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LIFE SKILLS NEEDED AT DIFFERENT LIFE STAGES BY PROFESSIONAL NURSES

The Ohio State University

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LIFE SKILLS NEEDED AT DIFFERENT LIFE STAGES BY PROFESSIONAL NURSES

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

By
Patricia Susan Fitzsimons, M.A.

+++++

The Ohio State University
1983

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College of Education
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To my committee members, Dr. Kathryn Schoen and Dr. D. Alexander Severino, for ongoing support.

To my advisor, Dr. Ayres D'Costa, a special note of thanks and indebtedness for many hours of guidance, insight and friendship.
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CHAPTER I
INTRODUCTION

The health professions today are in a state of flux and change. Innovations and discoveries, both theoretical and technical, are continually expanding the body of knowledge and skills that form the basis for professional practice. In this ever changing environment, it is difficult to predict professional role demands for the future (Brooks, 1967).

Nursing, one of the oldest of the health professions, is currently fighting a battle of definition of its role in health care. Traditionally, the nurse was seen as someone who cared for the sick under the direction of a physician. While this is still true, nurses of today also "engage in research, deliver babies, teach health, administer anesthesia, hang out a shingle, and diagnose patients" (Kelly, 1981). Nurses not only work in hospitals, but in homes, clinics, schools, and industry. Nurses today think as well as do.

The role of the nurse is evolving as society's needs and demands for accountability of the health professions change. With increasing government regulation
at all levels, the health care industry is being forced to identify alternative delivery systems of care which will reduce health care costs. Pivotal to this effort is an expanded role for nursing which stresses autonomy and assessment skills as well as the traditional caregiver role (Chaska, 1982).

The societal changes and demands are continuous. Unfortunately, the system of basic nursing education has not kept pace. Preparation for entry into practice still remains in three distinct programs – diploma, associate degree and baccalaureate. Each of these programs prepares a practitioner with different degrees of skill and a distinct set of competencies. The scope of practice of each type of graduate is different, and does not always address new role demands (National League for Nursing, 1982).

Nursing educators are increasingly being challenged to prepare practitioners for the roles of today, as well as the roles for nursing of the future. To meet these demands, educators are hard pressed to identify appropriate content, as the body of knowledge of nursing is constantly expanding. Instead, identification of skills that enable the professional nurse to meet challenges in a lifelong fashion may be more effective.
Nursing as a profession has shown significant growth since the American Nurses' Association formally acknowledged that preparation for entry level professional nursing should be the baccalaureate degree (American Nurses' Association, 1965). This position stimulated the growth of baccalaureate schools of nursing and forced the closure of numerous diploma programs.

As the numbers of nurses with higher degrees increases, the development and testing of nursing theory has flourished. This identification of theories of nursing, increasing societal demands for professional accountability, the economic climate, and increasing governmental controls on the health care industry have hastened the development of professional nursing (Chaska, 1982). Professional nurses today find themselves on a fast track of development with nursing being viewed as a lifetime career that necessitates identification of career goals.

The development of the nurse as a professional coincides with his/her development as an adult (Rogers, 1979; Miller and Form, 1951). Research in the area of adult development as well as career development has shown that both develop in stages, and that these stages have specific needs and tasks (Levinson, 1978; Sheehy, 1976).
As these forces - individual, professional and societal - interrelate, needs arise for coping or life skills that assist the professional nurse to develop positively in those spheres. These forces and their impact on professional nurses have not been examined in light of the nurse's role nor his/her stage of development. This is the intent of this research study.

**Definition of the Problem**

This study was designed to investigate the possibility of identifying life skills specific to the stages of adult and career development of professional nurses, as well as identifying life skills specifically required for three different roles in professional nursing - teaching, administration and clinical practice. The following problem statements were formulated:

Do professional nurses need different life skills for effective development at each stage of career/adult development?

Do professional nurses need different life skills for effective development in different roles in nursing?

Is there an interaction effect between stage of development and role?

**Background of the Problem**

Nursing is predominately a female profession. An analysis of the history of nursing reflects a profession
whose problems reflect the problems of women in the 20th century (Ashley, 1979). Traditionally, nurses have been viewed as persons totally dependent on physicians for guidance, direction and even nursing care decisions. The nurse was rarely given credit for having the background and ability to make decisions regarding patient care. Low status and poor renumeration accompanied this dependent and subservient role.

Initially, the knowledge base of nursing was that of medicine. Physicians as well as hospital administrators (both groups dominated by males) identified what comprised nursing curricula. The student of nursing learned not a theory of nursing, but rather her role in assisting physicians to combat disease (Coburn, 1974).

Around 1940, nursing recognized that to achieve professional status, nursing education needed to move to the university and be removed from the apprentice-like hospital setting. Nurse educators believed that for nursing to attain true professional status, the students of nursing needed to acquire a broad background in liberal arts, the humanities, and the natural and behavioral sciences. Hence, tremendous demands were placed on the nursing student who had to master a complex and changing body of knowledge as well as master clinical skills.
It was not until the 1960's, however, that nursing received the thrust forward into professionalism. The American Nurses' Association's Statement on Entry Into Practice formalized their position that a Bachelor of Science in Nursing would be the minimum requirement for entry into practice for the professional nurse.

The women's movement of the 1960's and 70's also had an impact on nursing by forcing the female nurse to examine her dependent role and lack of equal status with the physician (Ashley, 1979). The image of the nurse who was seen but not heard was over (Coburn, 1974).

These two phenomena, the American Nurses' Association Position Paper and the Women's Rights Movement, had profound results on modern-day nursing. First, increasing numbers of nurses have not only acquired a B.S.N., but other higher degrees. Second, an increasing body of "nursing theory" has been developed and is being tested. Third, nursing is increasingly more accountable to the consumer through care modalities such as primary nursing. Fourth, expanded roles for nursing have been developed and are beginning to be accepted as an alternative to medical care (Bullough and Bullough, 1977).

The occurrence of these trends has placed nurses on a fast escalator of development. In ten years, the definition of the profession has changed so drastically
that performance demands and henceforth the need for lifelong education has also dramatically changed.

While demands and expectations have changed, the educational process is still catching up. Three different nursing programs still exist for entry into practice, and few states have mandated continuing education for relicensure (Bullough and Bullough, 1977).

The nurse of today needs increasing levels of skills to cope with her role as a professional, and as a woman playing multiple roles. Traditionally, women have not been actively taught coping skills, but instead were taught obedience and self-devotion to others (Coburn, 1974).

For nursing, a profession in a constant state of flux and definition, it seems appropriate to identify those skills needed for performance in a variety of roles - teacher, practitioner, and/or administrator. It would also be important to determine if these skills are equally necessary at all stages of professional and adult development.

Importance of the Study

The need for continuing lifelong education in the professions seems obvious (Houle, 1980). A number of health professions, nursing included, are beginning to
require evidence of continuing education for relicensure. The number of formalized educational programs is increasing, as is the variety of continuing education offerings (Kelly, 1981).

As professional nurses prepare for career development in different roles in nursing, educational programs should be made available to assist them to develop skills for coping with the challenges of life and role at that point in time. Educational planners need to become more aware of the multiple forces that affect the need for lifelong skills at each stage of development and in each specific role within nursing.

As societal demands increase, the nursing profession will be called upon to insure that its practitioners are effective and competent. Nursing must be prepared to meet the challenges of the future and participate in the delivery of health care in a variety of modes.

The challenges to the profession are numerous. Professional nurses must begin to identify those life and/or coping skills needed at different stages to insure that nurses continue to develop in a positive fashion. To insures nursing's future and survival, the profession must also look to designing a curriculum for lifelong education for its members. This curriculum must take into account the variety of roles that nurses play and where
they are in stage of adult and career development. The individual, professional and societal forces that bring about change are also critical to this framework. This research study, aimed at determining what life skills are needed for effective development and the relationship to role and stage of development, will hopefully begin to clarify what skills should be taught, when they should be taught, and to whom they should be taught. It is an exploratory study that addresses stage of development, role and those forces that impinge on the professional nurse. It is hoped that the study will lead to better lifelong preparation and education of the professional nurse.

**Definition of Terms**

For purposes of this research, the following definitions of terms will be used:

**Career Stages (Professional)** - those stages of professional career development that represent a sequence of occupations in the life of an individual.

**Adult Developmental Stages** - those phases of adult development that identify relationships between age and problems, needs and transitions. These are identified by theory.

**Positive/Effective Development** - that development in which the individual professional views himself and his contribution to the profession and society as
positive and the profession/society also views the contribution as positive (helpful, significant).

Negative/Ineffective Development - that development in which the individual professional views himself and his contributions to the profession and society as negative/ineffective and the profession and society also view the contribution as ineffective (insignificant/of no help).

Dependent Variables:

Life Skills - those cognitive and affective skills learned in a variety of settings which enable a professional to learn and cope with living as well as growing in one's profession.

a. self-understanding - knowledge of self; an understanding of one's belief system.

b. knowledge of what one wants to do - an understanding of one's goals, both professional and personal.

c. identification and utilization of resources - knowledge of appropriate available resources with the ability to use those resources when necessary to achieve goals.

d. values clarification - the process whereby one is able to identify those concepts or "things" that are valued and act accordingly.
e. self-assessment - the process whereby one is able to "take stock" of one's needs, motivations, goals, etc.

f. goal-setting (life and learning) - the ability to set realistic ends.

g. decision-making - the ability to use a process of problem-solving to reach decisions or conclusions.

h. use of time - management of time to achieve desired tasks or goals.

i. development and use of power - knowledge of power base and power sources and appropriate use of those sources to achieve desired goals.

j. priority setting - the ability to identify those tasks that must be done versus those of lesser importance.

k. use of leisure time - ability to maximize and enjoy time away from work.

l. conflict resolution - ability to settle disputes.

m. group skills - ability to function in a variety of roles in a group setting.

n. ability to deal with other professionals - understanding others' roles and collaborating with them.

o. communication - includes both verbal and non-verbal abilities.
Stratification Variables:

I. Role - behaviors expected and defined.

(a) **Teacher** - one who works in a school of nursing or hospital and teaches nurses.

(b) **Administrator** - a nurse who works in a managerial position in a health care setting.

(c) **Practitioner** - a nurse who works in a clinical area with a group of patients.

II. Stage of Adult/Professional Development

(a) **Concern with self/developing a career** - usually a task of early adulthood where the individual's main concerns are with self (identity, career choice). Career is starting to develop, beginning professional education.

(b) **Sense of direction/career advancement** - usually early/middle adult years. The professional may return to school; there is an increase in motivation to achieve and get ahead in one's career.

(c) **Reexamination of life goals/career stabilization** - the focus of the individual is less on advancement within the profession and more on contributing to the profession and society. The older middle years and older ages are usually in this stage.
Chapter I presented the introduction, definition of the problem, background of the problem, importance of the study, and definition of terms. The following chapter presents the theoretical framework, review of the literature and the research models.
CHAPTER II
REVIEW OF LITERATURE

This chapter continues with an elaboration of the theoretical framework of this research. Relevant literature on role theory and the professionalization of nursing, forces impacting nursing, women in the professions, stages of adult development, stages of professional development, lifelong learning, and motivation for learning will be reviewed. The theoretical framework includes the concepts of life skills, role, life stages, professional stages, learning, motivation, needs, responsibility, and development.

Role Theory

Individuals in society occupy certain positions, and their performance in these positions is determined by certain rules, norms, and demands. An individual's behavior, as well as needs, in a certain role are essentially prescribed within a framework created by these factors (Biddle and Thomas, 1966; Hardy, 1978).

Biddle (1979) states that roles consist of those behaviors characteristic of a set of persons and a context.
Roles are also limited by context and do not represent the total set of behaviors exhibited by individuals every day, twenty-four hours a day (Hardy, 1978).

Professions are occupations whose roles involve interaction with clients (human beings). The professional's performance is based on a long period of training or formal schooling and he/she is accounted an "expert". Professions embody an explicit code of conduct in the form of rules governing the roles which are set and enforced by members (Schein, 1972).

Nurses are socialized into the role of the practitioner in the basic nursing program. However, this is only one role that the nurse may choose in the course of a career. Options exist to choose to teach nursing or function in an administrative role. Each of these three roles—practitioner, teacher and administrator—has its own rules, norms, and demands. Additionally, each of these roles has a different client group and a different set of needs and forces that are at work on the professional in that role (Hardy, 1978).

The Professionalization of Nursing

Professions can be arranged along a continuum of professionalism from occupation to full profession (Etzioni, 1969). This concept has given rise to such
terms as "emerging profession" and "semi-profession" (Etzioni, 1969). Both terms have been applied to nursing at one time or another.

The predominance of females is a common characteristic of the "semi-professions." This factor, more than any other, has played a major role in the development of nursing; it has proven to be a major disadvantage to the development of professional status for nursing (Ashley, 1979; Jacox, 1973; Yeaworth, 1978).

The Women's Movement of the 1960's and 1970's had a major impact on nursing that is only now being fully realized. As a result of this movement, nursing is overcoming the handicaps of sex-role stereotypes such as low pay, low status, job orientation versus career orientation, and lack of autonomy (Chaska, 1978).

As nurses have become more oriented towards developing lifetime careers, increasing numbers of nurses are achieving graduate degrees in nursing.

