in order to display more job interest, express more job satisfaction, and report less tension and physical stress. Organ and Greene (1973) reported that individuals identified as having an internal locus of control experience less role ambiguity than those whose locus of control is external. Organ (1981) reported that a high level of neuroticism had a negative effect on the role adjustment of beginning Masters of Business Administration students. Johnson and Stinson (1975) report that need for achievement moderates relationships between role conflict and role ambiguity and job satisfaction, while need for independence moderates the relationship between role conflict and satisfaction.

Summary

A review of the role conflict/role ambiguity literature reveals that role adjustment is a complex phenomenon, probably associated with many institutional and individual personality variables. Experienced role conflict and role ambiguity, however, are consistently related to decreased job satisfaction and job performance, increased tension and anxiety, and negative interpersonal responses to role senders. Studies in which both role conflict and role ambiguity have been considered have concluded that the relationships between role ambiguity and personal outcomes are generally stronger than those which are found for role conflict (Kahn et al., 1964; Rizzo et al., 1970).

The description of the negative behaviors exhibited by registered nurse students in baccalaureate nursing programs indicate that they may be experiencing dissatisfaction with their educational experiences, increased tension and anxiety, and negative interpersonal responses to their instructors. Because registered nurse students in baccalaureate programs have been socialized by their previous educational and work experiences, it is possible that they perceive more role conflict than generic students who have not undergone the same processes of socialization. It is also possible that they experience more role ambiguity than generic students because they have unrealistic expectations of themselves and of the programs in which they are enrolled.

The effects of role conflict and role ambiguity on the levels of emotional stress and on grade point averages for two sets of subjects who have been prepared for a common educational experience in two different ways have not been studied, but such a study has the potential for providing nursing educators with information that would help them plan educational experiences for registered nurse students that would make working toward their baccalaureate degree less stressful and more rewarding.

CHAPTER III

METHODOLOGY

Pilot Study

A pilot study was carried out in October, 1982, to determine whether there would be any difficulties with the data collection or analysis procedures prior to beginning the actual study. The testing instruments were administered to ten generic students and ten registered nurse students chosen randomly from the junior students enrolled in the nursing program at Central State University in Oklahoma. The results of the pilot study indicated that subjects tended to misunderstand the instructions printed at the top of Organ's (1981) Stress Scale. Even though the instructions for completing the Stress Scale state, "Please be sure that you respond to each set of adjectives, but put only one mark between each set of adjectives," some subjects marked more than one response. For example, on the response that is designed to measure whether the subject feels calm or nervous, several subjects who participated in the pilot study indicated that they were both slightly calm and slightly nervous. In order to avoid that problem when the actual study was carried out, the investigator modified the verbal

instructions to be given to subjects prior to their completing the measuring instruments to include the following statement: "The items on Part II of the questionnaire are intended to indicate a continuum of feelings. Please be sure that you mark only one response between each set of terms."

One way analysis of variance was used to analyze the data generated by the pilot study. Results indicated that registered nurse students were significantly older than generic students ($F = 11.04$, $p < .05$); registered nurse students had significantly more nursing experience than generic students ($F = 29.81$, $p < .05$); and registered nurse students worked significantly more hours per week than generic students ($F = 16.34$, $p < .05$). There were no significant differences between the groups on the other dependent variables. No significant correlations among role conflict, role ambiguity, stress, and grade point average were found when Pearson product-moment correlation coefficients were determined for the data from the pilot study.

Population and Sampling

All universities in Oklahoma which admit both registered nurse students and generic students to their nursing programs were requested to participate in the study: Central State University, East Central Oklahoma State University, Oklahoma Baptist University, Oral Roberts University,

Southwestern Oklahoma State University, the University of Oklahoma, and the University of Tulsa.

Several institutions in Oklahoma were not included in the study population. Bethany Nazarene College, Langston University, Oklahoma City University/St. Anthony School of Nursing, and Northwestern Oklahoma State University were not included because their nursing programs have been approved so recently that they did not have any registered nurse students who were prepared to begin the senior year in the fall of 1982. Cameron University and Northeastern Oklahoma State University were not asked to participate in the study because they admit only registered nurse students to their nursing programs.

There were no registered nurse students enrolled in the nursing programs at East Central Oklahoma State University, Oral Roberts University, or Southwestern Oklahoma State University, so those institutions did not participate in the study. The actual study included senior nursing students from Central State University, Oklahoma Baptist University, the University of Oklahoma, and the University of Tulsa.

The testing instruments were administered to all senior nursing students at the four participating universities who attended class on the designated testing date and who agreed to participate in the study. Table 3 (Appendix B) provides information concerning the percentages of students from each

university who completed usable questionnaires. Response rates ranged from 73% to 100% for the registered nurse students and from 35% to 91% for the generic students. Lowest response rates were at Central State University and the University of Oklahoma. Attendance records indicate that 46 senior students attended class at Central State University on the date that questionnaires were administered. Attendance was low for two reasons: 1) it was the last day of class prior to the Thanksgiving recess, and 2) seven students had been excused from class because of illness. Forty-four (96%) of the students attending class completed the measurement instruments, so there does not appear to be any systematic bias in operation. Attendance records from the University of Oklahoma were not available to the investigator, so total class attendance on the day the questionnaires were administered is not known. Several factors have been identified, however, that may account for the low response rate. Students had been in a large two-hour lecture class immediately prior to the testing, the class lasted ten minutes longer than scheduled, and many students reported that they had to leave because of other commitments. Most of the students who had to leave indicated a willingness to take the questionnaires home, complete them, and return them the following day. The investigator thanked them, but declined their offer because that procedure had not been included in the study protocol. Again, no systematic bias

was identified; the study sample was judged to be representative of the population.

Forty-one usable sets of responses were obtained from students at Central State University, 13 from Oklahoma Baptist University, 63 from the University of Oklahoma, and 37 from the University of Tulsa. Seven questionnaires were not usable; 5 were not usable because the respondents entered double sets of marks on the Stress Scale, and 2 were not usable because respondents did not sign the consent form. The responses of the nine students who indicated that they were licensed practical nurses were not included in the final data analysis. The objectives of practical nursing programs indicate that their graduates are prepared to function in a technical role. In contrast, graduates of diploma and associate degree nursing programs are socialized by their educational and work experiences to function in a professional role.

The final study sample consisted of 145 senior nursing students; 34 of them were registered nurse students, and 111 were generic students.

Because the ratio of registered nurse students to generic students was approximately 1 to 3, all registered nurse students who participated in the study were included in the study sample in order to attain an adequate sample size.

The responses of the 111 generic students who completed usable questionnaires were entered into a computer data file. Of the generic students, 83 indicated that they had had experience as a nursing assistant (coded Group 2), and 28 indicated that they had had no experience as a nursing assistant (coded Group 1). The group of 111 generic students was randomly reduced to three subsamples, each composed of 34 generic student subjects. Each subsample contained 9 subjects from Group 1 and 25 subjects from Group 2. Eight subjects from Group 2 and 1 subject from Group 1 were randomly discarded in order to achieve the 3 random subsamples of 34 generic student subjects each. This procedure allowed the registered nurse students to be compared with three groups of generic students, with equal numbers of subjects included in the registered nurse and generic student samples for each comparison.

The registered nurse student sample included 1 male and 33 females. Subsample I of the generic students was composed entirely of females; subsample II included 4 males and 30 females; and subsample III included 2 males and 32 females. All the generic student subjects were full-time students; 27 of the registered nurse student subjects were full-time students and 7 were part-time students. Table 6 (Appendix B) describes the characteristics of each sample, based on the study variables. Table 7 (Appendix B) provides means and standard deviations for the major dependent

variables included in the investigation so that the registered nurse students and the three subsamples of generic students can be conveniently compared.

Testing Procedures

On October 29, 1982, the investigator mailed a letter to the dean or chairperson of the nursing program at each university in Oklahoma which admits both registered nurse and generic students. The letter (Appendix A) explained the purpose of the study and how it would be conducted. A post card addressed to the investigator was enclosed (Appendix A). The post card provided a convenient mechanism for the respondent to indicate whether students at their institution would be allowed to participate in the study and who on the faculty should be contacted to make arrangements for administration of the testing instruments. Within ten days, all seven of the post cards had been returned. Three of the universities indicated that no registered nurse students were enrolled as senior students in their programs. Four of the universities gave permission for their students to participate in the study.

