NOTICE

AVIS

The quality of this microform is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us an inferior photocopy.

Previously copyrighted materials (journal articles, published tests, etc.) are not filmed.

Reproduction in full or in part of this microform is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30.

La qualité de cette microforme dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de qualité inférieure.

Les documents qui font déjà l'objet d'un droit d'auteur (articles de revue, tests publiés, etc.) ne sont pas microfilmés.

La reproduction, même partielle, de cette microforme est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30.

Canada

THE UNIVERSITY OF ALBERTA

THE CAREER PATTERNS AND ORIENTATIONS OF NURSES

by

MARY ANN MCLEES

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH IN

PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

DEPARTMENT OF EDUCATIONAL ADMINISTRATION

EDMONTON, ALBERTA

FALL 1988

THE UNIVERSITY OF ALBERTA

RELEASE FORM

NAME OF AUTHOR: MARY ANN MCLEES

TITLE OF THESIS: THE CAREER PATTERNS AND ORIENTATIONS OF

NURSES

DEGREE: DOCTOR OF PHILOSOPHY

YEAR THIS DEGREE GRANTED: 1988

Permission is hereby granted to the UNIVERITY OF ALBERTA

LIBRARY to reproduce single copies of this thesis and to lend or sell such copies

for private, scholarly or scientific research purposes only.

The author reserves other publication rights, and neither the thesis nor

extensive extracts from it may be printed or otherwise reproduced without the

author's wtitten permission.

(Student's Signature)

C/- N.B. Jordan
(Permanent Address)

Hillview Road

R.D. 2, Alexandra

NEW ZEALAND

Date: September 30, 1988

THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled THE CAREER PATTERNS AND ORIENTATIONS OF NURSES submitted by MARY ANN MCLEES in partial fulfilment of the requirements for the degree of DOCTOR OF PHILOSOPHY.

Dr. R. G. McIntosh (Supervisor)

Dr. W.H. Worth

Dr. P.A. Field

Dr. L.L. Stewin

Dr. B.G. Lucas (External Examiner)

Date: June 21, 1988

This thesis is dedicated to the memory of my parents: my father, whose love influenced early decisions in my career, and my mother who always supported my career decisions even though I was often working and studying a long way from home.

ABSTRACT

The major purposes of the study were to explore the influence of life events, family responsibilities, education, work history and professional and community involment on the development and crystallization of career orientations of graduate nurses in their early career years, and to identify and explore the extent to which career orientations guide and hold graduate nurses in career-related decisions. A third purpose was to initiate development of an instrument which could be used to identify the career orientations of nurses for counselling and human resources development purposes.

Questionnaires were distributed to 365 graduates from two generic baccalaureate degree programs, six hospital diploma programs and five college diploma programs in Alberta in 1976. Two hundred and two usable returns were obtained.

The questionnaire consisted of two parts: The Career History and The Career Determinant Inventory (CDI). The CDI, which was grounded in the career anchor concept developed by Edgar H. Schein, consisted of 47 items designed to identify attitudes, values and talents that could be descriptive of nurses. Because there would be respondents who were no longer nursing, an alternate version reflecting a general worklife orientation, was also developed.

Factor analysis of the CDI items revealed eight career orientations characteristic of graduate nurses: ambition for leadership, job security, family commitment, independence, variety/adventure, altruism, self-esteem and professional integrity. Work history data revealed five career patterns: (1) stationary place-bound, (2) mobile lateral, (3) advancing place-bound, (4) mobile reverting, and (5) mobile advancing.

Respondents who replied that they were no longer involved in a nursing career demonstrated significant differences in their responses in relation to the nursing group on seven of the CDI items. Reasons for leaving nursing were dissatisfaction with nursing as a career because of stress and frustration with working conditions, family commitments,

v

O

or health problems. Several of the non-nurse respondents had developed careers in professions where they have greater freedom to express their creativity and individuality.

Implications for practice in the areas of nursing education and nursing administration were drawn and recommendations for further research were outlined.

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

CHAPTER 7

EXPLORING THE FEASIBILITY OF DEVELOPING A CAREER-
PATTERN TYPOLOGY 124

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

OVERVIEW AND PURPOSE OF THE STUDY

The concept of career has been described by Hall and Lerner (1980) as the link between fantasy and reality. Children may dream or fantasize about what they are going to do when they grow up but the reality is the choices, plans, attitudes and values which the adult adopts during the process of actualization of the dream and concomitant career development. The teenager who dreams of becoming a neurosurgeon or concert musician may decide, when faced with the reality of long years of study and practice, to take a less arduous route to a lesser goal, or accept the discipline and hard work required to realize the dream. The choice made will depend on the value which the individual places on the goal, and is made manifest by specific decisions and plans.

This study is concerned with the factors which influence the decisions made by people who elect to pursue a nursing career. The past ten to fifteen years have seen a surge in the research related to nursing career development in organizational settings, although the factors which influence the career choices nurses make have not been researched to any great extent. With the development of new nursing education programs, such as the university programs in the United Kingdom, with the shortage of nurses such has been experienced in Canada and the United States, career development has become an important area for research. Career paths have been traced (MacGuire, 1971; NLN, 1979), instruments to identify preferred career paths have been developed (Laschinger and Boss, 1984; Hefferin and Kleinknecht, 1986), and career development models for the workplace have been described (Kleinknecht and Hefferin, 1982; Vestal, 1983a).

Vestal (1983b, p. 188) maintains that:

the nurse who understands that it is possible to control one's professional destiny holds the key to power and success....The need for the

1

professional nurse to develop a sense of 'career' versus 'job' is essential to the attainment of career success.

She then goes on to differentiate between "job" and "career."

While a 'job' can be construed to consist of a number of assigned tasks that result in meeting a specific role expectation, the term *career* implies upward mobility through a succession of positions requiring increasing levels of skill, expertise, and knowledge.

This view of career, which has been traditional to nurses and nursing, is rooted in the belief that nursing can only be known through extensive practice. Vestal (1983a, p. 473) maintains that nurses are not unlike their counterparts in industry: "they are seeking the opportunity for recognition and advancement." If they fail to achieve advancement—as called for by this traditional view—the view itself may be responsible for the loss of young nurses with well defined career goals. Hardy, Sinclair and Hughes (1984, p. 618) suggest that this traditional view of the nursing career "may have resulted in a loss of those who were ambitious, eager and able to achieve early in their careers." Alternatively, the nurse whose career interests are in direct patient care is also seeking recognition and advancement but not necessarily upward mobility in the traditional organizational sense.

A broader, more encompassing view of the nursing career is put forward by Morrison and Zubelman (1982, p. 63). They define a nursing career as:

a lifelong professional commitment to excellence in practice in which the individual can be flexible in meeting the needs of work, self and family as these needs vary throughout adult life.

Whereas Vestal's view of career tends towards the traditional, Morrison and Zubelman's view is perhaps more realistic in today's world when women are trying to blend the "needs of work, self and family" as they perform their occupational role.

Purpose of the Study

While a "sense of career" (Vestal, 1983b, p. 188) would appear to be the key to "career planning and success," it may also be important to be able to identify what it is

that influences the development of that sense. If the career-oriented nurse is going to be successful in integrating the needs of work, self and family, it may be essential to develop a knowledge of the factors that influence the choices and thus the flexibility required at any one point in a career.

Accordingly, the major purposes of the study are to explore the values, beliefs, motives and talents that influence the development and crystallization of career orientations, that is, the attributes of individuals that develop over time and which may influence the career decisions nurses make, and to identify and explore the extent to which these career orientations guide and hold the graduate nurse in career related decisions. A secondary purpose is to initiate the development of an instrument that can be used to identify the career orientations of nurses for human resources development purposes.'

Objectives of the Study

In order to fulfill the purposes outlined it is necessary to achieve the following objectives.

1. To identify the factors that may be used to describe the career orientations of nurses.

2. To describe the differences between those respondents who perceive themselves to be pursuing a nursing career and those who do not.

3. To explore the relationships, as suggested by the conceptual model, between selected education, family, community/professional involvement and work history variables and nurses' career orientations.

4. a. To create a career typology using selected work history variables.

   b. To describe these career patterns in terms of selected education, family, community/professional activity, and work variables.

   c. To explore relationships between the career patterns and career orientations.

5. To initiate development work on a career orientation questionnaire that could be used for human resources development purposes with nurses.

Background to the Study

According to Morrison and Zubelman (1982, p. 60), the study of nurses and their careers "can lead to understanding employee aspirations, expectation and commitments within the organization as well as the employee's needs and values." Historically, nurses have not seen their work as a lifelong process (Smith, 1982; Young, 1984) and this has resulted in a lack of commitment to a professional career.

Nursing Careers

Traditionally, nursing careers have been understood in a manner similar to that defined by Vestal (1983b, p. 188) and Hardy, Sinclair & Hughes (1984, p. 618). The expectation has been that on completion of a formal educational program the individual would seek a position in a hospital, in a clinical functional area, and consolidate the skills taught during the training period. Typically, the young nurse would make lateral moves from one functional area to another to "round out" her practical experience. Once a nurse felt that sufficient practical experience had been gained, a move to a senior staff nurse or head-nurse position would be contemplated. Some nurses have combined this preparation or consolidation period with entry into marriage or the opportunity to travel. About the end of the preparation period the nurse, usually female, would take time out to have children. She may or may not work relief shifts, evening or even night shifts during this time. This would depend on the spouse's occupation and the ability to arrange for child care. On re-entry to the full-time work force, once the children were in school, the nurse would again work in a clinical functional area until a head nurse position became available, or she may have started to take courses at university, working towards a degree. Once she had a degree she would be able to apply for a supervisory position and from there she might aspire to an assistant director's position. As there are many more nurses in the work force than there are management positions there are very few opportunities for the majority of them to move up. Most nurses stay in staff nurse

positions where they frequently become more and more disenchanted with their work: the shift work, the staff shortages, and the lack of recognition. These nurses tend increasingly to seek their satisfaction in their lives outside of work.

Nursing Education

When considering nursing as a career the prospective nursing student, if he or she lived in Alberta in 1976, was faced with making a decision as to which type of program to enter and what kind of qualification to obtain. The student may have chosen the traditional route to nursing by entering a hospital diploma program which varied in length from two years and six months to three years. A second route to diploma nurse qualification was through a two-year community college program. To begin a nursing career through obtaining a baccalaureate qualification the student could choose to attend the four-year bachelor's degree program at a university. Graduates from all three types of program were required to pass the Canadian Nurses' Association Testing Service (CNATS) licensure examinations before becoming eligible for registration as a nurse.

Factors that could influence the student's choice included finances, geographic location, career plans, and/or family or other influences. For some students the immediate cost of four years at university may have been out of the question, whereas attendance at the seemingly less expensive hospital diploma program, or living at home and attending the local community college may have been feasible. Living away from home, family and friends while attending college, university or a hospital school can be either a desirable or a devastating experience for students depending on their degree of independence or family circumstances. If married and/or with young children it may be difficult to move to a centre where there is a choice of university, college or hospital nursing programs.

Planning for the future may also influence the decision. If not sure about a career path, other than wanting to become a nurse, a student may opt to take the shorter route to

the registered nurse qualification through either the hospital or college diploma programs, which may then be followed by a two-year post-R.N. bachelor's degree program. The student who has a clear view of a career path will choose the route most likely to enable attainment of a chosen goal.

Nursing Education in Alberta in 1976

In Alberta during the early to mid-1970s, nursing education was undergoing major changes: several of the hospital programs were being phased out, the college programs were becoming established and the university programs were expanding slowly. In 1976 there were 13 basic nursing education programs in Alberta: two university bachelor's degree in nursing programs, six hospital diploma programs, and five college diploma programs (Table 1.1). The Report on Nursing Education of the Alberta Task Force (Alberta Advanced Education and Manpower) had been released in September 1975. The Task Force recommended (1) "that all nursing education be established as a component of the advanced education system," and (2) "that by 1990 the minimum educational preparation for professional nursing be the baccalaureate" (pp. 113-114).

Since the release of the Task Force Report two hospital programs have been discontinued and there has been a steady increase in the number of graduates from the basic and post-basic baccalaureate degree programs. Entry to practice at the baccalaureate level has raised concerns regarding job satisfaction for degree prepared nurses in hospital employment situations (CNA, 1984, p. 6).

Nursing Employment

Review of the nursing literature of the 1980s, with regard to employment activity and turnover, reveals a concern about the cost of excessive turnover to hospitals and other agencies, the profession, and the individual. Emphasis is increasingly being placed on

ensuring job satisfaction, lessening burnout and promoting career paths for nurses (Colavecchio, 1982; Sovie, 1982; Weisman, 1982; Munro, 1983; McClure et al., 1983; Nolan, 1985).

Table 1.1

Basic Nursing Education Programs in Alberta in 1976

Program and Institution	Program length	Intake date	Graduation date	Graduates
BACHELOR'S DEGREE				
University of Alberta	4 years	September	May/November	24
University of Calgary	4 years	September	June/November	40
DIPLOMA IN NURSING				
Royal Alex. Hospital	3 years	September	June	106
Foothills Hospital	3 years	September	June	97
University of Alberta Hospital	2 1/2 years	Sept/January	February/June	181
Misericordia Hospital	3 years	September	May/June	52
Holy Cross Hospital*	3 years	September	May	41
Galt School of Nursing*	3 years	September	May	27
Grant MacEwan Community College	2 years	September	June	50
Medicine Hat College	2 years	September	June	32
Mount Royal College	2 years	September	June	57
Red Deer College	2 years	September	July	46
Lethbridge Community College	2 years	September/March	May	34

* Indicates a hospital school program which is no longer offered.

Source; Alberta. Advanced Education. (1979).

The shortage of nurses, which affected both Canada and the United States about 1980, prompted administrators and educators to take note of studies done to assess the job satisfaction of registered nurses (AHA, 1980; Munro, 1983), and to conduct studies

on what it is that helps a hospital retain nurses. That is to say, what are the characteristics of "magnet" hospitals? McClure and her fellow researchers (1983, p. 11) sought out hospitals that: (1) demonstrated success in recruiting and retaining nurses and (2) created environments that promoted job satisfaction and fulfillment of professional and personal needs. In their report the authors focussed "on the reasons why nurses stay in their jobs and the reasons for their job satisfaction." Factors which made a hospital a desirable place to work included:

> employer support for professional development through orientation, inservice, and continuing education programs; clinical and management ladders; and opportunities to engage in nursing research.

> attractive employment benefits including competitive salaries and benefits, flexible scheduling patterns, and opportunities for promotion (Hospitals, June 6, 1983, p. 70).

> The Alberta study (AHA, 1980, pp. 330-1, 340) found that the priority ranked

reasons for nurses leaving were:

> 1   need for change;
> 2   unsatisfactory shifts;
> 3   .   inability to provide safe patient care; and
> 4   inability to effect change in policy regarding patient care.

Respondents also felt that "the employer could have improved factors that influenced them to leave (other than pregnancy or transfer of a spouse)." The study report suggested several improvements for the employment situation as well as a "better match between employing hospitals' needs and training program plans". Career paths or ladders were found in some of the magnet hospitals and were recommended for implementation in the Alberta study.

The Nursing Employment Situation in Alberta in 1976

The nursing employment situation in Alberta appears to have been in a state of flux during the mid- to late- 1970s. In a 1977 Health and Welfare Canada report (Imai, Appendix C) the Alberta Association of Registered Nurses indicated that there were 113

administration and general staff nurse position vacancies in July 1976 compared to 263 in July 1975, 146 in January 1976, and 178 in January 1977. As an instructor in an Alberta basic nursing education program at the time when the sample subjects graduated, the researcher recalls the difficulty that some graduates had in finding jobs in areas of practice and geographical preference.

Rationale for the Study

A concern for "individual identity" is one of the reasons for trying to understand careers (Van Maanen, 1977, p. 3). This involves having some knowledge of the person's "experienced past and anticipated future." When applied to a nursing career such knowledge involves awareness and concern for the total lifestyle of the individual. Events which occur within the person's immediate family situation can affect the worklife and career aspirations of the employee. For a profession which is comprised primarily of women the demands of family may act as a constraint to a career, a factor which may conflict with the bureaucratic goals of the organization. Van Maanen proposes that a further reason for studying careers is that large organizations cannot be understood unless we have at least a rudimentary conception of the values, beliefs, and behavior systems of the people who work within those organizations.

Traditional theories do not, for the most part, address the process of the career. Schein (1971, p.17) identifies the need for concepts which:

> can articulate the relationship between (a) the career seen as a set of attributes and experiences of the *individual* who joins, moves through, and finally leaves an organization and (b) the career as defined by the *organization*—a set of expectations held by the individuals inside the organization which guide their decisions about whom to move when, how, and at what speed.

In order to articulate and synthesize the individual and organizational aspects of career development, models and programs for research are required. To date very little work has been done to identify the relationships that exist between the individual career

values and plans of nurses and the expectations of the organizations where they are employed.

Significance for Nursing Education and Nursing Administration

Smith (1982, p.128) outlines several reasons why it is important for nurses to plan their career. They can be summarized as follows:

1. Present concerns of the profession and the increasing complexity of health care make it important for nurses to plan their careers.

2. Nurses are needed to meet the current shortages in a variety of clinical and community health settings.

3. Nurses who are academically prepared for leadership in research, education, and administration will be needed to fulfill nursing's responsibility in planning and delivery of health care services and education programs.

Further, Banning (1987, p.3) believes that nurses will experience "two or even three careers in their lifetime." She raises the question:

Are the issues inherent in staff retention really being addressed by nurse employers? The '70s and '80s have created a new era for working women, and nurses in particular. It is a phenomenon for so many nurses to be continuously employed throughout their working years. The necessity of keeping nurses satisfied and challenged in their jobs for 10, 20, 30, dare I say it, 40 years, is something health care administrators have not spen* 'ot of time studying.

Morrison and Zubeln...r (1982, p.66) assert that:

organizations must formulate a three-pronged approach to the problem of improving the quality of work life for staff nurses. An appropriate balance of these three prongs (self, work and family) may need to be determined by an assessment of a particular organization's needs. Recognizing and facilitating the staff nurse's changing needs should promote organizational commitment.

Career development is a joint responsibility for the individual and the organization. As Schein (1978, p. 17) points out:

Any human resource planning and development system must attempt to match the needs of the organization with those of the individual. If such a system is to work, much more effort must be devoted to fully understanding the needs and characteristics of the individual.

He then goes on to say:

> One of the weaknesses of traditional employee and management development systems has been the tendency to assume that employees can be conceived as leaving family and self at home when they come to work and that therefore the organization need worry only about creating opportunities for work-oriented development activities.

Thus, career planning has implications for both nurse administrators and nurse educators.

Nurse educators have the responsibility of socializing students and administrators have the responsibility for maintaining organizational effectiveness, or as Smith (1982, p. 131) points out:

> Working together, nursing service and education must prepare nurses who view nursing as a career and not just as a series of jobs, rewarding nurses for direct patient care services, addressing professional issues that will assist nurses in their career development, providing opportunities for career planning and 'finding ways to share with prospective nurses the excitement and challenge of nursing.'

While the emphasis of this study is on nurses and their careers, an analogous situation exists for teachers (especially female teachers) and their careers. The above quotation from Smith can be applied to teachers, educational administrators and educators.

Operational Definitions

For the purposes of this study the following terms are defined:

A **baccalaureate degree prepared nurse** is a graduate from an approved basic baccalaureate degree nursing program from an Alberta university.

A **college diploma prepared nurse** is a graduate from an approved diploma nursing program from an Alberta college.

A **hospital diploma prepared nurse** is a graduate from an approved diploma nursing program from an Alberta hospital school of nursing .

Registered nurse refers to a graduate of any of the three types of nursing education programs in Alberta who has successfully passed the Canadian Nurses'

Association Testing Service examinations and is registered as a nurse in the jurisdiction of current residence or practice.

Postgraduate education refers to formal education programs undertaken at a university by the graduate nurse following basic (baccalaureate degree, diploma) nursing preparation.

Post-service education refers to clinical nursing courses and short nursing-related courses undertaken by the graduate nurse following basic (baccalaureate degree, diploma) nursing preparation.

Career is the series of work- and family-related experiences and adventures that a person passes through during a lifetime. It involves notions of success and attained status and reflects the individual's needs, values, and aspirations along with the values and expectations imposed by society.

Career orientations are considered to be attributes of individuals that develop over time and which influence the career decisions made by the nurse. These orientations emerge from the interaction between the person's values, motives, talents, and life and work experiences and adventures. They serve to guide, constrain, stabilize, and integrate the person's career. They are similar to the "career anchors" described by Schein (1978).

Questionnaire refers to the paper and pencil instrument developed by the researcher to elicit responses to questions concerning the career history and attitudes, motives, talents and aspirations of nurses.

Career Determinant Inventory (CDI) is the portion of the questionnaire developed by the researcher to measure the attitudes, motives and talents that make up the career orientations of nurses.

Delimitations

The study was delimited to graduate nurses from a particular year, 1976, in Alberta. As this study is dealing with questions relating to values, attitudes and talents held by individuals who graduated from particular nursing programs, the findings may not apply to another group, even from the same programs. Social change affects the values and attitudes people hold, and nursing education programs are dynamic, not static.

Assumptions

The following assumptions are made in relation to this study:

1. that the items on the Career Determinant Inventory are an accurate reflection of the variables being studied;

2. that the graduate nurses surveyed from the year 1976 were representative of that year's graduates from the three types of nursing preparation programs offered in Alberta; and

3. that subjects answered questions as honestly and sincerely as possible.

Limitations

Limitations of the study may be:

1. the selection of the sample from the graduates of a given year and geographical area; and

2. subject recall bias which may occur when subjects are asked to recall events which happened in the past.

Organization of the Thesis

This chapter presented: (1) an outline of the study problem, (2) the purpose and objectives of the study, (3) the background to the study, (4) the rationale for the study, (5) the operational definitions of major terms, (6) the delimitations, and (7) the limitations.

Chapter 2 provides a review of (1) the literature related to the definition of career, (2) the writing and research on career anchors, and (3) a conceptual framework for the study. The nursing literature related to aspects of career development pertinent to the study objectives will be incorporated into each chapter as appropriate.

Chapter 3 outlines (1) the research design, (2) instrument development and validation, and (3) data collection and analysis.

In Chapter 4 descriptive analysis of the data gathered from the Career Determinant Inventory is presented. The factors that identify the career orientation of nurses will be described. In addition, there is a discussion of the findings and a comparison with previous related research.

Chapter 5 contains the descriptive analysis of the data gathered from the Career History. A comparison of the two groups of respondents—those who report that they are no longer involved in a nursing career and those who consider themselves to be still engaged in a nursing career—is presented in the first section. This chapter also includes the data concerning the career decisions made by the non-nursing respondents and their preparation for their present or future careers. Comparison with previous research is also incorporated.

Chapter 6 provides the analysis of selected career history variables in terms of the career orientations. The findings are compared with previous related research. The final section draws conclusions about the findings.

Chapter 7 explores the feasibility of developing a career pattern typology based on the career orientations. Five distinct types of employment/career patterns are identified. The first section of the chapter reports a profile for each of these career patterns. In subsequent sections, the relationship between each type of career pattern and the career orientations is presented and the findings are discussed. In the concluding section, comparisons are made with previous research.

Chapter 8 contains the analysis of the study questionnaire as an instrument that could be used for career counselling. Deficits in the questionnaire will be identified and a field-test will be described.

Chapter 9 provides (1) an overview of the study, (2) a summary of the findings, (3) a discussion of the findings, (4) conclusions, and (5) implications for practice and further research.

CHAPTER 2

CONCEPTUAL FRAMEWORK

This chapter is concerned with the development of a conceptual framework to be used as a guide in addressing the purposes of this study. The chapter is divided into three major sections. Section one is a review of selected literature related to the definition of career. The second section examines the writing and research on career anchors. The conceptual framework for the study is presented in the third section.

Career Defined

Driver (1982, p. 23) likens the problem of defining career to that of "being among the famous blind wise men having their interminable discussions of the equally famous multifaceted elephant." Career is a word that is used often and in varied contexts. Van Maanen (1977, p. 1) compares it to culture. Like culture, career is something that is with us and part of us yet is difficult to define since it has different meanings for different people.

A review of the writings of the major career theorists and career development protagonists produces several definitions of career. The focus that the definition takes is usually determined by the sociological, psychological or developmental orientation of the definer.

The Random House Dictionary (1980, p. 132) defines career as "(1) progress of a person through life, as in some profession, (2) an occupation followed as one's life-work" and in the verb form, "(3) to go at full speed." The most common use of the word today is in reference to occupation and work. Super (1957, p. 71) views career as a sociological concept which closely parallels the psychological concept of life stages:

> The sociological term refers to the sequence of occupations in the life of an individual or a group of individuals. This sequence may be analyzed in order to ascertain the major work periods which constitute a career.

The sociologist Wilensky (1961, p. 523), when writing about the effects of career pattern on the social stability of white "middle mass" (upper working, lower middle class) males, defines career in structural terms as "a succession of related jobs, arranged in a hierarchy of prestige, through which persons move in an ordered (more or less predictable) sequence." He adds the corollary "that the job pattern is instituted...and persists over more than one generation of recruits."

The idea of order and progression is also present in the definition put forward by Roth (1963, p. 94) when examining the "timetables" or work progression of health professionals. He sees career as:

> a series of related and definable stages, of phases of a given sphere of activity that a group of people goes through in a progressive fashion (that is, one step leads to another) in a given direction or on the way to a more or less definite and recognizable end-point or goal or series of goals.

Hall (1976, p. 4) defines career as "the individually perceived sequence of attitudes and behaviors associated with work-related experiences and activities over the span of a person's life." Schein and Van Maanen, who have worked and written together several times, have a very similar view of career. They developed three similar, yet different, definitions which appear in works written in 1977. Schein (1977, p. 52) writes:

> The career can be thought of as a set of stages or a path through time which reflects two things: (a) the individual's needs, motives, and aspirations in relation to work, and (b) society's expectations of what kinds of activities will result in monetary and status rewards for the career occupant.