As the number of highly educated nurses grows, there is increasing attention given to theory development (Chaska, 1978; McCluskey, 1978). This includes not only an increase in activity, but also a greater degree of sophistication in defining the scope of nursing to distinguish it from other health-related occupations and establish a body of nursing knowledge. It has encouraged a continual trend towards greater professionalization (Klein, 1978).
Women in the Professions

Women in the United States may be educated for occupations and careers, but they are socialized to be wives and mothers (Yeaworth, 1978). This socialization process develops a self-image for women where nurturance, empathy, and passivity are valued qualities. Externally, social institutions and organizations are carefully arranged to provide obstacles to women seeking greater status in high level positions and professions.

American society provides access to status and financial rewards through work (Hardy, 1978; Yeaworth, 1978; Ashley, 1979). Definition of work includes only occupational and career roles - not family or community volunteer roles.

Nursing and other women-dominated professions such as teaching and social work have provided occupations for large numbers and careers for a few. Nursing has maintained the status quo and remained predominately a female profession (Yeaworth, 1978).

As women seek increasing status within the professions, these efforts become a source of social change (Goode, 1970). The change occurs through education, research, legislation to protect the profession with its new privileges, and in distribution of the workforce. The efforts of the members to increase rewards from society,
such as recognition, initiate these changes (Monnig, 1978). As a result, professionalism of the individual assumes greater importance. Changing the social system and increasing the professionalization of its members becomes an important goal of the profession. The professions dominated by women are currently facing this challenge.

**Adult Development**

Interest in adulthood as a distinct developmental stage is a recent phenomenon. Children were studied in the 17th century, adolescents in the early 20th century, and the aged in the 1940's (Rogers, 1979). It took until the late 1960's before the first real interest was shown in the early and middle adult years.

From a developmental frame of reference, each phase of adulthood is viewed in terms of both what has gone before and what is yet to come. Some theorists have attempted to discover relationships between age and problems, dilemmas, transitions and the like (Figure 2-1). They discuss periods of stability and growth and the characteristics associated with the various stages (Erikson, 1963; Levinson, 1978; Sheehy, 1976; Neugarten, 1964; Gould, 1975). Other theorists have narrowed their work to areas in mental, moral, and ego development (Piaget, 1970; Bloom, 1976; Kohlberg, 1969; Loevinger, 1970).
Developmental Stages (Adapted from Chickering 1975)

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<td>Levinson, D.</td>
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</tr>
<tr>
<td>(1974)</td>
<td>Mentor plays an important role</td>
</tr>
<tr>
<td></td>
<td>Settling into the adult world</td>
</tr>
<tr>
<td></td>
<td>Become one's own person</td>
</tr>
<tr>
<td>Gould R. L.</td>
<td>Leaving parents</td>
</tr>
<tr>
<td>(1972)</td>
<td>(breaking out)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Neugarten, B.</td>
<td>Time Since Birth</td>
</tr>
<tr>
<td>(1971)</td>
<td>Future ahead; time to everything</td>
</tr>
<tr>
<td></td>
<td>Achievement orientation</td>
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<td></td>
<td></td>
</tr>
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<td></td>
<td>many women work</td>
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<td></td>
<td>(Marriage)</td>
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Figure 2-1
Jung (1960) tried to understand individual development as a product of both internal and external forces. He believed that the young adult is caught up in the emotional conflicts of childhood and adolescence and therefore has difficulty coping with adult roles. He found that an opportunity for fundamental change occurred around forty. Jung called this the "noon of life" and used the term "individuation" for the developmental process that begins then and may extend further.

Havighurst (1956) proposed a developmental tasks theory. He believed that we have a series of developmental tasks appropriate to the various life stages. Gould (1975) and Sheehy (1976) were able to delineate adult tasks by dividing lives into phases. Likewise, Rapoport and Rapoport (1975) defined life in terms of four major stages. They determined that each stage has its own preoccupations, interests and activities. Additionally, Sheehy (1976) differentiated between men's and women's tasks in middle age.

Levinson (1978) identified that the life cycle evolves through a sequence of eras, each lasting roughly twenty-five years. He defines an era as a time of life with distinctive qualities. He refers to "structure building periods" when an adult makes crucial choices and creates a structure around them, as well as transitional
periods when the major tasks are to reappraise the existing structures, explore new possibilities in self and world and work towards choices that provide a basis for a new structure. He identifies the need for life skills appropriate to each era and states that these skills are necessary to assist the adult in creating new structures.

Figure 2-2 identifies the life skills that Levinson identified in his research and the era to which they are specific.

Erikson's work (1963, 1978) deals with the "eight stages of man". He determined that each stage has specific tasks and deals with the life cycle in its entirety. Neugarten's (1964) work is built on that of Erikson. She, more than any other theorist, speaks to the importance of age and timing in adult development. She determined that when normal events were "on time" (menopause, death, etc.) they were not experienced as crises, but rather as normal events within the life cycle.

Gruber's (1973) work was in the area of mental development. He believes that thought structures may continue to change progressively throughout adulthood. He analyzed the development of creative thought in adults and noted important changes in adult thinking that parallel the development in children's thought. Among both children and adults, these changes are characterized by processes of
**Life Skills Needed by Era**

<table>
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<tr>
<th>Era</th>
<th>Life Skills</th>
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<tr>
<td>Leave the family</td>
<td>Self-understanding</td>
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<td>Knowledge of what one wants to do</td>
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<td>Identification of resources</td>
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<td>Communication</td>
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<td>Settling down</td>
<td>Values clarification</td>
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<td>Self-assessment</td>
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<td>Goal setting</td>
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<td>Decision-making</td>
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<td>Use of time</td>
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<td>Group skills</td>
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<td>Ability to work with other professionals</td>
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<td>Restabilization</td>
<td>Priority setting</td>
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<td>Development and use of power</td>
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<td></td>
<td>Use of leisure time</td>
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*Figure 2-2*
grouping, experimenting with, discarding and restructur-
ing ideas. This concept of continuously learning and per-
ceiving new things in adulthood represents a significant
challenge to the traditionally held idea that adult
thinking establishes an equilibrium beyond which new
structures do not appear but remain relatively constant
until later adulthood when they begin to decline.

Professional Career Stages

Important to an understanding of this research is
not only the stages of adult development, but also the
stages of professional careers. Numerous authors have
studied the professions and determined that career
patterns exist (Super, 1957; Miller and Form, 1951; Hall,
1948; Kelly, 1973; Dalton et al., 1977). Figure 2-3 is a
representative of the stages as identified by Hall, Miller
and Form, and Dalton et al.

Super (1957) describes a career pattern as a sequence
of occupations in the life of an individual and believes
that the stages of a career coincide with stages in the
adult developmental cycle with resultant similar life
skill needs. The research by Miller and Form (1951)
corroborates this view.

Spilerman (1977) states that the "notion of a career
line is intimately associated with the view that the labor
### CAREER STAGES (PROFESSIONAL)

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<th>Theorist</th>
<th>Age</th>
<th>Central Activity</th>
<th>Primary Relationship</th>
<th>Major Psychological Issue</th>
<th>Central Activity</th>
<th>Primary Relationship</th>
<th>Major Psychological Issue</th>
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<tr>
<td>Hall (1948)</td>
<td>20</td>
<td>Generating an ambition</td>
<td>apprentice</td>
<td>dependence</td>
<td>training others</td>
<td>mentor</td>
<td>exercising power</td>
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<td>Gaining admittance</td>
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<td>Developing a set of informal relationships to facilitate growth of practice</td>
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<td>25</td>
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<td>Miller &amp; Form (1951)</td>
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<td>Trial Work Period</td>
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Figure 2-3
market is patterned and that determinable job sequences exist common to the experience of many .... " (p. 552).

Hall's work (1948) was with physicians where he determined the following stages of career development:

Stage 1 - Generating of an ambition - This is a highly subjective matter influenced by family relationships and support.

Stage 2 - Gaining admittance to the various medical institutions.

Stage 3 - Acquiring a clientele, retaining and improving it and perhaps eventually transferring it to a successor.

Stage 4 - Developing a set of informal relationships with colleagues which facilitate the above.

Miller and Form (1951) have also identified career stages and determined tasks appropriate to each stage. The following stages were identified:

I. **Trial Work Period (18-25 yrs.)**
   - Job selection important.

II. **Period of Establishment (25-45 yrs.)**
   - Important to become stabilized in a career and advance within it. Career development for professionals may begin here (upon leaving the university environment). Exploration for them may merely be a matter of determining the medical, engineering, legal or educational specialty of choice. At the professional and managerial levels, the establishment phase may make special demands on leisure hours (research, writing, etc.).
III. **Maintenance Period** (45 yrs. - )

As middle age is reached, there is the tendency to continue in one's chosen profession. A conflict of values may occur here - the professional may choose to work harder to get ahead and make new gains, or he may relax somewhat in order to enjoy where he is and what he has achieved. Progression is now made out of the world of work.

The research of Gene Dalton et al. (1977) determined that there are four stages in a professional career, each with its own central activity, primary relationship and major psychological issue. The stages span the adult years and move from a dependent stage to a state where the professional is in control and is able to exercise power.

**Lifelong Learning**

The education of adults has been an important part of all cultures at all times in history. However, until the last several centuries, the need for specific processes for continuing education was not necessary. However, with the increasing complexity of modern day society, normal processes of continuing education became inadequate and the need for a formal system of adult education emerged (Verner and Booth, 1964; Keppel, 1968). Today adult education is essential for political and social well-being as well as for personal and professional growth (Liviright, 1968).
While numerous authors write of the emergence of adult education as a separate entity, (Knowles, 1970; Kempfer, 1955; Keppel, 1968) far more literature is being devoted to the need for lifelong education. Many believe that education should not terminate at the end of formal schooling, but instead should be a lifelong process (Broschart, 1977; Verner and Booth, 1964; Parkyn, 1973; Dave, 1973).

Lifelong education is characterized by flexibility and diversity. Teachers in schools and colleges must learn to teach so that students leave formal schooling with not only an insatiable curiosity and mastery of learning tools, but also with a commitment to continue learning throughout the rest of their lives (Verner and Booth, 1964; Dave, 1973).

Lifelong learning is not confined to adult education, but is a broader concept which encompasses and unifies all stages of education. It seeks continuity and articulation both on a longitudinal and horizontal dimension (Harrington, 1977). Vertical articulation implies continuity between the different stages of education as life advances from infancy through old age. Horizontal articulation integrates the different aspects of learning for optimum growth and a sense of self-fulfillment at each stage of human development (Dave, 1973). Kempfer (1955)
writes of three assumptions underlying the concept of lifelong education: (a) education that goes on throughout life, (b) suitable educational opportunities available throughout life and (c) the development of competence.

Lifelong learning has two broad components: general and professional. Competence in a profession is a product of lifelong learning, i.e., work experience, formal courses, attendance at seminars, workshops, etc. Even though there is a lack of hard data to support a casual relationship between continuing education and competence, few would deny its importance (Levine, 1978). General competence reflects an ability to be a productive member of society.

The major theme is that the most important objective of formal education is the preparation of the mind of the individual learner for the need and practicability of continuing the educative process (Dave, 1973).

Adult Learning Theory

Much of what is known about learning derives from the study of learning in children and animals. Likewise, much of what is known about teaching is derived from the process of teaching children (Miller, 1964). The term "pedagogy" means the art and science of teaching children. To distinguish the teaching-learning process of adults
from that of children, the term "andragogy" is being used (Knowles, 1970).

Knowles (1973) postulated four assumptions about the adult learner that differed from the child as learner. These postulates dealt with self-concept (increasing independence), amount and types of experience, readiness to learn, and orientation to learning.

Lindeman (1961) and Brunner (1959), like Knowles, identified the element of experience as important in adult learning. They stressed that the adult has a variety of experiences that become reservoirs for learning, therefore the need for the learner to build on past experiences.

Havighurst (1956) identified ten social roles of adulthood with tasks and skills specific to each role. The readiness of the adult to learn may be related to these roles. Brunner (1959) believes that the adult's readiness to learn is almost always coincidental with the immediate developmental task.

Knowles (1973) stated that adults differ in orientation to learning and that they have a different time perspective. Children tend to accumulate knowledge to be used in the future, whereas adults engage in learning activities because those activities are immediately useful to them. Thus, children have a subject matter frame of reference, whereas adults have a problem-solving frame of
reference (Knowles, 1970). Lindeman (1956) stated that adult education was a cooperative venture in non-authoritarian, informal learning, the chief purpose of which was to discover the meaning of the experience. Research done by McCluskey (1970) and Tough (1971) tends to support these assumptions on time perspective.

Schaie and Parr (1981) have advanced the thesis that different stages of life actually call for different learning activities. Like Knowles and Lindeman, they agree that development of cognitive functions (integration, interpretation and application of knowledge) should be stressed over knowledge acquisition.

The adult learner is different from the child who is a learner. Maturity brings with it a sense of independence as well as a reservoir of experiences on which to draw. The motivation to learn may be related to practical skills that seek to satisfy needs and tasks related to such areas as job, home, family or recreation.

Motivation for Learning

In the area of adult learning, it seems appropriate to examine the area of motivation to determine why adults continue in the learning process.