The investigator telephoned the faculty member indicated on each returned post card to arrange dates and times for administration of the questionnaires. Testing was done on the following dates: November 24, 1982, at Central State University; November 29, 1982, at the University of Oklahoma;

December 6, 1982, at the University of Oklahoma Tulsa Extension; December 8, 1982, at Oklahoma Baptist University; and December 10, 1982, at the University of Tulsa. On each occasion, the questionnaires were administered by the investigator. Testing was done in a group setting, using a classroom in which students were accustomed to having their nursing classes. A written statement of instructions (Appendix A) was read to the participants by the investigator, and subjects were assured of the confidentiality and anonymity of their responses. Subjects were asked to sign a consent form (Appendix A) giving the investigator permission to use their fall semester grade point average as part of the data to be included in the investigation. Subjects completed the questionnaires within twenty minutes.

Subjects were asked to complete a demographic inventory and two instruments (Appendix A): Rizzo, House, and Lirtzman's (1970) Role Conflict and Role Ambiguity Scale and Organ's (1981) Stress Scale.

The Demographic Inventory

Items in the demographic inventory were designed to identify age, gender, marital status, number of dependent children, type of previous nursing experience, number of years of nursing experience, full or part-time student status, and number of hours worked per week.

Role Conflict and Role Ambiguity Scales

The role conflict and role ambiguity scales developed by Rizzo, House, and Lirtzman (1970) are the most commonly used instruments for measuring these two variables and were used in this study in order to facilitate a comparison of the results of the study with those of previous investigators. "Estimated internal reliabilities (Cronbach alpha) are .82 for role conflict and .87 for role ambiguity" (Schuler, 1977, p. 69).

There are fourteen statements on the Role Conflict and Role Ambiguity Scale; eight statements measure role conflict, and six statements measure role ambiguity. Subjects were asked to rate themselves on each statement, using a seven point scale ranging from "very false" to "very true". Items designed to measure role conflict were summed for each subject and divided by the number of items in the set (eight). In the study performed by Rizzo and his associates (1970) means of the role conflict items ranged from 3.66 to 4.70. Items designed to measure role ambiguity are phrased so that the lower the score, the greater the perceived ambiguity. For that reason, "items were reflected before scoring (response of 7 changed to 1, 6 to 2, etc.)" (Rizzo, el al., 1970, p. 161). After scores of the role ambiguity items had been reflected, scores were summed for each subject and divided by the number of items in the set (six). In the study performed by Rizzo, House, and Lirtzman (1970), means of the role ambiguity items ranged from 3.92 to 5.05.

Stress Scale

The emotional stress measure developed by Organ (1981) for his study of role adjustment processes among entering Master of Business Administration students was used to measure the emotional stress experienced by each group of students. Organ (1981, p. 579) reports, "Internal consistency estimates (coefficient alpha) were all .79 or higher at both times."

The Stress Scale is an eleven item semantic differential scale, but five of the items are distractors and were not scored. Subjects indicated on a seven point bipolar adjective scale how calm-nervous, worried-carefree, tense-relaxed, confident-fearful, reassured-doubtful, and high strung-serene they were. Responses were summed for the six items, and the sum was divided by six to yield a stress score for each subject.

Grade Point Average

Each participant signed a consent form giving the investigator permission to use his or her fall, 1982, semester grade point average in the form of pooled and anonymous data as part of the information required for the study. Immediately prior to the end of the fall, 1982, semester, the investigator contacted the appropriate faculty member from each institution, provided her with the consent forms signed by her students, and obtained copies of each subject's

semester grade report. Letter grades were reported by each institution, and the traditional four point scale was used to sum and divide each individual subject's grades in order to determine a semester grade point average for each subject.

Design for Analysis of Data

Individual inventories and questionnaires were scored, tabulated, and coded (Appendix B) by hand. The Statistical Package for the Social Sciences (SPSS) and the Biomedical Package (BMDP), both packaged computer programs, were utilized for data analysis.

The following operational hypotheses were tested:

1. There will be no significant difference between the role conflict scores of registered nurse students and generic students in baccalaureate nursing program as measured by the RCS.
2. There will be no significant difference between the role ambiguity scores of registered nurse students and generic students in baccalaureate nursing programs as measured by the RAS.
3. There will be no significant relationships among scores on the RCS, the RAS, the SS, and semester grade point average reported by registered nurse students and generic students in baccalaureate nursing programs.

Hypotheses one and two are concerned with differences in the degree of role conflict and role ambiguity reported .

by registered nurse students and generic students in baccalaureate nursing programs. Three one-way analyses of variance were done to determine whether there were significant differences in the degree of role conflict and role ambiguity reported by the registered nurse students and the three subsamples of generic students.

The third hypothesis is concerned with relationships among the following variables: role conflict, role ambiguity, stress, and grade point average. Pearson product-moment correlations among those variables were computed, and a correlation matrix was obtained. Because significant correlations were obtained in the primary analysis, a secondary analysis was done to determine whether the signficant correlations could reasonably be explained by random variation. Since the investigation involved two independent variables, Hotelling's T^2 was used to compare the responses of the two groups of students.

CHAPTER IV

ANALYSIS OF DATA

The first stage of analysis of the data for the study consisted of hand scoring and coding (Appendix B) each subject's responses on the measurement instruments. Responses designed to measure role conflict were summed for each subject and divided by the number of responses in the set (8) to determine a role conflict score. Responses designed to measure role ambiguity are phrased so that the lower the score, the greater the perceived ambiguity. For that reason, responses were reflected before scoring (response of 7 changed to 1, 6 to 2, and so forth) in order to avoid confusion. After the responses on the role ambiguity items had been reflected, they were summed for each subject and divided by the number of responses in the set (6) to determine a role ambiguity score. Responses on the stress measure were summed for each subject and divided by the number of responses in the set (6) to determine a stress score.

The coded demographic information, scores for role conflict and role ambiguity, score for stress, and numerical grade point average for each subject were entered as a data

file on the Central State University Timesharing Computer System. Data were grouped by institution, and responses and scores for subjects within each institution were entered in alphabetical order so that random samples of generic students could be generated.

Because educational programs for licensed practical nurses do not prepare them to function as professional nurses, the responses of the 9 students who indicated that they were licensed practical nurses were not included in the data analysis. The 34 registered nurse participants were used as the registered nurse sample for the study. There were 111 generic student participants; 28 of them indicated that they had had no nursing experience (coded Group 1); 83 of them indicated that they had worked as nursing assistants (coded Group 2). The sample of 111 generic students was randomly reduced to 3 subsamples of 34 subjects each; 9 subjects from Group 1 and 25 subjects from Group 2 were included in each subsample. Eight subjects from Group 2 and 1 subject from Group 1 were randomly discarded in order to achieve the 3 random subsamples of 34 generic students each. This procedure allowed the registered nurse students to be compared with three groups of generic students with equal numbers of subjects included in the registered nurse and generic student samples for each comparison.

The Statistical Package for the Social Sciences (SPSS) was addressed to compute three one-way analyses of variance

between the two levels of type of baccalaureate nursing student (generic and registered nurse students) for each of eight dependent measures: age, number of dependent children, years of nursing experience, number of hours worked per week, role conflict score, role ambiguity score, stress score, and grade point average for fall, 1982. In each of the three comparisons, the groups differed significantly on the following dependent variables: age, number of years of nursing experience, and number of hours worked per week. There were no significant differences between the groups on the other dependent variables. The F values for variables which were significantly different are presented in Table 1. The F values for all dependent variables are reported in Tables 8 through 11 (Appendix B).

TABLE 1

Calculated F Values for Significant Differences Between Scores of Registered Nurse Students and Generic Students, Subsamples I, II, and III

F Values for . . .	Age	Years Nursing Experience	Hours Worked per Week
RN and G_I	14.34	31.24	21.91
RN and G_{II}	18.88	32.03	13.67
RN and G_{III}	29.34	28.35	22.93

With df 1 and 66, critical F = 3.99, $p < .05$

The data were also analyzed by comparing the responses of all 111 generic student subjects with the responses of

the 34 registered nurse student subjects. Again, the groups differed significantly in age, number of years of nursing experience, and number of hours worked per week. In this particular analysis, the generic students reported significantly more role ambiguity than the registered nurse students ($F = 4.33$, $p < .05$). This finding indicates that generic students in baccalaureate nursing programs experience more role ambiguity than registered nurse students. Analysis of the differences between the variances of the role ambiguity scores between the registered nurse students and the generic students in each of the three comparisons, however, indicates that there were no significant differences in the magnitude of the variances. Variances and F values are presented in Table 2.