On the other hand, Van Maanen (1977, p. 1) defines career as:

> simply a series of separate but related experiences and adventures through which a person passes during a lifetime. It can be long or short and, of course, an individual can pursue multiple careers either in rough sequence or at the same time...the concept is descriptive not normative.

Writing together, Schein and Van Maanen (1977, p. 31) define career as "represent[ing] an organized path taken by an individual across time and space. [It]

generally consists of a series of separate but related experiences and adventures through which a person passes during a lifetime." With this definition there emerges a focus on experiences and the development of attitudes, along with an expectation of adventure, fo the individual over time and space, an idea that was further developed by Schein (1978, p.1) in his book *Career Dynamics*. Here he conceptualizes career as having meaning both to the individual and the organization: "The concept has meaning both to the individual pursuing an occupation—the 'internal career'—and the organization trying to set up a sensible developmental path for employees to follow throughout their working life in the organization—the 'external career'".

The major concept that emerges from Schein's (1978) work is that of 'career anchors' which are examined in some detail in the next section. In a longitudinal study of Sloan School of Management graduates, patterns emerged when the reasons why subjects made the career decisions they did were studied. One of these was "the pattern of self-perceived talents, motives, and values [which] serve[s] to guide, constrain, stabilize, and integrate the person's career." In this work, Schein went on to hypothesize that the "career anchors will remain stable throughout the person's career." The concept of career anchor—the combination of the 'internal career' with the development of the 'external career'—has potential for organizations which seek to "link up micro (individual development) and macro (manpower planning) activities" (Hall and Lerner, 1980, p. 433).

Defining career as "simply the sequence of a person's lifelong, work related experiences and related attitudes and behaviors" enabled Gutteridge and Hutcheson (1984, p. 30.4) to make statements about career prospectively, currently, and retrospectively; that is, what might unfold in the future, what is occurring now, and what has evolved over time. Gutteridge and Hutcheson, like Schein, Van Maanen and Hall, view career planning and development as a joint individual and organizational responsibility.

The long-term aspect of career is reflected in the definition put forward by Derr (1982, p. 65). In this paper on career switching, career is viewed "as a sequence of work-related experiences that comprise a work history and reflect a chosen work-related life theme.... It comprises more lifespace than a job but it is not all of life."

When discussing the concept of career line, Spenner, Otto, and Call (1982, p. 21) are careful to differentiate between jobs, careers and career lines. Jobs are defined as the units which comprise career lines. A job is a work role or position which requires entry skills, has a set of tasks or routines which are specific to, or characterize the role and it provides the holder with rewards for performance. Careers (Otto, Call & Spenner, 1981, pp. 2-3) are viewed as "sequences of work roles," and as "individual-level phenomena, a person's employment biography, a particular individual's job history." Career lines "are the patterns of job changes regularly made by people over the course of their work histories."

The analogy used by Spenner, Otto, and Call (1982, p. 21) is of a motorist using a detailed city map. Career lines are the streets, intersections, highways and alleys whereas, a career is the motorist making his way across the city by using the streets. "A route followed is partly a matter of personal choice, but always the choice is within the road system": a person's work history or job pattern "more or less conform[s] to a prior network of age-graded career lines." A career may involve a set of career lines with a number of positions, or it may involve a single career line comprised of one position with one organization.

In their study of women who live in American cities, Lopata, Miller and Barnewolt (1984, p. 4) conceptualize a job in much the same way as Otto, Spenner and Call. They use the definition put forward by Udy (1979) which states that: "A job may be thought of as a role ordinarily performed primarily for the purpose of earning a livelihood in a commercial economy. It is a component of social structure."

Work and jobs have been treated synonymously by Hall (1975, p. 5) in his attempt to define occupations. However, he makes a distinction between occupation and career by omitting the preparatory and initial phases of a work career from his definition of occupation. Thus, Hall (1975, pp. 6 & 277) argues that, although an individual may always have had a job of one kind or another, not all jobs contribute to the individual's occupation. An occupation may be part of a career which is an "unfolding sequence of jobs usually related to one another." Hall also maintains that careers are orderly. A disrupted career occurs when unrelated jobs are part of the work history.

Thus, in an attempt to describe a process which individuals go through in their lifetime, a multifaceted concept of career emerges. It may be related to a profession or occupation, may involve the notions of success, upward mobility and attained statuses. It is usually long-term, goal directed and reflects the individual's needs and aspirations along with the values and expectations imposed by society. For the purpose of this study career has been defined as the series of family and work-related experiences and adventures that a person passes through during a lifetime. It involves notions of success and attained status, and reflects the individual's needs, values, and aspirations along with the values and expectations imposed by society.

Career-Anchors

As noted previously, the concept of career anchors was developed by Schein (1978, p. 125) to describe the phenomena he identified when studying the careers of Sloan School of Management alumni. He found that the new employee develops an occupational self-concept as a result of gaining self-knowledge. This self-concept is composed of three components:

1. Self-perceived *talents and abilities* (based on actual successes in a variety of work settings);

2. Self-perceived *motives and needs* (based on opportunities for self-tests and self-diagnosis in real situations and on feedback from others); and

3. Self-perceived *attitudes and values* (based on actual encounters between self and the norms and values of the employing organization and work setting)

Schein also stated that the concept of career anchor is broader in definition than the "concept of job value or motivation to work", is based on actual work experience, occurs inside the person, and is shaped by interaction between abilities, motives and values as these form the individual's self-concept. Further, he maintains that career anchors can only be discovered after a number of real life experiences enable the person to identify how "one's abilities, motives and values will in fact interact and will *fit the career options available.*" Finally, Schein contends that although the concept is concerned with identifying a stabilization process within the person, this does not imply the person is unable to change. Schein (1978, p. 127) summed up these findings as follows:

> the *career anchor*—the pattern of self-perceived talents, motives, and values—serves to guide, constrain, stabilize, and integrate the person's career.

A relatively concise summary of Schein's five career anchors is provided by DeLong (1982, pp. 52-53):

> *Security*—Individuals with security as their anchor have tied their careers to a particular organization. The implications are that individuals who are security-oriented will accept, to a greater degree than the other career anchor types, an organizational definition of their careers. The security-anchored individuals would look for an organization that provided long-run stability, good benefits, and basic job security. The organization man as defined by Whyte (1956) would typify people who are security-oriented, because in order to remain in the organization individuals must socialize themselves to its values and norms.

> *Technical/functional competence*—Technical/functional people are motivated by the challenge of the actual work they do (e.g., financial analysis, marketing, systems analysis, corporate planning). Their anchor i. the technical field, functional area or content of their work, not the managerial process itself. The self image of individuals in the technical/functional competence group is tied up with their feelings of competence in the particular area they are in.

Managerial competence—The fundamental basis for the managerial competence anchor is to be competent in the complex activities that comprise the idea of "management." Managerial competence-oriented individuals perceive that their competencies lie in the ability to analyze problems and to remain emotionally stable and interpersonally competent. Their career experiences would enable them to develop the self-image that they had the skills and values necessary to rise to general management levels.

Creativity—Creative-anchored individuals have a need to create something of their own. Creating is the fundamental need operating, for example, in the entrepreneur. Creative-oriented individuals keep getting into new ventures and trying their hand at new kinds of projects. They are also very central and visible while working on projects.

Autonomy—The autonomy anchor encompasses those who have found organizational life to be restrictive, irrational, and/or intrusive into their lives. They are primarily concerned about their own sense of freedom and autonomy. Autonomy-oriented individuals are seeking work situations in which they will be maximally free of constraint to pursue their professional or technical/functional competence.

Research on Career Anchors

Schein (1978, p. 51) developed his conceptualization of career using men as his subjects. A sample of 44 Sloan School of Management alumni were interviewed and/or sent a questionnaire one year, three to five years, and ten to twelve years after graduation. These were followed by final interviews, which took from two to three hours. The career history since graduation was questioned in detail: perceptions of the present and future, changes the individual saw in himself, and relations between work concerns, family concerns and self-concerns. Schein recorded these interviews on magnetic tape and kept notes on career histories, reasons for movement, attitudes, and values.

DeLong (1982, p. 54) conducted a study at Purdue University on a sample of 600 male industrial administration graduates using a questionnaire to measure and analyze career anchors. He found that "a rather strong conceptual typology emerged, derived from Schein's longitudinal study" (p. 59). DeLong identified three main career factors from the data: managerial orientation (with technical competence displaying a strong negative association), autonomy and creativity, and a third factor organized around the

three variables of service, io·· ·ry .and security. Because the results obtained by the questionnaire were so different from those Schein had obtained using interviews, DeLong (1982, p. 60) hypothesizes that "the multidimensional nature of the career anchor constructs makes measurement of the constructs very difficult" and that the questionnaire developed for the study was inadequate for the complexity of the constructs.

Derr (1980, pp. 168-186) used both interviews and a brief questionnaire to investigate the career patterns of 154 male naval officers during a three-year period. The questionnaire used the career anchor characterization developed by Schein, and contained questions used by Schein as well as questions devised by Chatwin and Derr (a reference which could not be traced). Derr found that there were differences in the responses to the questionnaire and the information gathered by interview. He suggested that the interviews were a more accurate measure than the survey questionnaires because the interview questions were similar to those asked by Schein and thus more representative of his constructs. He also suggests that people are more likely to describe their "composite values, attitudes, needs, and abilities associated with work in a conversation where some interpersonal trust [has] been established" than when responding to a questionnaire. In addition, Derr (1980) raises the question of "career anchor patterning, a process that becomes more definite over time." He believes this patterning may have some relationship to the midlife crisis some people experience.

Aune (1983) explored the presence of career anchors in a sample of 40 professional nurses. In her study she asked whether or not nurses have identifiable career anchors and were there differences in the career anchors of nurses working in different functional areas of nursing. Data were collected using Derr's (1980) work history format along with interviews and analyzed according to Schein's cl aracteristics for each anchor. Her results show that more than one anchor is needed to describe the career behavior of nurses in each functional group and that nurses present an overriding

anchor which she designates "service." Aune (1983, p. 33) summarized the characteristics of the service anchor as follows:

Motives: Humanitarian service to fellow human beings.
Contribution to well-being of others.

Values: Opportunities to show caring, compassion, altruism, self-sacrifice.

Talents: Interpersonal skills (as an end); empathy, nurturance; using self as a means of helping others to grow, change, evolve; dealing with affect.

These characteristics appear to be similar to those briefly described by Schein (1978) and DeLong (1982). She also found the educational program the nurses attended had an influence on their career orientations; baccalaureate degree nurses viewed the nursing profession differently from their diploma prepared counterparts. They saw hospital practice as only part of the overall profession of nursing and they committed themselves to a career earlier. Mobility, for reasons of either job consideration or family was considerable, especially among the administrators and educators from Aune's sample.

Aune's study indicates that further research is necessary "to try to determine the relationship of the service anchor to the other anchors and the way in which they complement each other" (p. 84). Further research would also appear to be indicated to ascertain the relationships of mobility and family responsibilities to career commitment. Is the nursing career changing? Are nurses becoming more career conscious? Are they adopting dual careers, that is, marriage and nursing?

Aune (p. 89) identifies several limits to the applicability of her findings. She notes these limitations as follows: (1) the use of interviews places limitations on sample size and presents "descriptions of unique individuals;" (2) all subjects had at least a baccalaureate degree at either the basic or post-basic level; and (3) the geographical area of Southern California because the climate makes it an attractive area to live and work. This researcher raises the question of the limitation posed by the wide age (and consequent experience) range of the sample—25 to 63 years of age. Therefore, the

question arises would a more congruent—age and experience—group provide a more consistent picture of the career orientations (anchors) of nurses.

Conceptual Framework

The key concept for the present study—career orientations—was derived from the aforementioned work in careers and career anchors. To help clarify the nature of this concept and the elements underlying the formation of careers, the researcher decided to situate them within a conceptual framework. A conceptual framework has been defined by Field and Morse (1984, p. 4) as a "theoretical model that the researcher has developed to show the relationships among constructs and/or concepts for that particular study."

The Concept of Career Orientation

For the purpose of this study, career orientations are defined as personal attributes which develop over time and influence the career-related decisions made by the individual. These orientations emerge from the interaction between the person's values, motives, talents and life and work experiences. They serve to guide, constrain, stabilize and integrate the person's career. This definition is very similar to Schein's (1978) definition of career anchor; in fact, it is grounded in the literature and research of Schein, DeLong (1982), Derr (1980), and Aune (1983), but because the focus is on nurses, the questions that are being asked and the approaches that are being used to gather the data, the study is not a replication of these earlier works. The term determinants was originally coined to label the variables being investigated as an alternative to the term anchor. It was felt that the metaphor of anchor was restrictive in interpretation and did not suffice to explain the changes which an individual may be required to make in the economic and social climate of the 1980s when an individual may choose, or be required, to make radical career changes. In relation to the data obtained in the present study, reflection on

use of term "determinant" suggests a causal relationship that is not evident; therefore, the researcher decided to use the less deterministic term career orientations.

The Development of Career Orientations

The conceptualization of career orientations that has guided this study is shown in Figure 2.1. The individual interacts with the social environment, which encompasses the family, education and the work place. As a family member, the individual is exposed to the values, concerns and responsibilities of that family. The experiences and adventures the person is involved in, particularly in the education and early job stages of their life, influence the values, motives, aspirations and talents which develop. In the workplace, the individual is exposed to feedback about his or her performance. If the feedback is supportive and consistent with the individual's own perceptions, expectations and values the feedback will be perceived as positive, affirming the career choice and thus predictive of success. Involvement in community and professional activities may result from the influence of social and professional expectations. The values, motives, aspirations and talents which the individual develops influence the subsequent decisions which will be made regarding work and career. The path the individual moves along is always in one direction; there may be pauses, rough patches, periods of uncertainty but there is no going back. The individual is free to make choices; choices which are influenced by the values, motives, aspirations and talents they have developed. This process may be thought of as a career cycle.

Super (1957), and later Schein (1978, 1983, p. 3), identified major stages in this career cycle:

Stage 1: Growth, Fantasy, Exploration
The period when an occupation is merely thought about and a career has little meaning beyond occupational stereotypes and vague criteria of
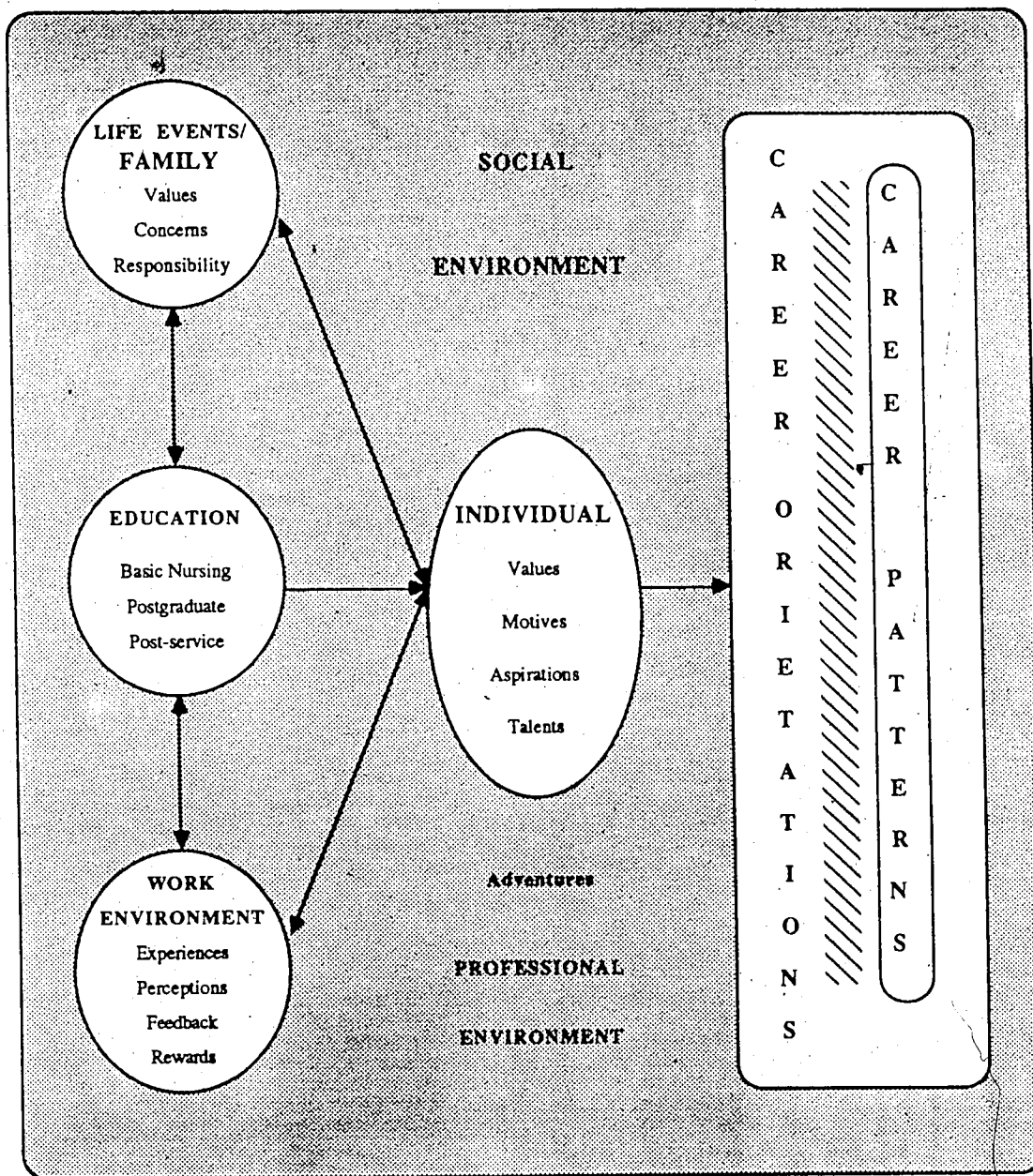
Figure 2.1 The Development of Career Orientations

success. The person at this stage prepares to enter the necessary educational process for the chosen occupation.

Stage 2: Education and Training

Some occupations require minimal training, others a very elaborate process.

Stage 3: Entry into the World of Work

For most people, regardless of their preparation, this is a time of reality shock and major adjustment problems as they learn about the realities of work and their own reactions to it. Major learning begins at this point, leading to the emergence of an occupational self-concept.

Stage 4: Basic Training, Socialization

The length of this period will also vary immensely by occupation, organization, complexity of the work, and so on. Because the organization now begins to make some real demands on the individual, this stage involves significant personal learning.

Step 5: Gaining Membership

At some point, individuals recognize, through the kinds of assignments they have been given, that they have passed beyond the trainee stage and have been accepted as full contributors. They can now develop meaningful images of themselves as members of the occupation or organization. Motives and values are clarified as they reflect on their own responses to different challenging situations. They begin to have a sense of their talents, strengths and weaknesses.

Stage 6: Gaining of Tenure, Permanent Membership

Somewhere in the first five or ten years of the the career, most organizations and occupations make a "tenure" decision which tells the individual whether he or she can count on a long-run future in the organization. Tenure may be granted either explicitly or symbolically, with the proviso, of course, that tenure exists only so long as the job exists.

Mid-Career Crisis, Reassessment

There is mounting evidence that most people go through some kind of difficult self-reassessment when they are well into their career, asking themselves questions about their initial choice..., their level of attainment..., and their future....

Stage 7: Maintaining Momentum, Regaining It, or Leveling Off

The insights emerging from reassessment create a basis for deciding how to pursue the remainder of the career. At this stage each person develops a personal solution that will guide his or her next steps.

Stage 8: Disengagement

Eventually, the person slows down, becomes less involved, and begins to prepare for retirement. For some people, preparation takes the form of denial. That is, they deal with the tension of potential retirement by aggressively continuing business as usual, and evading attempts of others to get them to be involved in preparation for the next stage.

Stage 9: Retirement
Whether or not the individual has prepared, inevitably there will come a time when the organization or occupation no longer makes a meaningful role available.

Schein (1983, p. 5) maintains that these stages "provide a kind of internal timetable for every person," but that the time spent in each stage varies according to the complexity of the occupation. If an individual makes a career change, stages may repeat themselves. By applying the stages described by Schein to nursing careers, one sees that career orientations should emerge over the first five stages and function to guide, constrain, stabilize and direct the career from that time on. The interaction the person has within the family, educational programs and the work environment, especially the early work experiences following basic education, will act as influences in the crystallization of the values, beliefs, motives and talents (orientations) which make up the personal and occupational self-concept. The career orientations subsequently influence the decisions the individual makes, thus directing the career pattern or path followed. Because it is ten years since the subjects for this study graduated from their education and training (Stage 2) they should be functioning in Stage 6 of the career cycle. It is debatable if organizations that employ nurses grant "tenure," either "explicitly" or "symbolically." The nature of hospital practice, where the majority of the nursing workforce are staff nurses and are expected to work shifts, may influence the nurse's perception of belonging, as may the demands of family.

As nursing is a mainly female occupation, the career stages of nurses may not be as clearly defined as suggested by Schein, or they may be delayed because of family commitments. Whether or not nurses consider raising a family to be part of their career is another question which may influence career development.

Summary

In this chapter a selective review of authors who have defined the term career has been presented and a working definition of career for the study has been provided. In

addition, the development of the career anchor concept and related research has been reviewed . Based on previous research a conceptual framework for the study has been presented.

Chapter 3 outlines the research objectives, methodology and instrument development.

CHAPTER 3

RESEARCH DESIGN, INSTRUMENTATION AND DATA ANALYSIS

This chapter is divided into three major sections: (1) design, (2) instrument development and validation, and (3) data collection and analysis.

Research Design

An ex post facto design (Campbell and Stanley, 1963, p. 70; Kerlinger, 1973, p. 379) was used for this developmental descriptive study (Waltz and Bausell, 1981, p. 127) of the careers of a sample of graduates from the 1976 classes of the university basic baccalaureate degree programs, the college diploma programs, and the hospital diploma programs in Alberta. A developmental survey may be longitudinal or cross-sectional. For this study a cross-sectional survey of the subjects was used. This type of survey has been shown to be extremely useful when:

1. Resources for conducting the study are limited;

2. It is necessary or desirable to complete the study in a relatively short period of time; and

3. The researcher is willing to accept the risks that:
   a. subject's recall may be biased, and
   b. observed changes may be the result of personality traits or a series of circumstances beyond the control of the subjects, rather than the variables being investigated (Waltz and Bausell, 1981, p. 133).

Variables

As noted in Chapter 2 the conceptual framework for the study has been developed from the work of Schein (1978), DeLong (1982) and Aune (1983). From the conceptual framework four sets of variables are identified to constitute the independent variables to be examined in relation to the career orientations—the dependent variable (Figure 3.1). The four sets of variables are: (1) life events and family responsibilities, (2) education,

(3) work history, and (4) involvement in community and professional organizations. The dependent variables—career orientations—are determined from the factor analysis of items in the Career Determinant Inventory.

Instrument Development and Validation

Schein and DeLong developed the first career anchor questionnaire which was used by DeLong (1982) in his study of administration school graduates. Based on the findings of his study, DeLong (1982, p. 60) hypothesized that: "the multi-dimensional nature of the career anchor constructs makes measurement of the constructs very difficult." He queries whether the questionnaire developed was an "inadequate measure of the constructs under evaluation."

> More specifically, the instrument used to collect data measured values and needs of the various respondents. The questionnaire did not collect data centered around the respondent's self perceived talents.... Thus the instrument used in this study may be a rather accurate measure of career orientations and values rather than Schein's career anchor model.