Miller (1967) has attempted to relate participation in adult education with socioeconomic status. His social
class theory builds on Maslow's needs hierarchy (1954) and Kurt Lewin's (1947) force field analysis. Applying Miller's premise to adult education, one would predict that according to Maslow's hierarchy the lower socioeconomic classes cannot be concerned with learning to meet higher needs, i.e. self-realization. They would, however, participate in learning activities that relate to survival, i.e. education for a job. Research has supported Miller's beliefs (Cross, 1979).

Miller also identifies that Maslow's needs hierarchy can be used to show a relationship between age, educational interests and position in the life cycle. Young adults are concerned with establishing self-identity and getting started in a career. Older adults, on the other hand, are more interested in achieving needs higher on the hierarchy - such as need for recognition and status.

Rubenson's (1977) expectancy-valence paradigm is another way of looking at motivation and participation in learning activities. His major focus is on the individual and how that person perceives his environment and what his expectations are in terms of gain from participating in adult education. The strength of an individual's motivation is the result of positive and negative forces in the individual as well as the environment. Motivation is based on what the individual "perceives" rather than "what is". 
Tough (1979) has developed an emerging theory of "anticipated benefits". His research has been directed towards asking learners to identify their reasons for learning. He claims that the learner's conscious anticipation of reward is more important than subconscious forces or the environmental forces.

All the above-mentioned theorists have drawn heavily on Lewin's force-field analysis and the belief that motivation for participation in adult education activities results from an individual's perception of the positive and negative forces in a given situation (Lewin, 1947). The theorists also have drawn heavily on the work of Maslow in achieving personal and career satisfaction. Finally, they seem to agree that an individual's expectation of reward or fulfillment is an important variable in adult learning.

The need to change as one's life experiences change is also a powerful motivating force (Cross, 1981). Some of these changes are represented in a "normal" life cycle - first job, marriage, children, career advancement, retirement, etc. Other changes may be classified in terms of loss - i.e., death, divorce, chronic illness. Havighurst's research (1972) identified these as "teachable moments" and stated that they are powerful motivating forces. This research has implications for appropriate
timing of subject matter (i.e., one would not teach a
course on "Saving for Retirement" to a 21-year old
entering the work force for the first time).

Motivation, then, is an extremely important variable
in identifying why and when adults participate in lifelong
learning.

Summary

This literature review has covered a broad range of
theories and concepts which provide a framework for this
study. Figure 2-4 is a visual representation and a syn­
thesis of the theories of adult development and profes­
sional career development. These two areas of develop­
ment coincide with each other with the result that life
skills needed at each stage can be predicted. These
skills have been identified through research (Levinson,
1974) and are defined as follows:
Life Skills - those cognitive and affective skills that
are learned in a variety of settings and which enable a
professional to learn and cope with living as well as
growing in one's profession.
a. self-understanding - knowledge of self; an under­
standing of one's belief system.
b. knowledge of what one wants to do - an understanding
of one's goals, both professional and personal.
SYNTHESIS OF DEVELOPMENTAL STAGES

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<td>I. Becoming an Adult (25-30)</td>
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<td>Life Skills Needed</td>
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<td>II. (30-45) Maturity, Sense of Direction &amp; Identity</td>
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<tr>
<td></td>
<td>Priority to things one wants to finish</td>
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</tbody>
</table>

Early Career - Choice of career specialization

Career Advancement - Select goals

Career Stabilization - Conflict of values between family/work

Career Withdrawal - Removal of self from work

Professional Career Stages

Figure 2-4
c. identification and utilization of resources - knowledge of appropriate available resources with the ability to use those resources when necessary to achieve goals.

d. values clarification - the process whereby one is able to identify those concepts or "things" that are valued and act accordingly.

e. self-assessment - the process whereby one is able to "take stock" of one's needs, motivations, goals, etc.

f. goal-setting (life and learning) - the ability to set realistic ends.

g. decision-making - the ability to use a process of problem-solving to reach decisions.

h. use of time - time management to maximize use of time to achieve desired tasks.

i. development and use of power - knowledge of power base and power sources and appropriate use of those sources to achieve desired goals.

j. priority setting - the ability to identify those tasks that must be done versus those of lesser importance.

k. use of leisure time - ability to maximize and enjoy time away from work.

l. conflict resolution - ability to settle disputes.

m. group skills - ability to function in a variety of roles in a group setting.
CHAPTER III
METHODOLOGY

This chapter will present the research design, study questions, sampling, instrumentation and data gathering process for this study.

Research Design

The research design of this study was developed as a result of the theoretical framework as described in the Review of the Literature. Figure 3-1 is a visual representation of the theoretical rationale for differences in life skill needs due to stages of adult and professional career development. It depicts a systems approach of input-process-output. The input component consists of expectations and needs impacting on the professional nurse. These needs exist in three spheres - individual, societal and professional.

The process component is based on the research done by Levinson et al., 1978, and Miller and Form, 1951, on adult and professional development. Their research has shown that adult professionals develop in stages and that
Individual
Professional
Societal

Adult/Professional Development Model

Input

Stages/Forces

Stage I - Becoming an Adult/Early Career

Stage II - Maturity/Career Advancement

Stage III - Restabilization/Career Restabilization

Stage IV - Leave World of Work

Process

Life Skills

- Self-understanding
- Knowledge of what one wants to do
- Identification of resources
- Communication

- Values clarification
- Self-assessment
- Goal setting (life & learning)
- Decision-making
- Use of time
- Group skills
- Conflict resolution

- Development and use of power
- Priority setting
- Use of leisure time

Output

- Use of leisure time

Figure 3-1
these stages are characterized by certain needs. Through acquisition of and ability to use identified life skills at each stage, one could expect the professional to receive rewards in that sphere. These rewards would serve as motivating forces to continue the learning process.

Four stages are identified in the model. They are: Stage I: Becoming an Adult; Stage II: Maturity, sense of Direction; Stage III: Reexamination/Restabilization; and Stage IV: Leaving the World of Work. The ratio of the forces and needs operating on the adult varies with the stage. The model depicts the following:

Stage I - Individual needs predominate. For fulfillment of expectation of reward and positive development, the following skills are necessary: self-understanding, knowledge of what one wants to do, identification of resources, and communication.

Stage II - Professional needs predominate. For fulfillment of expectation of reward and positive development, the following skills are necessary: Values clarification, self-assessment, goal-setting, decision-making, use of time, group skills, conflict resolution, and ability to work with other professionals.

Stage III - Individual, professional and societal needs are of equal importance. Therefore, the following skills are necessary for fulfillment of reward and
and positive development: priority setting, development and use of power, and use of leisure time.

At Stage IV, individual and societal needs are of equal importance. The individual concentrates on use of leisure time at this stage. While this stage is represented in the model, the research data and the remainder of this study do not deal with those needs, forces, and skills required at this stage.

Figure 3-2 is the research model of the study. It deals with variations in the three forces due to role as well as stage. It implies that an interaction effect of stage by role is occurring.

The three roles identified in the model are those previously identified, i.e., teacher, administrator and practitioner. Professional nurses, no matter what job they hold or where they practice, can be categorized into one of these three roles. The model also identified the same four stages of development as were listed previously. The list of life skills by stage are those skills identified by the adult developmental theorists (Levinson et al., 1978).

The list of life skills identified by role are hypothetical and were determined by the researcher based on role definitions and requirements. The three forces - individual, professional, and societal - are the same
Variations in Forces Due to Role and Stage

Research Model

Stage I  Stage II  Stage III  Stage IV

- Individual
- Professional
- Societal

Teacher

- Life Skills by Role
  - Communication
  - Identification of resources
  - Group skills

Practitioner

- Values clarification
- Goal setting
- Priority setting

Administrator

- Development & use of power
- Conflict resolution
- Decision-making
- Knowledge of what one wants to do

Life Skills by Stage

- Self-understanding
- Knowledge of what one wants to do
- Identification of resources
- Communication

- Values clarification
- Self-assessment
- Goal setting
- Decision-making
- Use of time
- Group skills
- Conflict resolution
- Ability to work with other professionals

- Priority-setting
- Development & use of power
- Use of leisure time

- Use of leisure time

Figure 3-2
three forces identified in Figure 3-1. However, the ordering is different and is hypothetical in nature.

At Stage I forces are ordered the same for all three roles. At this stage, early adulthood, the professional is entering the world of work and individual needs take precedence. Professional education has begun; societal influence is least important.

At Stage II, differentiation begins to occur as the nurse identifies professional goals. At this stage, choice of role reflects needs and interests. For teachers, a desire to further the profession is followed by their individual needs for satisfaction.

The desire to help society and an altruistic philosophy leads to needs and interest in the societal arena as prime for the practitioner. This is followed by individual and then professional forces for this group (Kramer and Schmalenberger, 1978). Interest in influencing the profession is a main goal of administrators at Stage II. This is followed by societal forces for this group.

In Stage III, a different ordering of forces occurs due to the interaction of stage and role. For teachers, professional forces still remain of prime importance, but societal influences are also important. Satisfaction and reward in these two spheres takes precedence over individual needs as the nurse matures and refocuses her goals.
The practitioner at Stage III is mainly influenced by professional forces though societal influences are also important (Kramer and Schmalenberger, 1978).

For Stage III administrators, the professional influences are also of prime importance. However, individual needs take precedence over societal needs as the professional gains in power and influence.

To summarize, the model depicts the following:

(a) For teachers, the following life skills are important for positive development: communication, identification of resources and group skills. The professional forces are of the highest priority in both Stage II and III of development.

(b) For practitioners to develop effectively, the following skills are needed: values clarification, goal setting, and priority setting. In Stage II, societal forces predominate, in Stage III professional forces predominate.

(c) For administrators to develop effectively, the following life skills are necessary: development and use of power, conflict resolution, decision-making, and knowledge of what one wants to do. For this group, professional forces predominate in both Stages II and III.

(d) Life skills by stage of development remain the same as listed previously.
There is an interaction effect between stage and role. This effect is more complex. The research questions address this model.

Research Questions

The research questions of this study are represented visually in Figures 3-1 and 3-2. They are:

1. Is there a difference in the life skills needed by professional nurses at each major stage of their adult/professional development?

   (a) At Stage I, individual needs predominate. For fulfillment of expectation of reward and positive development, the following skills are necessary: self-understanding, knowledge of what one wants to do, identification of resources, and communication.

   (b) At Stage II, professional needs predominate. For fulfillment of expectation of reward and positive development, the following skills are necessary: values clarification, self-assessment, goal-setting, decision-making, use of time, group skills, conflict resolution, and ability to work with other professionals.

   (c) At Stage III, individual, professional and societal needs are of equal importance. Therefore, the following skills are necessary for fulfillment of reward
and positive development: priority setting, development and use of power, and use of leisure time.

2. Is there a difference in the life skills needed by professional nurses who have different roles in nursing (teacher, administrator, practitioner)?

   (a) Teachers need the following life skills for positive development: communication, identification of resources, and group skills. Professional needs predominate in Stages II and III.

   (b) Practitioners need the following life skills for positive development: values clarification, goal setting, and priority setting. In Stage II, societal forces predominate. In Stage III, professional needs predominate.

   (c) Administrators need the following life skills for positive development: development and use of power, conflict resolution, decision-making, and knowledge of what one wants to do. Professional needs predominate in Stages II and III.

   (d) The variations in life skills needed will occur in Stages II and III.

3. Is there an interaction effect between stage of adult/professional development and the role of the nurse?
(a) At Stage I: self understanding, knowledge of what one wants to do, communication, and identification of resources are important life skills within all three roles.

(b) At Stage II: the interaction effect between the teacher role and Stage II will require the following life skills for effective development: communication and group skills. Professional needs predominate. The interaction effect between the practitioner role and Stage II will require the following life skills for effective development: values clarification and priority setting. Societal needs predominate. The interaction effect between the administrator role and Stage II will require the following life skills for effective development: conflict resolution, decision-making, and knowledge of what one wants to do. Professional needs predominate.

(c) At Stage III: the interaction effect between the teacher role and Stage III will require the following skills for effective development: identification of resources and priority setting. The interaction effect between the practitioner role and Stage III will require the following skills for effective development: goal setting. Professional needs predominate; societal needs are secondary. The interaction effect between the
administrator role and Stage III will require the following skill for effective development: development and use of power. Professional needs predominate; individual needs are secondary.

Sampling

The populations of this study were comprised of:

1. Registered professional nurses with a minimum of a Bachelor of Science in Nursing between the ages of twenty-five to sixty. These nurses are teachers, practitioners or administrators in nursing.

2. All professional role models who might be identified in the critical incidents.

From the first population a purposive, stratified sample of thirty-six female registered professional nurses who had a minimum of a Bachelor of Science degree in nursing and were currently employed as teachers, practitioners or administrators in nursing were recruited to participate in the study.