TABLE 2

Variances of Role Ambiguity Scores of Registered Nurse Students and Generic Students, Subsamples I, II, III, and Total Sample

Comparison	Variances RN	Variances Gen.	F Value	df	Crit. F ($\alpha = 0.01$)
RN and G_I	0.560	0.910	1.63	33/33	2.30
RN and G_{II}	0.560	0.637	1.14	33/33	2.30
RN and G_{III}	0.560	0.468	1.20	33/33	2.30
RN and G_{Total}	0.560	0.714	1.27	110/33	1.87

Since there was no significant difference on role ambiguity scores between registered nurse students and generic

students in the individual comparisons, the significant difference in the total comparison is apparently a phenomenon that is relatively weak, and the individual comparisons lacked the power to detect it. This conclusion is supported by the fact that the magnitude of the differences in variances is small.

Pearson product-moment correlation coefficients were determined for relationships among the following dependent variables in the study: role conflict, role ambiguity, stress, and semester grade point average. Role conflict was positively correlated with role ambiguity (.23, $p < .01$) and stress (.31, $p < .01$). Stress was negatively correlated with grade point average (-.25, $p < .01$). All correlation coefficients are presented in Table 12 (Appendix B).

A secondary analysis of the data was carried out, using Hotelling's T^2. This analysis used the Biomedical Package (BMDP), a prepared computer program. Pooled T values and probabilities are presented in Table 13 (Appendix B). Results of the secondary data analysis support the results of the one-way analyses of variance. Registered nurse students are significantly older, have significantly more nursing experience, and work significantly more hours per week than generic students. The results of the secondary analysis of the data do not indicate that the mild degrees of relationships among role conflict, role ambiguity, and stress and grade point average can be attributed to any factor other than chance.

Tests of the Hypotheses

Three hypotheses were tested in this study, each arising from a research question. Each hypothesis will be presented, followed by the results of its test.

H_{01} There will be no significant difference between the role conflict scores of registered nurse students and generic students in baccalaureate nursing programs as measured by the RCS. This hypothesis was generated from the following research question: Do registered nurse students experience more role conflict than generic students in baccalaureate nursing programs? The hypothesis was tested by comparing three random samples of 34 generic students with 34 registered nurse students in baccalaureate nursing programs. One-way analysis of variance failed to demonstrate significant differences in the degree of role conflict reported by generic students and registered nurse students in baccalaureate nursing programs ($F = .77$, $p > .05$; $F = .07$, $p > .05$; $F = 1.49$ $p > .05$). The hypothesis was further tested by comparing the responses of all 111 generic students with those of the 34 registered nurse students included in the study. One-way analysis of variance failed to demonstrate a significant difference in the degree of role conflict reported by the two groups of subjects ($F = .45$ $p > .05$). The results fail to reject the null hypothesis.

H_{02} There will be no significant difference between the role ambiguity scores of registered nurse students and

generic students in baccalaureate nursing programs as measured by the RAS. This hypothesis was generated from the following research question: Do registered nurse students experience more role ambiguity than generic students in baccalaureate nursing programs? The hypothesis was tested by comparing three random samples of 34 generic students with 34 registered nurse students enrolled in baccalaureate nursing programs. Three one-way analyses of variance failed to demonstrate significant differences in the degree of role ambiguity reported by generic students and registered nurse students in baccalaureate nursing programs ($F = 3.49$, $p > .05$; $F = 3.90$, $p > .05$; $F = .31$, $p > .05$). The results fail to reject the null hypothesis. The hypothesis was further tested by comparing the responses of all 111 generic students with those of the 34 registered nurse students in the study. One-way analysis of variance demonstrated that generic students report significantly more role ambiguity than registered nurse students in baccalaureate nursing programs ($F = 4.33$, $p < .05$). Examination of the variances of the subject's role ambiguity scores (see Table 2) in each of the three individual comparisons as well as the total comparison indicates that the significantly greater degree of role ambiguity reported by generic students in the total sample is apparently a relatively weak phenomenon. The individual comparisons lacked the power to detect the difference. This conclusion is supported by the fact that the magnitude of the differences in the variances is small.

H_{03} There will be no significant relationships among scores on the RCS, the RAS, the SS, and semester grade point average reported by registered nurse students and generic students in baccalaureate nursing programs. This hypothesis was generated from the following research question: Is there a relationship among the degree of role conflict, role ambiguity, stress, and semester grade point average reported by registered nurse students and generic students in baccalaureate nursing programs? The hypothesis was tested by correlational procedures using the Pearson product-moment coefficient to determine the strength of the relationship among the degree of role conflict, role ambiguity, stress, and semester grade point average reported by the subjects. Role conflict was positively correlated with role ambiguity (.23, $p < .01$) and with stress (.31, $p < .01$). Role ambiguity was positively correlated with stress (.30, $p < .01$). Stress was negatively correlated with grade point average (-.25, $p < .01$). The results reject the null hypothesis. A secondary analysis of the data, using Hotelling's T^2 (see Table 13, Appendix B) indicates that the mild degrees of relationship among role conflict, role ambiguity, and stress, and the slight negative relationship among stress and grade point average should not be attributed to any factor other than chance.

Other Findings

One-way analysis of variance was used to assess differences in subjects' age, number of dependent children, years of nursing experience, and number of hours worked per week. Registered nurse students were significantly older than generic students ($F = 40.20$, $p < .01$). There was no significant difference between the number of dependent children in the registered nurse and generic student samples ($F = 2.04$, $p > .05$). Registered nurse students had significantly more nursing experience than generic students ($F = 89.69$, $p < .01$). and they worked significantly more hours per week ($F = 38.29$, $p < .01$).

Summary of Data Analysis

The analysis of data tested three null hypotheses postulated by the study. Two of the null hypotheses were not rejected, and one was rejected. Results of the data analysis indicate that there is no significant difference between the degree of role conflict and role ambiguity reported by generic students and registered nurse students in the same baccalaureate programs. A significant positive relationship was found among role conflict and role ambiguity. Role conflict and role ambiguity were also positively related to stress. Stress was negatively correlated with grade point average. A secondary analysis of the data, using Hotelling's T^2, indicates that the significant correlations obtained could reasonably be attributed to chance.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Registered nurse students in baccalaureate nursing programs have been described as hostile, angry, and resentful. Nursing educators have attributed the registered nurse students' feelings and behavior to resistance to change, conflict between old and new values systems, and culture shock. Registered nurse students identify anger about the labels, "professional" nurse and "technical" nurse, and about the personal sacrifices they are foced to make in order to return to school as the reasons for their negative feelings.

In spite of the tensions and frustrations they reportedly experience, registered nurse students are entering baccalaureate nursing programs in impressive numbers. According to the National League for Nursing, 33,357 registered nurse students were enrolled in baccalaureate programs during the 1980-81 academic year (Vaughn, 1982, p. 450). Regardless of their motivations and expectations, many adult students have difficulty readjusting to student status, and registered nurse students are not an exception. Research which will provide an empirical foundation for expediting the readjustment and resocialization process is needed.

Summary

This study was designed to determine whether registered nurse students and generic students enrolled in baccalaureate nursing programs report significant differences in the degrees of role conflict and role ambiguity they experience during the latter part of the first semester of their senior year. The relationships among role conflict, role ambiguity, stress, and semester grade point average were also investigated.

All seven of the universities in Oklahoma which admit both generic and registered nurse students to their nursing programs were contacted by mail and requested to participate in the study. Responses from three of the universities indicated that no registered nurse students were enrolled in their programs, so they did not take part in the investigation. Senior nursing students from the following universities were included in the study: Central State University, Oklahoma Baptist University, the University of Oklahoma, and the University of Tulsa.

A faculty member from each participating nursing program was identified as a contact person, and arrangements were made for the investigator to administer the testing instruments at each campus. Testing was done between November 24 and December 10, 1982. All students who attended classes on the designated testing date and who agreed to participate were asked to complete the testing instruments.

A written description of the purpose of the study and directions for completing the questionnaires were read to participants by the investigator. Subjects were also asked to sign a consent form giving the investigator permission to use their fall, 1982, grade point averages in the form of pooled and anonymous data.