Following revision it was published in 1985 as a self diagnostic tool for the purposes of human resources development. While the Career Orientation Inventory (Schein, 1985) is designed to help individuals "determine [their] career anchor and think through [their] career options," it is very much oriented towards the individual involved in a business organization career and does not address many matters which are significant to women in their career planning. Moreover, the very strong service orientation of nurses identified by Aune (1983) needed to be accommodated. The nature of this study, combined with inadequacies apparent in the questionnaires used in related investigations, dictated the development of a different instrument.
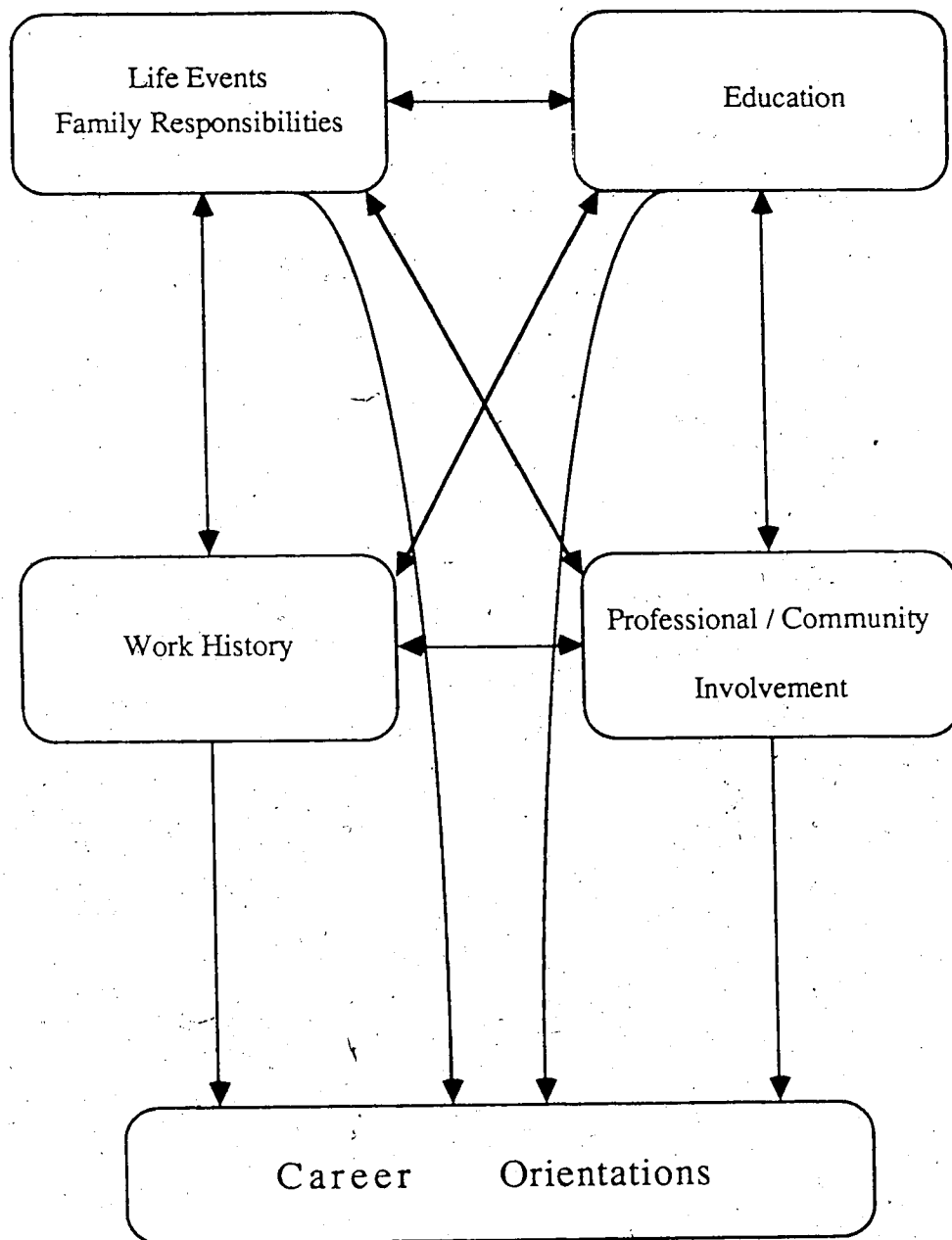
Figure A.1. Relationships of Research Variables

Steps in Development

The steps involved in the development of the Career Determinants of Nurses survey instrument (Appendix A) were as follows:

1. Previous research on career anchors (Schein, 1978, DeLong, 1982, Aune, 1983) was summarized and compared (Appendix B).

2. A worksheet was developed which was made up of a modified version of DeLong's items and Aune's characteristics. From this worksheet new items were written to reflect the behaviors, beliefs, motives and talents a nurse might exhibit. A major consideration of the researcher was to keep the instrument to a length which would not place excessive demands on the respondents, yet obtain the information required to meet the study objectives. Scoring and data analysis were other constraints in structuring the instrument.

3. At the worksheet stage, expert advice was sought from several nurse colleagues.

4. A suitable title for the questionnaire was sought and Career Determinants Inventory chosen as it was felt that the items were representative of those elements which tend to determine career decisions. [The researcher has since modified this view as the word determinant appears to be too decisive for the present stage of study].

5. The Career History section was developed from a variety of sources including the interview guides and self assessment forms used by Schein (1978) and Aune (1983).

6. Consultation with the researcher's supervisory committee raised the question of those subjects who were no longer actively involved in nursing and their response to the Career Determinant Inventory. At this stage Part III of the instrument was developed. The items remained the same as for Part II but the wording was changed to reflect the work/life situation of respondents who no lor   hought of themselves as nurses.

Also at this stage the rating scale was added. A four-point Likert-like scale was chosen; DeLong (1981) used a six-point scale and Schein (1985) a ten-point scale. While a five-point scale is usual (Anderson, Basilevsky & Hum, 1983; Johnson & Dixon, 1984), the researcher wanted to avoid the possibility of indeterminate or neutral responses such as may occur when a five-point scale is used.

7.   The Career Determinants of Nurses Questionnaire was distributed to five nurse colleagues and five non-nurse colleagues studying in the Department of Educational Administration and their feedback sought as to:

1. a. are the instructions clear and unambiguous; and
   b. are the wording and phrasing clear and realistic?

2. Does the item measure:

   a. a self-perceived talent and/or ability [of nurses];
   b. a self-perceived motive and/or need; or
   c. a self-perceived attitude and/or need?

which may have resulted from:

- actual successes in a variety of work settings;
- opportunities for self-tests and self-diagnosis in real situations and feedback from others; or
- actual encounters between self and the norms and values of the employing agency and work setting.

Prior to pilot testing, the changes suggested by colleagues were incorporated into the questionnaire.

The Career Determinants of Nurses Questionnaire

The resulting Career Determinants of Nurses Questionnaire [Appendix A] consists of three parts: Part I: Career History; Part II: Career Determinant Inventory (Nurses); and Part III: Career Determinant Inventory (Non-Nurses).

Part I: Career History. From the survey of the literature relating to career development, particularly the career anchors literature (Schein, 1978; DeLong, 1982;

Derr, 1982; Aune, 1983), and consideration of the conceptual framework and the research questions being asked, categories for questions were developed. Four sets of variables pertaining to a nursing career history were identified: (A) education; (B) professional and community activities; (C) work history; and (D) demographic data concerning self and family.

Where appropriate, check-mark or numerical responses were sought. For selected questions an opportunity was provided for the respondent to give a written response. An opportunity to make a general descriptive response was given at the end of Part I.

A. Education. Information sought about the respondent's education included questions about age on completion of their basic nursing education program, the type of basic nursing education program taken, reasons for entering a particular program and further education programs undertaken. One question sought information about respondents' reasons for entering a nursing program, while another sought information as to the reasons why they left nursing if they were no longer actively involved in a nursing career.

B. Professional and/or Community Activities. Information pertaining to involvement in both professional and community organizations was sought through a series of five questions. Whereas registration as a nurse in Alberta involves mandatory membership in the professional association (AARN), this is not the case in provinces such as Ontario or in overseas countries; therefore, a question was asked as to their professional membership status and their involvement at the committee level in their professional organization. Respondents were also asked to indicate their involvement in community organizations.

C. Work History. In order to discover what had taken place over a ten-year work history period several questions were asked as to the type of position and agency the respondent's first nursing job had been in, the shortest and longest length of time in a

position or agency, and the number of different agencies they had worked in. A rather complex grid table was developed so that the respondent could report the level, number and type of positions (part-time/full-time) held and the number of agencies worked in. Chronological sequence was implied, but not explicitly requested. Three questions pertained to the respondents present employment and the area of practice they were engaged in. If they were in an administrative or nursing education position, they were asked to indicate whether or not they thought of themselves primarily as a nurse or administrator/educator.

D. Demographic Information. In this section, information was sought as to the gender of the respondent, year of birth, marital status and the number of children and other dependents that they might have.

At the conclusion of Part I the respondents were thanked for their participation and then asked to proceed to either Part II or Part III, depending on their nursing career status.

Part II: Career Determinant Inventory (Nurses). Part II of the questionnaire was intended for those respondents who were currently involved in a nursing career, or even if they were not presently working, considered nursing to be their career. Items for this part were developed from the previous work of Schein (1978, 1985), DeLong (1982), and Aune (1983) to reflect the values, motives and talents a nurse might exhibit. Respondents were asked to think back over their career since graduating from their basic nursing program and to reflect on the factors which influenced their decisions about the jobs they had taken and the career moves that they made. Respondents were asked to respond, on a four-point scale, to the items according to the importance or truth of the item for them. Items were rated not important (1) to very important (4) or not true (1) to very true (4).

There were 47 items in this part of the questionnaire. On completion respondents were thanked for their participation, asked if they would like to receive a summary of the study findings, and if they would be willing to participate in an interview.

Part III: Career Determinant Inventory (Non Nurses). Part III of the questionnaire was intended for those respondents who were no longer involved in a nursing career, or if they were not presently working, did not see themselves returning to a nursing career. Items for this part were identical to those in Part II with the exception that the words nursing, nursing education, nursing administration, hospital and health care agencies were changed to reflect a general work or career orientation.

There were also 47 items in this part of the questionnaire. On completion the respondents were thanked for their participation, asked if they would like to receive a summary of the findings, and if they would be willing to participate in an interview.

Pilot Study

A pilot study was carried out to provide the researcher with the opportunity to take a "miniaturized walk-through of the entire study" (Babbie, 1973, p. 211). To achieve this kind of simulation calls for sample selection which is as much like the study population as possible. Ideally the pilot test sample should be taken from the same population. All instruments should be in the form expected to be used in the actual study. The proposed analysis and reporting process should also be tested.

The pilot test began with questionnaires being distributed to a convenience sample of 15 nurse educators employed in a local hospital school of nursing, eight graduates from the 1975 class of a baccalaureate program, and several persons who qualified as nurses but are no longer employed as nurses. They were asked to comment on clarity of the questions and instructions, appropriateness of items, length of the questionnaire, difficulty in completing, and time taken to complete. The questionnaire was mailed in a

package containing a return self-addressed and stamped envelope, a covering letter explaining the purpose of the study and a two-page comment sheet.

Returns from the pilot test yielded the following information:

- *Clarity of questions.* Most of the respondents felt that the questions were clear. Several clarification suggestions were incorporated into the final document.

- *Clarity of the instructions.* Ambiguity in the instructions for the Career Determinant Inventory was identified by some of the respondents. As a result the instructions were reworded so as to clarify for respondents that they were to consider only past and present experiences and influences regarding career decisions.

- *Appropriateness of items.* Several comments were made regarding wording; these were incorporated into the final document. Some respondents did have difficulty with the grid provided for answering question 25. This question was modified slightly and an additional category added.

- *Length of the questionnaire.* None of the pilot test respondents considered the questionnaire to be too long. One commented that she thought it "looked liked a manual," and another thought when she opened it that it "looked long" but "it was very easy to answer."

- *Difficulty in answering.* Most respondents in the pilot study had very little difficulty in answering the questions. Two respondents wrote extensive comments which were used in the final modifications. The researcher met with one of the respondents from the educator group to discuss her suggestions which were very helpful and constructive.

- *Time taken to complete.* The average time recorded was between 10 to 20 minutes. One respondent noted that she had read it too fast the first time and consequently had made a few mistakes.

Comments from the pilot study respondents were helpful in suggesting modifications for the final form of the questionnaire. They were also helpful in confirming the decision to present the questionnaire in a saddle-stitched booklet form rather than the usual, less expensive to print, one-sided page, and stapled format. Of the eight 1975 class pilot-study sample contacted, two were no longer involved in a nursing career, so their comments regarding Part III of the questionnaire were most welcome.

As the pilot-study sample group who were graduates of a baccalaureate program were contacted through their class reunion secretary, the researcher was able to try out this means of obtaining a sample. Several of the pilot study group expressed interest in the research project and commented on how interesting the questionnaire had been. Comments such as this encouraged the researcher as to the usefulness of the study.

Reliability and Validity

A concern for the researcher is the establishment of the validity and reliability of the data. Waltz and Bausell (1981, pp. 60-62) maintain validity and reliability are "matters of degree" and that reliability is a "prerequisite for validity, that is, if an instrument does not assign scores consistently it cannot be used consistently for the purposes for which it is intended." Four issues of reliability and validity were addressed by the researcher.

Reliability. Reliability is "related to error in measuring" (Stufflebeam, 1985, p. 208); therefore, it is essential the items on an instrument be clear to the reader. Reliability is achieved through pilot testing, revision, and repeated administration of the instrument. During the design stage, reliability can be achieved by applying simple rules as outlined by Stufflebeam (1985, p. 209).

- Make sure directions are clear.
- Be sure there is only one way to respond to and interpret an item.
- Eliminate items with dual stems.

Feedback from nursing and other experts, and the pilot study subjects was used to enhance the reliability of the items on all sections of the Career Determinants of Nurses instrument developed and used for the study

While it was not practical to administer the questionnaire repeatedly to the same sample in order to establish reliability, it is practical and possible to compare the results obtained with those from other studies. A similar instrument and approach was used by DeLong (1982, p. 59); therefore, the findings from his factor analysis can be compared with the findings from this study. Comparison of the findings from the two studies will be discussed in Chapter 4.

Internal Validity. The criterion of internal validity is most applicable in experimental studies where the "extent to which variations in an outcome (dependent variable) can be attributed to controlled variation in an independent variable" (Lincoln & Guba, 1985, p. 290). In a descriptive study like this one extraneous variables may influence the control of the independent variable. Randomization, where possible, of the sample selected from a specific population was implemented as a means for controlling extraneous variables. The type of nursing education program, which could have been an extraneous variable, was controlled by incorporating it as an independent variable.

External Validity. As noted in Chapter 1, generalizability may be only to the sample population investigated. Random selection of the sample is one way of ensuring a measure of generalizability but once outside a laboratory situation it is difficult to control extraneous variables which affect the outcomes. Kerlinger (1973, p. 331) maintains that:

> by replicating experiments, with and without variants, it is possible to increase the generalizability considerably. If, for instance, an experiment is repeated at different times and in different places with the hypothesized relations holding up in each experiment, then we can have much more confidence in the scientific validity of the relations.

As a profession, nursing is in a dynamic state. Even though the Alberta Task Force on Nursing Education (Alberta: Advanced Education and Manpower, 1975) recommendations regarding baccalaureate education have not been implemented, there is an increasing number of registered nurses seeking a bachelor's degree. The shortage of nursing positions, which was present in 1976, had reversed and become a shortage of nurses by 1981 when the AARN reported 78 percent of the hospitals in Alberta reporting 779 administration and general staff vacancies (AARN, 1981). These types of changes could influence the findings of future studies of similar nature.

Content Validity. Representativeness of the items (Hart, 1980, p. 53) was addressed in the construction phases of the questionnaire and in the pilot testing process. Nurses with considerable practice, education and research experience were consulted and their recommendations incorporated into the questionnaire prior to administration to the pilot test sample. Items which were identified by respondents in the pilot test sample as being too specific to the hospital situation were modified to be more inclusive and representative of nurses working in a community health and/or nursing education situation.

Data Collection and Analysis

Obtaining the sample was a preliminary and difficult step in the collection of data. The usual route for obtaining a sample of nurses would be through the membership lists of the Alberta Association of Registered Nurses (AARN). For this study the AARN lists were not the most suitable as they contained only the names and addresses of those nurses who were currently registered in Alberta. It is possible to identify the year of graduation and the school from which a nurse graduated from the data contained in the AARN files but because the researcher was interested in the career decisions made by

graduates of nursing programs who may not be nursing at present, alternate means of gaining access to the target population were considered and implemented.

Class lists were sought through the alumni associations of the nursing faculties, schools and colleges. The researcher wrote to alumni representatives and contacts identified in reunion notices in the *AARN Newsletter* requesting access to their reunion lists. In cases where schools had not advertised reunions, alumni associations were contacted through the address of the nursing program. A third approach was to the directors of nursing education programs in Alberta: a request for access to the nursing program registers and lists of graduates for 1976 was made through the chairman of the group. A direct approach was also made to the directors and presidents of those hospitals where the schools of nursing had been phased out.

For the most part, responses to the requests were positive and helpful. Alumni representatives forwarded their reunion address lists and expressed interest in the project. Responses from the directors of nursing education programs varied according to their program policies regarding the release of lists of graduates' names and addresses. Some college programs forwarded the first year (1975) class lists with addresses which were current at that time, others sent their most up-to-date alumni lists, and one sent address labels. Apart from one school which refused to consider the request, the hospital schools cooperated by forwarding their most up-to-date lists of addresses. Addresses for graduates from the school which refused were obtained from the class reunion secretary. For hospitals where the schools had been phased out, the administration provided the lists that were retained in their records. In both cases, these were the names and addresses of the graduates at the time of graduation. In cases where lists were obtained from two sources, they were compared and the most recent address used. Names and addresses for the graduates from the two university programs were obtained from the class reunion secretaries.

Sample

The study population is comprised of all nurses graduating from nursing education programs in the province of Alberta in 1976. There were 64 baccalaureate graduates, 219 college diploma graduates, and 504 hospital diploma graduates (N=787) (Alberta Advanced Education, 1981).

Because of the small size of the baccalaureate group compared with the college and hospital diploma groups, an effort was made to solicit returns from all 61 baccalaureate graduates for whom there were current addresses. A proportional random sample was drawn from each of the other two groups. These data are shown in Table 3.1. A sample of this size represents 47.7% of the total population and was composed of 95.3% of the baccalaureate population, 56.6% of the college population and 34.7% of the hospital population. This sampling frame permits application of parametric statistics such as analysis of variance, factor analysis and Pearson's correlation procedures.

Table 3.1

Study Sample Selection by Basic Nursing Education Program

Program	Population f	%	Sample f	%[*]
Baccalaureate	64	8.1	61	7.7
Hospital Diploma	504	64.0	175	22.2
College Diploma	219	27.8	124	15.7
Total	787	100.0	360	47.7

[*] Percent of population

The replies from the original sample resulted in the actual sample being composed of 81.3% the baccalaureate population, 65.5% of the hospital diploma population, and

56.4% of the college diploma population. Thus, the total number of respondents was 202 as shown in Table 3.2.

The data collection process involved surveying the sample thus obtained by means of a questionnaire. The questionnaire was mailed with a covering letter (Appenaix C) and an addressed, stamped return envelope. For follow-up purposes each questionnaire had an identification code. Subjects were assured of confidentiality and that responses would be used for the purposes of the study only. Two weeks later a follow-up letter (Appendix C) was sent to those who had not responded.

The final return rate was 65.5% and is reported in Table 3.2. Babbie (1973, p. 165) suggests that for a mailed survey questionnaire 70 % is a "very good" return, 60 percent is "good", and 50 % is "adequate."

Table 3:2

Career Determinants of Nurses Questionnaire Returns by Basic Nursing Education Program

Program		Delivered		Returned	
		.f	%	f	%[1]
Baccalaureate	(N=61)	59	96.7	48	81.3
Hospital Diploma	(N=175)	148	84.6	97	65.5
College Diploma	(N=124)	101	81.4	57	56.4
Total	(N=360)	308	85.6	202	65.6

[1] Percentage of questionnaires delivered

There is a possibility of bias in the returns. There was probably a considerable loss of potential respondents due to mobility. Hence, those graduates who have been mobile during their careers may be under represented. Attempts were made to obtain as many responses as possible from the mobile group. Questionnaires were mailed to

Bolivia, Australia, Pakistan, Denmark, England, Netherlands, New Zealand, and the United States of America. To encourage return from these remote areas an international postage coupon was enclosed with each questionnaire. Returns were obtained from Bolivia, Australia, New Zealand, Netherlands and the United States.. Follow-up letters failed to elicit any response from the subjects in England and Pakistan. One of the questionnaires sent to Australia was returned "not known at this address" after being re-addressed once there, and the questionnaire mailed to Denmark was returned, readdressed to the United States and then returned "not known at this address". Even though the class lists obtained from reunion secretaries were, at most, eight months old at the time of mailing, several questionnaires were returned "not known at this address".

Questionnaires which were returned "not known at this address" were sent to the AARN where a computer search of their records was implemented and those subjects for whom current addresses were on file, were mailed the questionnaire. Even the AARN lists, which represent annual registration, were not completely current and several questionnaires were returned undelivered. The AARN search resulted in addresses for about 50 percent of those undelivered.

The return rate (65.6%) was calculated based on the number of assumed delivered questionnaires. Questionnaires returned as undelivered were subtracted from the sample total. Similar studies which have used a survey questionnaire with analogous samples have reported even lower return rates. For example, DeLong (1982, p. 54) reports a response rate of 55% in his study of Purdue university graduates. Madill (1985, p.35) garnered a 53.3% rate of return in her survey of occupational therapists who were prepared and eligible to practice in Canada.

Data Analysis

As indicated earlier in the chapter the nature of this study is developmental and descriptive; developmental in that it takes a cross sectional view of the subjects at one

point in their careers and descriptive in that it seeks to identify and describe career

orientations of nurses and the variables that may influence these orientations. The study

is also exploratory in that it attempts to gain insight into the career orientations es,

the career patterns that develop concomitant to the orientations; and it also lim ates

developmental work on an instrument that may be useful in assisting nurses identify their

career orientations. The data analysis techniques employed reflect the exploratory and

descriptive nature of the study.

When the data from the sample returns (N=202) were analyzed, two sub-samples

were obtained: (a) the majority (n=177) of the sample who considered themselves to be

still involved in a nursing career, even though they may not have been working at the

time of answering the questionnaire, and (b) a smaller number (n=25) who no longer

considered themselves to be involved in a nursing career.

Respondents who considered themselves to be engaged in a nursing career were

asked to complete Parts I and II of the questionnaire. The group consisted of 39

baccalaureate degree program, 89 hospital diploma program, and 49 college diploma

program graduates for a total of 177 subjects or 87.6 percent of the total sample returns.

Because the number of respondents to Part III of the Career Determinant

Inventory (Non-nurses) was so small, this group has, for the purposes of analysis, been

treated as a separate group. The decision was based on three considerations: (1) the

subjects stated that they were no longer in a nursing career, and thus identified

themselves in this one important aspect at least to be different; (2) analysis of the item

means on the Career Determinant Inventory revealed differences between the two groups;

and (3) the sub-sample size of 25 was not sufficiently large for factor analysis of the Part

III items. The respondents who no longer consider themselves to be following a nursing

career (hereinafter referred to as the non-nurses) accounted for 12.4% of the total sample

returns. Even though each basic nursing program was almost equally represented

numerically (8/97 hospital diploma, 8/57 college diploma, and 9/48 baccalaureate

degree), proportionately the baccalaureate degree and the college diploma programs (with 18.8% and 14.0% respectively), when compared to the hospital diploma (8.2%) program, had the greater representation in the non-nursing group. There was one male respondent in the group. The non-nurses group will be described in Chapter 5; thereafter attention in the data analysis will be focussed exclusively on those respondents who consider themselves to be pursuing a career in nursing.

Career History. The demographic data from the career history component of the questionnaire were collated and analyzed using percentages and means. Comparisons were drawn between selected variables on the Career History. Responses to open-ended questions and the free response question were used to clarify, verify and illustrate findings. Relationships between the Career History variables and the mean factor scores of the eight factor groupings identified from the Career Determinant Inventory of the questionnaire were analyzed using analysis of variance tests.

Career Determinant Inventory. Factor analysis was used to "represent a set of variables in terms of a smaller number of hypothetical variables" (Kim and Mueller, 1978, p. 9) and to ascertain the similarities, if any, between the items on the Career Determinant Inventory and the items used by DeLong (1982) and Schein (1985) for their versions of the Career Orientations Inventory.

Ethical Considerations

The proposed Career Determinant of Nurses questionnaire and the research proposal were approved by the Department of Educational Administration, Ethics Review Committee, November, 1986. Thus, the study has conformed to the requirements of the General Faculties Council guidelines for research and the guidelines of the Department of Educational Administration.

The covering letter to subjects assured them that their responses would only be used for the purposes of the research project and that there would not be any identification of individuals. Identification codes were used for follow-up and data processing purposes only.

Summary

The research design, questionnaire development, data collection and data analysis were outlined in this chapter. Issues concerning reliability and validity of the research instrument were also discussed.

The next chapter describes the analysis of the Career Determinant Inventory component of the research questionnaire. Comparisons with previous research will be drawn and conclusions will be derived from the findings.

CHAPTER 4

THE CAREER ORIENTATIONS OF NURSES

Descriptive analyses of the data gathered from the questionnaire's Career Determinant Inventory: Part II are presented in this chapter. The chapter is divided into three major sections which present the findings related to the first objective of the study: **To identify the factors that may be used to describe the career orientations of nurses.**

The first section presents the analysis of the Career Determinant Inventory items and a description of the factors that emerged. These factors are referred to as the career orientations of nurses. The second section presents a discussion of the findings and comparison with previous research, and the final section provides a summary of the findings.

The Factor Analysis

A factor analysis is used when there is a need to reduce a large set of items or variables into a smaller, more manageable and explainable set of concepts (Kim & Mueller, 1978, p. 9; Polit & Hungler, 1983, p. 549). In the present study, factor analysis was used to reduce the items into manageable concepts and to identify similarities with the variables and constructs used by other researchers.

Kim (1975, p. 469) outlines three customary steps of factor analysis:

> (1) the preparation of the correlation matrix, (2) the extraction of the initial factors—the exploration of possible data reduction, and (3) the rotation to a terminal solution—the search for simple and interpretable factors.

The third step is of particular concern to the researcher when attempting to reduce the items into manageable concepts. As Kim (1975, p. 472) points out, "the major option available to the analyst is whether to choose an orthogonal rotational method or an

oblique rotational method." Orthogonal rotation procedures maintain the independence of the factors (Kerlinger, 1973, p. 673; Polit & Hungler, 1983, p. 551); that is, the factors are uncorrelated with one another. On the other hand, the oblique rotational method produces correlated factors. While orthogonal rotation was the method chosen as the rotation procedure, when it was found that three items did not load on any of the factors, at or above the cut-off value of .40, an oblique rotation was carried out. There appeared to be little advantage in the outcome, and as all other criteria were met, orthogonal rotation remained the rotational method of choice.

When considering the rotated factor matrix the researcher has to consider several issues (Polit and Hungler, 1983, pp. 553-554; Anantrasirichai, 1988, p.81). How many variables should belong to a factor? What is the common theme for the variables that are clustered together? How many factors should there be? How does the researcher decide which factor a variable belongs to when it loads on more than one factor?

Decisions relating to the above questions were guided by requirements outlined in the literature. The Kaiser criterion was used to determine the number of factors in a solution. Thorndike (1978, p. 273) reported that:

> The most widely known and used criterion for the number of factors is what is known as the Kaiser criterion (Kaiser, 1960). This approach is based on a principal components analysis (unreduced correlation matrix) and advocates retaining only those factors that have eigenvalues greater than 1.0. This means that for a factor to be retained it must account for at least as much variance as does a single variable, a requirement that has substantial intuitive appeal.