The two stratification variables identified in the research models were professional role and stage of adult and professional career development. The thirty-six professional nurses were chosen because of their representativeness on the two stratification variables. Subjects were chosen as identified in the sampling grid presented in Table 3-1.
<table>
<thead>
<tr>
<th>Role</th>
<th>Stage I Becoming an Adult/Early Career</th>
<th>Stage II Maturity Career Advancement</th>
<th>Stage III Reexamination/Career Stabilization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>4 subjects</td>
<td>4 subjects</td>
<td>4 subjects</td>
</tr>
<tr>
<td>Practitioner</td>
<td>4 subjects</td>
<td>4 subjects</td>
<td>4 subjects</td>
</tr>
<tr>
<td>Administrator</td>
<td>4 subjects</td>
<td>4 subjects</td>
<td>4 subjects</td>
</tr>
</tbody>
</table>
The nurses who participated in the study did so on a volunteer basis at the request of the researcher. It is recognized that this may have led to bias as volunteers usually are more motivated to participate. However, since the researcher identified nurses in all three developmental stages by stratified sampling to fit in the design matrix, the possibility of bias of only one type of nurse responding was eliminated.

Four subjects per cell were identified to yield a sufficient amount of data to have the study be comprehensive and valid.

Since professional nurses are adults, the division of stage of development was determined by research and adult developmental theory. The researcher placed nurses on the sampling grid after the nurses completed a demographic questionnaire which identified age range, level of education, position (job) and where they saw themselves in terms of developmental stage.

The sample was controlled for role, sex, stage of adult and career development, age, educational background (a minimum of a B.S.N.) and for socioeconomic background. The demographic questionnaire enabled the researcher to control for these variables. Only female nurses were chosen to eliminate the bias of the male nurse. The stratified sampling technique was used to select equal sized samples from the sub-groups found in the population.
Instrumentation

To test the model that formed the rationale for this study, the critical incident technique was chosen. The basic idea of this technique has been described by Flanagan (1954) as follows:

[This technique] "consists of a set of procedures for collecting direct observations of human behavior in such a way as to facilitate their potential usefulness in solving practical problems and developing broad psychological principles. ... By an incident is meant any observable human activity that is sufficiently complete in itself to permit inferences and predictions to be made. ... To be critical, an incident must occur in a situation where the purpose or intent of the act seems fairly clear to the observer and where its consequences are sufficiently definite to leave little doubt concerning its effects." (p. 327)

Observers are asked to recall incidents they have witnessed which are related to some purpose or aim as identified by the researcher. A large sample of incidents is collected and analyzed with reference to that aim or purpose.

Development of the Critical Incident Tools

The recalling of critical incidents was reported through a questionnaire. This technique extended the power, scope, and extent of the investigation. The questionnaire technique provided standardization in the observations by reminding the respondents of each item,
helping to insure responses to the same items from all respondents. Precision was achieved by singling out particular aspects of the situation and by specifying the units and terminology for describing the observations (Good, 1963).

Limitations of questionnaire research include the following:

1. Variability in response
2. Bias and variation arising from the interviewer
3. Imperfections in questionnaire design
4. Bias arising from non-response
5. Sampling errors

In spite of these limitations, the questionnaire format was utilized because of the exploratory nature of this study. In addition, consideration was given to the time, cost and amount of data that could be collected through this format.

The critical incident tool was divided into two parts. Part I deals with demographic data about the professional who was identified as significant in the nurse's career (the role model). This included information about the professional's age, sex, level of education, developmental stage and area of concentration in nursing. This information was asked for as background information as to
the type of person who had an influence on nurses at various professional stages and was used in the descriptive analysis.

Part II deals with the critical incident in which the subjects were asked to respond to questions based on a situation in which they observed the professional performing a specific activity, and in which the professional was either effective or ineffective.

Information was sought regarding where the activity was observed, the type of activity observed, persons involved, type of problems dealt with, and life skills used effectively or ineffectively in that situation. The life skills listed in the tools were those identified in Figure 3-1. These skills were those identified as necessary for effective development by Levinson, Gould, Neugarten, and others.

The structured questionnaire format was chosen with closed-ended questions. The closed-ended question, or fixed alternative, offered respondents a number of alternative replies from which to choose. The rationale for choosing closed-ended over open-ended format was that the closed-ended questions, while difficult to construct, are easier to administer and analyze (Polit and Hungler, 1978).

Fixed alternative questions offer several other advantages. Sometimes, the meaning of the question can
be clarified through reference to explicit options. Also, the provision of alternatives identifies to the respondent the researcher's frame of reference. Closed-ended questionnaires are less time consuming to complete and therefore respondents might be more willing to complete them.

A major disadvantage of this technique, however, is that there is the possibility that the researcher might overlook potentially important responses. This might lead to misunderstanding or bias.

The advantages vs. disadvantages were weighed and closed-ended questions were chosen due to the exploratory nature of the study, time advantages, and potential ability to collect a greater amount of data.

Pilot Test of the Tools

Before beginning the collection of data, the researcher identified ten professional nurses to participate in a pilot study of the critical incident tool to determine the clarity and readability of the tool.

Each nurse was asked to complete one positive critical incident tool and one negative critical incident tool and return them to the researcher with comments. After review of all returned tools, changes were made in the critical incident tool which reflected improved clarity of both
the questions and option statements. Most comments made by this pilot group involved correcting statements which were ambiguous or statements with double meanings. Based on the pilot, two questions were omitted. Both of these questions were statements which appeared elsewhere on the tool.

Validity of the Tool

The critical incident tool was judged to be valid based on the following criteria:

1. The questions pertained to the subject.
2. The questions were clear and unambiguous.
3. The responses of the pilot group showed a reasonable range of variation.
4. The items were sufficiently inclusive.
5. All questions were answered by all respondents of the pilot group.

Data Gathering Process

To test the model developed by the researcher, the thirty-six professional nurses in the sample were asked to generate as many critical incidents as was possible (Flanagan, 1954). The rationale for utilization of this technique is that incidents are descriptions of observed behaviors that are effective on one end of a continuum and ineffective on the other end. By collecting numerous
incidents, the information has been claimed to be "comprehensive and valid" (Flanagan, 1962), although one could challenge the overall representativeness of incidents collected on the basis of criticality rather than frequency of occurrence.

The nurses were asked to generate incidents (as many as possible) about the anchors of the effective/positive development and ineffective/negative development. That is, they were asked to identify behaviors that characterize effective performance of professional nurses who have influenced them in a positive way. They were also asked to identify the behaviors that characterized ineffective performance of professional nurses who influenced them in a negative way.

Third person technique was utilized to access information from the respondents. In other words, subjects were asked to identify positive or negative role models and respond to the questions in the incident tools about that third person (rather than themselves). This incident approach was used to access information from the individual's memory bank in a non-threatening manner. Self-disclosure or exposure may have been a problem if first person recall was used to generate the critical incidents.

Each of the thirty-six professional nurses identified to participate in this study was sent a formal letter in
which their participation was requested by the researcher. They were assured of the anonymity and confidentiality of their answers to the questionnaires. Written consents to participate were obtained.

Data were collected from each nurse via a combination of interview and questionnaire techniques. During each interview, every subject was asked to answer demographic questions which helped the researcher to clarify the stage of adult/professional development that they were in so they could be placed on the sampling grid.

The demographic information requested included information about age, education, employment, type of position, and developmental stage. Upon interview, each nurse was given a definition of each developmental stage as follows:

(a) Concern with self/developing a career - usually a task of early adulthood where the individual's main concerns are with self (identity, career choice). Career is starting to develop, beginning professional education.

(b) Sense of direction/career advancement - usually early/middle adult years. The professional may return to school, increase in motivation to achieve and get ahead in one's career.

(c) Reexamination of life goals/career stabilization - usually the focus of the individual is less on advancement within the profession and more on contributing to the profession and society. The older middle years and older adult are usually in this stage.
Additionally, a sheet defining the life skills was provided. This was done so that all subjects would use the same definitions of both the stages and the life skills.

During the interview, the researcher completed one positive critical incident form and one negative critical incident form for each nurse to clarify how the tools were to be completed. This standardized the process in terms of what each was told. Each nurse was then asked to complete as many positive and negative tools as possible and return them to the researcher by mail as soon as possible.

Through the interview process, which was conducted with a standard format by the researcher, standardization of the information given to each participant was achieved. Also, because of the individual contact with the researcher, it was expected that the nurses would be more committed to completing further incident forms.

Each nurse was interviewed by appointment at either their place of employment or the researcher's office. The interviews lasted approximately thirty minutes. The researcher attempted to conduct the interviews in a non-stressful manner, spending several minutes informally discussing the project to establish rapport and a level of trust.
The interviews were conducted over a period of six weeks. Approximately eighteen hours were spent in the interview process. All of the nurses returned the critical incidents that they were asked to generate within one month after the initial interview. Within a total of ten weeks, all the critical incident tools had been returned to the researcher. The range of incidents returned varied from a low of seven to a high of ten.

Limitations of the Study

The following are limitations of this study:

1. Small sample size - due to the relatively small number of subjects (thirty-six), it may be difficult to generalize the findings to the population. However, the sample size was considered adequate since this was an exploratory study utilizing critical incident technique and third person technique.

2. Time (history) - since there was a time lag between when the incident occurred and its recall for this study, distortion might occur. Research shows that the passage of time tends to diminish negative thoughts and perceptions (Bischof, 1976). Subjects tend to recall positive events and persons with ease, but have difficulty remembering negative events and persons accurately. The
researcher recognized these effects as potentially present in this study. By asking for both positive and negative influences, the effects of time distortion are hopefully diminished.

3. Subjectivity - data may be subjective due to use of recall and perception of events by the sample. The researcher recognized that nurses who were teachers might choose positive role models from among other teachers of nursing and perceive nurses in other roles as negative. Likewise, the practitioner and administrator. Additional subjectivity comes from the negative stereotype of the nursing administrator.

4. Interview format - interviews can lead to subjectivity. However, this format was the least expensive and while time consuming, allowed the researcher the opportunity to clarify the purpose of the research. Additionally, personal contact was felt to increase commitment of the subjects to completing the incident tools requested by the researcher.

Data Analysis Plan

The Demographic Data Sheets and Critical Incident Tools (positive and negative) that were completed by the sample were coded. The sample of thirty-six professional nurses completed a total of 319 critical incidents. Of these 319, 172 were positive and 147 were negative.
The demographic data about the role models were examined for trends such as age range, race, educational background, role in nursing, and stage of development. A chi square was computed when appropriate to look at associations between groups.

A quantitative analysis was computed on question number ten (10) of the critical incident tools. This was the list of life skills used either effectively or ineffectively. The rationale for utilizing quantitative versus qualitative methods to analyze life skills was that this type of analysis might be viewed as more scientific and lend more credence to the analysis. Also, since this was an exploratory study, the researcher was interested in applying quantitative analysis techniques to the critical incident method.

Two-way factorial analyses of variance using role and stage of the role models as stratification variables were computed. A three by three (3x3) matrix was designed to accommodate the teacher, practitioner and administrator roles and the first three stages (I, II, II) of development. A separate analysis of variance was computed on each life skill independent of the other. F ratios were analyzed for significance of each life skill by role, by stage and by interaction. A Newman-Keuls statistic was computed on those life skills that had significant F values by role, stage or interaction.
Summary

Chapter III presented the research design, research questions, sampling, instrumentation and data gathering process. Limitations of the study were also discussed. Chapter IV will discuss the results of data analysis, both qualitative and quantitative.
CHAPTER IV
ANALYSIS OF DATA

An overview of the analysis, a description of the sample, and the presentation and analysis of data will be the format for this chapter.

Overview of Analysis

A qualitative analysis will be offered in examining trends in the demographic and situational data collected about the professional role models. The purpose of this analysis was to identify those characteristics associated with both positive and negative role models. A chi square statistic was computed to determine the significance of these associations.

A series of two-way factorial ANOVAs was used to analyze question number ten (10) in the critical incident tools. This question listed the fifteen life skills from the research model and asked the respondents to identify which life skills were used "effectively or ineffectively"
by the role models. This analysis related specifically to the research model and the following three research questions:

1. Do professional nurses need different life skills for effective development at each stage of career/ adult development?

2. Do professional nurses need different life skills for effective development in different roles in nursing?

3. Is there an interaction effect between stage of development and role?

The stratification variables used in this analysis were role and stage of development of the role models identified in the incidents. The life skills were the dependent variables and each was analyzed independently.

Since this was an exploratory study, a series of two-way factorial ANOVAs were conducted rather than a two-way factorial MANOVA. Again, because of its exploratory nature, the P value for each ANOVA test was set at the .10 level. For those skills identified as significant, a Newman-Keuls statistic was computed to test for significance between all pairs of criterion groups.

The relevance of the research model to the professional nurse of today was examined as the result of this analysis. It was recognized that this model deals
only with the present career development of professional nurses and at best might be used to estimate future developmental needs.

Description of the Sample

Data were collected from a non-random, purposive sample comprised of thirty-six registered professional nurses who met the criteria of the study and agreed to participate in the study. Thirty-three participants were from Ohio, two from New York, and one from West Virginia. All were females. Thirty-four were Caucasian, and two were Black.

Some demographic characteristics of the subjects are found in Table 4-1. Three age ranges were represented in the study to correspond to the stages of adult/professional development. Forty-two percent (15 nurses) of the subjects had a bachelor's degree in nursing, fifty-three percent (19 nurses) had master's degrees in nursing, and six percent (2 nurses) had doctoral degrees. All thirty-six were employed full-time.