A total of 161 students completed the measurement instruments. Usable sets of responses were completed by 154 subjects: 41 from Central State University, 13 from Oklahoma Baptist University, 63 from the University of Oklahoma, and 37 from the University of Tulsa. Seven sets of responses were not usable because they were improperly marked or because the subjects did not sign the consent forms. Nine of the sets of responses were completed by students who indicated that they were licensed practical nurses. The data they provided were not included in the final data analysis because, unlike graduates of diploma and associate degree nursing programs, they have not been socialized to perceive of themselves as professional nurses.

Thirty-four registered nurse students completed usable sets of responses; all registered nurse students were included in the study in order to attain an adequate sample size. A total of 111 generic students completed usable sets of responses. The group of generic students was randomly reduced to three subsamples, each composed of 34 subjects. Each subsample was composed of 9 subjects who reported no

experience in nursing and 25 subjects who reported that they had had experience as nursing assistants. Eight subjects who had experience as nursing assistants and one subject with no nursing experience were randomly discarded in order to achieve the 3 random subsamples, each composed of 34 generic student subjects. This procedure allowed the 34 registered nurse students to be compared with three groups of 34 generic students. The study samples were judged to be representative of the population.

Subjects completed a demographic inventory and two study instruments: Rizzo, House, and Lirtzman's (1970) Role Conflict and Role Ambiguity Scale and Organ's (1981) Stress Scale. Letter grades for each subject were obtained from the participating universities immediately prior to the end of the fall, 1982, semester in order to complete the data collection process.

Each set of responses was scored and coded by the investigator. The coded information was entered as a data file on the Central State University Timesharing Computer System. Data were grouped by educational institution, and responses and scores for subjects within each institution were entered in alphabetical order by subject's last name so that random samples of generic student subjects could be generated.

The Statistical Package for the Social Sciences (SPSS) was used to compute three one-way analyses of variance

between the two levels of type of baccalaureate nursing student for the following dependent variables: age, number of dependent children, years of nursing experience, number of hours worked per week, role conflict score, role ambiguity score, stress score, and fall, 1982, grade point average. Registered nurse students were significantly older, had significantly more years of nursing experience, and worked significantly more hours per week than generic students. There were no significant differences on the other dependent variables.

One-way analysis of variance was also used to compare the responses of all 111 generic students with the responses of the 34 registered nurse students. Registered nurse students again were older, had significantly more years of nursing experience, and worked more hours per week than generic students. Results of this particular analysis of the data indicate that generic students perceive significantly more role ambiguity than registered nurse students. The magnitude of the differences in the variances of the role ambiguity scores for each of the groups; however, suggests that this finding may have been due to chance. This conclusion is supported by the fact that the individual comparisons did not indicate that generic students perceive more role ambiguity than registered nurse students in baccalaureate nursing programs. The phenomenon is apparently relatively weak, and the individual comparisons did not have the power to detect it.

Pearson product-moment correlation coefficients demonstrated small, but significant, positive correlations among role conflict and role ambiguity and stress. Stress and semester grade point average were negatively correlated to a moderate degree.

The Biomedical Package (BMDP) was used to compute Hotelling's T^2 values as a secondary analysis of the data. Results support the results of the one-way analyses of variance. Registered nurse students are significantly older, have significantly more nursing experience, and work significantly more hours per week than generic students. The Hotelling's T^2 values do not support the significant correlations. Further study must be done before it can be concluded that the significant correlations were not the result of chance.

Discussion and Conclusions

This study was planned to investigate several phenomena that have been consistently reported: that registered nurse students experience feelings of anger, hostility, and resentment when they enroll in institutions of higher education to work toward their baccalaureate degrees; that registered nurse students in baccalaureate programs are experiencing a career transition with the concomitant role redefinition and culture shock; and that role conflict and role ambiguity result in stress, negative responses to role senders, and

lower job satisfaction and performance. The investigator postulated that registered nurse students in baccalaureate nursing programs might be experiencing more role conflict and role ambiguity than generic students. If that were, indeed, the case, it could account for the negative feelings and behaviors that have been reported. Results of the study did not support the expectation that registered nurst students experience more role conflict and role ambiguity than generic students in baccalaureate nursing programs. On the contrary, one aspect of the data analysis indicated that generic students perceive more role ambiguity than registered nurse students.

One possible explanation for the unexpected findings may be that the Role Conflict and Role Ambiguity Scales were developed and validated in large industrial organizations. Perhaps their use is inappropriate in educational settings where groups are smaller and there is more interpersonal contact between group members and role senders.

Several biographical factors have been identified which may have influenced the results of the study. The registered nurse students were significantly older, had significantly more years of nursing experience, and, at the time of the study, continued to work significantly more hours per week than the generic students. The registered nurse students' age and number of years of experience in the world of work may provide them with a broader repertoire

of coping skills and more confidence in their own resources so that they actually perceive less role stress. The same factors may facilitate their ability to adapt to role stress. These possibilities assume greater importance when the nature of the testing instruments used in the study is considered. All the instruments employed in the study depend on the subject's self-report, so that differences in perception would influence the results of the study.

Another element that may have influenced the results of the study is the fact that the negative feelings and behaviors reported by registered nurse students and nursing educators have received a great deal of attention in nursing literature. Educators in baccalaureate nursing programs which admit registered nurse students have made a conscious effort to develop teaching strategies for the adult, working student which will enhance the student's self-esteem, promote learning, and provide support while students learn and adjust to new roles.

The investigation may have been conducted too late in the semester to detect significant differences in the degrees of role conflict and role ambiguity reported by the two levels of students in baccalaureate nursing programs. Perhaps the registered nurse students had successfully resolved the conflict phase of the resocialization process and internalized the new values they had learned (Shane, 1980, p. 122; Woolley, 1978, p. 108). This possibility is

supported by informal statements made to the investigator by registered nurse students at Central State University. The students had participated in the study and were curious about the results of the data analysis. When the investigator replied that there had been no significant differences between the two levels of baccalaureate nursing students on their role conflict, role ambiguity, and stress scores, the registered nurse students stated, "We thought that's what you would find. We're in really good shape now." It is of interest to note that, in spite of the registered nurse students' feeling that they are "in good shape," the instructors who work with them continue to describe them as angry and hostile.

Recommendations

There is a need for further investigation of the factors related to the emotional responses of registered nurse students to the experience of baccalaureate nursing education. Specific areas of concern suggested by this study include:

1. Whether registered nurse students currently enrolled in baccalaureate nursing programs continue to report that they are experiencing anger, hostility, and resentment.
2. Whether nursing educators continue to perceive that registered nurse students currently enrolled in baccalaureate nursing programs are experiencing anger, hostility, and resentment.

3. Whether instruments which will indicate the underlying reason for the anger, hostility, and resentment experienced by registered nurse students in baccalaureate nursing programs can be found or constructed.

If descriptive studies indicate that registered nurse students in baccalaureate nursing programs continue to experience and act upon negative emotional responses to the educational program, it would be valuable to follow the descriptive studies with experimental studies designed to determine:

1. Whether registered nurse students and generic students would report significantly different amounts of role stress if age and number of years of experience in the world of work were controlled.
2. Whether curricular factors such as student support groups, mentors, faculty role models, or conscious efforts by nursing educators are instrumental in reducing the role stress experienced by registered nurse students in baccalaureate nursing programs.
3. Whether there are factors in the curricula of baccalaureate nursing programs which might be responsible for the negative emotional responses registered nurse students experience.
4. Whether there are factors in the instructional techniques or attitudes of faculty members in

baccalaureate nursing programs which might be responsible for the negative emotional responses registered nurse students experience.

5. Whether a longitudinal study done at predetermined intervals would indicate that the degree of role stress reported by registered nurse students decreases significantly as they progress through the baccalaureate nursing program.
6. Whether a longitudinal study done at predetermined intervals would indicate that registered nurse students report a change in their perception of whether the requirement for the baccalaureate degree is internally or externally imposed as they progress through the baccalaureate nursing program.

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APPENDIX A

SAMPLE LETTER REQUESTING PARTICIPATION
IN THE INVESTIGATION

2713 Kenwood Court
Edmond, OK 73034
October 29, 1982

Dr.____ _____
Chairperson or Dean
Department or College of Nursing
A College or University
Oklahoma

Dear Dr. ____ _____:

I am a faculty member in the Department of Nursing at Central State University and a doctoral candidate at the University of Oklahoma. I am preparing to conduct the research for my dissertation. I plan to compare the responses of registered nurse students and generic students enrolled in the same baccalaureate nursing programs, using a role conflict/role ambiguity scale and an emotional stress scale. I am asking each of the baccalaureate nursing programs in Oklahoma that enroll both generic and registered nurse students to give me permission to request that their senior students participate in my study.