Inspection of the varimax rotated factor analysis results indicated that there were fourteen possible solutions which satisfied the Kaiser criterion.

Thorndike further stated:

> The most popular method of determining which factor loadings to consider for interpretation is to set up an arbitrary cut-off value (generally .3, .4, or .5) and retain for interpretation only those loadings that exceed the selected value, calling the rest zero.

According to this convention and the concurrence of others (Myroon, 1982, p. 81; Polit & Hungler, 1983, p. 553) the decision was made to include only those items which loaded greater or equal to 0.40 on a factor.

Those variables which loaded higher than the cut-off point of .40 on more than one factor were retained with the higher loading if the loading difference was greater than 0.10. This decision was based on the determinations of Myroon (1982, pp. 81-82) and MacQueen and Ignatovich (1986, p. 9)

Consideration of the above factor methodology applications, along with consideration of how well the items contributed to the factor, resulted in selection of the eight factor solution as the most appropriate factor solution. As shown in Table 4.1, the eight factors accounted for 52.6 percent of the variance.

Table 4.1

Variance of Factors for the Eight-Factor Solution

Factor	Eigenvalue	% of Variance	Cumulative %
Factor 1	7.97	17.0	17.0
Factor 2	4.49	9.6	56.5
Factor 3	2.89	6.2	32.7
Factor 4	2.21	4.7	37.4
Factor 5	1.97	4.2	41.6
Factor 6	1.82	3.9	45.5
Factor 7	1.69	3.6	49.1
Factor 8	1.62	3.5	52.6

In summary, the following criteria were used for the selection of items contained in the eight factors.

- The loading of a retained item was greater than, or equal to, 0.40.

- Items which loaded on more than one factor were retained in the factor with the higher loading, if the loading difference was more than 0.10.

- The item contributed logically to the meaning of the factor.

Using the eight-factor solution there were three items which loaded on two factors. As each of these items had a loading difference of at least 0.10, and appeared to fit logically with the factor on which they loaded highest, they were all retained with that factor. There were also three items which did not load on any factor: these items were discarded. These three items and their factor loading values are shown in Table 4.2 below. Kim and Mueller (1978, pp. 68-69) caution against the deletion of variables "in order to have a neat factorial structure" as a set of items or variables is unlikely to "constitute the universe of all potential variables."

Table 4.2

Factor Loadings of Discarded Items

Item #	F1	F2	F3	F4	F5	F6	F7	F8
5 Being identified and known as a nurse is important to me.	.26	.39	.10	.28	-.07	.34	-.12	.14
17 A career which is free from hospital/agency restriction in terms of my nursing practice is important to me.	.39	-.00	.07	.13	.17	.05	-.32	.32
20 Becoming more expert in my area of practice or teaching is important to me.	.18	.37	.07	.21	.16	.35	-.03	-.28

Waltz and Bausell (1981, p. 304) also caution the researcher to be aware that "predisposition or hunches" may color interpretation of factors. They suggest that "the

most difficult aspect of this statistical procedure is to objectively name or interpret the rotated factors." As Kerlinger (1973, p. 688) points out, "giving a factor a name does not give it reality. Factor names are simply attempts to epitomize the essence of the factors."

Factors That Describe Career Orientations

The eight factors identified, and the rationale for the label assigned, are described in this section.

Factor 1: Ambition for Leadership. This factor consists of 10 items with loadings ranging from 0.76 to 0.52. The items and loading values for each item are shown in Table 4.3. Items in the factor describe characteristics which can be attributed to leadership and administrative functions demonstrated by nurses. Because the items identified attributes that seemed to transcend both managerial or leadership characteristics, the appellation "ambition for leadership" was attached to the factor. The items "advancement in my career has been the motivating factor in work related moves I have made," and "I have always wanted to become a consultant or have my own nursing practice," reflect attributes of wanting to get ahead, to be a leader but also an entrepreneur; therefore, these items, combined with the leadership and managerial items, were seen to be analogous to ambition.

Factor 2: Job Security. This factor consisted of six items relating to employment security, benefits and prestige. As shown in Table 4.4 the loading values on the six items ranged from 0.71 to 0.55. One item, "the prestige which results from being identified with a particular hospital or agency is important to me," also loaded on the first factor. As the loadings were 0.42 and 0.55 respectively, the item was retained with Factor 2. Item 13—"Working with advanced technological equipment...."—also loaded decisively on this factor. This was somewhat surprising because, on first glance, it

Table 4.3

Factor Items and Loadings for Factor 1: Ambition for Leadership

Item #		F1	F2	F3	F4	F5	F6	F7	F8
								Factor Loadings	
35	I want to be [I am] involved in nursing or education administration.	0.76	0.02	-0.24	-0.01	-0.03	0.05	0.08	-0.02
11	To become a leader in my profession is important me.	0.69	0.12	-0.14	0.19	0.08	0.07	0.00	-0.19
36	I prefer to be responsible for the leadership of a particular group of staff.	0.66	0.04	-0.12	0.05	0.04	-0.04	0.21	0.10
39	I will move [I have moved] into an administration position (head nurse, supervisor etc.) only if [as] it gives me more opportunity to develop my clinical or teaching expertise.	0.65	-0.04	0.00	0.08	0.09	0.03	0.16	-0.04
4	The challenge of organizing others is important to me.	0.59	0.09	-0.24	0.24	0.04	0.03	-0.07	0.05
14	Being involved at the decision-making level in my profession is important to me.	0.57	0.22	-0.10	0.18	0.27	0.07	0.11	-0.14
25	Throughout my career I have been motivated by the opportunity to introduce new ideas in my work situation.	0.56	0.19	0.14	0.00	0.30	0.10	0.14	-0.03
22	Advancement in my career has been the motivating factor in the work related moves I have made.	0.54	0.17	-0.25	0.00	0.13	-0.15	0.14	-0.15
27	I have always wanted to become a consultant to have my own private nursing practice.	0.54	-0.13	-0.11	-0.02	0.15	0.01	0.07	0.18
12	The opportunity to use my skills in developing new approaches to nursing care or teaching is important to me.	0.52	0.01	-0.06	0.26	0.34	0.25	0.05	-0.31

Table 4.4

Factor Items and Loadings for Factor 2: Job Security

Item #		F1	F2	F3	F4	F5	F6	F7	F8
				Factor Loadings					
40	I want to work in an organization where I can be sure of life-time employment.	-0.08	0.71	-0.06	-0.02	0.05	0.03	0.06	0.19
1	An organization which will give me long term job security is important to me.	0.06	0.69	-0.01	0.15	0.00	-0.09	0.07	0.05
32	I like to think of myself as part of a particular hospital, health care or education agency.	0.05	0.65	0.02	-0.05	-0.20	0.23	0.21	0.02
19	Security through benefits such as a pension plan is important to me.	0.08	0.63	-0.12	-0.05	0.11	0.04	-0.07	-0.13
15	The prestige which results from being identifies with a particular hospital or agency is important to me.	0.42	0.55	0.06	0.07	-0.05	0.06	-0.17	0.10
13	Working with advanced technological equipment is important to me.	0.02	0.55	0.21	0.29	0.34	-0.08	-0.14	-0.06

appears at odds with a set of job security items. On further consideration, perhaps "working with advanced technological equipment" is important because it provides a specific type of security, which is seen by nurses to be important for a technological age.

Factor 3: Family Commitment. The items which loaded under the rubric family commitment all pertain to the degree to which family responsibilities featured as a factor that might influence a nurse in her career decisions. Table 4.5 shows the loading values for this factor.

Table 4.5

Factor Items and Loadings for Factor 3

Family Commitment

Item #		F1	F2	F3	F4	F5	F6	F7	F8
47	Raising a family is an important part of my career.	-0.16	-0.01	0.82	-0.06	-0.01	0.04	0.00	-0.19
21	Being able to take time out from my nursing career to raise my family is important to me.	-0.18	0.00	0.74	0.03	0.10	0.08	-0.07	-0.14
44	If I had to make a choice between my family's needs and a promotion which involved a move to another geographical area I would choose my family.	-0.14	-0.10	0.69	-0.01	-0.09	0.04	0.11	-0.05
3	Being able to maintain a balance between my profession and my family and friends is important to me.	-0.05	-0.02	0.56	0.09	-0.02	0.04	-0.06	0.18
18	Being able to work as a nurse while I raise my family is important to me.	-0.08	0.33	0.52	0.10	-0.07	0.00	0.24	-0.17

The range, 0.82 to 0.52, was the greatest for any of the eight factors.

From an examination of the items it can be seen that many respondents consider raising a family to be an integral part of their career. It is also important to be able to take time out from nursing to raise their family, while it is not so important to be able to work as a nurse while raising a family. The mean scores for the individual items, which will be reported in Chapter 5, also reflect this assertion. The loading of these items under one factor was not unexpected.

Factor 4: Independence. The six items which loaded on Factor 4 were all items which pertain to aspects of independence in practice and career. The findings are presented in Table 4.6. The range of the loading values was from 0.65 for the item "to be able to develop my own nursing style is important to me," to 0.47 for the item "I believe that my career is as important as the career of my spouse or partner (or would be if I had one)." It was felt that these items were homogeneous and fitted together well; they describe nurses who want to be challenged, autonomous and creative in their practice. They also tend to believe that their career is as important as that of their spouse or partner.

Table 4.6

Factor Items and Loadings for Factor 4

Independence

Item #		F1	F2	F3	F4	F5	F6	F7	F8
					Factor Loadings				
6	To be able to develop my own nursing style is important to me.	0.14	0.08	0.07	0.65	0.00	0.11	0.04	0.04
8	Challenging work situations are important to me.	0.24	0.01	0.04	0.64	0.28	0.08	0.14	-0.11
7	Being able to make my own decisions about the nursing care of my patients is important to me.	0.02	0.15	0.03	0.61	0.11	0.01	0.30	-0.05
2	A position where I am able to set my own work hours, schedule and pace is important to me.	0.05	-0.06	0.05	0.60	-0.15	0.00	-0.16	0.28
30	I believe that my career is as important as the career of my spouse/partner [or would be if I had one].	0.02	0.24	-0.26	0.47	0.14	-0.06	0.39	-0.19

While autonomy could have been applied as a label, independence appears to be more descriptive of the attributes clustered together under this factor.

Factor 5: Variety/Adventure. The items and their factor loading values for Factor 5 are shown in Table 4.7. The first four items which loaded on this factor express a desire for challenge, variety, and adventure in the work place and career.

Table 4.7

Factor Items and Loadings for Factor 5

Variety/Adventure

Item #		F1	F2	F3	F4	F5	F6	F7	F8
					Factor Loadings				
28	The opportunity to test my skill in different work settings is what I really want from nursing.	0.17	0.07	-0.02	0.08	0.63	0.09	0.13	0.23
31	The ability to move about and work in different places has been important to me in my career.	-0.11	0.10	-0.06	0.15	0.55	0.09	0.10	0.32
26	Throughout my career I have been motivated by a sense of adventure.	0.30	0.03	0.09	0.03	0.58	0.09	0.07	0.08
16	A career which enables me to work in a variety of practice or teaching settings is important to me.	0.31	0.09	0.01	0.12	0.56	0.26	0.01	-0.07
43	I prefer to work for an agency or hospital which will allow me to remain in one geographical location.	-0.21	0.24	0.33	0.14	-0.54	0.04	0.12	0.15
46	Remaining in my present geographical location is more important than promotion.	-0.24	0.24	0.40	0.11	-0.47	0.04	0.04	0.17

The remaining two items, which express a concern for geographical security, loaded negatively, and are therefore consistent with items expressing the desire for change and/or variety. Because they fitted logically with the other items they were retained.

Factor 6: Altruism. The six items which loaded on this factor all express a need by the nurse to help others, to use nursing skills to assist others to improve their lifestyle, and to see people change because of the nurse's actions. Inspection of the items presented in Table 4.8 shows that they express an attitude of service, altruism and vocational commitment.

The item, "the opportunity to see others change because of what I do is important to me," also loaded on Factor 4: Independence. As shown in Table 4.8, the loading difference was greater than 0.10 so it was retained with Altruism, the factor on which the higher loading occurred. The lowest loading item, "I prefer to work for an agency or hospital which will value my contribution," does not appear to fit well with the previous items, yet when considered in the broadest sense of both altruism and service and the values expressed in the item, "helping others attain their goals has always been more important to me than earning a high salary," it fits. The altruistic person will be willing to give service in an idealistic and dedicated manner, while expecting to be valued, although not necessarily monetarily rewarded, for that service.

Factor 7: Self-esteem. The three items which make up this factor illustrate attributes of professional and personal self-esteem. Table 4.9 shows that the range of the loading values was from 0.65 to 0.55. One item, "I want to have the opportunity to be involved in the decisions that will affect my work," also loaded on Factor 1: Ambition for Leadership. As there was a 0.10 difference in the loading it was retained with the factor on which the higher loading occurred, self-esteem.

Table 4.8

Factor Items and Loadings for Factor 6: Altruism

Item #		Factor Loadings							
		F1	F2	F3	F4	F5	F6	F7	F8
33	I want a career in which I can be committed to improving the life of other people.	0.12	0.13	0.03	0.05	0.07	0.70	0.03	0.16
23	I have always seen my nursing (education or practice) career as an opportunity to help other people.	-0.19	0.13	0.08	0.02	0.04	0.64	0.20	-0.16
41	Helping others attain their goals has always been more important to me than earning a high salary.	-0.01	-0.12	0.00	-0.05	0.19	0.56	0.01	0.11
9	The opportunity to see others change because of what I do is important to me.	0.12	-0.02	-0.03	0.43	0.06	0.55	-0.18	0.01
10	Being able to use my interpersonal and helping skills in the care of my patients or working with students is important to me.	0.15	-0.01	0.25	0.37	0.07	0.49	0.13	-0.21
24	I prefer to work for an agency or hospital which will value my contribution.	0.23	0.2			-0.21	0.44	0.36	0.09

The attributes included in this factor are descriptive of nurses who have a good opinion of their abilities and the contribution they make to the organization. They believe that they are skilled in their job, are a valuable member of the team, and deserve to be involved in the decisions that affect their work. These are all attributes of self-esteem.

Table 4.9

Factor Items and Loadings for Factor 7: Self-Esteem

				Factor Loadings				
Item #	F1	F2	F3	F4	F5	F6	F7	F8
38 I see myself as a valuable member of the nursing or teaching team in my hospital or agency.	0.29	-0.08	0.09	0.15	0.02	0.21	0.65	-0.04
37 I want to have the opportunity to be involved in the decisions that will affect my work.	0.47	-0.05	-0.01	-0.02	0.07	0.10	0.57	0.15
45 I believe that I am highly skilled in my area of teaching or nursing practice.	0.25	0.05	0.03	0.13	0.16	-0.04	0.55	0.02

Factor 8: Professional Integrity. The three items which loaded on this factor were more difficult to label. The range of the loadings was 0.10, from 0.52 to 0.42. On initial examination of Table 4.10 they all appear to be quite dissimilar. It is only with further consideration that the similarities become evident. The first item is concerned with a personal sense of professional freedom, the second with the right to make a decision relating to a career move and the third an acceptance of responsibility for either patients or students. These items, taken together, describe a sense of values and motives related to professional integrity or completeness.

Table 4.10

Factor Items and Loadings for Factor 8: Professional Integrity

Item #	Factor Loadings							
	F1	F2	F3	F4	F5	F6	F7	F8
34 My career has been motivated by concern for my own sense of freedom.	0.14	0.26	-0.16	0.05	0.17	-0.13	-0.05	0.52
42 I would move to another agency or hospital rather than accept a promotion out of my chosen area of nursing or teaching practice.	-0.18	0.00	-0.18	-0.07	0.07	0.17	0.04	0.48
29 I prefer to have responsibility for a group of patients or students.	0.01	0.00	0.27	0.28	0.09	0.23	0.35	0.42

Reliability and Intercorrelations Among Factors

There are a number of methods that can be used to determine the homogeneity or variance, that is, the internal consistency of a questionnaire instrument. Because of time and cost constraints it was not practical to use the process of test-retest; therefore, alternative methods were used.

Eight factors, consisting of 44 items, were created to measure the career orientations of nurses. The eight factors were: ambition for leadership (factor 1), job security (factor 2), family commitment (factor 3), independence (factor 4), variety/adventure (factor 5), altruism (factor 6), self-esteem (factor 7), and professional integrity (factor 8). The split-half technique was the method used to compute the coefficient of internal consistency.

As Downie and Heath (1965, p. 217) point out, the "advantage of this method [the split-half] is that only one test is needed for the computation of the reliability

coefficient." Using an odd-even split, the items for each of the eight factors were divided into two halves. The scores for the individual respondents were then calculated, thus giving each respondent two sets of scores. Because the odd-even split cuts the length of the original test in half, the reliability of a test is "directly affected" (Downie & Heath, 1965,p. 218); therefore, a correction formula is used in the computation. The Guttman Split-half was the formula selected in the SPSS program.

The result of the split-half reliability analysis is presented in Table 4.11.

Generally, when the test is "well-made [and] standardized" (Downie and Heath, 1965, p. 220) the reliability coefficients tend to be .90 or above. But, as Downie and Heath go on to explain:

> There is no hard and fast rule that says any reliability has to be a certain size before any test or measuring instrument can be useful. Today we look upon reliability as a relative thing, and there are certain areas and certain techniques where reliability coefficients fall well below this .90 and the techniques are still used and found to be very useful. Rating scales are examples of this.

Table 4.11

Reliability Coefficients of the Career Determinant Factors

Factor	Number of Items	Reliability Coefficient
1. Ambition for leadership	10	.83
2. Job security	6	.72
3. Family commitment	5	.70
4. Independence	5	.61
5. Variety/adventure	6	.70
6. Altruism	6	.79
7. Self-esteem	5	.72
8. Professional integrity	3	.62

The correlation coefficient is also affected by the range of the scores in the sample—"the more homogeneous the sample, the lower the reliability coefficients" (Downie & Heath, 1065, p. 221). Examination of the reliability coefficients obtained for the Career Determinant Inventory factors reveals that the reliability coefficient of .83 for ambition for leadership (factor 1) is quite high. With only three items in the factor, the coefficient of .62 appears to be acceptable for professional integrity (factor 8). The reliability coefficients indicate that the Career Determinant Inventory appears to have sufficient stability and reliability to measure the attitudes, motives, and talents that influence nurses in their career decisions.

The Pearson product-moment correlation coefficient test was used to assess the strength of the relationships among the eight career-orientation factors. The Pearson product-moment correlation coefficient indicates the magnitude of the relationship in either a positive or negative direction. Downie and Heath (1965, p. 91) caution that "the variability of the group, expressed either in standard deviation or variances, should be reported when correlation coefficients are obtained." Results of the Pearson product-moment correlation are reported in Table 4.12.

At the >0.001 level of significance, there was a positive correlation between ambition for leadership (factor 1) and four other factors: job security (factor 2), independence (factor 4), variety/adventure (factor 5), and self-esteem (factor 7). Positive correlations are also evident between the factors independence (factor 4) and altruism (factor 6), independence (factor 4) and self-esteem (factor 7), and variety/adventure (factor 5) and self-esteem (factor 7). Results indicate a negative correlation (-0.31) between ambition for leadership and family commitment (factor 3). A negative correlation (-0.26) is also found between variety/adventure (factor 5) and family commitment (factor 3).

Table 4.12

Intercorrelations Among the Eight Factors

Factor	1	2	3	4	5	6	7	8
1 Ambition for leadership	-							
2 Job security	.24***							
3 Family commitment	-.31***	.02						
4 Independence	.34***	.21**	-.00					
5 Variety/adventure	.50***	.06	-.26***	.23**				
6 Altruism	.17*	.12	.15*	.27***	.22**			
7 Self-esteem	.50***	.12	-.02	.29***	.26***	.21**		
8 Professional integrity	.10	.16*	-.09	.14	.21**	.19*	.21*	-

*   Significant at <.05
**   Significant at <.01
*** Significant at <.001

The high incidence of correlations which are significant at the 0.001 level of significance indicates that the Career Determinant Inventory factors are interdependent. It is likely that if a nurse scores high on certain factors they would also score high on the related factor, or conversely, if the correlation is a negative one, it would be expected that on the related factor the nurse would have a low score.

Table 4.13 shows the mean and standard deviations for each of the eight factors. As can be seen, the standard deviation is small, indicating that the range of scores on the items in each factor was very narrow.

Table 4.13

Means and Standard Deviations (SD) of the Career Determinant Factors

Factor	Mean	SD
1. Ambition for leadership	2.23	.64
2. Job security	2.49	.62
3. Family commitment	3.50	.60
4. Independence	3.30	.49
5. Variety/adventure	2.75	.63
6. Altruism	3.22	.48
7.	3.39	.51
8. Professional integrity	2.46	.60

The next section will contain a comparison of career anchor research by DeLong and others, with the present study.

Comparison With Previous Research

In 1982 DeLong reported the outcomes of his study of graduates from Purdue University, School of Industrial Administration. He had used a 48-item questionnaire with a 4-point Likert scale. There were six items developed to collect data on each of the career variables: managerial competence, technical/functional competence, security, autonomy, creativity, identity, variety and service. DeLong based his questionnaire on Schein's (1978) work on career anchors. Since DeLong's 1982 study, he and Schein have collaborated further and, in 1985, Schein published *Career Anchors: discovering your real values*, a book "designed to help you determine your career anchors and think through your career options" (p. 1). DeLong (1982) used factor analysis in the interpretation of his data and identified nine factors, each with 2 to 7 items. He labelled

five of his factors with the same labels as those derived by Schein (1978) from his panel study of business graduates. As described in Chapter 3, the items for the Career Determinant Inventory developed for this study were based on the work of Schein and DeLong, but considerable adaptations were made so that the items would reflect a nursing orientation and be more suitable for a predominantly female occupation. While the intent had been to retain the underlying values, attitudes or talents DeLong, Schein and Aune had identified as characteristic of the various career anchors, the factors which emerged were, for the most part, quite different. It had been anticipated that the items would cluster in a pattern similar to previous research.

DeLong's (1982) Factors

In this section, the factors and their constituent items from the Career Determinant Inventory are discussed in relation to the factors identified by DeLong (1982).

Ambition for Leadership. Table 4.14 presents the items contained in Factor 1: Ambition for Leadership and the factor under which the similar items in DeLong's 1982 questionnaire clustered. The factor label applied by DeLong is shown in italics.

Five of the 10 items reflect the characteristics which DeLong labelled "managerial competence," three reflect the characteristic "creativity" and one reflects "technical competence."

Table 4.14

Comparison of Items for Factor I: Ambition for Leadership with the Factors
Identified by DeLong (1982)

Factor 1: Ambition for leadership

1   I want to be [I am] involved in nursing or education administration (*Managerial competence*).

2   To become a leader in my profession is important me (*Managerial competence*).

3   I prefer to be responsible for the leadership of a particular group of staff (*Managerial competence*).

4   I will move [I have moved] into an administration position (head nurse, supervisor etc.) only if [as] it gives me more opportunity to develop my clinical or teaching expertise (*Technical competence*).

5   The challenge of organizing others is important to me (*Managerial competence*).

6   Being involved at the decision-making level in my profession is important to me (*Managerial competence*).

7   Throughout my career I have been motivated by the opportunity to introduce new ideas in my work situation (*Creativity*).

8   Advancement in my career has been the motivating factor in the work related moves I have made (*No corresponding factor*).

9   I have always wanted to become a consultant, to have my own private nursing practice (*Creativity*).

10   The opportunity to use my skills in developing new approaches to nursing care or teaching is important to me (*Creativity*).

Job Security. Table 4.15 presents the items contained in Factor 2: Job Security and the factor under which the similar items in DeLong's 1982 questionnaire clustered. The factor labels applied by DeLong are shown in italics.

Three of the six items which clustered under job security in the present study are similar to the items which clustered under the factor DeLong labelled "security," one reflects characteristics DeLong labelled identity, and the fifth item reflects the characteristic DeLong labelled "technical competence."

Table 4.15

**Comparison of Items for Factor 2: Job Security With the Factors Identified by
DeLong (1982)**

Factor 2: Job Security

1. I want to work in an organization where I can be sure of life-time employment (*Security*).

2. An organization which will give me long term job security is important to me (*Security*).

3. I like to think of myself as part of a particular hospital, health care or education agency (*No corresponding factor*).

4. Security through benefits such as a pension plan is important to me (*Security*).

5. The prestige which results from being identifies with a particular hospital or agency is important to me (*Identity*).

6. Working with advanced technological equipment is important to me (*Technical competence*).

Family Commitment. Table 4.16 presents the items contained in Factor 3: Family Commitment and the factor under which the similar items in DeLong's 1982 questionnaire clustered. The factor labels applied by DeLong are shown in italics.

As four of the items contained under this factor were developed specifically for the present study it was anticipated that they would form an exclusive category. One of the items which reflected DeLong's concept of security also loaded on family commitment, rather than with other security-oriented items.

Independence. Table 4.17 presents the items contained in Factor 4: Independence and the factor under which the similar items in DeLong's 1982 questionnaire clustered. The factor labels applied by DeLong are shown in italics.

Table 4.16

Comparison of Items for Factor 3: Family Commitment With the Factors Identified by DeLong (1982)

Factor 3: Family commitment

1.   Raising a family is an important part of my career (*No corresponding factor*).

2.   Being able to take time out from my nursing career   raise my family is important to me (*No corresponding factor*).

3.   If I had to make a choice between my family's needs and a promotion which involved a move to another geographical area I would choose my family (*Security*).

4.   Being able to maintain a balance between my profession and my family and friends is important to me (*No corresponding factor*).