Twenty-five of the nurses (69%) worked in hospitals and eleven (31%) worked in schools of nursing.

Salaries ranged from 3% (1 nurse) who made in the $10,000-$15,000 range, to 42% (15 nurses) who made in the $16,000-$20,000 range, to 55% (20 nurses) who made above $20,000.
Table 4-1

Description of the Sample in Regards to Demographic Variables
(N=36)

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-30</td>
<td>12</td>
<td>33</td>
</tr>
<tr>
<td>31-45</td>
<td>12</td>
<td>33</td>
</tr>
<tr>
<td>46-60</td>
<td>12</td>
<td>33</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>34</td>
<td>94</td>
</tr>
<tr>
<td>Black</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Employment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Part-time</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.S.N.</td>
<td>15</td>
<td>42</td>
</tr>
<tr>
<td>M.S.N.</td>
<td>19</td>
<td>53</td>
</tr>
<tr>
<td>Ph.D.</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Place of Employment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital</td>
<td>25</td>
<td>69</td>
</tr>
<tr>
<td>School of Nursing</td>
<td>11</td>
<td>31</td>
</tr>
<tr>
<td>Position (Job)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td>12</td>
<td>33</td>
</tr>
<tr>
<td>Practitioner</td>
<td>12</td>
<td>33</td>
</tr>
<tr>
<td>Administrator</td>
<td>12</td>
<td>33</td>
</tr>
<tr>
<td>Salary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$10,000-$15,000</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>$16,000-$20,000</td>
<td>15</td>
<td>42</td>
</tr>
<tr>
<td>over $20,000</td>
<td>20</td>
<td>55</td>
</tr>
</tbody>
</table>
The sample is representative of the nursing population in the following ways (American Nurses Association, 1982):

1. All adult age groups and stages of development were represented (except the older adult (60 and over).
2. All three roles in nursing were represented (teacher, practitioner, and administrator).
3. The majority of the sample was white.
4. The majority worked in hospitals (69%).
5. The sample was representative of the middle class.

The sample was atypical of nursing in several ways:
1. All respondents were women. This was a control of the study and was done deliberately since nursing is predominately a female profession. The nursing population, however, is not exclusively female.
2. The majority of respondents hold graduate degrees (59%). The majority of professional nurses in the population do not hold graduate degrees.

In conclusion, the sample was representative of the nursing population in regards to age, role, color, place of employment and socioeconomic status (American Nurses Association, 1982). The identification of the sample by purposive, stratified sampling assured equal representation of the population except for sex and educational preparation.
Analysis of Critical Incident Tools - Questions 1 through 5

A qualitative, descriptive approach, plus use of chi square statistic, was used to discuss the first five questions of the critical incident tools which provided background information about those professionals who were identified as having positive or negative influences on the respondents.

Table format will be used to show distribution of responses by frequency and percentage. A chi square was applied to the data where appropriate to determine the significance of association.

An examination of the data in Table 4-2 shows several interesting trends:

1. Administrators were chosen most often (one hundred fifty-five incidents or forty-nine percent) to be significant in the lives of the respondents. Of these one hundred fifty-five incidents, eighty-four or fifty-four percent were negative influences; seventy-one or forty-six percent were positive.

2. Teachers were chosen second in frequency with one hundred twenty incidents or thirty-eight percent identified about teachers who were significant in the lives of the respondents. Of these one hundred twenty incidents, eighty-three or sixty-eight percent were positive; thirty-seven or thirty-two percent were negative. A chi
Table 4-2

Frequency of Role and Stage of Role Models

<table>
<thead>
<tr>
<th></th>
<th>Stage I</th>
<th>Stage II</th>
<th>Stage III</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teacher</strong></td>
<td>4</td>
<td>52</td>
<td>27</td>
<td>83(68%)</td>
</tr>
<tr>
<td><strong>Practitioner</strong></td>
<td>4</td>
<td>9</td>
<td>5</td>
<td>18(41%)</td>
</tr>
<tr>
<td><strong>Administrator</strong></td>
<td>4</td>
<td>37</td>
<td>30</td>
<td>71(46%)</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>12</td>
<td>98</td>
<td>62</td>
<td>172 incidents</td>
</tr>
<tr>
<td></td>
<td>(7%)</td>
<td>(57%)</td>
<td>(36%)</td>
<td></td>
</tr>
</tbody>
</table>

**NEGATIVE INCIDENTS**

<table>
<thead>
<tr>
<th></th>
<th>Stage I</th>
<th>Stage II</th>
<th>Stage III</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teacher</strong></td>
<td>4</td>
<td>12</td>
<td>21</td>
<td>37(32%)</td>
</tr>
<tr>
<td><strong>Practitioner</strong></td>
<td>9</td>
<td>15</td>
<td>2</td>
<td>26(59%)</td>
</tr>
<tr>
<td><strong>Administrator</strong></td>
<td>3</td>
<td>48</td>
<td>33</td>
<td>84(54%)</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>16</td>
<td>75</td>
<td>56</td>
<td>147 incidents</td>
</tr>
<tr>
<td></td>
<td>(11%)</td>
<td>(51%)</td>
<td>(38%)</td>
<td></td>
</tr>
</tbody>
</table>

**COMBINED ACTUAL**

<table>
<thead>
<tr>
<th></th>
<th>Stage I</th>
<th>Stage II</th>
<th>Stage III</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teacher</strong></td>
<td>8</td>
<td>64</td>
<td>48</td>
<td>120</td>
</tr>
<tr>
<td><strong>Practitioner</strong></td>
<td>13</td>
<td>24</td>
<td>7</td>
<td>44</td>
</tr>
<tr>
<td><strong>Administrator</strong></td>
<td>7</td>
<td>85</td>
<td>63</td>
<td>155</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>28</td>
<td>173</td>
<td>118</td>
<td>319 incidents</td>
</tr>
</tbody>
</table>

Total 319 incidents
square of sixteen (Table 4-3) shows that this group is statistically significant from administrators and practitioners in being a positive role model. A summary of these results can be found in Table 4-3.

The frequency data in Table 4-3 regarding roles were used to compute a cumulative chi square statistic. The rationale for using this statistic was to answer the question: "Is the association between the positive and negative influence of the three different roles statistically significant?"

The results (Table 4-3) show a significant difference in the three roles and in the number of positive and negative incidents completed about the professionals in each role. The role with the most significant chi square was the teacher role. This might be interpreted as: the teacher is most often a positive role model and that this is statistically significant.

Utilizing the same approach with the data collected about stage of development of the role models (Table 4-4), the following trends were identified:

1. **Stage I** (early adulthood/concern with self) was identified in twenty-eight incidents (nine percent of the total incidents). Of these, twelve incidents, or seven percent (of the total positives) were positive and sixteen, or eleven percent (of the total negatives) were negative.
Table 4-3

Summary of Data Regarding Role of Role Models

<table>
<thead>
<tr>
<th>Role</th>
<th>Totals</th>
<th>Positive</th>
<th>Negative</th>
<th>Chi X2 (df 2) (( p = .10 ))</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Teacher</td>
<td>120</td>
<td>38</td>
<td>83</td>
<td>68</td>
</tr>
<tr>
<td>Administrator</td>
<td>155</td>
<td>49</td>
<td>71</td>
<td>46</td>
</tr>
<tr>
<td>Practitioner</td>
<td>44</td>
<td>14</td>
<td>18</td>
<td>41</td>
</tr>
</tbody>
</table>

Total 18.44
2. **Stage II** (middle adulthood/sense of direction) was identified in one hundred seventy-three incidents, or fifty-four percent of the total incidents collected. Of these, ninety-eight incidents, or fifty-seven percent (of the total positives) were positive, and seventy-five incidents, or fifty-one percent (of the total negatives) were negative.

3. **Stage III** was identified in one hundred and eighteen incidents, or thirty-seven percent of the total incidents. Of these, sixty-two incidents were positive (thirty-six percent) and fifty-six incidents were negative (thirty-eight percent of the total negatives). Table 4-4 is a summary of the above. Table 4-4 also shows the results of chi square statistics computed on the data which were compiled on the stage of development of the role models. The cumulative chi square was statistically significant. Additionally, each stage had a statistically significant chi square beyond the .001 level. The difference in groups is not attributable by chance. The professionals who are in the stage of development identified as "reexamination/restabilization" would appear to be the most effective role models, followed by professionals in the middle stage of development.

The education levels of the role models identified in the critical incident forms are summarized in Table 4-5.
Table 4-4

Summary of Data Regarding Stage of Development of Role Models

| Stage   | Total | Positive | Negative | Chi $X^2$  
|---------|-------|----------|----------|------------
|         | N     | N        | N        | (df 2)     |
| Early   | 28    | 12       | 16       | 7.02       |
| Middle  | 173   | 98       | 75       | 29         |
| Late    | 118   | 62       | 56       | 58.98      |
| Total   | 95    |          |          |            |

Total = 95
Table 4-5

Chi Square - Educational Levels

(df = 1)  (p = .10)

<table>
<thead>
<tr>
<th></th>
<th>Positive</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>47</td>
<td>67</td>
</tr>
<tr>
<td>(&gt; B.S.N.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(B.S.N.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>125</td>
<td>80</td>
</tr>
<tr>
<td>(M.S.N.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Ph.D.)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ x^2 = 35.37 \quad x^2 = 1.15 \]
A chi square computed on these data answers the question, "Is the difference in educational level statistically significant?" The results (Table 4-5) show that there is a statistically significant difference (beyond the .001 level) in positive influences in the group with higher educational preparation. Therefore, it is possible that positive role models more frequently have a higher level of education than do negative role models.

**Analysis - Question Ten (Life Skills)**

The statistical measure chosen to analyze the data in question ten (the list of fifteen life skills as identified in the research models) was a two-way factorial Analysis of Variance (ANOVA). This statistic was employed to examine the significance of the two main effects and the interaction effect between them. The main effects or stratification variables were the role and stage of development of the role models; the fifteen life skills were the dependent variables. For those life skills identified as significant, a Newman-Keuls test was conducted for each pair of groups.

Each life skill was analyzed separately and therefore thirty ANOVAs were computed (fifteen positive and fifteen negative). The objective of this analysis was to obtain a row and column F statistic which could be compared to
an F distribution table for a given level of significance to test the following null hypotheses statements:

1. There is no difference in life skills needed by professional nurses at different stages of adult/professional development.

2. There is no difference in life skills needed by professional nurses in different roles (teacher, administrator, practitioner).

3. There is no interaction effect between stage and role.

For those life skills determined to be significant, a Newman-Keuls test was computed to determine significance between pairs of groups.

Level of Significance

The ANOVAs were computed for a one-tailed test. The test for a significant variance was computed at the 0.10 level of significance. This significance level was chosen because of the exploratory nature of this study.

Figure 4-1 is the ANOVA Table that will be used to report the results of the analysis.

Findings

The following analysis refers to question ten of
TABLE FOR RESULTS OF ONE TWO-WAY CLASSIFICATION

<table>
<thead>
<tr>
<th>Life Skill</th>
<th>SS Stage</th>
<th>SS Role</th>
<th>SS Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Square</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$F_{2, 29}$</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Level of Significance = $p = .10$

Figure 4-1
both the positive and negative critical incidents. The question asks:

"What life skills were used by this person in this situation (effectively) (ineffectively)?"

Each life skill was analyzed separately with a separate F statistic computed for positive and negative incidents. The ANOVAs used the stage of development and the role of the role models identified in the critical incidents as the main effects. P is considered significant if $= .10$.

Table 4-6 represents the results of the ANOVAs computed on the positive incidents by stage and role of the role models. The following life skills were significant by stage:

1. **Self-assessment** - significant with an F of 2.59*.
2. **Group skills** - significant with an F of 2.44*.
3. **Decision-making** - significant with an F of 6.20***.

The following life skills were significant by role:

1. **Conflict resolution** - significant with an F of 3.51**.
2. **Ability to work with others** - significant with an F of 4.07**.

The following life skills were significant by interaction of stage and role:

1. **Decision-making** - significant with an F of 5.56***.
### Table 4-6

ANOVA Table A

Analysis of Positive Life Skill Incidents by Stage and Role of Role Models

<table>
<thead>
<tr>
<th>Life Skill</th>
<th>Stage Mean Square F 2,29</th>
<th>Role Mean Square</th>
<th>Interaction Mean Square F 2,29</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Self-understanding</td>
<td>.15</td>
<td>.07</td>
<td>.002</td>
</tr>
<tr>
<td>2. Knowledge of what one wants to do</td>
<td>.14</td>
<td>.05</td>
<td>.02</td>
</tr>
<tr>
<td>3. Resource utilization</td>
<td>.04</td>
<td>.07</td>
<td>.03</td>
</tr>
<tr>
<td>4. Values Clarification</td>
<td>.06</td>
<td>.08</td>
<td>.01</td>
</tr>
<tr>
<td>5. Self-assessment</td>
<td>.27</td>
<td>.02</td>
<td>.04</td>
</tr>
<tr>
<td>6. Goal setting</td>
<td>.05</td>
<td>.01</td>
<td>.04</td>
</tr>
<tr>
<td>7. Group skills</td>
<td>.16</td>
<td>.07</td>
<td>.01</td>
</tr>
<tr>
<td>8. Decision-making</td>
<td>.16</td>
<td>.01</td>
<td>.07</td>
</tr>
<tr>
<td>9. Time management</td>
<td>.03</td>
<td>.01</td>
<td>.03</td>
</tr>
<tr>
<td>11. Priority setting</td>
<td>.041</td>
<td>.04</td>
<td>.18</td>
</tr>
<tr>
<td>12. Leisure time</td>
<td>.01</td>
<td>.002</td>
<td>.01</td>
</tr>
<tr>
<td>13. Conflict Resolution</td>
<td>.021</td>
<td>.27</td>
<td>.01</td>
</tr>
<tr>
<td>14. Ability to work with others</td>
<td>.003</td>
<td>.18</td>
<td>.041</td>
</tr>
<tr>
<td>15. Communication</td>
<td>.001</td>
<td>.04</td>
<td>.011</td>
</tr>
</tbody>
</table>

* = .10 level of significance  
** = .05 level of significance  
*** = .01 level of significance
2. Priority setting - significant with \( \text{an F of } 6.85^{***} \).