The role conflict/role ambiguity scale consists of fourteen items, and the emotional stress scale consists of eleven. It will take the students approximately twenty minutes to complete the scales. The testing can be done in group setting, such as in a classroom. I will ask the students to give their permission for you to provide me with their grade point averages for the fall semester of 1982. I plan to collect my data in November and December, 1982, and I would consult with you about the most convenient date and time for me to come to your school to administer the testing scales.

If you have any questions, please call me collect at (405) 341-2980, extension 313 (work) or (405) 341-6084 (home).

I have enclosed a self-addressed post card for your convenience in letting me know whether you and your faculty will agree to allow your senior students to participate in my study.

Thank you very much for considering my request.

Sincerely,

Leilani Irby, R.N., M.S.

SAMPLE OF THE POSTCARD TO BE ENCLOSED WITH THE REQUEST TO PARTICIPATE IN THE INVESTIGATION

_____ Yes, our senior students may participate in your study.

_____ No, our senior students may not participate in your study.

Signed _____

College or University _____

The name of the individual to contact in order to arrange date and time is

_____

Mrs. Leilani Irby
2713 Kenwood Court
Edmond, OK 73034

STATEMENT TO BE READ TO PARTICIPANTS PRIOR TO ADMINISTRATION OF THE INVESTIGATIVE INSTRUMENTS

The purpose of my study is to compare the responses of basic students and registered nurse students who are enrolled in the same baccalaureate program to their educational experiences.

The study consists of two scales that I will ask you to complete. One of the scales has fourteen items, and the other has eleven. The items on Part II of the questionnaire are intended to indicate a continuum of feelings. Please be sure that you mark only one response between each set of terms. It will take you about twenty minutes to complete both scales. I will also ask you to give me permission to use your semester grade point average as one of the pieces of data I need for my study.

Your participation in this study is entirely voluntary and will not effect your grades in any way.

Your responses will not be seen by anyone but me, and when the data have been analyzed and the results are reported, the results will be in the form of pooled data, so feel free to respond as accurately as you possibly can to the items in the scales.

When I have completed my study, I will send an abstract to the director of your school so that you can see what the results are like.

Thank you very much for your help.

DEMOGRAPHIC DATA

Name _____

Age _____ Marital Status _____

Number of dependent children _____

Are you:		Number of years of nursing experience
an associate degree graduate	____	____
a diploma graduate	____	____
a licensed practical nurse	____	____
a nursing assistant	____	____
no experience as a nurse	____	____

Are you going to school full time ____ or part time ____?

Are you also working? ____ If so, hours per week? ____

CONSENT FORM

I understand that my grade point average at the end of the fall semester, 1982, is part of the data that will be required for this investigation, but that it will be used only as pooled and anonymous information.

Signed: _____

PART I

ROLE CONFLICT AND ROLE AMBIGUITY SCALES

Place a mark in the appropriate space after each statement to indicate your thoughts and feelings about your activities and participation in this phase of your preparation to be a registered nurse.

	Very false	Quite false	Slightly false	Neither true nor false	Slightly true	Quite true	Very true	
1. I feel certain about how much authority I have.	____	____	____	____	____	____	____	#
2. I have to do things that should be done differently.	____	____	____	____	____	____	____	*
3. I receive an assignment without the manpower to complete it.	____	____	____	____	____	____	____	*
4. I know that I have divided my time properly.	____	____	____	____	____	____	____	#
5. There are clear, planned goals and objectives for my job.	____	____	____	____	____	____	____	#
6. I have to buck a rule or policy in order to carry out my job.	____	____	____	____	____	____	____	*
7. I work with two or more groups who operate quite differently.	____	____	____	____	____	____	____	*

PART II

Place a mark in the appropriate blank between each pair of adjectives to indicate your current thoughts and feelings with respect to your nursing program. Please be sure that you respond to each set of adjustives, but put only one mark between each set of adjectives.

MYSELF IN THIS NURSING PROGRAM

	Extremely	Quite	Slightly	Neither one or the other	Slightly	Quite	Extremely		
(Example) Hot	____:	____:	____:	__x__ :	____:	____:	____:	Cold	
Calm	____:	____:	____:	____:	____:	____:	____:	Nervous	
Worried	____:	____:	____:	____:	____:	____:	____:	Carefree	*
Satisfied	____:	____:	____:	____:	____:	____:	____:	Dissatisfied	
Tense	____:	____:	____:	____:	____:	____:	____:	Relaxed	*
Comfortable	____:	____:	____:	____:	____:	____:	____:	Uncomfortable	
Confident	____:	____:	____:	____:	____:	____:	____:	Fearful	*
Bored	____:	____:	____:	____:	____:	____:	____:	Excited	
Prepared	____:	____:	____:	____:	____:	____:	____:	Unprepared	
Cheerful	____:	____:	____:	____:	____:	____:	____:	Gloomy	
Reassured	____:	____:	____:	____:	____:	____:	____:	Doubtful	*
High Strung	____:	____:	____:	____:	____:	____:	____:	Serene	*

*NB: The asterisked items were the only items actually scored in Dr. Ogan's study. This emotional stress measure was graciously shared with me by Dr. Dennis W. Organ. His results were published in the July, 1981 issue of Human Relations, pp. 573-87.

	Very false	Quite false	Slightly false	Neither true nor false	Slightly true	Quite true	Very true	
8. I know what my responsibilities are.	____	____	____	____	____	____	____	#
9. I receive incompatible requests from two or more people.	____	____	____	____	____	____	____	*
10. I know exactly what is expected of me.	____	____	____	____	____	____	____	#
11. I do things that are apt to be accepted by one person and not accepted by others.	____	____	____	____	____	____	____	*
12. I work on unnecessary things.	____	____	____	____	____	____	____	*
13. Explanation is clear of what has to be done.	____	____	____	____	____	____	____	#
14. I receive an assignment without adequate resources and materials to execute it.	____	____	____	____	____	____	____	*

From:
Rizzo, John R., House, Robert J., and Lirtzman, Sidney I. "Role Conflict and Ambiguity in Complex Organizations." Administrative Science Quarterly 15 (June 1970):150-63.

NB: Items which measure role conflict are marked on the right margin by an asterisk (*). Items which measure role ambiguity are marked on the right margin by a numeral sign (#).

APPENDIX B

TABLE 3

PERCENTAGE OF RETURN OF QUESTIONNAIRES

	C.S.U.	O.B.U.	O.U.	T.U.
Total senior enrollment	60	15	144	40
Total # registered nurse students	11	1	25	5
Total # generic students	47	14	112	32
Total # licensed practical nurse students	2	0	7	3
Total # licensed practial nurse student responses (not used)	1	0	5	3
# usable registered nurse responses	8	1	20	5
# usable generic student responses	32	12	38	29
# unusable registered nurse responses	1	0	0	0
#unusable generic student responses	1	0	3	3
% possible usable registered nurse responses	73	100	80	100
% possible usable generic student responses	68	86	34	91
Total percentage of responses	72	86	56	100

TABLE 4

CODE FOR RAW DATA

Variable Code Name	Variable Description and Code
UNIV	Institution code 1-Central State University 2-Oklahoma Baptist University 3-The University of Oklahoma 4-The University of Tulsa
STUD NO	Identification number assigned to each subject, by alphabetical order within each institution
AGE	Subject's age in years
SEX	Subject's sex code 1-female 2-male
MAR STAT	Marital status code 1-single 3-divorced 2-married 4-widowed
NO CHI	Number of dependent children
NUR EX	Nursing experience code 1-no nursing experience 2-nursing assistant 3-licensed practical nurse 4-associate degree graduate 5-diploma graduate
TIME SCH	Full-time/part-time student code 1-full-time 2-part-time
WORK	Work code 1-yes 2-no
HRS WK	Number of hours worked each week
RCS	Role conflict score
RAC	Role ambiguity score
SS	Stress score
GPA	Grade point average, fall semester, 1982