5.   Being able to work as a nurse while I raise my family is important to me (*No corresponding factor*).

Table 4.17

Comparison of Items for Factor 4: Independence With the Factors Identified by DeLong (1982)

Factor 4: Independence

1.   To be able to develop my own nursing style is important to me (*Creativity*).

2.   Challenging work situations are important to me (*Variety*).

3.   Being able to make my own decisions about the nursing care of my patients is important to me (*Autonomy*).

4.   A position where I am able to set my own work hours, schedule and pace is important to me (*Autonomy*).

5.   I believe that my career is as important as the career of my spouse/partner [or would be if I had one] (*No corresponding factor*).

Four of the items under this factor reflected characteristics which loaded on three different factors in DeLong's study. Two of the items reflect the characteristic DeLong labelled "creativity," one reflects "variety" and another "autonomy".

Variety/Adventure. Table 4.18 presents the items contained in Factor 5: Variety/Adventure and the factor under which the similar items in DeLong's 1982 questionnaire clustered. The factor labels applied by DeLong are shown in italics.

The items which clustered under the variety/adventure factor reflect two of DeLong's categories: "variety" and "security". As the two items which reflect his notion of security loaded negatively on the variety/adventure factor it could be assumed that they do reflect aspects of security.

Table 4.18

Comparison of Items for Factor 5: Variety/Adventure With the Factors Identified by DeLong (1982)

Factor 5: Variety/Adventure

1.   The opportunity to test my skill in different work settings is what I really want from nursing (*Variety*).

2.   The ability to move about and work in different places has been important to me in my career (*Variety*).

3.   Throughout my career I have been motivated by a sense of adventure (*No corresponding factor*).

4.   A career which enables me to work in a variety of practice or teaching settings is important to me (*Variety*)

5.   I prefer to work for an agency or hospital which will allow me to remain in one geographical location (*Security*).

6.   Remaining in my present geographical location is more important than promotion (*Security*).

Altruism. Table 4.19 presents the items contained in Factor 6: Altruism and the factor under which the similar items in DeLong's 1982 questionnaire clustered. The factor labels applied by DeLong are shown in italics.

Table 4.19

Comparison of Items for Factor 6: Altruism With the Factors Identified by DeLong (1982)

Factor 6: Altruism

1.   I want a career in which I can be committed to improving the life of other people (*Service*).

2.   I have always seen my nursing (education or practice) career as an opportunity to help other people (*Service*).

3.   Helping others attain their goals has always been more important to me than earning a high salary (*Service*).

4.   The opportunity to see others change because of what I do is important to me (*Service*).

5.   Being able to use my interpersonal and helping skills in the care of my patients or working with students is important to me (*Service*).

6.   I prefer to work for an agency or hospital which will value my contribution (*No corresponding factor*).

All the items, which were developed to reflect the notion of service did cluster under the same factor. Therefore, it could be assumed that they are reflecting similar characteristics to those DeLong labelled "service."

Self-Esteem. Table 4.20 presents the items contained in Factor 7: Self-Esteem and the factor under which the similar items in DeLong's 1982 questionnaire clustered. The factor labels applied by DeLong are shown in italics.

Of the three items contained in this factor, two appear to reflect quite different factors from DeLong's categories. One item reflects his "managerial competence" category and the other reflects "identity."

Table 4.20

Comparison of Items for Factor 7: Self-Esteem With the Factors Identified by DeLong (1982)

Factor 7: Self-esteem

1. I see myself as a valuable member of the nursing or teaching team in my hospital or agency (*No corresponding factor*).

2. I want to have the opportunity to be involved in the decisions that will affect my work (*Managerial competence*).

3. I believe that I am highly skilled in my area of teaching or nursing practice (*Identity*).

Professional Integrity. Table 4.21 presents the items contained in Factor 8: Professional Integrity and the factor under which the similar items in DeLong's 1982 questionnaire clustered. The factor labels applied by DeLong are shown in italics.

The items which clustered under the professional integrity factor reflect three of DeLong's factor categories.

Table 4.21

Comparison of Items for Factor 8: Professional Integrity With the Factors Identified by DeLong (1982)

Factor 8: Professional integrity

1. My career has been motivated by concern for my own sense of freedom (*Autonomy*).

2. I would move to another agency or hospital rather than accept a promotion out of my chosen area of nursing or teaching practice (*Technical competence*).

3. I prefer to have responsibility for a group of patients or students (*Managerial competence*).

The three items from the Career Determinant Inventory which did not load, at or above the cut-off point, also reflect characteristics from three of DeLong's categories. The findings are shown in Table 4.22.

Table 4.22

Comparison of Items Which Did Not Load on a Specific Factor With the Factors Identified by DeLong. (1982)

Variables which did not load on a specific factor

1. Being identified and known as a nurse is important to me (*Identity*).

2. A career which is free from hospital/agency restriction in terms of my nursing practice is important to me (*Autonomy*).

3. Becoming more expert in my area of practice or teaching is important to me (*Technical competence*).

Several items on the Career Determinant Inventory did not reflect specific characteristics as identified by DeLong. These particular items were developed by the researcher to reflect characteristics Aune (1983) had identified in her study when she interviewed nurses about their career orientations. The items relating to values, beliefs and talents concerned with family commitments were specific to this study.

Comparison of the loading patterns of the variables used by DeLong in his study management graduates and the items of the Career Determinant Inventory shows that though the items for the present study were developed to reflect similar concepts to DeLong items, there are differences in the loading patterns. In the present study the of the items developed to reflect managerial competence characteristics clustered under the factor Ambition for Leadership. It was not anticipated that items developed to reflect DeLong's Creativity oriented items would also cluster so strongly with managerial characteristics. While nursing is considered to be a career which demands competence in technical skills, the items developed to reflect this characteristic

loaded on several factors, not one single factor. This was an unexpected finding. These and the other differences may result from modification of the items, the population surveyed, gender differences, and/or occupational characteristics. Further testing and comparison of results are necessary to establish construct validity and reliability. The sampling and instrument issues identified above are not unusual. Both DeLong (1982) and Derr (1982) expressed reservations about the appropriateness of the questionnaire format.

In order to obtain a "more parsimonious model" which reflected Schein's five "career anchors," DeLong (1982, p. 58-59) ran a second factor analysis using the factors from the first analysis as the items. The "items forming each of the eight factors were averaged (the two security factors were combined) and were subsequently factor-analyzed." As a result he identified "three main career orientations" from the eight variables. Autonomy and creativity loaded under one factor, managerial competence and variety clustered together with "technical competence showing a strong negative association," while service, identity and security formed the third factor.

When the eight factors from the present study were used as items for a second factor analysis, three main factors were also identified. Inspection of Table 4.23 shows that ambition for leadership, variety and self-esteem clustered under the first factor, with family commitment forming a negative association. Factor 2 identified a strong relationship between altruism and family commitment. The third factor was formed by job security and professional integrity. Independence double loaded on both Factor 1 and Factor 2. The loading value does not meet the criterion of at least .10 difference as outlined in the opening section of this chapter. Comparison of the three factors identified with the intercorrelations presented in Table 4.13 shows the loading pattern reflecting the intercorrelations.

Table 4.23

Varimax Factor Solution for Eight Career Determinants Using a Three Factor Solution

Item	Factor 1	Factor 2	Factor 3
Ambition	.84	.05	.13
Job security	.02	.10	.80
Family commitment	-.52	.69	-.09
Independence	.42	.48	.20
Variety/adventure	.75	.01	.06
Altruism	.22	.70	.12
Self-esteem	.60	.37	.08
Professional integrity	.15	.04	.69

Schein (1978), Derr (1982) and Aune (1983)

Research has resulted in an expansion of Schein's career anchor concept from the original five anchors to either eight or nine "career anchors" or "orientations." Table 4.24 lists the "anchors" identified by Schein and subsequent researchers.

Schein (1978, p.127) hypothesizes that the career anchor for an individual develops over time, particularly the first 10 to 15 years of the career, and once discovered, will remain stable throughout a person's career. He also implies (p. 129) that each individual usually holds only one career anchor.

In contrast, Derr (1980, p. 186) raises the concept of career patterning, "a process that becomes more definite over time." He suggests an expansion of Schein's five career anchor typology to nine variations; upwardly mobile manager, evolutionary manager, technical, security, identity affiliation, autonomy, growth-oriented creativity, er   n   creativity, and warrior. He also felt that there may even be some people

who never declare a career orientation, the "plastic man" or the individual "who arranges life around whatever jobs become available."

Table 4.24

Summary of Career Anchor - Career Orientations Identified by Schein (1978), Derr (1980), DeLong (1982), and Aune (1983)

Schein (1978)	Derr (1980)	DeLong (1982)	Aune (1983)
1. Managerial competence	1. Upwardly mobile manager 2. Evolutionary manager	1. Managerial competence	1. Managerial
2. Technical competence	3. Technical	2. Technical competence	2. Technical
3. Security	4. Security	3. Security	3. Security
4. Creativity	5. Growth-oriented creativity 6. Entrepreneurial creativity	4. Creativity	
5. Autonomy	7. Autonomy	5. Autonomy	4. Autonomy
	8. Identity affiliation	6. Identity	
		7. Service	5. Service
	9. Warrior	8. Variety	

Like DeLong, Aune (1983, p. 78) found that several career anchors coexisted together in each of the group of nurses she interviewed. Service was found to be the dominant factor in the career choices of nurses, a factor which was identified as a possible factor by Schein and DeLong. All the individuals she interviewed expressed a need or desire to serve others. Aune identified five anchors: autonomy, managerial, security, technical, and service.

Summary

This chapter has presented the findings related to the first objective of the study. The factor analysis procedure which was applied to the data obtained from Part II: The Career Determinant Inventory, designed for those pursuing a nursing career, was outlined and the identified factors described.

The clustering of Career Determinant Inventory items for each of the factors was well defined, thus suggesting that there are variables that "go together" (Polit & Hungler, 1983, p. 549) which may underlie the decisions that nurses make about their careers. The labels applied to each of the factors are seen to be as descriptive as possible of the attributes (values, motives and talents) involved in the career orientations of nurses.

The homogeneity of the the factors was determined using tests for reliability—the split-half technique, and intercorrelations—Pearson's product-moment correlation coefficient. The results indicate that the internal consistency among the items is acceptable. The relationships among the factors are statistically significant for all but nine of the 28 combinations. Most of the relationships are significant at the >0.001 level.

In the next section of the chapter the factors identified from the present study data are compared with the career anchors and career orientations identified by several other researchers. The findings of the factor analysis process used by DeLong (1982) in his study of industrial administration graduates were compared with the findings from the factor analysis process used in the present study. It was found that even though the basis for the items on the Career Determinant Inventory was the questionnaire developed by DeLong, the items loaded in quite a different pattern. The items developed by the researcher to represent aspects of family involvement that might be important to an occupational group which is composed primarily of women clustered under one factor.

The factors identified, the distribution of the items, the loading values obtained, and the reliability and intercorrelations suggest that one can speak confidently of orientations that influence the career decisions made by nurses.

In the next chapter the findings relating to the career history of those who are no longer consider themselves to be nurses, and those who are still involved in a nursing career will be presented. From this point on the factors identified from analysis of the Career Determinant Inventory will be referred to as career orientations and the term Career Determinant Inventory will only refer to the CDI contained in the questionnaire.

CHAPTER 5

A COMPARISON OF NURSE AND NON-NURSE RESPONDENTS

This chapter is divided into four major sections, each of which addresses the second objective of the study:

To describe the differences between respondents who perceive themselves to be pursuing a nursing career and those who do not.

A comparison of the two groups of respondents—those who report that they are no longer involved in a nursing career and those who consider themselves to be still engaged in a nursing career—on career history variables, for which statistically significant differences were found, is presented in the first section. In addition, comparisons are drawn between the two groups of respondents on the item scores for the career determinant inventory. The data concerning the career decisions made by the non-nurse respondents and their preparation for their present or future careers are also presented in this section. In the third section, findings from the present study are assessed in terms of previous research. The chapter closes with a summary of the findings.

The questionnaire instructions directed those subjects who considered themselves to be engaged in a nursing career to complete Parts I and II of the questionnaire. This group (hereinafter referred to as the "nurses") consisted of 39 baccalaureate degree program, 89 hospital diploma program, and 49 college diploma program graduates for a total of 177 subjects or 87.6% of the total sample returns. There was one male respondent in this group.

Respondents who no longer considered themselves to be involved in a nursing career were asked to complete Parts I and III of the questionnaire. There were 25 subjects in this group. As noted in Chapter 3, the researcher decided to treat these

respondents as a group completely separate from the subjects who indicated they were still involved in a nursing career. This group (hereinafter described as the "non-nurses") will be described in this chapter and thereafter attention in the data analysis will be focussed exclusively on those respondents who consider themselves to be pursuing a career in nursing.

The respondents who no longer consider themselves to be following a nursing career accounted for 12.4% of the total sample returns. Even though each basic nursing program was almost equally represented numerically (8/97 hospital diploma, 8/57 college diploma, and 9/48 baccalaureate degree), proportionately the baccalaureate degree and the college diploma programs (with 18.8% and 14.0% respectively), when compared to the hospital diploma (8.2%) program, had the greater representation in the non-nurses group. There was also one male respondent in this group.

Comparison of Selected Career History Variables and Career Determinant Inventory Items

Analysis of the career history variables and the career determinant inventory items revealed only two career history and seven career determinant inventory items where there was a statistically significant difference between the nurse and the non-nurse groups. This section presents descriptive analyses of the two career history variables and the seven career determinant inventory items. Distribution tables showing frequencies, percentages and/or means are used to illustrate findings. The Chi-square (χ^2) test was used to "determine whether the observed frequencies differ from the frequencies that we would expect if [the] distribution followed a stated theoretical distribution" (Downie & Heath, 1965, p. 161).

With regard to the career history variables there were only two where the Chi-square test demonstrated a statistically significant difference between the nurses and the non-nurses. While the Chi-square test helps to decide if "variables are independent or related. It does not tell us how strongly they are related" (Nie, Hull, Jenkins, Steinbrenner & Bent, 1975, p. 224).

The Career History Variables

The variables which showed a significant difference between the nurses and the non-nurses were; (1) level of education and (2) type of agency where the graduate was first employed. Career history variables which were explored and where no differences were found included:

- age,

- marital status,

- presence and/or number of children,

- recall of decision to become a nurse,

- involvement in community organizations,

- holding of office in community organizations,

- reason for choosing a particular nursing program, and

- number of different agencies or hospitals worked in.

1. Highest Level of Education. The Chi-square test revealed that there is a significant difference between the expected and actual frequencies of the responses for the two groups on the variable—highest level of education. The findings related to the highest level of education achieved are reported in Table 5.1.

Proportionately, the non-nurse group is better educated than the nurse group— 48% as compared to about 33% have at least one university degree. A further 8.0% of

the non-nurses have a second or third university degree compared to nurses where only 2.5% of the group report a second degree.

Table 5.1

Highest Level of Education Attained by Nurses and Non-Nurses

Highest Level of Education	Nurses Group		Non-Nurses Group	
	f	%	f	%
Registered Nurse Diploma	119	67.2	13	52.0
Baccalaureate Degree	35	19.8	10	40.0
Baccalaureate (Post-RN) Degree	19	10.7	-	-
Master's (Nursing) Degree	3	1.7	-	-
Master's (Non-nursing) Degree	1	0.6	1	4.0
Doctorate (Non-nursing) Degree	-	-	1	4.0

$\chi^2 = 17.6$ df = 5 $p \leq 0.01$

From the non-nurse group, one respondent reported that she has a BA in Broadcasting Journalism, another reported that she has a BA in Art History and English and an MA in Art History, and yet another reported a Master's in Divinity. Several reported that they were taking courses in business, communications and child psychology and development. It would appear that these respondents sought courses and education opportunities which would enable them to broaden their scope or to meet their needs when they have made a career change.

2. **First Job: Type of Agency.** Findings related to the type of agency where respondents began their working life are presented in Table 5.2. The Chi-square test

identified a significant difference between the present career status of the respondents—nurses or non-nurses—in terms of the type of agency in which they started their careers.

Table 5.2

Type of Agency for First Nursing Job by Nurses and Non-Nurses

Type of hospital or agency	Nurses Group		Non-Nurses group	
	f	%	f	%
Never wor...	-	-	3	12.0
General ... (Urban)	98	56.0	9	36.0
General hospital (Rural)	28	16.0	5	20.0
Long term care hospital	10	5.7	2	8.0
Psychiatric hospital	2	1.1	-	-
Nursing home	4	2.3	1	4.0
Community health	14	8.0	4	16.0
Home care	2	1.1	1	4.0
Doctor's office	7	4.0	-	-
Other	8	4.6	-	-

$\chi^2 = 17.8$ df = 7 $p \leq 0.05$

Comparison of the two groups shows that almost 75% of the nurses group started their careers in a general hospital setting compared to about 55% of the non-nurses group. Examination of Table 5.2 also shows that there were several respondents from the non-nurses group who had never worked as a nurse. Their reasons for never having worked as a nurse are presented in a later section of this chapte he table shows that, for their first nursing job, the non-nurses group were not employed in psychiatric hospitals, doctor's offices, or in positions which would have fallen into the "other" category. Two

college graduates from the non-nurses group reported that they began their nursing careers in community health. This is of interest. Community health agencies usually require a baccalaureate degree of their employees but rural areas have difficulty recruiting baccalaureate graduates..

In the next section the responses to the items on the Career Determinant Inventory are analyzed for other distinguishing features of the two groups.

The Career Determinant Inventory Items

Two forms of the Career Determinant Inventory were used in the questionnaire.. Part II was oriented towards those respondents who considered themselves to be pursuing a nursing career (the nurses group) and Part III was oriented towards those respondents who were of the view that they were no longer involved in a nursing career (the non-nurses group). The two versions were substantively equivalent—the items for Part III were identical to those in Part II with the exception that words such as nursing, nursing education, nursing administration, hospital and health care agencies were changed to reflect a general work or career orientation. There were 47 items on each version of the inventory and they were arranged identically. Examples of the questions from the two versions are presented below:

Item #	Part I	Part II
1	An organization which will give me long term job security is important to me.	An organization which will give me long term job security is important to me.
6	Being able to develop my own nursing style is important to me.	Being able to develop my own work style is important to me.
23	I have always seen my nursing (education or practice) career as an opportunity to help other people.	I have always seen my career as an opportunity to help other people.
32	I like to think of myself as part of a particular hospital/health care or education agency.	I like to think of myself as part of an organization.

The items on the career determinant inventory were scored on a four point Likert-type scale with "very important to me" or "very true of me" being equal to 4 and "not important to me" or "not true of me" being equal to 1.

(1)   The lower range of means scores, 1.0 to 1.49, has been designated "not at all important" to the respondents.

(2)   The moderately low range of mean scores, 1.50 to 2.49, has been designated as "not very important" to the respondents.

(3)   The moderately high range of mean scores, 2.50 to 3.49, has been designated as "important" to the respondents.

(4)   The highest range of mean scores, 3.5 to 4.0, has been designated as "very important" to the respondents.

The descriptive value label is used to describe the importance of the item as a value, motive or talent to the respondents.

Using the t-test to "establish whether or not a difference between two samples is significant" (Nie, Hull, Jenkins, Steinbrenner & Bent, 1975, p. 267) revealed that when the two groups were compared there were significant differences, at the 0.01 level, for three of the mean item scores, and at the 0.05 level for four additional items.

The items for which significant differences were found are reported in Table 5.3.

For the items where the differences in means of the item scores were significant at the 0.01 level, the following differences between the two groups of respondents were revealed. The value expressed in the item, *an organization which will give me long term job security is important to me,* is "important" (mean=3.02) to the nurses group but is "not very important" (mean=2.44) to the non-nurses group. On the other hand, respondents in the non-nurses group consider the value implicit in the item *a career which is free from hospital/agency [organization] restriction in terms of my nursing practice [work] is important to me* to be "important" (mean=3.28), whereas it is "not very important" (mean=2.34) to the nurses group. Although the mean score on the item, *I*

have always seen my [nursing (education or practice)] career as an opportunity to help others, is significantly higher for the nurses group (mean=3.47) than the non-nurses group (mean=2.88), the value expressed in the item is "important" to both groups.

Table 5.3

Comparison of Career Determinant Inventory Item Means Scores by Group for Nurses and Non-Nurses

Career Determinant Inventory Item	Nurses Group N=177 Mean	Non-Nurses Group N=25 Mean	t-value
1. An organization which will give me long term job security is important to me.	3.02	2.44	3.05**
3. Being able to maintain a balance between my profession and my family and friends is important to me.	3.83	3.96	-2.56*
12. The opportunity to use my skills in developing new approaches to nursing care or teaching [my work] is important to me.	2.69	3.08	-2.13*
15. The prestige which results from being identified with a particular hospital or agency [organization] is important to me.	2.04	2.44	-2.33*
17. A career which is free from hospital/agency [organization] restriction in terms of my nursing practice [work] is important to me.	2.34	3.28	-5.10**
23. I have always seen my [nursing (education or practice)] career as an opportunity or help others.	3.47	2.88	2.82**
29. I prefer to have responsibility for a group of patients or students [people].	2.74	2.36	2.07*

* Significant at <0.05
** Significant at <0.01

[ ] contain wording which (1) changes the tense of the sentence; (b) pertains to a difference in wording for items which are specific to either the Nurses or Non-Nurses group.

For the items where the means of the items scores were significant at the 0.05 level, the following differences between the two groups of respondents were revealed. The item, *being able to maintain a balance between my profession and my family and friends is important to me*, has the highest mean score for both groups—3.96 for the non-nurses group and 3.83 for the nurses group—it is a "very important" value for both groups. The value/motive expressed in the item, *the prestige which results from being identified with a particular hospital or agency [organization] is important to me*, has the lowest means for both groups—2.44 for the non-nurses and 2.04 for the nurses—and is "not very important" to either group.

Inspection of the items shows that on the t-test the non-nurses group score higher on items which are concerned with creativity, independence or autonomy and family responsibility while the nurses group score higher on items which are concerned with job security, helping or altruistic behaviors, and the management of people.

A Career Change

Question 11 on Part I of the questionnaire Career History sought information as to why non-nurse respondents were no longer involved in a nursing career. The question asked if they could remember the experience(s) that prompted them to leave nursing. Twenty-three of the 25 non-nurse respondents reported the experiences that prompted them to leave nursing.

Reasons For Leaving a Nursing Career

When the comments of the non-nurse respondents were analyzed for content they could be sorted into the following categories; (1) family commitment, (2) stress and/or dissatisfaction with the system, and (3) health problems. A summary of the response rates is presented below in Table 5.4.

Table 5.4

Reasons for Leaving a Nursing Career by Basic Nursing Education Program

Reason for leaving	Basic nursing education program			
	Baccalaureate degree N=9	College diploma N=7	Hospital diploma N=7	Total N=22
Family commitments	5	3	3	11
Stress or dissatisfaction	4	3	5	12
Health problems	-	1	1	2
Total	9	7	9	25

Comments made by the respondents regarding their experiences were frank. Dissatisfaction with nursing and stress were expressed by the respondents in the following ways.

> I was searching for another career and being in SICU [Surgical Intensive Care Unit] was becoming burned out. The daily life and death situations became increasingly stressful.

> Lack of adequate staffing to do the job, no recognition, poor pay.

> Always found hospital nursing very stressful. I did not gain enough confidence to enjoy my work and eventually decided it wasn't worth it.

> I was ready progress to a management position and there wasn't one available at the time. I also had had a few disheartening experiences with our management group at the time—another opportunity arose. I took it.

> Yes, I became frustrated with the role of the bedside nurse and head nurse; much responsibility and little authority.

> General dissatisfaction with the treatment I received from other health care professionals while in training, the knowledge that the profession had little opportunity for advancement. and the gap between theory of health care and the reality.

> Disillusionment with co-workers (physicians and management) in the health care system and acceptan e of several manuscripts for publication.

> Dissatisfaction with nursing as a career. No formulated goals within nursing. Desirous of gaining business experience.

Tired of bureaucratic hospital administration.

I worked alone on evening shifts for five years and could no longer tolerate such unreal working conditions.

At time of graduation jobs were very tight. I found an office job and enjoyed that better.

The comments respondents made about their family commitments were as follows:

Building a house, moving; having children; tired of bureaucratic hospital administration.

Had 3 pregnancies in 4 years.

My husband was transferred to a community without a hospital and it was too far to drive to work, also I had a family.

When I was married I joined my husband's manufacturing company as accounts manager.

Since my husband and I were relatively old when married... we wanted a family immediately and neither of us wanted me to be a working mother.... Major reason was I didn't want to continue working and my husband didn't want me working.

Pregnancy, breast-feeding, pregnancy, breast-feeding, pregnancy, breast-feeding!

Sick child at home.

It was advanced by my starting a family—no one experience per se, just a desire to take a break from the pressures of nursing administration and a desire to see if I can make a successful stab at business.

I had my first child and decided to stay at home full-time and be a mother.

Wanted to be home with the children.

The two respondents who reported health problems as their reason for leaving a nursing career made the following comments.

I was asthmatic and rundown at time of graduation.

I developed a severe drug dependency problem.

Preparation For A Career Change

The responses listed above indicate that the most common reason for leaving a nursing career has been dissatisfaction or stress with nursing as a career (48.0% of the non-nurse respondents who gave reasons) closely followed by the desire to stay at home while involved in raising a family (44.0%). The respondents were not asked to indicate specifically what kind of a career they were involved in at the time of the survey but they were asked to indicate the preparation and work-related courses they had taken.

Preparation courses were quite varied. One respondent worked for a pharmaceutical company and had taken a month of corporate and sales training, and another who was also involved in a sales career reported taking five sales skills courses as well as five training courses related to independent sales specialties. Preparation to become a chiropractor had involved one year at university for pre-registration courses followed by four years in chiropractic college in the United States.