Table 4-7 illustrates the results of the ANOVAs of the negative incidents by stage and role of the role models. The following life skill was significant by stage:

*Time management* - significant with an F of 3.33*.

The following life skills were significant by role:
1. *Self assessment* - significant with an F of 4.08**.
2. *Values clarification* - significant with an F of 3.10*.

Table 4-8 is a summary table of all the ANOVAs run in the study. A total of fifteen positive ANOVAs and fifteen negative ANOVAs were computed.

In reviewing this table (4-8), the following results were identified.

a. Significant life skills by *stage*:
1. self-assessment (positive) - S*
2. group skills (positive) - S*
3. decision-making (positive) - S***
4. time management (negative) - S* 

b. The significant life skills by *role*:
1. values clarification (negative) - S*
2. self-assessment (negative) - S***
3. decision-making (negative) - S**
Table 4-7

ANOVA Table B
Analysis of Negative Life Skill Incidents
by Stage and Role of Role Models

<table>
<thead>
<tr>
<th>Life Skill</th>
<th>Stage</th>
<th>Role</th>
<th>Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Self-understanding</td>
<td>Mean Square</td>
<td>F 2,29</td>
<td>.02</td>
</tr>
<tr>
<td>2. Knowledge of what one wants to do</td>
<td>Mean Square</td>
<td>F 2,29</td>
<td>.02</td>
</tr>
<tr>
<td>3. Resource utilization</td>
<td>Mean Square</td>
<td>F 2,29</td>
<td>.06</td>
</tr>
<tr>
<td>4. Values clarification</td>
<td>Mean Square</td>
<td>F 2,29</td>
<td>.06</td>
</tr>
<tr>
<td>5. Self-assessment</td>
<td>Mean Square</td>
<td>F 2,29</td>
<td>.02</td>
</tr>
<tr>
<td>6. Goal setting</td>
<td>Mean Square</td>
<td>F 2,29</td>
<td>.05</td>
</tr>
<tr>
<td>7. Group skills</td>
<td>Mean Square</td>
<td>F 2,29</td>
<td>.07</td>
</tr>
<tr>
<td>8. Decision-making</td>
<td>Mean Square</td>
<td>F 2,29</td>
<td>.19</td>
</tr>
<tr>
<td>9. Time management</td>
<td>Mean Square</td>
<td>F 2,29</td>
<td>.12</td>
</tr>
<tr>
<td>10. Power</td>
<td>Mean Square</td>
<td>F 2,29</td>
<td>.03</td>
</tr>
<tr>
<td>11. Priority setting</td>
<td>Mean Square</td>
<td>F 2,29</td>
<td>.09</td>
</tr>
<tr>
<td>12. Leisure time</td>
<td>Mean Square</td>
<td>F 2,29</td>
<td>.003</td>
</tr>
<tr>
<td>13. Conflict resolution</td>
<td>Mean Square</td>
<td>F 2,29</td>
<td>.04</td>
</tr>
<tr>
<td>14. Ability to work with others</td>
<td>Mean Square</td>
<td>F 2,29</td>
<td>.01</td>
</tr>
<tr>
<td>15. Communication</td>
<td>Mean Square</td>
<td>F 2,29</td>
<td>.12</td>
</tr>
</tbody>
</table>

* = .10 level of significance
** = .05 level of significance
*** = .01 level of significance
Table 4-8

<table>
<thead>
<tr>
<th>Life Skills</th>
<th>Main Effects</th>
<th>Positive</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stage</td>
<td>Role</td>
<td>Stage by role</td>
</tr>
<tr>
<td>Self Understanding</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of what one wants to do</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resource Utilization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Values Clarification</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-assessment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goal Setting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group Skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decision-making</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time Management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Priority Setting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leisure Time</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conflict Resolution</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to Work With Others</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* .10 level of significance
** .05 level of significance
*** .01 level of significance
4. ability to work with others (positive) - S**
5. conflict resolution (positive) - S**

C. Significant life skills for interaction of stage by role:
   1. decision-making (positive) - S***
   2. priority setting (positive) - S***

Table 4-9 visualizes the above list.

It is interesting to note that only eight of the total of fifteen life skills were identified as significant. Of these eight skills, decision-making was significant by role, stage and for interaction. Self-assessment was significant both by stage and role. The others; group skills, values clarification, priority setting, conflict resolution, and ability to work with others were significant on only one variable.

To test the significance between groups for those life skills identified as significant, a Newman-Keuls statistic was computed. Table 4-10 is a summary table of significant life skills and the results of computing a Newman-Keuls statistic. The Newman-Keuls statistic answers the question as to the significance of the difference of the means between the criterion groups. It can be seen that there are significant differences between groups.
Table 4-9

Significant Life Skills Identified
By Stage and Role of Role Models

<table>
<thead>
<tr>
<th>Life Skill</th>
<th>Pos.</th>
<th>Neg.</th>
<th>Stage</th>
<th>Role</th>
<th>Stage by Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-assessment</td>
<td>+</td>
<td>-</td>
<td>S*</td>
<td>S**</td>
<td></td>
</tr>
<tr>
<td>Self-assessment</td>
<td></td>
<td></td>
<td></td>
<td>S***</td>
<td></td>
</tr>
<tr>
<td>Group Skills</td>
<td>+</td>
<td></td>
<td>S*</td>
<td></td>
<td>S***</td>
</tr>
<tr>
<td>Decision-making</td>
<td>+</td>
<td></td>
<td>S***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decision-making</td>
<td></td>
<td>-</td>
<td>S**</td>
<td></td>
<td>S***</td>
</tr>
<tr>
<td>Decision-making</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time Management</td>
<td></td>
<td>-</td>
<td>S*</td>
<td></td>
<td>S**</td>
</tr>
<tr>
<td>Values Clarification</td>
<td></td>
<td></td>
<td>S*</td>
<td></td>
<td>S***</td>
</tr>
<tr>
<td>Priority Setting</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td>S***</td>
</tr>
<tr>
<td>Conflict Resolution</td>
<td>+</td>
<td></td>
<td>S**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to Work</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td>S**</td>
</tr>
<tr>
<td>With Others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life Skill</td>
<td>Role Models</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Positive</strong></td>
<td><strong>Negative</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-assessment</td>
<td>$S^*$ for Stage III</td>
<td>$S^*$ for teachers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group Skills</td>
<td>$S^*$ for Stage II</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decision-making</td>
<td>$S^*$ for Stage II</td>
<td>$S^*$ for administra-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$S^*$ for interaction</td>
<td>tion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Stage II, administration)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time Management</td>
<td>$S^*$ for Stage III</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Values Clarification</td>
<td></td>
<td>$S^*$ for practi-</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>tioners</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Priority Setting</td>
<td>$S^*$ for interaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Stage II, practitioner)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conflict Resolution</td>
<td>$S^*$ for administrators</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to Work With Others</td>
<td>$S^*$ for practitioners</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
a. **Self-assessment** - there was significance between the means of Stages I and III, with Stage III having the higher mean. There was also a significant difference in the means between teachers and practitioners with teachers being the higher mean.

b. **Group skills** - there was significance between the means of Stages I and II with the higher mean in Stage II.

c. **Decision-making** - there was significance between the means of Stages II and III, with Stage II having the higher mean. There was also significance between administrators and practitioners, with administrators having the higher mean. The interaction effect was also significant (Stage II, administrator).

d. **Time management** - there was significance between the means of Stages II and III, with Stage III having the higher mean.

e. **Values clarification** - the difference between the means for practitioners and administrators was significant. The means for practitioners was higher.

f. **Priority setting** - there was significance for interaction between Stage II and the practitioner role.

g. **Conflict resolution** - there was significance between the means of practitioners and administrators, with administrators having the higher mean.
h. Ability to work with other professionals - there was significance between the means of practitioners and administrators, with practitioners having the higher mean.

Results

In this section, each research question will be addressed and the results of the analyses presented.

The following research questions were presented for this study:

1. Is there a difference in the life skills needed by professional nurses at each major stage of their adult/professional development?

Analysis of the data by stage of adult/professional development identified that the skills of self-assessment, decision-making, group process and time management were significant (Table 4-11). At Stage I, no specific life skills were significant; professionals at this stage are still in the process of maturation and early career development.

However, at Stage II, career differentiation begins to occur and professional forces predominate. The professional nurse may return to school and there is an increase in motivation to achieve and get ahead in one's career.
Table 4-11

Summary of Analyses of Life Skills by Stage

<table>
<thead>
<tr>
<th>Stage</th>
<th>Significant Life Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>Decision-making*</td>
</tr>
<tr>
<td></td>
<td>Group Skills*</td>
</tr>
<tr>
<td>III</td>
<td>Self-assessment*</td>
</tr>
<tr>
<td></td>
<td>Time Management*</td>
</tr>
</tbody>
</table>

*Significant Newman-Keuls at the .05 level
Decision-making and group process skills were identified as critical at Stage II. The ability to use these skills effectively at this stage enables the professional to make appropriate decisions and function effectively in groups.

With the advances in scientific knowledge and the expansion of the nurses' role, professional nurses in all areas of practice must be taught how to make decisions quickly and accurately. Frequently, it is the nurse who must identify emergency interventions and deal with crisis situations. Additionally, as nursing gains in professionalism and status, nurse administrators are moving into corporate structures where this skill is critical to effectiveness and success.

The ability to use group process skills is also critical at Stage II. The importance of working within groups - both as a leader and as a member - is essential for nurses as they work with other health team members. The identification of the professional nurse as a leader requires the nurse to have acquired group process skills.

At Stage III, self-assessment skills become critical. The main goal of this stage is reexamination of life goals and career stabilization. As the professional reevaluates goals and the ability to contribute to the profession
and society, this skill is necessary. In essence, as the professional matures, there is an increase in the self-evaluation that occurs.

Along with this, at Stage III there is a need for the professional to re-evaluate use of time. As maturity approaches, the professional begins to re-order priorities and look at effective use of time, especially leisure time.

2. Is there a difference in the life skills needed by professional nurses who have different roles in nursing (teacher, administrator, practitioner).

Analysis of the data by role showed the following:

Nurses in teacher roles need self-assessment techniques. Not only is this important to their own effective development but is also important to the development and guidance of students. Nurse faculty members should be able to assist students to assess their strengths, weaknesses, goals, needs, etc.

Nurses in practitioner roles need the life skill of values clarification. Issues such as organ transplantation, life sustaining techniques, in-vitro fertilization, abortion and others require the practitioner to have a firm base in clarifying her values and making ethical choices. Without this skill, frustration would result.
Practitioners also need the ability to work with other professionals. If nursing truly becomes an autonomous profession, nurses must be able to collaborate and work with other health team members to achieve common goals. Shared expertise and mutual respect should effect positive patient outcomes (Kelly, 1981).

The skills of decision-making and conflict resolution were significant for the administrator's role. The literature identifies these skills as important management skills. Certainly, the ability to make sound judgments and resolve conflicts are critical skills for an effective administrator (Marriner, 1982).

The results of the analysis of research question 2 are summarized in Table 4-12.

The research model, a hypothetical model, predicts that specific life skills are needed for positive development of nurses in different roles as they are influenced by the individual, societal, and professional forces. The results of the data partially support this model. It appears that development of specific life skills for the different roles in nursing is advantageous for effective development and performance in that role. One might also infer that the non-significant life skills, i.e., communication, group skills, goal setting, priority setting, development and use of power, and
Table 4-12
Summary of Analyses of Life Skills by Role

<table>
<thead>
<tr>
<th>Role</th>
<th>Significant Life Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>Self-assessment*</td>
</tr>
<tr>
<td>Practitioner</td>
<td>Values clarification*</td>
</tr>
<tr>
<td></td>
<td>Ability to work with others*</td>
</tr>
<tr>
<td>Administrator</td>
<td>Decision-making*</td>
</tr>
<tr>
<td></td>
<td>Conflict resolution*</td>
</tr>
</tbody>
</table>

*Significant Newman-Keuls at the .05 level.
identification of resources, are necessary for positive development in all roles in nursing.

3. Is there an interaction effect between stage and adult/professional development and role of the nurse?

The results of this analysis did show an interaction effect between stage and role for two life skills - decision-making and priority setting. Decision-making was significant in Stage II/administrator, and priority setting was significant in Stage II/practitioner (Table 4-13).