TABLE 5

RAW DATA--COMPUTED SCORES

UNIV	ID	AGE	SEX	MAR STAT	NO CHI	NUR EX	NUR YR	TIME SCH	WORK	HRS WK	RCS	RAS	SS	GPA
1	1	25	1	1	0	2	1	1	1	8	3.75	3.00	3.50	3.33
1	2	23	1	1	0	2	3	1	2	0	4.25	1.83	5.16	2.67
1	3	31	1	1	0	5	6	1	1	16	5.25	2.83	6.50	4.00
1	4	35	1	2	3	2	1	1	1	8	4.63	3.33	4.67	3.67
1	5	45	1	2	2	2	12	1	2	0	2.63	2.40	4.17	2.33
1	6	22	1	1	0	2	4	1	1	16	5.55	2.50	3.83	2.67
1	7	23	1	1	0	2	2	1	1	8	4.25	2.83	4.50	3.00
1	8	27	1	2	1	4	5	1	1	24	4.63	3.00	4.17	3.00
1	9	28	1	2	1	2	4	1	1	8	1.63	1.83	3.80	3.33
1	10	31	1	2	0	2	1	1	1	8	5.13	3.83	4.83	4.00
1	11	21	1	2	0	2	1	1	1	12	4.00	2.33	4.00	4.00
1	12	28	1	2	2	2	1	1	1	4	4.75	2.17	3.83	3.33
1	13	23	1	1	0	2	1	1	2	0	6.00	2.00	4.17	3.67
1	14	22	1	2	1	2	1	1	1	8	5.13	2.17	3.83	2.67
1	15	25	1	1	0	2	1	1	1	8	3.63	2.17	3.67	4.00
1	16	23	1	2	0	2	2	1	1	4	4.75	4.50	4.00	3.67
1	17	26	1	2	2	2	1	1	2	0	4.13	1.50	2.50	2.67
1	18	25	1	2	0	2	3	1	1	8	5.13	3.33	4.17	3.67
1	19	42	1	2	3	5	25	1	1	24	2.38	2.00	3.67	3.00
1	20	21	1	2	0	2	1	1	2	0	5.13	2.83	5.67	3.00
1	21	24	1	1	0	2	2	1	1	8	4.13	2.83	4.00	2.67
1	22	25	1	2	0	4	3	1	1	40	4.25	2.17	3.33	3.00
1	23	26	1	1	0	2	2	1	1	16	4.88	2.83	4.33	3.33
1	24	27	1	3	1	5	5	1	1	24	5.63	2.83	4.33	3.00
1	25	25	2	2	0	2	5	1	1	8	4.25	2.83	4.00	3.67
1	26	38	1	2	2	2	4	1	1	9	4.38	4.33	3.67	3.00
1	27	27	1	2	0	4	4	1	1	24	5.00	2.17	3.67	3.00
1	28	38	1	2	3	1	0	1	2	0	5.00	3.00	5.33	4.00

TABLE 5--Continued

UNIV	ID	AGE	SEX	MAR STAT	NO CHI	NUR EX	NUR YR	TIME SCH	WORK	HRS WK	RCS	RAS	SS	GPA
1	29	21	1	1	0	2	1	1	1	8	4.88	3.33	5.33	2.67
1	30	26	1	2	2	3	8	1	1	8	3.38	2.50	4.00	3.00
1	31	22	1	1	0	2	2	1	2	0	4.75	4.60	4.83	2.33
1	32	21	1	2	0	2	1	1	1	16	4.38	4.33	5.33	3.33
1	33	24	1	2	0	2	1	1	2	0	3.50	2.83	4.17	3.67
1	34	22	1	1	0	2	3	1	1	4	5.63	3.83	4.83	3.33
1	35	30	1	2	1	2	3	1	1	4	4.75	2.83	4.67	3.00
1	36	23	1	2	0	2	1	1	2	0	4.63	5.00	6.83	3.67
1	37	22	1	1	0	2	1	1	1	12	4.88	5.00	5.17	3.33
1	38	28	1	2	2	4	10	1	1	16	4.75	4.00	5.00	3.33
1	39	22	1	1	0	1	0	1	1	8	3.25	2.83	4.00	3.00
1	40	22	1	1	0	2	2	1	1	9	5.00	2.83	5.33	2.67
1	41	30	1	2	0	5	10	1	1	24	3.00	3.33	4.00	3.00
2	42	21	1	1	0	2	1	1	1	8	3.00	2.83	3.17	3.00
2	43	21	1	1	0	2	1	1	1	12	3.75	2.00	4.00	3.00
2	44	21	1	2	0	1	0	1	2	0	2.25	3.67	1.50	3.33
2	45	21	1	1	0	2	1	1	1	20	4.13	2.67	4.83	3.33
2	46	21	1	1	0	2	4	1	1	8	1.25	1.67	5.00	3.33
2	47	21	1	1	0	2	2	1	1	8	6.00	4.00	3.67	4.00
2	48	23	1	1	0	2	2	1	1	20	3.00	2.83	4.33	3.00
2	49	47	1	2	2	1	0	1	2	0	4.38	3.67	4.33	4.00
2	50	21	1	1	0	2	1	1	2	0	3.00	1.50	2.17	3.67
2	51	23	1	1	0	2	1	1	1	20	5.50	3.33	5.66	2.67
2	52	21	1	1	0	1	0	1	2	0	3.25	2.67	5.33	3.67
2	53	39	1	1	0	5	10	1	1	40	4.88	4.00	3.00	3.00
2	54	22	1	1	0	2	5	1	1	8	2.13	2.83	3.17	3.33
3	55	30	1	3	1	3	6	1	1	20	4.88	3.33	2.67	3.20
3	56	25	1	1	0	1	0	1	2	0	2.88	2.17	3.50	2.60

TABLE 5--Continued

UNIV	ID	AGE	SEX	MAR STAT	NO CHI	NUR EX	NUR YR	TIME SCH	WORK	HRS WK	RCS	RAS	SS	GPA
3	57	22	1	1	0	2	4	1	1	4	4.00	3.17	3.00	4.00
3	58	48	1	2	0	4	4	2	1	36	5.38	1.50	6.33	4.00
3	59	21	1	1	0	2	1	1	1	8	4.63	3.67	4.67	3.60
3	60	23	1	1	0	2	1	1	1	16	4.13	3.50	4.33	3.67
3	61	22	1	1	0	2	1	1	2	0	2.25	3.00	4.50	4.00
3	62	28	2	2	0	2	3	1	1	12	4.63	2.17	4.00	3.60
3	63	23	1	1	0	5	1	1	1	12	3.88	2.50	3.33	3.60
3	64	47	1	2	0	5	26	1	2	0	3.00	2.00	3.17	4.00
3	65	36	1	2	0	5	10	2	1	40	4.53	3.17	3.67	3.20
3	66	32	1	2	1	3	5	1	2	0	1.63	2.00	3.50	3.57
3	67	28	1	3	1	2	2	1	1	17	4.88	2.83	3.83	2.60
3	68	33	1	1	0	4	10	2	1	40	3.75	3.67	4.17	2.00
3	69	21	1	1	1	2	2	1	1	12	4.50	4.17	6.80	2.83
3	70	21	1	1	0	1	0	1	2	0	4.63	3.67	3.33	4.00
3	71	22	1	2	0	1	0	1	2	0	5.13	2.33	5.17	2.33
3	72	46	1	2	1	5	23	1	2	0	1.75	4.17	4.00	3.43
3	73	23	1	1	0	2	1	1	1	12	3.63	2.50	4.67	3.60
3	74	23	1	2	0	2	1	1	1	8	4.63	4.00	4.50	3.64
3	75	22	1	1	0	2	1	1	1	4	3.75	3.50	3.00	4.00
3	76	22	1	2	0	5	1	1	2	0	5.00	2.67	4.33	2.60
3	77	22	1	1	0	2	1	1	1	8	3.50	3.67	4.00	3.00
3	78	29	1	2	1	1	0	1	1	8	5.25	3.33	3.83	2.60
3	79	21	1	1	0	2	2	1	1	8	5.25	2.17	4.17	3.00
3	80	24	1	1	0	2	1	1	1	20	2.00	2.33	3.83	2.60
3	81	36	1	2	2	5	16	1	1	40	2.88	2.00	3.83	3.14
3	82	27	1	1	1	3	7	2	1	40	4.63	3.67	5.17	2.40
3	83	41	1	2	2	4	8	2	1	40	3.75	2.17	5.00	2.00
3	84	21	1	1	0	2	1	1	1	8	3.63	3.67	5.00	3.00
3	85	21	1	1	0	1	0	1	1	8	4.88	4.00	4.67	3.40
3	86	24	1	2	2	2	1	1	1	8	5.38	2.50	5.17	3.00