Because she chose to parent disabled children and work in day care, one respondent had taken several university courses in community behavioral services and behavior modification, as well as community college courses in early childhood, and workshops in crafts and music. Three respondents had taken courses in business-related fields; certificate/diploma in business management, certificate in supervisory management, business courses, typing and accounting, and computer courses, and another had completed advanced music training (ATCL) at Trinity College of Music as preparation to teach music.

University preparation was involved in the work-related programs of a further three respondents. One had taken a Master of Divinity degree prior to being ordained as a United Church minister, another had taken a BA in Art History and English and an MA in Art History, while the third had completed a BA in Communications from a university in the United States.

The career changes and accompanying preparation moves made by the non-nurses reflect the values, motives, aspirations and talents implicit in the career orientation items on which the non-nurses scored significantly higher than the nurses. The career changes reflect orientations of creativity, independence, autonomy and family responsibility.

Comparison With Previous Research

It is not unusual to find that a significant percentage of nursing school graduates have abandoned nursing as a career either temporarily or permanently. The extensive long-term follow-up study of 1,528 graduates in the United States, one, five and ten and fifteen years after graduation (NLN, 1979, p. 687) reveals a 40% loss of baccalaureate-educated graduates after 10 years. Six percent were employed in non-nursing careers. Studies of Alberta graduates have usually concentrated on the abilities of the graduates in their first work experience (Peitchinnis, 1975; Castonguay & Maquera, 1977; Humphries, 1978; Field, 1978) and have not identified the experiences of those who have left nursing. These studies have also concentrated on the first year of the graduates work experience. Field (1978, p.74) reported dissatisfaction and frustration in job situations where the graduates felt powerless to "create change, in their ability to give care that they perceived as necessary." These graduates anticipated that in five years time "they would be in community health nursing or in teaching." While a small percentage anticipated they would be "out of nursing" they did not appear to have any idea as to what they would be doing.

Two more recent studies from England (Howard & Brooking, 1987) and Northern Ireland (Reid, Nellis & Boore, 1987) found that 14% of the graduates from Chelsea College were no longer nursing three years after graduation, and 24% of graduates from the BSc in Nursing program at the University of Ulster were no longer

nursing after five to 10 years. Howard and Brooking (1987, p. 186) report reasons for leaving nursing as:

- frustration and lack of job satisfaction.
- lack of confidence needed to be a good nurse.
- careers in other areas.
- bringing up children.
- interest in social services work.

Reid, Nellis and Boore, (1987, p. 220) report reasons for leaving as follows:

- motherhood.
- felt inadequate and unqualified.
- low job satisfaction.
- redundancy.
- husband's job.
- graduate degree in genetics.
- better opportunities outside nursing.

Frustration with the job and motherhood are also the most common reasons for nursing turnover and resignations from hospital employment reported in other studies. The more negative the working conditions, the greater the incidence of turnover or leaving the job (Weisman, 1982; Prescott, 1986).

Canadian studies indicate a similar situation. The 1980 Alberta Hospitals' Association study on nursing manpower revealed considerable dissatisfaction with hospital nursing—almost 30% of the nurses surveyed were dissatisfied with their current job situation. A more recent article in the *Canadian Nurse* (Wilson, 1987, pp. 20-23) outlines reasons why nurses in Ontario have "closed the door behind them[selves]." One nurse is quoted as stating "nursing isn't a career, it's just a job. There is so little relationship between the responsibility and the authority, it's quite unfair and, frankly, very frustrating." Wilson voices concern at the number of nurses leaving the profession after 10 to 20 years. "It's the day-in day-out drudgery they face, in a job they feel is without thanks or just reward."

Like the respondents in the present study, many nurses who leave the profession make career changes. The NLN (1979) study reports their employment in medicine, law,

self or family businesses, teaching and social work. Howard and Brooking (1978) report new careers in health-related fields such as social work, and Reid, Nellis and Boore (1987) report the non-nurses working as "a social worker, a secretary, a chaplain's assistant, a trainee accountant, a graduate student in genetics and a manufacturer of handloom woven cloth." Wilson (1987) also found that the nurses who had left the profession were employed in a wide variety of careers, frequently people oriented. One had become a systems analyst, while others were employed in real estate, public relations and teaching.

Summary

This chapter has compared the differences between the non-nurses group and the nurses group on selected variables from the career history part of the questionnaire. There were only two career-history variables where statistically significant differences were found between the two groups. The findings suggest that the non-nurse group is better educated than the nurse group. The nurse respondents began their careers in a greater variety of work settings than the non-nurse respondents, yet the majority ($\approx 75\%$) of the nurses group started in general hospital settings. Because only two variables revealed statistically significant differences, it can be concluded that in the areas of work history and demographic characteristics there is little difference between the individual who is still involved in a nursing career and the individual who is no longer involved in a nursing career.

The reasons the non-nurses gave for leaving their nursing career fell into three categories: (1) dissatisfaction with nursing, (2) family commitments, and (3) health problems. Several of the group had made career changes which involved further preparation, either postgraduate education or specific job training.

Comparison of the two groups of respondents— .rses and non-nurses—on the Career Determinant Inventory items was made using a two-tailed t-test. The analysis revealed that there were seven-items where there was a significant difference between the two groups. The items identify different orientations in values, motives, aspirations and talent for members of the two groups. Members of the non-nurse group are more oriented towards values related to family commitment and freedom from restrictions in terms of their work. The findings also indicate that the non-nurses are less concerned with job security. On the other hand, members of the nurses group are more concerned with values, motives and talents that reflect orientations towards helping others and security in their work situation.

A summary of the findings relating to the non-nurse respondent reveals someone who presents the following characteristics.

- They do not want to be restricted, by the organization, in terms of their, work.

- They have sought courses and education opportunities which have enabled them to enhance their career development.

- They consider the opportunity and ability to be able to develop new work skills to be important.

- They are less concerned about job security.

- They have left nursing because of family commitments and/or dissatisfaction with the job.

Comparison of the non-nurses from the present study with non-nurses discussed in other follow-up studies reveal similar findings. Dissatisfaction and frustration with the job, working conditions and the profession are the most common reasons for leaving a nursing career. When they make a career change, nurses move into professions where their education or their human-relations skills are useful. They may seek careers where they are able to work independently or they may become involved in a family business.

Chapter 6 presents the study findings relating to those respondents who are involved in a nursing career.

CHAPTER 6

RELATIONSHIPS OF SELECTED VARIABLES WITH THE NURSING CAREER ORIENTATIONS

The findings in this chapter relate to the third objective of the study.

To explore the relationships between selected education, family, community and professional involvement, and work history variables and the career-orientations of nurses.

The chapter is divided into three major sections. In the first section, selected career-history variables are analyzed in terms of the eight career-orientations identified and described in Chapter 4. The second section compares the findings of this analysis with previous research. The final section draws conclusions about the findings.

Findings from Part I of the questionnaire were analyzed using frequency counts and percentages. The responses to the open-ended questions were collated and are used, where appropriate, to provide depth and explanation for the results. Analysis of variance tests were used to determine if there were significant differences between groups identified using the career history variables in terms of the career-orientations.

As described in Chapter 5, the items on the career-orientation inventory were scored on a four point Likert-type scale with "very important to me" or "very true of me" being equal to 4 and "not important to me" or "not true of me" being equal to 1. The item scores for each factor were totaled and the mean used as the factor or scale score.

The .49 and .50 scale-points of each Likert-scale value were selected as the lower and upper range-points for the means then a descriptive value label was applied to the ranges as follows.

1   The lower range of mean scores, 1.0 to 1.49, has been designated "not at all important" to the respondents.

2   The moderately low range of mean scores, 1.50 to 2.49, has been designated as "not very important" to the respondents.

3   The moderately high range of mean scores, 2.50 to 3.49, has been designated as "important" to the respondents.

4   The highest range of mean scores, 3.5 to 4.0, has been designated as "very important" to the respondents.

These descriptive value labels will be used to describe the importance of the orientation as a value, motive or talent to the respondents.

Analysis of Selected Career-History Variables in Terms of Career Orientations

Analysis of variance tests revealed nine career-history variables where statistically significant differences occurred in terms of career-orientations. The career-history variables include:

- recall of specific recollection of when the respondent decided to become a nurse,

- basic nursing education program,

- family status,

- involvement in community and/or professional organization,

- present position in nursing,

- number of agencies worked in,

- area in practice,

- postgraduate education, and

- post-service education.

Education

Four of the career-history variables that revealed significant differences, in terms of career orientation, are concerned with aspects of the respondents' basic nursing

education and subsequent education activities.

Selection of Basic Nursing Education Program. The findings from the comparison of the mean factor scores on the career-orientation variables for those respondents who did have, and those who did not have a specific recollection of when they decided to become a nurse are reported in Table 6.1. Significant differences were found on the altruism and professional integrity orientations; those respondents who had a specific recollection have a significantly higher mean for these two orientations than those who do not have a specific recollection. Altruism is reflected in examples of the comments made by respondents who could recall their decision to become a nurse.

Table 6.1

One-way Analysis of Variance of Mean Factor Scores on the Career-Orientation Variables According to Recollection of Decision to Become a Nurse

Orientation	Have a specific recollection. N=116 Mean	Do not have a specific recollection N=59 Mean	t-Value
Ambition for leadership	2.31	2.25	0.57
Job security	2.53	2.41	1.16
Family commitment	3.53	3.49	0.45
Independence	3.34	3.24	1.30
Variety/adventure	2.75	2.78	-0.29
Altruism	3.30	3.07	3.14**
Self-esteem	3.44	3.31	1.64
Professional integrity	2.56	2.26	3.23**

** Significant at <0.01

Comments included the following:

A genuine concern for helping through my youth.

My mother always wanted to be a nurse and described it as a wonderful helping, exciting job.

Wanting to teach health in schools.

Very early desire to help those who were ill.

Always liked looking after little siblings and tended all family injuries.

Initially I wanted to teach but I decided on nursing after high school. I spent three months with famine relief in Ethiopia which had some impact too.

I thought of studying medicine but felt I would miss the human element and sense of caring, thus the choice of nursing.

Basic nursing education program. Table 6.2 shows the mean factor scores for the career-orientations according to the basic nursing education program of the respondents. The three groups of respondents so classified can be differentiated in terms of three orientations: ambition for leadership, job security, and self esteem. On ambition for leadership, significantly higher mean factor scores are found for the baccalaureate degree graduates (mean=2.57) than either the hospital (mean=2.17) or college (mean=2.26) diploma graduates. On job security the two diploma groups (means=2.57 and 2.26) have significantly higher mean factor scores than the baccalaureate group (mean=2.18). The means indicate that ambition for leadership is "important" to the baccalaureate graduate but "not very important" to the other groups. Job security is "important" to the hospital graduates but "not very important" to the other two groups. Self-esteem is "very important" (mean=3.61) to the baccalaureate graduates and "important" (means = 3.32 and 3.33) to the hospital and college graduates.

Postgraduate education. Results of the t-test show that those who have advanced their level of education beyond their basic nursing education score significantly higher on several of the career-orientations. Table 6.3 presents the findings.

Table 6.2

One-way Analysis of Variance of Mean Factor Scores on the Career-Orientations by Basic Nursing Education Program for the Nurses Group

	Basic nursing education program				
	Group A	Group B	Group C		
	Baccalaureate degree N=39	Hospital diploma N=89	College diploma N=49		Significantly Different Groups
Orientation	Mean	Mean	Mean	F-ratio	
Ambition for leadership	2.57	2.17	2.26	5.58**	A>B, A>C
Job security	2.18	2.51	2.26	7.48**	B>A, C>A
Family commitment	3.46	3.57	3.41	1.40	
Independence	3.24	3.28	3.37	0.80	
Variety/adventure	2.87	2.72	2.71	0.93	
Altruism	3.32	3.18	3.22	1.20	
Self Esteem	3.61	3.32	3.33	4.59*	A>C, A>B
Professional integrity	2.50	2.46	2.44	0.13	

*Significant at <0.05
**Significant at <0.01

The group of respondents who have completed a postgraduate qualification, whether the post-RN baccalaureate degree, or the master's degree, score higher on four of the eight career-orientations; ambition for leadership (mean=2.73 compared to 2.22), independence (mean=3.48 compared to 3.27), variety/adventure (mean=3.27 compared to 2.67), and self-esteem (mean=3.65 compared to 3.35). Those respondents from the nursing group who have not completed an advanced qualification have a significantly higher mean factor score for the family commitment orientation (mean=3.55 compared to 3.16). For the respondents who have a postgraduate qualification, self-esteem is a "very

important" value and ambition for leadership, family commitment, independence, and variety/adventure are all "important" values. For those respondent~ who have not obtained further qualifications at the postgraduate degree level, fami: ~mmitment is a "very important" value, and self esteem is "important" but ambition for leadership, and variety and adventure are "not very important" values.

Table 6.3

One-way Analysis of Variance on Mean Factor Scores of the Career-Orientations According to Participation in Postgraduate Education

Orientation	Do not have a postgraduate qualification N=153 Mean	Have a postgraduate qualification N=24 Mean	t-value
Ambition for leadership	2.22	2.73	-3.75**
Job security	2.48	2.50	-0.12
Family commitment	3.55	3.16	2.22*
Independence	3.67	3.48	-1.99*
Variety/adventure	2.27	3.27	-4.57**
Altruism	3.20	3.39	-1.87
Self-esteem	3.35	3.65	-2.73**
Professional integrity	2.45	2.58	-1.05

** Significant at <0.01
* Significant at <0.05

Post-service education. Table 6.4 shows that those respondents who have participated in post-service clinical nursing courses score significantly higher on the self-esteem (mean=3.67), independence (mean=3.52), and ambition for leadership (mean=2.53) orientations when compared to those who have not participated, whose

relevant scores are as follows: self-esteem (mean=3.33), independence (mean=3.25), and ambition for leadership (mean=2.24).

Table 6.4

One-way Analysis of Variance on Mean Factor Scores of Career-Orientations According to Participation in Post-Service Education

Orientation	Have participated N=31 Mean	Have not participated N=146 Mean	t-value
Clinical nursing courses			
Ambition for leadership	2.53	2.24	2.36*
Job security	2.60	2.46	1.10
Family commitment	3.41	3.52	-0.79
Independence	3.52	3.25	3.50**
Variety/adventure	2.30	2.70	2.44*
Altruism	3.28	3.21	0.79
Self-esteem	3.67	3.33	4.25**
Professional integrity	2.57	2.44	1.08
Nursing-related short courses	N=40	N=137	
Ambition for leadership	2.44	2.42	1.74
Job security	2.54	2.47	0.65
Family commitment	3.38	3.54	-1.24
Independence	3.40	3.27	1.41
Variety/adventure	2.95	2.69	2.34*
Altruism	3.31	3.20	1.28
Self-esteem	3.48	3.37	1.29
Professional integrity	2.48	2.46	0.23

** Significant at <0.01
* Significant at <0.05

Those who have not participated in clinical nursing courses scored significantly higher (mean=2.70) on the variety/adventure orientation than those who have not participated in clinical nursing courses (mean=2.30). Those respondents who have participated in short nursing-related courses scored significantly higher on the variety/adventure orientation (mean=2.95) compared to 2.69 for those who have not participated.

Life Events and Family Responsibilities

Only two career history variables revealed significant differences among categories of respondents.

Marital Status. The findings from comparison of the mean factors scores on the career orientation variables for respondents according to their marital status are reported in Table 6.5.

The four groups of respondents so classified can be differentiated in terms of three career-orientations: family commitment, variety/adventure, and professional integrity. Those respondents who are married have a significantly higher mean (mean=3.67) for family commitment than the never married group (mean=2.84) or the divorced/widowed (mean=2.47) group. Family commitment is "very important" to the married group, "important" to those who have never married and "not very important" to those who are either divorced or widowed. It could be anticipated that the means for these two latter groups would be reversed but the evidence is to the contrary.

Variety/adventure, as a value, is significantly more important to the never married and divorced respondents (means=3.12) than to those respondents who are married (mean=2.67) and professional integrity is significantly more important to those who are

divorced or widowed (mean=2.93) than to the respondents who are married (mean=2.41).

Table 6.5
One-wa Analysis of Variance of Mean Factor Scores on the Career-Orientations According to Marital Status

	Marital status				
Orientation	Group A Never married N=20 Mean	Group B Married N=146 Mean	Group C Divorced/widowed N=11 Mean	F-ratio	Significantly Different Groups
Ambition for leadership	2.35	2.25	2.64	2.04	
Job security	2.54	2.47	2.65	0.55	
Family commitment	2.84	3.67	2.47	55.67**	B>A, B>C
Independence	3.18	3.31	3.34	0.68	
Variety/adventure	3.12	2.67	3.12	6.98**	A>B, C>B
Altruism	3.12	3.29	3.27	1.45	
Self Esteem	3.35	3.38	3.57	0.79	
Professional integrity	2.53	2.41	2.93	4.15*	C>B

*Significant at <0.05
**Significant at <0.01

Presence of Children. The mean factor scores on the career-orientation factors were compared for respondents who have children and those who do not. The findings are presented in Table 6.6. There is a significant difference between the two groups on four of the orientations. Those who do not have children score significantly higher on ambition for leadership (mean=2.44 compared to 2.21) while the reverse is true for altruism (mean=3.26 compared to 3.07). Ambition for leadership is "not very important" to both groups of respondents while altruism is "important" to both groups.

Table 6.6

One-way Analysis of Variance of Mean Factor Scores on the Career-Orientations According to Whether Respondents Have Children

Orientation	Have children N=131 Mean	Do not have children N=40 Mean	t-value
Ambition for leadership	2.21	2.44	-2.05*
Job security	2.51	2.51	-0.04
Family commitment	3.71	2.91	6.48**
Independence	3.29	3.31	-0.09
Variety/adventure	2.61	3.14	-5.05**
Altruism	3.26	3.07	2.25*
Self-esteem	3.38	3.38	-0.02
Professional integrity	2.43	2.54	-0.97

* Significant at <0.05
** Significant at <0.01

Family commitment is a "very important" value to those who have children (mean=3.71). I is an "important" value (mean=2.91) for those who do not have children. While those who do not have children have a significantly higher mean score (mean= 3.14 compared to 2.61) on the variety/adventure factor it is an "important" value or motive for both groups.

The number of children in a family appears to influence the mean factor scores of respondents on several career-orientation factors. As shown in Table 6.7, analysis of the mean scores of respondents, on several career orientation factors, shows significant differences among groups with varying numbers of children. The mean factor scores for the career orientation factor for family commitment indicate that this is a value which is "very important" to every group with children. Relevant scores are as follows: one child

(mean=3.64), two children (mean=3.70) and three or more children (mean =3.81). It is an "important" value for those without children (mean=2.91). There is also a statistically significant difference between the mean fac⸱ʔr ⸱ ores for each group with children, and the one group without children.

Table 6.7 reveals that those who do not have children score significantly higher on ambition for leadership (mean=2.51) than either those with two children (mean=2.20) or those with three or more children (mean=2.08). Ambition for leadership is an "important" value for the childless respondents, whereas it is "not very important" to the other three groups. A similar pattern is seen on the variety/adventure orientation. Those with no children score significantly higher (mean=3.17) than any of the other three groups which each have mean factor scores of less than 3.0. With a mean factor score of 2.80, respondents with one child score significantly higher on this value than those with three or more children (mean=2.40). Apart'from the group with three or more children per family, all groups consider variety and adventure an "important" value. Variety/adventure is "not very important" as a value for respondents who have three or more children.

Community and Professional Involvement

Two career-history variables that revealed significant differences in terms of career-orientations are concerned with involvement in community and professional activities.

Involvement in Community Organizations. About 83 percent of the nursing group respondents reported that they were involved in some type of organization in their community.. Involvement included holding office and/or working in a volunteer capacity.

Table 6.7

One-Way Analysis of Variance for Mean Factor Scores on Career-Orientations
According to Number of Children in Family

Orientation	Group A None N=47 Mean	Group B One N=26 Mean	Group C Two N=69 Mean	Group D Three or more N=35 Mean	F- ratio	Significantly Different Groups
Ambition for leadership	2.51	2.38	2.20	2.08	3.75*	A>C, A>D
Job security	2.42	2.52	2.54	2.43	0.46	
Family commitment	2.91	3.64	3.70	3.80	33.51**	B>A, C>A, D>A
Independence	3.31	3.26	3.29	3.31	0.06	
Variety/adventure	3.17	2.80	2.62	2.40	14.35**	A>D, A>C, A>D, B>D
Altruism	3.10	3.20	3.30	3.25	1.81	
Self-esteem	3.43	3.56	3.37	3.26	1.97	
Professional integrity	2.53	2.37	2.51	2.34	1.05	

*Significant at <0.05
**Significant at <0.01

Examination of the mean factor scores for the career-orientations presented in Table 6.8 indicates that the scores for those who hold office in community organizations are significantly higher on family commitment. On family commitment those who hold office in community organizations had a mean factor score of 3.62 whereas those who do not hold office have a mean factor score of 3.38. Family commitment is a "very important" value for those respondents who are involved in community organizations and an "important" value to the remainder of the respondents. Once again the findings show that if the mean factor score for family commitment is significantly higher for one group of respondents, variety and adventure is significantly higher for the other group of respondents. The mean factor scores for those respondents who do not hold office was

Table 6.8

One-way Analysis of Variance of Mean Factor Scores on the Career-Orientation Factors According to Office Holding in Community Organizations

Orientation	Hold office N=116 Mean	Do not hold office N=59 Mean	t-value
Ambition for leadership	2.24	2.34	-0.96
Job Security	2.43	2.54	-1.21
Family commitment	3.62	3.38	2.57*
Independence	3.29	3.33	-0.58
Variety/adventure	2.64	2.85	-2.26*
Altruism	3.28	3.17	1.47
Self-esteem	3.41	3.38	1.03
Professional integrity	2.42	2.49	-0.79

* Significant at <0.05

2.85 compared to 2.64 for the who do—thus variety/adventure is an "important" value or motive for both groups.

Professional Association Involvement. As shown in Table 6.9, those respondents who indicated that they hold or have held office in their professional association have a significantly higher mean factor score (2.53 compared to 2.24) for the ambition for leadership orientation. Ambition for leadership is an "important" value for those respondents who hold office but is "not very important" to the remainder of the respondents.

Table 6.9

One-way Analysis of Variance of Mean Factor Scores on the Career-Orientation Factors According to Holding Office in the Professional Association

Orientation	Hold office N=33 Mean	Do not hold office N=143 Mean	t-value
Ambition for leadership	2.53	2.24	2.42*
Job security	2.59	2.47	1.04
Family commitment	3.36	3.53	-1.47
Independence	3.32	3.29	0.25
Variety/adventure	2.92	2.71	1.78
Altruism	3.32	3.20	1.50
Self-esteem	3.43	3.38	0.52
Professional Integrity	2.42	2.47	-0.39

* Significant at <0.05

Work History

There are three work-history variables where a significant difference is found in terms of the career-orientations.

Present position. When the present employment position data were collapsed into four groups: (1) Group A: Staff Nurse—staff nurse and team leader, (2) Group B: Management nurses—charge nurse, supervisor, assistant director and director, (3) Group C: Instructor—instructor and clinical specialist, and (3) Group D: Not Working—homemakers and currently not employed, analysis of variance shows significant differences among groups on several of the career-orientations. Table 6.10 shows the mean factor scores for the career-orientations according to the present position categories of the respondents. The four groups of respondents so classified can be differentiated in terms of four career-orientations: ambition for leadership, family commitment, self-esteem and professional integrity. On ambition for leadership, there is a significant difference between the means for the management group (mean=2.92) on the one hand, and the not working (mean=2.26) and staff nurse (mean=2.07) groups on the other hand. There is also a significant difference on this orientation between the instructor group (mean=2.67) and the staff nurse group (mean=2.07).

The same pattern of differences occurs on the the self-esteem orientation. The management group has a significantly higher mean score (3.73) than either the staff nurse group (mean=2.44) or the not working group (mean=3.17). There is a significant difference between the instructor group (mean=3.69) and the staff nurse group (mean= 3.31). A significant difference also occurs between the instructor group (mean=3.69) and the not working group (mean=3.17).

Table 6.10

One-Way Analysis of Variance on Mean Factor Scores on Career-Orientations
According to Present Position of the Nursing Group

Orientation	Group A Staff Nurse N=103	Group B Management N=25	Group C Instructor N=16	Group D Not working N=24	F-ratio	Significantly Different Groups
	Mean	Mean	Mean	Mean		
Ambition for leadership	2.07	2.92	2.67	2.26	18.6**	B>A, B>D C>A
Job security	2.56	2.63	2.25	2.28	2.75	
Family commitment	3.64	3.27	3.31	3.43	6.1**	A>B
Independence	3.28	3.28	3.59	3.28	1.95	
Variety/adventure	2.69	2.77	2.94	2.88	1.25	
Altruism	3.19	3.16	3.30	3.37	1.11	
Self-esteem	3.31	3.73	3.69	3.17	9.81**	B>A, B>D C>A, C>D C>B
Professional integrity	2.44	2.23	2.75	2.58	2.96*	

*Significant at <0.05
**Significant at <0.01

Group A includes Staff Nurse and Team Leader categories.
Group B includes Charge Nurse, Supervisor, Assistant Director and Director categories.
Group C includes Instructor and Clinical Specialist categories.
Group D includes Home-makers and Currently Not Employed

There is a significant difference between the staff nurse (mean=3.64) and the management (mean=3.27) groups on the family commitment orientation. The instructor group presents a significantly higher mean score (2.75) than the management group (mean=2.23) on the professional integrity orientation.