These findings fit with the previous discussion regarding the importance of decision-making in management roles. Nurse administrators must learn early in their careers to choose appropriate models for making effective decisions. As nurses enter the corporate structure, this skill is critical to effective performance.

As performance and accountability demands increase, the practitioner must be able to use the skill of priority setting effectively. The arena of health care in today's society is stressful and demanding; the nurse needs to identify what is important in order to cope with multiple demands.

This analysis had two important themes which can be summarized.
Table 4-13

Summary of Analyses of Life Skills Significant to Stage by Role

<table>
<thead>
<tr>
<th>Life Skill</th>
<th>Stage</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decision-making</td>
<td>II</td>
<td>Administrator</td>
</tr>
<tr>
<td>Priority-setting</td>
<td>II</td>
<td>Practitioner</td>
</tr>
</tbody>
</table>
1. Increased emphasis on life skill development should occur at Stage II as career differentiation occurs. At this point in life, the professional nurse needs new or additional skills to cope with increasing demands.

2. Identification of skills important to specific roles may be more effective than by stage of development alone.

Conclusion

The research model of this study does provide a framework for the identification of life skills needed for effective development of professional nurses. Nurse educators could use stage of adult and professional development as well as role to predict and anticipate learning needs. Through successful acquisition of life skills, professional nurses should be better able to cope with the individual, professional and societal forces that shape their professional development and practice.

Practitioners of nursing need skill development in the area of values clarification to enable them to deal with the ethical and moral issues and decisions that face practicing professionals. They also need the ability to work with other professionals effectively. This process should begin in the undergraduate curriculum and continue
both in graduate and continuing education curricula. Application of these skills can be geared to specialty interests. The relationship of societal needs to the effective development of the practitioner in Stage II leads to a need for ongoing development of these skills.

Teachers of nursing need to acquire the skill of self-assessment. To effectively develop and deal with professional needs, nursing faculty must have the ability to assist students in evaluating their goals, strengths and weaknesses - both professionally and personally. The chronic disillusionment of new graduates in nursing with organizational nursing practice may abate as nursing faculty acquire this skill and develop the skill in students (Kramer, 1974).

Nurse administrators are frequently not academically prepared for their roles. Only in recent years is there recognition that administrators must be educated for the administrative task, i.e., to adapt and use managerial techniques and technologies to achieve the ends of nursing. The results of this research identified skill at conflict resolution and decision-making as necessary to the role.

Additionally, skill in group process was identified as necessary in Stage II of adult/professional development. This is corroborated by current research which
identifies that inability to utilize communication is a major problem for nursing leaders (O'Connor, 1983).

The identification of decision-making and group process skills as necessary for effective development in Stage II and self-assessment and time management in Stage III, points to the need for awareness by nursing educators for development of curricular offerings that meet these stage needs. The approaches can vary; simple to complex content and applications are but one approach.

Professional nurses must be able to understand and support the aims of an advancing nursing discipline. Additionally, they must be capable of taking control of the nursing environment. Knowledge alone will not support change in nursing; this change must be accompanied by the effective use of the skills identified in this research. Through their successful acquisition, rewards for the professional will yield greater motivation and commitment to lifelong preparation.

Chapter IV included a description of the sample, a discussion of the analysis process and the findings. Chapter V will include a summary, conclusions, implications and recommendations for further studies.
CHAPTER V
SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Today, it is recognized that to maintain professional competency, continuing education in the professions is a necessity. However, little research has been done on the relationship of specific educational offerings to behavioral change in nursing (Cooper, 1973).

Much of the continuing education in nursing is aimed at the clinical aspect of nursing, i.e., pathologies, disease entities, and the related nursing care. While this is appropriate for some, it leaves nurses with other interests and areas of expertise with limited choices.

The original premise of this research was to utilize the concept of life skills and determine if there are differences in life skills needed for effective development of the professional nurse who was at different stages of adult/professional development and practicing in different roles. The researcher believes that a curriculum for continuing/lifelong education of professional nurses can be constructed around those skills as common threads or elements.
Summary

Thirty-six professional nurses participated in the study. They were a non-random, purposive sample. Thirty-three of the nurses lived in Ohio at the time of the study, two lived in New York, and one lived in West Virginia. All had a minimum of a bachelor's degree in nursing, nineteen had master's degrees and two had doctorate degrees. All were employed full-time. Twenty-five of the nurses worked in a hospital setting, and eleven in a school of nursing.

The theoretical framework of the study was designed around the following theories: adult development, professional development, the women's movement, the professionalization and history of nursing, adult learning theory, motivation and lifelong learning. Two models were designed; one of these was the research model. The first was an input-process-output model that synthesized the theories of adult and professional development and predicted which life skills were needed at each stage. It incorporated three forces that impact on the nurse and predicted life skills at each stage which would lead to fulfillment in that sphere. The second model, the research model, utilized the concept of the role of the nurse and predicted life skills needed for positive development in that role. It also showed
development by stage, the life skills required by stage, and the three forces that influence the professional nurse.

Data were collected through critical incident technique in an indirect manner. Questionnaire and interview format were used. Each nurse was asked to complete as many incident forms as possible about professional nurses who had affected her in a positive fashion, and professional nurses who affected her in a negative fashion. The number of tools completed by each nurse ranged from seven to ten.

Data were collected during May and June, 1982. The data were analyzed using two approaches. First, the demographic data about the role models identified in the tools were analyzed in a descriptive manner, examining frequencies and trends in the data. Chi square statistics were computed to determine if differences in the groups identified in the tools were statistically significant. Second, the question that dealt with the identification of life skills was analyzed using a series of two-way factorial ANOVAs. Each life skill was analyzed separately; positive and negative tools were also analyzed separately. The main effects variables were the stage of
development and role of the role models. Newman-Keuls statistics were computed on the pairs of criterion groups.

The null hypotheses of this study stated:

1. There is no difference in life skills needed for effective development by professional nurses at different stages of adult/professional development.

2. There is no difference in life skills needed for effective development by professional nurses in different roles (teacher, administrator, practitioner).

3. There is no interaction effect between stage and role.

There were three research questions:

1. Is there a difference in life skills needed by professional nurses at each major stage of their adult/professional development?

   a. At Stage I individual needs predominate. For fulfillment of expectation of reward and positive development, the following skills are necessary: self-understanding, knowledge of what one wants to do, identification of resources, and communication.

   b. At Stage II professional needs predominate. For fulfillment of expectation of reward and positive development, the following skills are necessary: values clarification, self-assessment, goal setting,
decision-making, group skills, time management, conflict resolution, and ability to work with other professionals.

c. At Stage III individual, professional and societal needs are of equal importance. Therefore, the following skills are necessary for fulfillment of reward and positive development: priority setting, development and use of power, and use of leisure time.

2. Is there a difference in the life skills needed by professional nurses who have different roles in nursing (teacher, administrator, practitioner)?

a. Nurses who are in a teaching role need the following life skills for positive development: communication, identification of resources, and group skills. Professional forces predominate in Stages II and III.

b. Nurses who are in a practitioner role need the following skills for positive development: values clarification, goal setting, and priority setting. Societal forces predominate in Stage II, and professional forces in Stage III.

c. Nurses who are in an administrative role need the following skills for positive development: development and use of power, conflict resolution, decision-making, and knowledge of what one wants to do. Professional forces predominate in Stages II and III.
d. The variation in life skills needed will occur in Stages II and III of adult/professional development in all roles.

3. Is there an interaction effect between stage of adult/professional development and role of the nurse?
   a. At Stage I: self-understanding, knowledge of what one wants to do, communication, and identification of resources are important life skills within all three roles.
   b. At Stage II: the interaction effect between the teacher role and Stage II will require the following life skills for effective development: communication and group skills. Professional needs predominate. The interaction effect between the practitioner role and Stage II will require the following life skills for effective development: values clarification and priority setting. Societal needs predominate. The interaction effect between the administrator role and Stage II will require the following life skills for effective development: conflict resolution, decision-making and knowledge of what one wants to do. Professional needs predominate.
   c. At Stage III: the interaction effect between the teacher role and Stage III will require the following skills for effective development: identification
of resources and priority setting. The interaction effect between the practitioner role and Stage III will require the following skill for effective development: goal setting. Professional needs predominate; societal needs are secondary. The interaction effect between the administrator role and Stage III will require the following skill for effective development: development and use of power. Professional needs predominate; individual needs are secondary.

The following section will look at the findings in relationship to these questions and to theory.

Findings

The findings of this study suggest several interesting trends that have implications for nursing.

Role Models

A. Nurses in administrative roles were identified most frequently to have influenced the respondents of the study, either positively or negatively. Of the total of three hundred nineteen incidents, one hundred fifty-five incidents involved professional nurse administrators. Of this group, fifty-four percent were seen as negative influences and forty-six percent were seen as positive influences.
B. Nurses in teaching roles were identified in one hundred twenty incidents. A chi square computed on the three roles showed a statistically significant chi square which is attributable almost entirely to the positive role model in a teaching position.

C. Nurses in practitioner roles were identified least often (forty-four incidents) as role models.

D. Professionals who were identified to be significant in a positive way are most often perceived to be in Stage III (reexamination of life goals) of adult/professional development. A chi square statistic was significant at this stage.

E. Professionals who were identified to be significant to respondents in a negative way are most often perceived to be in Stage I (concern with self) of adult/career development.

F. The majority (ninety-five percent) of those identified in the tools were females. This fits with nursing being predominately a female profession.

G. The majority of positive role models were professionals with graduate degrees in nursing. A statistically significant chi square was computed which confirms that there is a significant difference in professionals with higher degrees and their positive influence.
The data generated on the type of situation cited are of interest in terms of the activities of the nurse. Of the three hundred nineteen incidents collected, collaboration with other professionals was checked most often (one hundred fifty-two times). Teaching was second (ninety-two times) and direct patient care was third (thirty-nine times).

In examining these findings, relationships can be made to the theoretical framework and to the research model of this study.

As nursing has moved on the continuum of professionalization, from semi-profession to full profession, autonomy of the professional has been an issue. Faculty in schools of nursing are typically viewed as having more autonomy because of academic freedom. Additionally, they can be thought of as a nursing student's first role model and serve to socialize the students to the norms and mores of the profession. Faculty are typically viewed as valuing the ideals of their profession and wanting to serve both the profession and society (Lynn, 1965). Additionally, graduate degrees in nursing are required for nursing faculty.

The descriptive data of this study tend to corroborate the above. A statistically significant statistic was computed which infers that nurses in faculty roles
serve as positive role models. The perception of the subjects that these professionals were in Stage III of adult/professional development also relates to the research model that identified the impact of society and the profession on nurses in this stage. Additionally, the chi square identifying positive role models among nurses with higher degrees was significant.

The data were also revealing about the role of the administrator and the influential nature of this role. Forty-nine (49) percent of the total incidents collected identified nurses in this role as positive or negative role models. Of this group, slightly more than half (fifty-four percent) were negative influences, while forty-six percent were positive influences.

The literature (Lewen and Damrell, 1978; Moore, 1970) speaks to the negative stereotype of the female administrator. The data collected in this study support this view. Unfortunately, many nurse administrators have not been adequately prepared for their roles, but instead were promoted because of clinical expertise. The data on educational background of the role models tend to corroborate that negative role models had less formal educational preparation. Additionally, the data identified the influential nature of the role and the great potential for positive contributions by adequately prepared nurse administrators.
It is distressing to note the lack of role models among practitioners in nursing. Kramer (1974) identifies the frustration of nurses in practitioner positions and the lack of mobility and power connected with the role. She identifies a "lateral arabesquer" as the nurse who moves to teaching or administration because of lack of fulfillment in bedside nursing. The data of this study might be viewed in light of Kramer's research. The lack of overall influence, either positive or negative, by nurses in practitioner roles should be a subject for further investigation.

The adult and professional career development model was predicated on the theories of adult and professional career development. Additionally, the model integrated those forces that are at work on the individual professional which create needs in each sphere identified. Those forces - individual, professional, and societal - tend to create the climate in which the professional nurse functions. Expectation of reward in each of those spheres along with the stage of development, both adult and professional, create the need for acquisition of life skills specific to the stage. By acquiring certain life skills, it is expected that the professional nurse will develop positively in that stage and sphere and receive rewards. This hopefully will motivate the nurse to continue learning.
The results of this research have supported the stage or developmental theory of need for specific life skills. Additionally, the impact of the three forces and the needs and expectations for specific life skills that are created by their impact was supported.

Those skills not identified as specific to stage were: self-understanding, knowledge of what one wants to do, resource utilization, goal setting, values clarification, development and use of power, conflict resolution, ability to work with other professionals, priority setting, use of leisure time, and communication. One might infer that these skills are necessary for effective development irrespective of stage of development. It also seems appropriate to question the original adult and professional development theory which was the basis for this study. Much of that research, completed in the 1970's, was reported prior to the effects of the women's movement. Based on this research, questions might be raised as to the appropriateness of those original adult theoretical findings to the female professional of the 1980's. One must question the relationship of women to and with power systems.