TABLE 5--Continued

UNIV	ID	AGE	SEX	MAR STAT	NO CHI	NUR EX	NUR YR	TIME SCH	WORK	HRS WK	RCS	RAS	SS	GPA
3	87	21	1	1	0	2	1	1	1	8	5.38	2.50	3.67	3.50
3	88	21	1	1	0	1	0	1	1	2	3.75	2.00	4.83	3.67
3	89	25	1	1	0	5	2	1	1	36	5.63	2.67	6.50	2.86
3	90	22	1	1	0	2	1	1	1	32	4.25	2.17	3.67	2.60
3	91	29	1	2	0	5	3	1	1	40	4.13	1.00	3.83	3.43
3	92	30	1	1	0	5	10	1	1	45	4.50	2.67	5.83	3.00
3	93	38	1	2	3	4	4	2	1	40	4.75	3.00	4.00	3.50
3	94	21	1	1	0	1	0	1	2	0	3.63	2.50	3.17	4.00
3	95	24	1	2	0	1	0	1	2	0	4.00	4.50	5.17	2.83
3	96	23	1	1	0	2	1	1	2	0	4.63	2.33	4.17	3.57
3	97	32	1	3	2	2	1	1	1	12	3.50	2.50	5.00	3.00
3	98	21	1	2	0	1	3	1	1	8	4.50	3.33	5.17	3.67
3	99	22	1	1	0	2	1	1	1	8	4.50	3.17	3.00	3.60
3	100	27	1	2	2	2	2	1	1	4	5.25	3.17	4.00	3.60
3	101	25	1	2	0	1	0	1	2	0	5.00	4.83	4.83	2.60
3	102	30	1	1	0	5	7	1	2	0	4.25	2.00	4.83	2.17
3	103	21	1	2	0	1	0	1	1	8	3.75	2.50	3.83	4.00
3	104	26	2	3	0	2	3	1	1	16	3.38	2.00	3.50	3.67
3	105	28	1	2	2	2	1	1	1	12	5.88	3.50	2.17	4.00
3	106	31	1	2	2	2	5	1	1	20	5.13	2.00	4.00	4.00
3	107	25	1	2	0	2	2	1	1	8	4.00	2.17	4.17	3.00
3	108	22	1	1	0	5	1	1	1	24	4.88	3.50	5.00	2.60
3	109	23	1	1	0	1	0	1	2	0	5.13	3.00	4.83	2.60
3	110	37	1	2	3	3	18	1	1	8	4.13	2.00	2.67	4.00
3	111	26	2	2	0	4	2	1	1	16	4.75	2.00	3.67	2.67
3	112	29	1	1	0	3	8	2	1	40	5.13	3.33	5.33	2.40
3	113	49	1	2	0	5	27	2	1	40	4.75	2.67	5.17	3.20
3	114	32	1	1	0	5	10	2	1	40	4.25	3.50	5.66	3.00
3	115	21	1	2	0	5	1	1	1	12	5.63	3.83	5.50	3.50
3	116	22	1	1	0	2	2	1	1	8	5.25	2.17	4.67	3.00

TABLE 5--Continued

UNIV	ID	AGE	SEX	MAR STAT	NO CHI	NUR EX	NUR YR	TIME SCH	WORK	HRS WK	RCS	RAS	SS	GPA
3	117	27	1	1	0	4	5	1	1	16	4.88	3.50	5.00	3.00
4	118	23	1	2	0	1	0	1	1	24	4.00	3.17	4.67	2.67
4	119	22	2	1	0	2	1	1	1	8	4.00	2.67	2.50	3.00
4	120	31	1	2	2	3	2	2	1	12	1.88	1.83	2.83	4.00
4	121	34	1	2	3	2	10	1	1	6	4.38	4.00	4.17	3.33
4	122	23	1	2	0	2	3	1	1	24	4.00	3.67	6.00	3.33
4	123	22	1	1	0	2	1	1	1	8	4.38	3.67	4.33	3.33
4	124	37	2	2	2	1	0	1	1	50	5.50	5.33	5.83	2.00
4	125	21	1	1	0	2	3	1	1	4	2.75	4.17	3.83	3.00
4	126	30	1	2	1	5	9	1	1	8	3.88	2.50	3.33	3.33
4	127	21	1	1	0	2	1	1	1	8	5.25	2.50	3.67	3.33
4	128	23	1	2	0	2	2	1	1	24	5.50	3.50	5.00	2.67
4	129	22	1	1	0	2	2	1	1	12	3.88	2.50	5.17	3.00
4	130	21	1	1	0	2	1	1	1	28	5.13	3.33	3.83	2.67
4	131	25	1	2	0	2	1	1	1	24	5.00	4.00	6.00	3.33
4	132	22	1	1	0	1	0	1	1	24	4.13	2.83	4.50	3.00
4	133	41	1	4	2	1	0	1	1	8	3.25	4.33	4.00	3.33
4	134	28	2	3	1	1	0	1	1	40	5.25	2.67	3.00	3.33
4	135	32	1	3	2	1	0	1	2	0	1.75	2.00	2.83	3.00
4	136	28	2	1	0	3	5	2	1	20	3.88	4.50	4.33	2.67
4	137	36	1	2	2	3	12	1	1	8	4.38	2.67	4.67	2.67
4	138	23	1	1	0	1	0	1	1	8	4.50	5.00	6.00	2.67
4	139	21	1	1	0	2	2	1	1	18	3.88	2.50	4.00	2.67
4	140	22	1	1	0	2	3	1	2	0	4.50	3.33	5.66	3.33
4	141	42	1	2	1	2	3	1	1	0	1.75	2.67	4.83	2.67
4	142	23	2	1	0	2	3	1	1	24	4.75	3.50	5.66	2.33
4	144	22	1	1	0	2	3	1	1	32	3.38	2.33	5.00	3.00
4	145	22	1	1	0	1	0	1	1	38	3.50	2.67	5.00	2.33
4	146	26	1	3	1	1	0	1	1	20	3.50	3.50	4.83	2.33

TABLE 5--Continued

UNIV	ID	AGE	SEX	MAR STAT	NO CHI	NUR EX	NUR YR	TIME SCH	WORK	HRS WK	RCS	RAS	SS	GPS
4	147	23	1	2	1	2	3	1	1	8	4.88	4.33	4.83	2.33
4	148	24	1	1	0	2	2	1	1	24	2.50	2.00	3.00	3.00
4	149	31	1	2	2	4	10	1	2	0	4.38	1.83	3.00	3.67
4	150	46	1	2	2	5	20	1	1	16	5.38	2.50	4.33	3.00
4	151	21	1	1	0	2	3	1	2	0	4.50	2.17	5.50	3.00
4	152	21	1	1	0	2	3	1	1	12	4.63	3.83	4.33	2.67
4	153	25	1	2	0	4	3	1	1	12	3.63	3.83	5.50	3.00
4	154	44	1	3	1	4	13	1	1	8	4.13	3.33	2.83	3.00

TABLE 6

COMPARISON OF SAMPLES

		REGISTERED NURSE SAMPLE	GENERIC STUDENT SAMPLE I	GENERIC STUDENT SAMPLE II	GENERIC STUDENT SAMPLE III
	N=	34	34	34	34
Variable					
$\bar{X}$ Age		32.50	25.68	24.68	23.71
Sex					
Female	N=	33	34	30	32
Male	N=	1	0	4	2
Marital Status					
Single	N=	10	15	22	20
Married	N=	22	16	11	13
Divorced	N=	2	2	1	1
Widowed	N=	0	1	0	0
Dependent Children	$\bar{X}$=	0.68	0.44	0.38	0.38
Years Nursing Experience	$\bar{X}$=	8.94	1.47	1.53	1.85
School Attendance					
Full Time	N=	27	34	34	34
Part Time	N=	7	0	0	0
Hours Worked Per Week	$\bar{X}$=	23.29	9.50	11.24	8.79
RCS	$\bar{X}$=	4.35	4.12	4.41	4.07
RAS	$\bar{X}$=	2.72	3.11	3.09	2.82
SS	$\bar{X}$=	4.40	4.30	4.28	4.43
GPA	$\bar{X}$=	3.10	3.12	3.22	3.23