As a value or motive, ambition for leadership, is "important" to the management and instructor groups but "not very important" to the staff nurse respondents and those respondents who are not working. Self-esteem is "very important" to the management and instructor groups and "important" to those who are not working and to the staff nurse group. Family commitment is "very important" to the staff nurse group and "important" to the management group, while professional integrity is an "important" value to the instructor group but "not very important" to the management group.

Mobility. Examination of the mean factor scores presented in Table 6.11, shows that those who have worked in three (mean=2.85) or four or more (mean=2.95) agencies scored significantly higher on the variety/adventure orientation than those who have stayed in one agency (mean=2.32), or moved to a second agency (mean=2.58). As a value or motive that may influence their careers, variety and adventure is "important" to respondents who have made two or more agency changes during their career. For those who have always stayed in the same agency or hospital it is "not very important." A significant difference between the groups which have worked in three different agencies (mean=2.62), and those who have worked in only one agency (mean=2.19) is also found on the professional integrity orientation. Professional integrity is "important" to those respondents who have worked in at least three agencies but is "not very important" to those who have stayed in one place.

Table 6.11

One-Way Analysis of Variance on Mean Scores on Career-Orientation Factors According to Number of Different Agencies/Hospitals Worked in by Respondents

Orientation	Group A One N=28 Mean	Group B Two N=38 Mean	Group C Three N=33 Mean	Group D Four or more N=77 Mean	F.ratio	Significantly Different Groups
Ambition for leadership	2.08	2.26	2.36	2.35	1.34	
Job security	2.66	2.63	2.46	2.36	2.41	
Family commitment	3.57	3.65	3.55	3.38	2.01	
Independence	3.34	3.21	3.19	3.37	1.51	
Variety/adventure	2.32	2.58	2.85	2.95	9.61**	D>A, D>B, C>A
Altruism	3.14	3.27	3.30	3.21	0.51	
Self-esteem	3.28	3.28	3.49	3.44	1.66	
Professional integrity	2.19	2.55	2.62	2.46	3.09*	C>A

*Significant at <0.05
**Significant at <0.01

Area of practice. Almost 25 percent (24.13%) of the respondents are still working in the same area of practice as the one where they began their nursing career. Table 6.12 presents the findings when those who have always worked in the same area and those who have changed area of practice are compared in terms of career-orientations. Only two of the orientations appear to be more important to one group than the other. On the orientation job security, respondents who have always worked in the same area of practice, have a significantly higher mean factor score (mean=2.68) than those who have changed their area of practice (mean=2.43). The opposite is so on the variety/adventure orientation; those who have changed areas of practice scored significantly higher (mean=2.83) than those who have not changed (mean=2.48). Therefore, job security is "important" to the respondents who have not changed, whereas variety and adventure is "important" to those respondents who have changed their area of practice during their careers.

Table 6.12

One-way Analysis of Variance on Mean Factor Scores on the Career-Orientation Factors Depending on Whether Respondents Have Always Worked in the Same Area of Practice

Orientation	Same area N=42 Mean	Different area N=132 Mean	t-value
Ambition for leadership	2.21	2.32	-0.93
Job security	2.68	2.43	2.30*
Family commitment	3.46	3.51	-0.43
Independence	3.37	3.28	0.86
Variety/adventure	2.48	2.83	-3.22**
Altruism	3.24	3.22	0.20
Self-esteem	3.36	3.41	-0.51
Professional integrity	2.41	2.49	-0.08

* Significant at <0.05
** Significant at <0.01

Comparison With Previous Research

Apart from Aune (1983), nursing career-related researchers have not specifically explored the relationships between education, family, professional and community involvement and work history variables and the attributes that "anchor" or "orient" nurses in their career-related decisions. They have investigated the relationships between variables that influence employment and the employment patterns of nurses.

Cleland, Bass, McHugh and Montano (1976, p. 90) investigated the following problems:

> What is the nature of differences between married nurses who work only during periods of financial exigencies versus those who actively seek long-term professional careers? What social, psychological and demographic variables differentiate among nurses who work full time, part time or are inactive? When financial need and age of youngest child are held constant, what factors influence the decision of a married nurse to be employed?

They identified seven factors which influence the employment of married nurses: (1) career desirability, (2) professional attitude, (3) professional behavior, (4) achievement personality, (5) conducive home situation, (6) economic value of work, and (7) satisfaction with nursing. When they compared the differing characteristics of their subjects with the factors they found the following:

> Significant differences between educational levels and professional behavior. Those nurses who had the highest level of education were the most involved in professional activities such as workshops and the national nurses association (p. 95).

> When level of employment was compared with the factors the only significant factor was professional behavior with nurses employed in higher levels engaging in more professional behavior than staff nurses (p. 96).

> Three factors: career desirability, professional behavior and economic value of work were found to be the primary predictors of employment status, that is, full-time or part-time employment. They also found that satisfaction with the nursing job was not a particularly important determinant of wether the nurse chose to work (p. 96).

When the sample was subdivided according to financial need and age of youngest child, career desirability and professional behavior were the primary predictors of employment status. Nurses with low financial need and no children were more likely to work when they found nursing more satisfying (p. 96).

Comparison of the findings of Cleland, Bass, McHugh and Montano (1976) with the findings from the present study reveal the occurrence of one similar relationship—professional behavior and employment in higher levels from the Cleland et al. study and involvement in the professional organization and the ambition for leadership career-orientation in the present study. These findings indicate that nurses who are professionally involved also tend to be ambitious for positions of leadership and influence. Cleland, Bass, McHugh and Montano concluded that it was important to socialize young women into nursing careers so that they recognize that they "will in likelihood, be engaged in a dual career." They also urge nursing organizations to find ways to make the nursing job more attractive and meaningful.

McMillan (1985, p. 51) identified a relationship between "professionally oriented reasons" and the decision to enroll in graduate education. Professionally oriented reasons included the following reasons:

> To increase knowledge, understanding and self-development in specific nursing areas.
>
> To obtain a job with more individual responsibility, autonomy and/or authority.
>
> To contribute to the advancement of the nursing profession.
>
> To increase participation in the profession's organizations.

When these findings are compared with the findings of the present study some similarity is found between them and the findings for the relationship of the variable "participation in postgraduate education" to the career-orientations of ambition for leadership, variety and adventure and self esteem. Both studies indicate that nurses who are professionally career-oriented seek improved knowledge through further education.

Laing (1986, p. iv), in her investigation of "selected concomitants of married registered nurses' labour force participation with a ·· ·ew toward improving forecasting of nursing surply," found that "for the period 1980 to 1985, only 64%" of the respondents worked continuously. She also reports that;

> An egalitarian sex role attitude emerged as the most important predictor of labour force participation, followed by work factors related to status and autonomy as incentives, the presence of children below the age of 11 as a deterrent, and lower spouse's salary as an incentive.

In her study to identify the dominant career anchors of nurses, Aune (1983, pp. 79-87) found that the most important orientation for all her subjects was an "overwhelming need and/or c ·ire to serve others." Educational preparation was also an important influence on career direction and commitment. Baccalaureate nurses "viewed nursing as a career from the beginning of their careers more often than the diploma nurses." She found that degree-prepared nurses tend not to stay in hospitals but choose jobs that will allow them "to maximize their interests and expertise." Aune concluded that nurses "do make career commitments to nursing. But, [sic] their commitments are made to nursing as they perceive and understand the profession and not to nursing as traditionally defined and stereotyped."

As the present study is based on constructs that emerged from Aune's work it is most appropriate to compare her findings with those reported earlier in this chapter. Aune found that staff nurses were most interested in security, autonomy, technical competence and managerial orientations. In the present study, respondents who were working in staff nurse positions exhibited the highest mean factor scores on family commitment, self-esteem, independence and altruism career-orientations. Those employed in management exhibited statistically significant mean factor scores on self-esteem, independence, family commitment and altruism compared to Aune's managerial nurses who exhibited autonomy and managerial anchors. Aune's nurse educator group exhibited autonomy, managerial and technical anchors, whereas in the present study the

instructor group exhibited statistically significant mean factor scores on self-esteem, independence, family commitment and altruism career-orientations.

Summary

In this chapter the findings related to the exploration of relationships of variables pertaining to the nurse's education, family, community and professional activity and work history with the career-orientation factors has been presented .

Analysis of variance procedures were used to determine if there were significant relationships between selected career-history variables and the career-orientation factors. Significant relationships were found for 12 career history variables and career-orientations. The mean factor scores were assigned value labels which were used to describe the importance of the orientations as values, motives or talents, for the respondents.

In-as-much as it is possible to compare them, findings of previous related nursing research studies tend to support the findings of the present study, that is, there are relationships between education, family, community and professional activity and work history variables and the work and career orientations of nurses. When the career orientations are examined individually the following conclusions can be drawn about the nurses who responded to Parts I and II of the career orientation questionnaire.

Ambition for Leadership

The mean factor scores for ambition for leadership were significantly higher in six situations. It can be concluded that ambition for leadership tends to be an "important" value to nurses who:

- graduated from a baccalaureate degree program.

- have completed an educational qualification beyond their basic nursing education program.

- participated in clinical nursing post-service courses.
- are employed in management and instructor positions.
- do not have children.
- have held or presently hold office in the professional association.

Job Security

The mean factor scores for job security were significantly higher in three situations. It can be concluded that job security tends to be an "important" value to nurses who:

- graduated from the hospital and college diploma programs.
- have stayed in the same area of practice.
- have children.

Family Commitment

The mean factor scores for family commitment were significantly higher in six situations. It can be concluded that family commitment tends to be a "very important" value to nurses who:

- have three, four or more children.
- work in staff nurse positions.

It is an "important" value to nurses who:

- are not married.
- do not have children.
- have not advanced their education beyond their basic education program.
- hold office or volunteer positions in community organizations.

Independence

The mean factor scores for independence were significantly higher in two situations. It can be concluded that independence tends to be an "important" value to nurses who:

- completed an education qualification beyond their basic nursing education program.

- participated in post-service clinical nursing courses.

Variety/Adventure

The mean factor scores for variety/adventure were significantly higher in seven situations. It can be concluded that variety/adventure tends to be an "important" value to nurses who:

- have completed an educational qualification beyond their basic nursing education program.

- have worked in three or more different agencies.

- have moved from their original area of practice.

- are widowed or divorced.

- do not have children.

- do not hold office in community organizations.

- have participated in clinical nursing and short nursing-related post-service courses.

Altruism

The mean factor scores for altruism were significantly higher in two situations. It can be concluded that altruism tends to be an "important" value for nurses who:

- have a specific recollection of when they decided to become a nurse.

- have children.

Self-Esteem

The mean factor scores for self-esteem were significantly higher in four situations. It can be concluded that self-esteem tends to be a "very important" value for nurses who:

- have completed an educational qualification beyond their basic nursing education program.

- hold a management or instructor position.

- have participated in post-service clinical nursing courses.

It is an "important" value to nurses who have graduated from a baccalaureate degree program.

Professional Integrity

The mean factor scores for professional integrity were significantly higher in four situations. It can be concluded that professional integrity tends to be an "important" value for nurses who:

- have a specific recollection of when they decided to become a nurse.

- are divorced or widowed.

- work in an instructor position.

- have three children.

Chapter 7 presents the findings related to the nursing career-pattern typology that was developed from the career history data.

CHAPTER 7

EXPLORING THE FEASIBILITY OF DEVELOPING A CAREER-PATTERN TYPOLOGY

In this chapter an exploratory analysis of the feasibility of developing a career-pattern typology based on the career orientation of nurses is presented. The fourth objective for the study is addressed.

a. To create a career pattern typology using selected career-history variables.

b. To describe these career patterns in terms of selected education, family and work history variables.

c. To explore relationships between career patterns and career orientations.

From the career history data of the nurse respondents who consider themselves to be still involved in a nursing career (although they may not have been employed at the time of responding to the questionnaire), five distinct types of employment/career patterns were identified. The first section of the chapter describes how these patterns were established and reports a profile for each of these career patterns. In subsequent sections, the relationship between career orientation and each type of career pattern is presented and the findings are discussed. In the concluding section, comparisons are made with previous research.

Creating a Career Typology Using Selected Career History Variables

In the career history part of the questionnaire, question 25 sought information about the employment history of the respondents. They were asked to indicate the number and levels of positions that they had held in each of the agencies or hospitals

where they had worked. They were also asked to indicate if the position was full-time or part-time. When the employment histories of respondents were analyzed according to (1) number of agencies worked in, (2) level of positions in the nursing hierarchy, and (3) area of practice, it was found that five seemingly distinct employment or career patterns emerged. The composition of each of the career-patterns is shown in Table 7.1. Consisting of 70 respondents, the mobile lateral career pattern accounts for almost 40% of the nurses. The next largest group is the mobile advancing career-pattern group (N=47) which accounts for almost 27% of the nurses. The remaining three career-pattern groups are all much smaller.

Table 7.1

Frequency and Percentage Distribution for Career Pattern Groups

	Career Pattern	f	%
I	Stationary place-bound	17	9.6
II	Mobile lateral	70	39.9
III	Advancing place-bound	15	8.5
IV	Mobile reverting	27	15.3
V	Mobile advancing	47	26.7
	Total	176	100.0

The education, family, community and professional involvement, and work history characteristics for each career-pattern group are presented in tables that show the group size, the frequency and percentages and/or appropriate means, and the position (rank-place)—1 to 5—which the career-pattern group holds vis-à-vis the other four career-pattern groups for each variable. The rank-place is in terms of either the highest or greatest proportional value. Comments from the open-ended questions are used to

illustrate, and where appropriate, provide explanation for the results. The composite tables presenting the findings relating to the demographic and education characteristics for the five career-patterns are in Appendix D (Tables D.1 and D.2).

A description of the characteristics for each of the five career-patterns is presented below.

Career Pattern I (The Stationary Place-Bound Career)

This group consisted of 17 respondents who were level and place bound. Since graduation they had worked exclusively in a staff nurse (and/or team leader) position in the same hospital or agency. Table 7.2 presents the education, family, community and professional involvement, and work history characteristics for the group. When compared with the other four groups these respondents presented the following unique characteristics:

- They were all diploma graduates—70% graduated from college programs; 30% from hospital programs.

- None have gone on to postgraduate nursing education programs leading to a university degree.

- None of the group are presently enrolled in postgraduate nursing education programs.

- In comparison with respondents in the other four patterns, 59% of the respondents are still working in the area of practice where they started their working life. This is the greatest proportion among the five career patterns.

- They report the youngest average age for marriage (22.2 years old).

- In comparison with respondents in the other four patterns, they were the oldest group at time of graduation. The average age at graduation from their basic nursing education program was 27.3 years compared to 21.5 years for the next oldest group, the mobile reverting group, who were, on average 21.5 years at graduation.

- 88.2% of the group have children. This is the highest incidence of children in the five career-pattern classification.

- They have the lowest rate of recall of their decision to become a nurse (52.9%).

Table 7.2
Education, Demographic and Work History Characteristics of the Stationary Place-Bound Careerists

	Career Pattern		
	I: Stationary Place-Bound Careerists N=17		
Characteristic	f	%	Rank-place*
Basic Nursing Program: Hospital diploma	5	29.4	4
College diploma	12	70.6	1
Baccalaureate degree	-	-	5
Highest level of education: R N	17	100.0	1
Completed a clinical nursing program	3	17.6	3
Completed nursing-related short course	4	23.5	3
Can recall decision to become a nurse	9	52.9	5
Married (includes widowed or divorced)	16	94.1	3
Have children	15	88.2	1
Currently employed	15	88.2	3
Have always worked in same area of practice	10	58.8	1
Involved in community organizations	14	82.4	4
Hold office or volunteer position	7	41.2	4
Hold office in professional organization	2	11.8	5
Employment status: Always worked part-time	2	11.8	2
Always worked full-time	7	41.2	2

	Mean	Rank-place
Age upon completion of basic nursing education program	27.3	5
Age when married	22.2	1

* rank place among career pattern groups

- They have the lowest incidence of holding office in their professional association (11.8%)

A portrait of the stationary place-bound careerist can now be sketched. The person who has adopted this career pattern is a diploma graduate most likely from a two-year college diploma program. She (this group were all women) would be older and married when she started her nursing education. She most likely has a husband and children, and is involved in organizations in the community where she lives. She may work for the organization in some committee or volunteer position. She is unlikely to be involved in her professional organization.

The stationary place-bound careerist decided to become a nurse for practical reasons: "I had initially planned to do missionary work overseas and felt nursing would be an asset"; "I found I was probably going to have to work for a long time so decided I needed training to achieve a decent salary"; and "My husband died.... His insurance offered me the time and money to study for a nurse." Once her basic nursing education program was completed and she had found a job, she tended to settle and remain in the same hospital or doctor's office. She may have moved about from unit to unit within the hospital but it has always been as a staff nurse.

Further professional education has not been very important to this person. She may have taken a post-service clinical nursing course so that she is better prepared for the area she is working in, or she may have taken a short nursing-related course, but she has not taken or started to work towards a post-RN baccalaureate degree.

Career Pattern II (The Mobile Lateral Career)

This large group of 69 females and one male respondent were level bound but had made lateral place moves. They had worked in more than one agency or hospital but always at the staff nurse (including team leader) level. Therefore, mobile lateral careerist would appear to be an appropriate label for the career and employment pattern of this

group. Table 7.3 presents the education, family, community and professional involvement, and work history characteristics for the group. When compared with the other four career pattern groups these respondents presented few distinguishing characteristics apart from their career pattern. Their unique characteristics were as follows:

- The great majority of the group (78.6%) had graduated from diploma programs; 64.3% graduated from college programs.

- Only 2 respondents had completed a postgraduate education program at the post-RN baccalaureate level.

- Only 82.9% reported that they were currently employed. When compared with the other four groups this is the second lowest level of employment.

The picture that emerges for the people who have adopted a mobile lateral career is somewhat similar to that of the stationary place-bound careerists, with the exception that these people have been much more mobile. The mobility they have experienced has been in a sideways direction, that is, they have moved from hospital to hospital, or agency to agency, always maintaining the staff nurse position. At the staff nurse level they have also been mobile with only 18.6% reporting that they still work in the same area of practice in which they began their career. This indicator of mobility is similar to that reported by the mobile reverting careerists (18.6%) and the mobile advancing careerists (14.9%). If the comments made by several respondents are representative of the total group, some of the mobility may be accounted for by reason of a desire to travel, by the dictates of their husband's employment, and by having a young family. Comments about their career and the direction it has taken were made by several respondents.

Relocating to a different community and having another baby.

My changes in jobs were, for the most part, related to travel.

Since 1981 my husband and I have been to India 3 times and Bangladesh once.... We are usually there for 6 - 8 months so that affects the length of time I work at any one job.

Table 7.3

Education, Demographic and Work History Characteristics of the Mobile Lateral Careerists

Characteristic	Career Pattern		
	II: Mobile Lateral Careerists N=70		
	f	%	Rank-place*
Basic Nursing Program: Hospital diploma	10	14.3	5
College diploma	45	64.3	2
Baccalaureate degree	15	21.4	3
Highest level of education: R N	53	75.7	2
B N	17	24.3	4
Enrolled in postgraduate nursing education program	5	7.1	4
Completed a clinical nursing program	8	11.4	5
Completed nursing-related short course	17	24.3	2
Can recall decision to become a nurse	42	60.0	3.5
Married (includes widowed or divorced)	60	85.7	4
Have children	54	77.1	3
Currently employed	58	82.9	4
Have always worked in same area of practice	13	18.6	3
Involved in community organizations	58	82.9	3
Hold office or volunteer position	36	51.4	2
Hold office in professional organization	12	17.1	3
Employment status: Always worked part-time	1	1.4	5
Always worked full-time	18	25.7	4
		Mean	Rank
Age when completed basic nursing education program		21.4	2.5
Age when married		23.1	2

* rank place among career pattern groups

One advantage that I've found very useful in nursing is the employment opportunities in various areas. My husband was transferred many times and I was always able to find nursing positions in Alberta and BC. I am now able to stay in nursing because of part-time reserve status. Full-time would be too taxing on me and my family.

I have two small children and a travelling husband.

Being at home and raising their family also appears to be an important characteristic of members of this group who have children. As one respondent commented: "...my career aspirations are on hold till family responsibilities become less time consuming." Apart from the mobile reverting career pattern respondents, they are the most likely to be involved in community organizations in a volunteer or committee capacity. They have sought further education both at the post-service and refresher course level (35.7%), but only a few (7.1%) have made a start on a postgraduate education program at either the post-RN baccalaureate or master's level.

The nurses who have adopted a mobile lateral career pattern would appear to be people who prefer a stable career position, that is, staff nurse. They have moved about because of family commitments or perhaps a need for change, yet they appear to feel most comfortable working as a staff nurse.

Career Pattern III (The Advancing Place-Bound Career)

This group consisted of 15 respondents who have worked for the same agency or hospital but have been upwardly mobile within that agency throughout their nursing career. For most of the respondents this movement in the agency took the form of upward mobility; however, six (40.0%) of the group were presently working as staff nurses. Unlike the nurses in career pattern IV (the mobile reverting career) these six nurses had stayed in the same agency. Of the remaining 60% , one was a charge nurse, three were supervisors, one an assistant director and three instructors. Those working at the staff nurse level had worked at some other level at least once in their career. Table 7.4 presents the education, work history and demographic characteristics for the group.

Table 7.4

Education, Demographic and Work History Characteristics of the Advancing Place-Bound Careerists

Characteristic	Career Pattern		
	III: Advancing Place-Bound Careerists N=15		
	f	%	Rank-place*
Basic Nursing Program: Hospital diploma	5	33.3	3
College diploma	5	33.3	3.5
Baccalaureate degree	5	33.3	2
Highest level of education: R N	9	60.0	4
B N	6	40.0	2
Enrolled in postgraduate nursing education program	3	20.0	2
Completed a clinical nursing program	2	13.3	4
Completed nursing-related short course	3	20.0	4
Can recall decision to become a nurse	9	60.0	3.5
Married (includes widowed or divorced)	15	100.0	1
Have children	11	73.3	4
Currently employed	14	93.3	2
Have always worked in same area of practice	7	46.7	2
Involved in community organizations	10	66.7	5
Hold office or volunteer position	6	40.0	5
Hold office in professional organization	4	26.7	1
Employment status: Always worked part-time	2	13.3	1
Always worked full-time	8	53.3	1

	Mean	Rank
Age when completed basic nursing education program	21.0	1
Age when married	23.4	3

* rank place among career pattern groups

The unique characteristics of this group are as follows:

- There was an equal representation from each of the basic nursing education programs: hospital diploma, college diploma and university degree.

- 20% of the group reported that they were enrolled in a postgraduate education program. This was the second highest proportion reported for any of the five career groups.

- All of the respondents reported that they were married.

- Only 73% report having children. This is the second lowest incidence of children in the five career-pattern classification, second only to the mobile advancing careerists.

- Almost half the group (46.7%) were still working in the area of practice in which they had begun their career. When compared with the other four groups this was the second highest proportion for this particular variable, second only to the stationary place-bound careerist.

- They are the least involved in community organizations.

- They report the highest incidence of office-holding in their professional organization.

A portrait of the advancing place-bound careerist can be sketched. The nurse who has adopted an advancing place-bound career pattern may be a graduate from any one of the three types of nursing education programs in Alberta. She (again this particular group were all women) will be married and will likely have children. She was about 21 years of age when she graduated from her nursing program and was married two years later.

This nurse is only mildly interested in continuing and postgraduate education. Only a small proportion (20% or less) have taken a post-service course or are pursuing further education through a post-basic baccalaureate degree course

This nurse is not likely to be involved in, hold office or work as a volunteer in organizations in her community, but she may hold office in her professional association.

The respondents who have adopted the advancing place-bound career pattern would appear to be similar to the stationary place-bound careerist group in that they prefer the security of a known environment, yet they have a desire to advance within that environment.

Career Pattern IV (The Mobile Reverting Career)

This career pattern consisted of 27 respondents who had worked in two or more agencies or hospitals at several levels but were, at the time of reporting, working as staff nurses. As a result this group can best be described as mobile but reverting careerists.

Table 7.5 presents the findings for the education, demographic, and work history characteristics for the group. The unique characteristics for this group are as follows:

- ?% were graduates from hospital diploma programs.

- 5 (18.5%) of the group have completed a post-RN baccalaureate degree. When compared with the other four career-pattern groups this is the greatest number to take a postbasic degree.

- They report the highest incidence of participation in post-service programs.

- All respondents (100%) were currently employed.

- Compared with the other four groups they are the most likely to be involved in a volunteer capacity or hold office in organizations in their community.

The nurse who has adopted this particular career pattern has been fairly mobile during her worklife—she has moved about both in terms of location and position. During the mobile phase of her career she has held an administrative position, at least at the head nurse level and may have held a position as a supervisor or instructor. She would almost certainly have moved from the area of practice where she first commenced her career. Marriage, children and involvement in her community are also important aspects of this nurse's life. She is almost certainly married, or has been, will probably have children and she will likely be not only involved in organizations in her community but she will be active either as a volunteer or office holder.

For this nurse the pursuit of further education at either the formal post-RN degree level or through post-service courses has been an important aspect of her career development. She may be enrolled in a post-RN degree course or she may be contemplating such a move when the children are older and less dependent on her.