The rapid development of the professional nurse, fostered by the women's movement and the professionalization of nursing, has yielded a nurse with different needs.
This nurse is practicing in a profession that is establishing itself as a separate domain of practice and inquiry. This professional develops in stages; she needs a strong set of life skills early in the educative process for effective development. These skills should be fostered irrespective of stage or role.

The research model depicted the need for life skills by stage and by role. An interaction effect was implied in the design of the model. The three forces - individual, professional and societal - were important components of process through which the nurse would have felt a need for reward in those spheres. These needs and the resultant life skills specific to those needs lead to reward and increased motivation to continue in the learning process. Figure 5-1 depicts the results of the analysis by stage and role. The results partially support the model. Utilizing role alone, five life skills were significant. Utilizing stage alone, four life skills were significant. In looking at significance of interaction effects, priority setting in Stage II, practitioner, and decision-making in Stage II, administrator, were significant.

Conclusions

The model designed as the theoretical framework of
Results of Analyses by Stage, Role and Interaction

<table>
<thead>
<tr>
<th>Stage I</th>
<th>Stage II</th>
<th>Stage III</th>
<th>Stage IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practitioner</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrator</td>
<td></td>
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</tr>
</tbody>
</table>

- Stage I: Self-assessment
- Stage II: Values clarification
- Stage III: Ability to Work with other professionals
- Stage IV: Conflict resolution

Figure 5-1
this study was partially supported by the results of this study. The model (the adult and professional career development model) was based on adult/professional developmental theory and role theory, which identified that adult professionals develop in stages and that these stages are characterized by specific needs. Additionally, different roles are characterized by specific expectations.

The concept of forces - individual, societal and professional - was combined with stage and developmental theory and role theory to predict life skills needed in three stages of adult/professional development and three roles which would result in satisfaction and motivation to continue learning.

The results of this study show that such a model might be used to predict learning needs based on stage of adult and professional development and role. Utilizing the concept of forces, stage, role and reward is a viable method of identifying skills which would lead to positive development and performance. Effectiveness in the sphere leads to fulfillment and motivates the professional to continue learning. It is potentially possible to design curricula specific to role and stage needs in nursing. For example, modules or workshops emphasizing the values clarification process for nursing practitioners
would be appropriate and would meet their needs. Additionally, a variety of approaches to content inclusive of skill acquisition can be used.

Based on the results of this research, one might infer that the acquisition of and ability to use life skills is essential to effective development of the professional nurse. Further, potentially there is a core set of skills which curriculum designers might emphasize in undergraduate nursing programs. Successful acquisition of these skills should yield graduates ready for beginning practitioner roles. These skills are: self understanding, knowledge of what one wants to do, resource utilization, goal setting, group skills, time management, development and use of power, priority setting, and communication. This list is those life skills not significant to any specific role in nursing. Further, the researcher believes that it is this group of life skills that should be re-emphasized in continuing education throughout the nurse's career.

The remaining life skills which were significant to role could be used to design continuing education specific to role development. This might start at the graduate level with a curriculum core of life skill development. It also points to specific need for content and experience geared to role choice.
The interaction effect of stage by role in identifying life skills needed by professional nurses bears examination. The adult and professional developmental theorists, such as Levinson and Miller and Form, made significant contributions to theory with the identification of stages and needs and tasks that were stage specific. However, the results of this research point to the fact that identification of necessary life skills by stage alone may not be sufficient. In examining the education of the nurse, the impact of role needs and the interaction of role and stage needs consideration. For nursing, a profession defining its current and future role in health care, accountability to the public for the competence of its practitioners is an important issue. The results of this research, while they cannot be generalized, bear further investigation by the nursing profession.

In addition to looking at acquisition of life skills, the results of this research portray the importance of collaborative skills for nurses. The ability to get along with and work with other professionals in determining health care needs of individuals and society is of paramount importance if the profession is to survive. The next decade, with its economic restrictions as well as increasing consumer demands, will be critical for
nursing. The profession must determine its overall role and how education should be designed to create competent practitioners in all roles. Additionally, education for nursing leadership should be defined.

The concept of the forces that influence nurses and learning needs also warrants discussion. With the increasing professionalism of nursing, the professional forces influencing nurses are greater than ever before. The need for adequate knowledge and skills, theory development skills, and continued competence and the need to influence other practitioners is characteristic of teachers and administrators (Kramer, 1974). Practitioners desire to make societal contributions through direct patient care. The impact of these forces and their relationship to learning needs should be further investigated.

Implications

The implications of this study revolve around behaviors of professional nurses and perceived needs.

Specific implications of the findings are:

1. Nursing curriculum designers need to look at life skills as a thread in both undergraduate and graduate curricula.
2. Designers of continuing education programs in nursing must continue efforts to provide stimulating educational offerings for all segments of the nursing population. Emphasis on clinical skills is not appropriate for all groups.

3. Continuing education offerings aimed at development of life skills may be beneficial in assisting professionals to maintain competency and develop further as professionals.

4. Research activities can be designed to determine needs in areas of specific skills based on stage of development and role.

5. The analytic technique of using stage and role of the subjects may be a powerful tool in identifying life skills needed for effective development.

6. Professional nurses need ongoing education in dealing with other professionals such as skills in consultation and collaboration.

7. Decision-making skills are critical for the competent professional nurse at all stages.

8. Values clarification should be taught early in nursing curricula to assist professional nurses in determining their goals, both as professionals and as women.
9. The lack of professional role models among nursing practitioners should be investigated.

10. Communication skills should be emphasized in all nursing curricula - undergraduate, graduate and continuing.

11. The importance of continuing education and its relationship to positive development in all spheres should be an important part of undergraduate nursing education. Positive attitudes toward lifelong education should be fostered by nursing educators.

12. The profession of nursing should be viewed in relationship to the rapid development of women over the past decade. Women professionals of the 1980's have developed rapidly. The research of the 1970's on stage of adult development may no longer describe this group of adults.

Recommendations

Issues raised in prior sections lend themselves to recommendations for future research on life skills and curriculum design in professional nursing.

This researcher proposed that further descriptive research utilizing the critical incident technique be undertaken to determine nursing phenomena.
Specific recommendations are as follows:

1. Validation of this research through further study of the subjects. The skills identified as significant in this study might be rank-ordered and validated by this group.

2. Use of life skills as horizontal threads in undergraduate and graduate curriculum.

3. Development of continuing education curricula in nursing based on life skills. This curricula could be focused on role, stage of adult/professional development, or both. There is evidence for the strength of combining stage and role in determining needs.

4. Research projects to determine the potential reasons for the lack of role models among practitioners of nursing. Perhaps this group of nurses is being prepared the most poorly for the role they need to play.

5. Further research in examining the concepts of the three forces - individual, societal and professional - and the relationship of reward to motivation for continuing learning.

The results of this study cannot be generalized to the nursing profession because of the limitations of the study and because the findings may be attributed to chance. However, there is evidence that professional nurses should use stage and role needs when identifying
learning needs. The relationship of developmental needs, role and forces to reward and motivation should be exam­ined further. The design of educational offerings which might be specific to stage and role could lead to in­creased competence and accountability of nurses.

The profession of nursing faces an exciting challenge for the 1980's and 1990's. Its rapid development and evolution of nursing theory has revolutionized the role of the nurse. Nursing leaders must now define the role of the profession to insure its survival. The com­petence and development of each nurse is necessary for nursing's survival in the health care arena. Effective development of life skills at various stages and in different roles provides one framework for nursing. With its relationship to motivation and continued learning, it should be researched further.

In Chapter V, the researcher presented a summary of the research study. Implications were offered based on the findings. Also presented were recommendations for future study based upon these implications and findings, as well as the research process itself.
APPENDIX A

DEMOGRAPHIC DATA RE SUBJECTS
## Demographic Data Re Subjects

1. **Initials**

2. **Age Range**
   - 25-30
   - 31-45
   - 46-60

3. **Education**
   - < B.S.N.
   - B.S.N.
   - > B.S.N.

4. **Currently Employed**
   - Hospital
   - Nursing home
   - School of Nursing
   - Community Agency
   - Other

5. **Position Currently Held**
   - Practitioner
   - Administrator
   - Faculty

6. **Salary Range**
   - a. $10,000 - $15,000
   - b. $16,000 - $20,000
   - c. Over $20,000

7. **Developmental/Career Stage**
   - a. Concern with self/developing a career
   - b. Sense of direction/career advancement
   - c. Reexamination of life goals/career stabilization

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APPENDIX B

INCIDENT FORM - POSITIVE
Incident Form — Positive

Please identify a person who has been significant in your career in a positive fashion. (Initials ____)  

In regards to this person, please answer the following questions:

1. How old is this person?
   a. ____ 25-30
   b. ____ 31-45
   c. ____ 46-60

2. Male ____
   Female ____

3. What is the highest level of education that this person has achieved?
   a. ____ < B.S.N.
   b. ____ B.S.N.
   c. ____ M.S.N.
   d. ____ Ph.D.

4. What would you say this person's main goal reflects?
   a. ____ concern with self/developing a career
   b. ____ sense of direction/career advancement
   c. ____ reexamination of life goals/career stabilization/advancement of profession vs. self

5. What area of nursing concentration is this person primarily involved in?
   a. ____ direct patient care
   b. ____ teaching
   c. ____ administration

6. Where did you observe this activity?
   a. ____ hospital
   b. ____ nursing home
   c. ____ school of nursing
   d. ____ community agency
   e. ____ other

7. What activity was being performed?
   a. ____ patient care
   b. ____ teaching
   c. ____ collaboration with other professionals
   d. ____ other

8. What type of persons were involved? (Check as many as applicable)
   a. ____ patients
   b. ____ nurses
   c. ____ physicians
   d. ____ students
   e. ____ family members
   f. ____ other health team members
   g. ____ faculty

9. What type of problem was dealt with? (Check as many as applicable)
   a. ____ patient care management
   b. ____ health care
   c. ____ communication
   d. ____ counseling
   e. ____ personnel management
   f. ____ other

10. What life skills were used by this person in this situation effectively? (Check as many as applicable)
   a. ____ self-understanding
   b. ____ knowledge of what one wants to do
   c. ____ identification of resources
   d. ____ values clarification
   e. ____ self-assessment
   f. ____ goal-setting
   g. ____ group skills
   h. ____ decision-making
   i. ____ use of time
   j. ____ development and use of power
   k. ____ priority setting
   l. ____ use of leisure time
   m. ____ conflict resolution
   n. ____ dealt well with other professionals
   o. ____ communication
   p. ____ other
APPENDIX C

INCIDENT FORM - NEGATIVE
Incident Form - Negative

Please identify a person who has been significant in your career in a negative fashion. (initials ____) 

In regards to this person, please answer the following questions:

1. How old is this person?
   a. ____ 25-30
   b. ____ 31-45
   c. ____ 46-60

2. Male ___
    Female ___

3. What is the highest level of education that this person has achieved?
   a. ____ < B.S.N.
   b. ____ B.S.N.
   c. ____ M.S.N.
   d. ____ Ph.D.

4. What would you say this person's main goal reflects?
   a. ____ concern with self/developing a career
   b. ____ sense of direction/career advancement
   c. ____ reexamination of life goals/career stabilization/advancement of profession vs. self

5. What area of nursing concentration is this person primarily involved in?
   a. ____ direct patient care
   b. ____ teaching
   c. ____ administration

THE FOLLOWING QUESTIONS REFER TO A SPECIFIC SITUATION IN WHICH YOU OBSERVED THIS PERSON PERFORMING A SPECIFIC ACTIVITY.

6. Where did you observe this activity?
   a. ____ hospital
   b. ____ nursing home
   c. ____ school of nursing
   d. ____ community agency
   e. ____ other

7. What activity was being performed?
   a. ____ patient care
   b. ____ teaching
   c. ____ collaboration with other professionals
   d. ____ other

8. What type of persons were involved?
   (Check as many as applicable)
   a. ____ patients
   b. ____ nurses
   c. ____ physicians
   d. ____ students
   e. ____ family members
   f. ____ other health team members
   g. ____ faculty

9. What type of problem was dealt with?
   (Check as many as applicable)
   a. ____ patient care management
   b. ____ health care
   c. ____ communication
   d. ____ counseling
   e. ____ personnel management
   f. ____ other

10. What life skills were used by this person in this situation effectively?
    (Check as many as applicable)
    a. ____ self-understanding
    b. ____ knowledge of what one wants to do
    c. ____ identification of resources
    d. ____ values clarification
    e. ____ self-assessment
    f. ____ goal-setting
    g. ____ group skills
    h. ____ decision-making
    i. ____ use of time
    j. ____ development and use of power
    k. ____ priority setting
    l. ____ use of leisure time
    m. ____ conflict resolution
    n. ____ dealt well with other professionals
    o. ____ communication
    p. ____ other
APPENDIX D

CONSENT TO PARTICIPATE

LETTER OF INVITATION TO PARTICIPATE
Dear ________________:

I am a doctoral student at Ohio State University, doing research in the area of life skills needed by professional nurses. If you would be willing to participate, about 45 minutes to an hour of time will be required. Data will be collected in both interview and questionnaire format. If you are able to participate, please sign this form and return it to me at the above address.

All information obtained will remain confidential and you will not be identified in any way in the study.

Thank you for your consideration.

Sincerely,

P. Susan Fitzsimons