TABLE 7

SUMMARIZED DATA FROM COMPUTED SCORES

Variable	RN Students N=34		Generic Students SS_I N=34		Generic Students S_{II} N=34		Generic Students S_{III}	
	$\bar{X}$	S_{RN}	$\bar{X}$	S_{GI}	$\bar{X}$	S_{GII}	$\bar{X}$	S_{GIII}
Age	32.50	8.66	25.68	5.96	24.68	5.94	23.71	3.83
Number of Dependent Children	0.68	0.98	0.44	0.82	0.38	0.82	0.38	0.89
Years of Nursing Experience	8.94	7.50	1.47	2.11	1.53	1.42	1.85	1.99
Hours Worked Per Week	23.29	15.01	9.50	8.37	11.24	11.66	8.74	9.30
Role Conflict Score	4.35	0.95	4.12	1.23	4.41	0.90	4.07	0.95
Role Ambiguity Score	2.72	0.75	3.11	0.95	3.09	0.80	2.82	0.68
Stress Score	4.40	1.04	4.30	1.14	4.28	0.85	4.43	0.80
Grade Point Average (Semester)	3.10	0.49	3.12	0.50	3.22	0.57	3.23	0.46

TABLE 8

ANALYSIS OF VARIANCE COMPARING SCORES OF REGISTERED NURSE STUDENTS AND GENERIC STUDENTS SSI

Variable	Source	df	SS	MS	Calc'd F
Age	Among Groups	1	791.53	791.53	14.34*
	Within Groups	66	3643.94	55.23	
	Total	67	4435.47		
Number of Dependent Children	Among Groups	1	0.94	0.94	1.15
	Within Groups	66	53.82	0.82	
	Total	67	54.77		
Years of Nursing Experience	Among Groups	1	948.77	948.77	31.24*
	Within Groups	66	2004.35	30.37	
	Total	67	2953.12		
Hours Worked Per Week	Among Groups	1	3234.72	3234.72	21.91*
	Within Groups	66	9745.56	147.66	
	Total	67	12980.28		
Role Conflict Score	Among Groups	1	0.93	0.93	0.77
	Within Groups	66	79.70	1.21	
	Total	67	80.63		
Role Ambiguity Score	Among Groups	1	2.57	2.57	3.49
	Within Groups	66	48.53	0.74	
	Total	67	51.09		
Stress Score	Among Groups	1	0.17	0.17	0.14
	Within Groups	66	78.15	1.18	
	Total	67	78.31		
Grade Point Average	Among Groups	1	0.01	0.01	0.05
	Within Groups	66	16.00	0.24	
	Total	67	16.01		

Critical Value of F (α = .05) is 3.99

*Significant F score

TABLE 9

ANALYSIS OF VARIANCE COMPARING SCORES OF REGISTERED NURSE STUDENTS AND GENERIC STUDENTS SSII

Variable	Source	df	SS	MS	Calc'd F
Age	Among Groups	1	1040.53	1040.53	18.88*
	Within Groups	66	3637.94	55.12	
	Total	67	4678.47		
Number of Dependent Children	Among Groups	1	1.47	1.47	1.82
	Within Groups	66	53.47	0.81	
	Total	67	54.94		
Years of Nursing Experience	Among Groups	1	933.88	933.88	32.03*
	Within Groups	66	1924.35	29.16	
	Total	67	2858.23		
Hours Worked Per Week	Among Groups	1	2472.06	2472.06	13.67*
	Within Groups	66	11921.17	180.62	
	Total	67	14393.23		
Role Conflict Score	Among Groups	1	0.06	0.06	0.07
	Within Groups	66	56.54	0.86	
	Total	67	56.60		
Role Ambiguity Score	Among Groups	1	2.34	2.34	3.90
	Within Groups	66	39.48	0.60	
	Total	67	41.82		
Stress Score	Among Groups	1	0.24	0.24	0.27
	Within Groups	66	59.36	0.90	
	Total	67	59.60		
Grade Point Average	Among Groups	1	0.26	0.26	0.93
	Within Groups	66	18.35	0.28	
	Total	67	18.61		

Critical Value of F ($\alpha = .05$) is 3.99

*Significant F Score

TABLE 10

ANALYSIS OF VARIANCE COMPARING SCORES OF REGISTERED NURSE STUDENTS AND GENERIC STUDENTS SSIII

Variable	Source	df	SS	MS	Calc'd F
Age	Among Groups	1	1314.72	1314.72	29.34*
	Within Groups	66	2957.56	44.81	
	Total	67	4272.28		
Number of Dependent Children	Among Groups	1	1.47	1.47	1.69
	Within Groups	66	57.47	0.87	
	Total	67	58.94		
Years of Nursing Experience	Among Groups	1	854.13	854.13	28.35*
	Within Groups	66	1988.15	30.12	
	Total	67	2842.28		
Hours Worked Per Week	Among Groups	1	3574.25	3574.25	22.93*
	Within Groups	66	10288.62	155.89	
	Total	67	13862.87		
Role Conflict Score	Among Groups	1	1.35	1.35	1.49
	Within Groups	66	59.88	0.91	
	Total	67	61.23		
Role Ambiguity Score	Among Groups	1	0.16	0.16	0.31
	Within Groups	66	33.92	0.51	
	Total	67	34.08		
Stress Score	Among Groups	1	0.02	0.02	0.02
	Within Groups	66	56.46	0.86	
	Total	67	56.48		
Grade Point Average	Among Groups	1	0.33	0.33	1.47
	Within Groups	66	14.87	0.23	
		67	15.20		

Critical value of F ($\alpha = .05$) is 3.99

*Significant value of F

TABLE 11

ANALYSIS OF VARIANCE COMPARING SCORES OF REGISTERED NURSE STUDENTS AND ALL GENERIC STUDENTS

Variable	Source	df	SS	MS	Calc'd F
Age	Among Groups	1	1575.12	1575.12	40.20*
	Within Groups	143	5602.84	39.18	
	Total	144	7177.96		
Number of Dependent Children	Among Groups	1	1.55	1.55	2.04
	Within Groups	143	108.68	0.76	
	Total	144	110.23		
Years of Nursing Experience	Among Groups	1	1391.02	1391.02	89.69*
	Within Groups	143	2217.74	15.51	
	Total	144	3608.76		
Hours Worked Per Week	Among Groups	1	4656.23	4656.23	38.27*
	Within Groups	143	17391.33	121.62	
	Total	144	22047.56		
Role Conflict Score	Among Groups	1	0.45	0.45	0.45
	Within Groups	143	142.46	1.00	
	Total	144	142.91		
Role Ambiguity Score	Among Groups	1	2.94	2.94	4.33*
	Within Groups	143	96.98	0.68	
	Total	144	99.92		
Stress Score	Among Groups	1	0.05	0.05	0.05
	Within Groups	143	132.54	0.93	
		144	132.59		
Grade Point Average	Among Groups	1	0.17	0.17	0.68
	Within Groups	143	36.36	0.25	
	Total	144	36.53		

Critical value of F ($\alpha = .05$) is 3.91

*Significant F Score

TABLE 12

CORRELATIONS BETWEEN ROLE CONFLICT, ROLE AMBIGUITY, AND STRESS SCORES AND SEMESTER GRADE POINT AVERAGE

	RCS	RAS	SS	GPA
RCS	1.000	0.2346*	0.3057*	-0.0330
RAS	0.2346	1.000	0.2964*	-0.0869
SS	0.3057	0.2964	1.000	-0.2468*
GPA	-0.0330	-0.0869	-0.2468	1.000

for df = 143, r(crit .05) = .16

*Significant correlations

TABLE 13

SECONDARY ANALYSIS OF DATA
HOTELLING'S T^2 VALUES

Variable	Registered Nurse Student and Generic Students Subsample I		Registered Nurse Student and Generic Students Subsample II		Registered Nurse Student and Generic Students Subsample III	
	T(Pooled)		T(Pooled)		T(Pooled)	
Age	-.379	*	-4.34	*	-5.42	*
Number of Dependent Children	-.107		-1.35		-1.30	
Years of Nursing Experience	-.5.59	*	-5.66	*	-5.32	*
Hours Worked Per Week	-4.68	*	-3.70	*	-4.79	*
Role Conflict Score	-0.88		-0.27		-1.22	
Role Ambiguity Score	-1.87		-1.98		-0.56	
Stress Score	-0.38		-0.52		-0.15	
Semester Grade Point Average	0.23		0.96		1.21	

Critical Value of $T(\alpha = .01)$ is 2.61

*Significant at .001 level