Table 7.5

Education, Demographic and Work History Characteristics of the Mobile Reverting Careerists

Characteristic	Career Pattern		
	IV: Mobile Reverting Careerists N=27		
	f	%	Rank-place*
Basic Nursing Program: Hospital diploma	14	51.9	1
College diploma	9	33.3	3.5
Baccalaureate degree	4	14.8	4
Highest level of education: R N	18	66.7	3
B N	9	33.3	3
Enrolled in postgraduate nursing education program	2	7.4	3
Completed a clinical nursing program	8	29.6	1
Completed nursing-related short course	7	25.9	1
Can recall decision to become a nurse	19	70.4	2
Married (includes widowed or divorced)	26	96.3	2
Have children	22	81.5	2
Currently employed	27	100.0	1
Have always worked in same area of practice.	5	18.5	4
Involved in community organizations	24	88.9	1
Hold office or volunteer position	19	70.4	1
Hold office in professional organization	4	14.8	4
Employment status: Always worked part-time	1	3.7	3
Always worked full-time	2	7.4	5

	Mean	Rank
Age when completed basic nursing education program	21.5	4
Age when married	23.9	4

* rank place among career pattern groups

The most significant characteristic of an individual following a mobile reverting career is that she has reverted to working at the staff nurse level. Three respondents commented as follows:

> At the present time my main concern is with my family. Once I have my family complete and starting school then I plan to move on in my nursing career. I don't ever want administrative type jobs but I would like to become very confident in areas like emergency, IV nurse, obstetrics—I enjoy change and challenge.

> I have always taken my nursing seriously and it brings me satisfaction, however my family are more important and I feel I should bring my children up myself and not leave my children in day care or other institutions, therefore, I do not work as much as I otherwise would.

> I used to place a high priority on nursing as my career, however, this has changed most recently.... Nursing no longer is a career solely, as a career as mother and wife with other abilities is more important presently.

It would appear that for the most part the decision to return to a staff nurse position has been a deliberate one to fit with her family and personal needs.

Career Pattern V (The Mobile Advancing Career)

This group consisted of 47 respondents who had had mobile careers in that they had worked in more than one agency, at more than one position level, and they appeared to have advanced up the professional ladder. Table 7.6 reports the education, demographic, and work history characteristics for the group. The unique characteristics for this group are as follows:

- 42.6% of the group graduated from the baccalaureate degree program. This group has the greatest proportion of baccalaureate graduates for any of the five career-pattern groups.

- 40% of the group graduated from the hospital diploma programs. This is the second highest concentration of hospital program graduates, second only to the mobile reverting group.

- 4 of the group report preparation at the master's level. This is the only group with respondents reporting attainment of a graduate degree.

Table 7.6

Education, Demographic and Work History Characteristics of the Mobile Advancing Careerists

Characteristic	V: Mobile Advancing Careerists N=47		
	f	%	Rank-place*
Basic Nursing Program: Hospital diploma	19	40.4	2
College diploma	8	17.0	5
Baccalaureate degree	20	42.6	1
Highest level of education: R N	21	44.7	5
B N	22	46.8	1
Master's	4	8.5	1
Enrolled in postgraduate nursing education program	16	34.1	1
Completed a clinical nursing program	10	21.3	2
Completed nursing-related short course	9	19.1	5
Can recall decision to become a nurse	37	78.7	1
Married (includes widowed or divorced)	40	85.1	5
Have children	28	59.6	5
Currently employed	37	78.7	5
Have always worked in same area of practice	7	14.9	5
Involved in community organizations	40	85.1	2
Hold office or volunteer position	20	42.6	3
Hold office in professional organization	11	23.4	2
Employment status: Always worked part-time	1	2.1	4
Always worked full-time	15	31.9	3

	Mean	Rank
Age on completion of basic nursing education program	21.4	2.5
Age when married	24.1	5

* rank place among career pattern groups

- 15% of the respondents in this group report that they are enrolled in a postgraduate education program; the highest proportion of any of the five career categories they represent 60% of all the nursing respondents who are enrolled in postgraduate nursing education programs.

- Compared with the other four career-pattern groups this group reports the lowest incidence of marriage (85.1%).

- This group has the lowest number of respondents reporting that they have children. At 59.6% this is by far the lowest incidence of children for all five career-pattern groups.

- In comparison with respondents in the other four career patterns they have the least number (14.9%) who are still working in the same area of practice where they started their career.

- They report the lowest incidence of being currently employed (78.7%).

- They have the highest rate of recall of their decision to become a nurse (78.7%).

When a portrait of the nurse who has adopted this mobile advancing career pattern is sketched, the following picture emerges. She (once again they were all women in this group) is probably a graduate from either a university degree or hospital diploma nursing program who has oriented her career towards moving up in the nursing hierarchy. She has moved to another agency or hospital on an average of 3.5 times and may be employed in a charge nurse, supervisor, assistant director or director of nursing position, or she may have become an instructor or clinical specialist.

If she is not currently employed it is because she is enrolled in an advanced degree program, her husband has been moved or she is on maternity leave. If she is married and has children, motherhood and parenting are an important aspect of her career at this stage. As three respondents commented:

> I am not presently working because my husband just bought a _____.
> I am doing the books for the business and since my children are so young I don't want to spend any more time away from them than I have to. I have six courses to do to finish my BScN. I am going to finish my degree so that I can do Community Health or home care 10 years from now. I enjoy nursing very much.

> [I am] presently enrolled in a Bachelor of Administration program—completed 16/30 courses.

> I have specifically avoided pursuing graduate work in the area of nursing as I found I wanted something more broad. I have pursued instead a Master's in Education.

A sense of career appears to be important for this nurse. As one respondent commented, her decision to become a nurse was motivated by a "desire for recognition, desire for gainful employment, desire for education and development of skills." Another respondent expressed her concern about her career.

> I seriously considered leaving nursing at one point. However, I enrolled in a Master's program that would enable me to either remain in nursing or go to another field. I am now leaning towards remaining in nursing after completion of my master's.

The desire for education on the part of the "mobile advancing" nurse is seen in her advancement to a post-service clinical nursing program, a post-RN baccalaureate program or a master's program. She has not participated in as many post-service short nursing-related courses as her counterparts in the other four career-pattern groups.

With their mobility pattern, both in terms of agency and level, their seeking of educational advancement and their perception of a professional role other than nurse, members of this group would appear to be the most highly career-oriented, demonstrating a career pattern which could be described as mobile advancing. The appellation advancing career was coined from the work of Lewin and Olesen (1980, p. 622) who used it to describe a career where the individual has moved into increasingly responsible positions.

Characteristics of the Career Patterns in Terms of Career History

Variables

Using the Chi-square test, the career history data were also tested for significant relationships between the career history variables and the career patterns. Statistically significant results were found for four variables: basic education program, enrollment in a

postgraduate education program, staying in the same area of practice, and always

working full-time. Table 7.7 presents a summary of the significant findings.

Examination of Table 7.7 reveals the following:

- a mobile advancing career-pattern attracts more baccalaureate graduates than any of the other four career patterns,

- a mobile lateral career-pattern attracts hospital diploma graduates,

- the mobile lateral and stationary place-bound career patterns are more likely to attract graduates from the college diploma programs,

- the mobile advancing careerists are the most likely to be pursuing education at the postgraduate level,

- respondents engaged in either a mobile lateral or stationary place-bound career are more likely to stay in one area of practice (e.g. medical nursing) than those involved in a mobile advancing, a mobile reverting or an advancing place-bound career pattern, and

- those involved in a mobile lateral career appear to be more likely to always work full-time.

From these results it appears that the baccalaureate graduate is more likely to be

involved in a career-pattern where there is opportunity to ascend the hierarchic ladder in

nursing. An aspect of the college programs has been their willingness to accept the

mature student; this, combined with the 2-year length of the program and geographic

accessibility, has made it attractive to the older married woman and may account for the

concentration of these graduates in the stationary place-bound career pattern. From the

findings it can also be concluded that the mobile reverting careerists have been the least

likely respondents to have always worked full-time.

Characteristics of the Career Patterns in Terms of the Career Orientations

In this section the career patterns are analyzed in terms of the career orientations

identified in the factor analysis of the Career Determinant Inventory data. A brief review

Table 7.7

Relation ρ Between Career Patterns and Selected Career History Variables

	I Stationary Place-bound N=17		II Mobile Lateral N=70		III Advancing Place-bound N=15		IV Mobile Reverting N=27		V Mobile Advancing N=47		χ^2
	f	%	f	%	f	%	f	%	f	%	
Basic Education Program											
Baccalaureate degree (N=39)	-	-	10	25.6	5	12.8	4	10.3	20	51.3	20.6***
Hospital diploma (N=88)	5	5.7	45	51.1	5	5.7	14	15.9	19	21.6	12.0*
College diploma (N=49)	12	24.5	15	30.6	5	10.2	9	18.4	8	16.3	20.3***
Enrolled in postgraduate education (N=26)	-	-	5	19.2	3	11.5	2	7.7	16	61.5	21.5***
Same area of practice (N=42)	10	23.8	13	31.0	7	16.7	5	11.9	7	6.7	8.9***
Always worked full-time (N=50)	7	14.0	18	36.0	8	16.0	2	4.0	15	30.0	12.3*

df=4   *** p≤0.001   ** p≤0.01   * p≤0.05

of the eight career orientations is presented followed by the results of the statistical analysis.

Several approaches were used to compare the relationship between each of the career patterns and the career orientations. Analysis of variance procedures were used to determine significant differences between the career patterns on the career orientations. For each career-pattern, the orientations were rank-ordered from 1 to 8 (highest mean to lowest mean score).

Within each career-pattern, the mean factor scores for each orientation were given a descriptive value label. The descriptive value labels were developed to describe the importance of each orientation as a value, motive or talent to the respondents. The items on the Career Determinant Inventory were scored on a four point Likert-type scale with "very important to me" or "very true of me" being equal to 4 and "not important to me" or "not true of me" being equal to 1. The item scores for each factor were totalled and the mean used as the factor or scale score.

The .49 and .50 scale-points of each Likert-scale value were selected as the lower and upper range-points for the means then a descriptive value label was applied to the ranges as follows.

(1) The lower range of mean scores, 1.0 to 1.49, has been designated "not at all important" to the respondents.

(2) The moderately low range of mean scores, 1.50 to 2.49, has been designated as "not very important" to the respondents.

(3) The moderately high range of mean scores, 2.50 to 3.49, has been designated as "important" to the respondents.

(4) The highest range of mean scores, 3.5 to 4.0, has been designated as "very important" to the respondents.

The rank, mean, and the mean range values for the career orientations are presented in tables for each career pattern. From the picture that emerges conclusions are

drawn about the career pattern groups. From this point on the career patterns will be referred to using the labels applied in the previous section.

The Career Orientations

This section reviews the career orientations identified by factor-analysis procedures in Chapter 4 by presenting a brief description of the attributes that are characteristic of each of the career orientations.

Ambition for Leadership. This orientation is made up of attributes that are characteristic of leadership and administrative functions demonstrated by nurses. The orientation describes nurses who want to be involved at the administrative level of the job and profession. They want to be leaders of other people and the profession. They enjoy challenge and are motivated by that challenge and the opportunity to introduce new ideas, skills and approaches into their work. They seek advancement in their career and want to become consultants and/or independent practitioners.

Job Security. This orientation consists of attributes that are characteristic of a need for security. The orientation describes nurses who want lifetime employment in an organization. They want to be able to consider themselves part of the organizations where they work and they want the security which is associated with being able to identify with the organization. Security through pension plans and the prospect of a long term job is important. They also consider working with technological equipment to be part of that job security.

Family Commitment. This orientation contains attributes that are characteristic of commitment to raising a family or being part of a family. The orientation describes

nurses who consider raising a family an important part of their career. They want to be able to take time out from their career to care for their family, and if they had to make choices the family would come before their nursing career. It is important to them to be able to maintain a balance between their family and friends and their profession.

Independence. This orientation is made up of attributes that express independence and individuality. The orientation describes nurses who want to develop their own style, be responsible for decisions in their work, and who want to set their own schedule and pace. They look for challenge and consider their career to be as important as their spouse's or partner's.

Variety/Adventure. This orientation is made up of attributes that are characteristic of a need for variety, change, and adventure as part of a career. The orientation describes nurses who want, and seek, opportunities to test new skills and situations. They want variety in the workplace, and they are motivated by a need for adventure. They do not want to be confined to one work situation or geographical location.

Altruism. This orientation consists of attributes that are characteristic of a need to help others and be of service to others. The orientation describes nurses who want to improve the lives of others, and see their career as a means of doing this. They get reward from seeing those they help change. The altruistic rewards may be more important than the monetary rewards. They also want to be valued for their contribution.

Self-Esteem. This orientation is made up of attributes of personal and professional self-worth. The orientation describes nurses who want to be recognized as

valuable members of their work-team. They consider themselves to be highly skilled in their job and want to be involved in the decisions that affect their work.

Professional Integrity. This orientation is made up of attributes that are characteristic of a sense of professional honesty and completeness. The orientation describes nurses who appreciate their own sense of worth and freedom. They are prepared to move rather than accept a promotion out their chosen area of practice, and they are prepared to accept responsibility for those they are caring for or teaching.

Characteristics Within the Career Patterns

A one-way analysis of variance was used to determine if there were any significant differences among the career-pattern groups, in terms of the mean career orientation factor scores. Table 7.8 shows the results. Significant difference among groups at the 0.01 level was found on four of the eight career orientations: ambition for leadership, family commitment, variety/adventure and self-esteem orientations. There was no significant difference among career-pattern groups for the orientations of job security, independence, altruism and professional commitment.

The Stationary Place-Bound Careerists

Inspection of the findings presented in Table 7.8 shows that for several orientations the mean factor scores for the stationary place-bound careerists are significantly lower than for other career-pattern groups. For the stationary place-bound careerists the mean factor score for:

- ambition for leadership is significantly lower (mean=1.84) than for the advancing place-bound careerists (mean=2.54) and the mobile advancing (mean=2.72) careerists.

Table 7.8

One-Way Analysis of Variance of Mean Factor Scores of the
Career Orientations by Career Pattern for Nurses

Orientations	I: Stationary Place-bound N=17 Mean	II: Mobile Lateral N=70 Mean	III: Advancing Place-bound N=15 Mean	IV: Mobile Reverting N=27 Mean	V: Mobile Advancing N=47 Mean	F- ratio	Significantly Different Groups
Ambition	1.84	2.09	2.54	2.20	2.72	12.28**	III >I, V>I V>II, V>IV
Job security	2.83	2.48	2.50	2.41	2.40	1.69	
Family commitment	3.55	3.60	3.61	3.60	3.23	3.52**	II>V
Independence	3.35	3.23	3.41	3.26	3.36	0.75	
Variety/adventure	2.25	2.78	2.66	2.75	2.92	3.92**	II>I, V>I
Altruism	3.01	3.27	3.32	3.14	3.24	1.33	
Self-esteem	3.23	3.24	3.37	3.40	3.67	5.99**	V>I, V>II
Professional integrity	2.23	2.57	2.21	2.48	2.48	1.93	

I = staff nurse positions in one agency
II = staff nurse positions in several agencies
III = positions at different levels in one agency
IV = positions at several levels in more than one agency, presently employed as a staff nurse
V = positions at several levels in more than one agency, employed at charge nurse level or above

**Significant at <0.01

- variety/adventure (mean=2.25) is significantly lower than for the mobile lateral careerists (mean=2.78) and the mobile advancing (mean=2.92) careerists.

Table 7.9 shows that within the stationary place-bound group, family commitment with a mean factor score of 3.55 ranks highest of all the career orientations. (It is interesting to note that among the career pattern groups this is the second lowest mean score on family commitment.) Family commitment is a "very important" value for the stationary place-bound careerist group. Ambition for leadership (mean=1.84) is the lowest ranking orientation for the stationary place-bound careerists and is a "not very important" value for the group.

Table 7.9

Rank-Order, Mean Factor Scores, and Mean Range Value for Career Orientations of the Stationary Place-Bound Careerists

| | Career Pattern | | |
| | I: Stationary Place-Bound Careerists | | |
Orientation	Rank	Mean	Range Value
Ambition for leadership	8	1.84	not very important
Job security	5	2.83	important
Family commitment	1	3.53	very important
Independence	2	3.35	important
Variety/adventure	6	2.25	not very important
Altruism	4	3.01	important
Self-esteem	3	3.23	important
Professional integrity	7	2.23	not very important

Four orientations—independence which ranked second, self-esteem which ranked third, altruism which ranked fourth, and job security ranked which fifth—are all "important" values or motives for the stationary place-bound careerists. The remaining three orientations—variety/adventure which ranked sixth, professional integrity which ranked seventh, and ambition for leadership which ranked eighth—are "not very important" values for this group.

The Mobile Lateral Careerists

Inspection of the findings presented in Table 7.8 shows that for two of the orientations the mean factor scores for the mobile lateral careerists are significantly higher than for other career-pattern groups The mean factor score for:

- family commitment (mean=3.60) is significantly higher than the mean factor score of the mobile advancing (mean=3.23) careerists.

- variety/adventure (mean=2.78) is significantly higher than the mean factor score of the stationary place-bound careerists (2.25).

On the other hand, the mobile lateral careerists show significantly lower mean factor scores for two other orientations. The mean factor score for:

- ambition for leadership (mean=2.09) is significantly lower than the mean factor score of the mobile advancing careerists (mean=2.72).

- self-esteem (mean=3.24) is also significantly lower than the mean factor score of the mobile advancing group (mean=3.64).

Table 7.10 shows that within the mobile lateral careerist group the family commitment orientation (mean=3.60) is ranked first with ambition for leadership (mean=1.84) last in eighth rank-place. This is a similar ranking to that of the stationary place-bound careerists. Altruism (mean=3.27) is ranked second and job security (mean=2.48) has the the second lowest ranking in seventh place.

Family commitment (mean=3.60) is a "very important" value for the mobile lateral careerist. The next five rank-ordered orientations—altruism which ranked second (mean=3.27), self-esteem which ranked third (mean=3.24), independence which ranked fourth (mean=3.23), variety/adventure which ranked fifth (mean=2.78), and professional integrity which ranked sixth (mean=2.57)—are all "important" values and motives for the mobile lateral careerists.

Table 7.10

Rank-Order, Mean Factor Scores, and Mean Range Value for Career Orientations of the Mobile Lateral Careerists

| | Career Pattern | | |
| | II: Mobile Lateral Careerists | | |
Orientation	Rank	Mean	Range Value
Ambition for leadership	8	2.09	not very important
Job security	7	2.48	not very important
Family commitment	1	3.60	very important
Independence	4	3.23	important
Variety/adventure	5	2.78	important
Altruism	2	3.27	important
Self-esteem	3	3.24	important
Professional integrity	6	2.57	important

The Advancing Place-Bound Careerists

The findings presented in Table 7.8 show that the mean factor score for only one of the orientations is significantly different for the advancing place-bound careerist group in comparison with the other career-pattern groups. The mean factor score for ambition

for leadership (mean=2.54) is significantly higher than the mean factor score of the stationary place-bound careerist group (mean=1.84).

Table 7.11 shows that within the advancing place-bound group:

- the family commitment orientation (mean=3.61) is once again ranked first.

- job security (mean=2.50) is ranked in 7th place.

- the orientation ambition for leadership (mean=2.54) is ranked in sixth place. The only other group that ranks ambition above 8th place is the mobile advancing careerist group (mean=2.72).

Table 7.11

Rank-Order, Mean Factor Scores, and Mean Range Value for Career Orientations of the Advancing Place-Bound Careerists

| | Career Pattern | | |
| | III: Advancing Place-Bound Careerists | | |
Orientation	Rank	Mean	Range Value
Ambition for leadership	6	2.54	important
Job security	7	2.50	important
Family commitment	1	3.61	very important
Independence	2	3.41	important
Variety/adventure	5	2.66	important
Altruism	4	3.32	important
Self-esteem	3	3.37	important
Professional integrity	8	2.21	not very important

Within the advancing place-bound group the rank-ordering of the first five orientations is identical to the stationary place-bound careerist group. Family

commitment is ranked first (mean=3.61) and is a "very important" value to the group. On this orientation the advancing place-bound careerists have the highest mean score of all the career-pattern groups. Independence is ranked second (mean=3.41), self-esteem third (mean=3.37), altruism fourth (mean=3.32), and variety/adventure is ranked fifth (mean=2.66). These are all "important" values for the advancing place-bound careerists. The major difference between the advancing place-bound careerists and the stationary place-bound careerists is the shift of ambition for leadership (mean=2.54) to sixth place from eighth. Ambition for leadership is also an "important" value and motive for the advancing place-bound careerists. The remaining two orientations, job security (mean=2.50) and professional integrity (mean=2.21), are ranked in seven and eighth places respectively. Job security is an "important" value, but professional integrity is "not very important."

The Mobile Reverting Careerists

This group has several values, motives and talents that are similar to those of the mobile lateral careerist group. Inspection of the findings presented in Table 7.8 shows that the mean factor score for only one of the orientations is significantly different for the mobile reverting careerist group than for the other career-pattern groups. For the mobile reverting careerists, the mean factor score for ambition for leadership (mean=2.20), is significantly lower than the mean factor score of the mobile advancing career-pattern group (mean=2.72).

Again, as shown is Table 7.12, family commitment ranks first with ambition for leadership ranked last in eighth place. Family commitment is a "very important" value. Self-esteem, ranked second (mean=3.40), independence ranked third (mean=3.26), and altruism ranked fourth (mean=3.14). These values are "important" to the mobile reverting careerists. Rank-ordering for the remaining four career orientations was found

to be identical to that exhibited by the mobile lateral careerists. Both groups ranked variety-adventure in fifth place, professional integrity in sixth place, job security in seventh place and ambition for leadership in eighth place. For the mobile reverting careerists variety and adventure (mean=2.75) is an "important" value. Professional integrity (mean=2.48), job security (mean=2.41), and ambition for leadership (mean=2.20) are "not very important" values and motives for the mobile reverting careerists.

Table 7.12

Rank-Order, Mean Factor Scores, Mean Range Value of Career Orientations for the Mobile Reverting Careerists

| | Career Pattern | | |
| | II: Mobile Reverting Careerists | | |
Orientation	Rank	Mean	Range Value
Ambition for leadership	8	2.20	not very important
Job security	7	2.41	not very important
Family commitment	1	3.60	very important
Independence	3	3.26	important
Variety/adventure	5	2.75	important
Altruism	4	3.14	important
Self-esteem	2	3.40	important
Professional integrity	6	2.48	not very important

The Mobile Advancing Careerists

Compared to any of the other groups, the mobile advancing careerists present several differences on career orientations. Inspection of the findings presented in Table 7.8 shows that for the mobile advancing careerist group the mean factor score for four of the orientations are significantly different than for the other career-pattern groups. The mean factor score for:

- ambition for leadership (mean=2.72) is significantly higher than the mean factor score of the stationary place-bound (mean=1.84), the mobile lateral (mean=2.09) and the mobile reverting (mean=2.20) career-pattern groups.

- self-esteem (mean=3.67) is significantly higher than the mean factor score of either the stationary place-bound (mean=2.23) or the mobile lateral (mean=2.24) career-pattern groups.

- variety/adventure (mean=2.92) is significantly higher than the mean factor score of the stationary place-bound career-pattern group (mean=2.25).

- family commitment (mean=2.23) is significantly lower than the mean factor score of the mobile lateral careerist group (mean=3.60).

For this group the rank-ordering presented in Table 7.13 shows that:

- self-esteem (mean=3.67) is ranked first.

- ambition for leadership (mean=2.72) is ranked in sixth place, and

- in eighth place, job security (mean=2.40) is the lowest ranked orientation.

Ranked in first place, self-esteem (mean=3.67) is a "very important" value or motive to the mobile advancing careerists. This is the highest mean score reported on any of the eight orientations by any of the five career-pattern groups. Independence (mean=3.36) has the second highest mean factor score within the group, and is an "important" value or motive. Altruism, ranked in third place (mean=3.24), family commitment ranked fourth (mean=3.23) and variety and adventure ranked in fifth place (mean=2.92) are also "important" values for the mobile advancing careerists.

Ambition for leadership (mean=2.72) shifts into sixth rank-place for this group. This is the same rank placing as for the advancing place-bound careerists. It is an

"important" value to the mobile advancing careerists. The two remaining orientations, professional integrity ranked seventh (mean=2.48), and job security, ranked last in eighth place (mean=2.40), are "not very important" as values or motives for the mobile advancing careerists. This group of careerists is the only group for whom job security is lower than seventh place when the mean factor scores are rank-ordered.

Table 7.13

Rank-Order, Mean Factor Scores, Mean Range Value of Career Orientations for the Mobile Advancing Careerists

| | Career Pattern | | |
| | II: Mobile Advancing Careerists | | |
Orientation	Rank	Mean	Range Value
Ambition for leadership	6	2.72	important
Job security	8	2.40	not very important
Family commitment	4	3.23	important
Independence	2	3.36	important
Variety/adventure	5	2.92	important
Altruism	3	3.24	important
Self-esteem	1	3.67	very important
Professional integrity	7	2.48	not very important

Although the mean for the mobile advancing group is significantly higher for the ambition for leadership orientation than for any of the other career-pattern groups, apart from the advancing place-bound group, it is interesting to note that not one of the five career-pattern groups has a high mean factor score on this orientation. Is this lack of

ambition for leadership a characteristic of nurses and their careers? Is it because the profession is predominantly female? Does a high family commitment and a moderately high altruistic orientation negate an orientation to values such as wanting to become a leader in the profession, seeking the challenge of organizing others, or being involved at the decision-making level in the profession? Or is it that the organizational climate and structure of the work-place does not encourage interest in administration during those early formative years of the nurse's career?

Agreement Among Career-Pattern Groups

To determine how much agreement there was between the sets of rankings among the career-pattern groups, the Spearman rank-order correlation coefficient was computed. The results are shown in Table 7.14.

Table 7.14
Intercorrelation Coefficients of Rankings of Career Orientations for the Five Career Patterns

	Career Pattern	Career Patterns			
		Stationary place-bound I	Mobile lateral II	Advancing stationary III	Mobile reverting IV
II	Mobile lateral	.83**			
III	Advancing place-bound	.88**	.81**		
IV	Mobile reverting	.90**	.93***	.88**	
V	Mobile advancing	.66*	.71*	.81**	.79*

*	Significant at <0.05
**	Significant at <0.01
***	Significant at <0.001

The Table 7.14 shows strong positive correlations among the career patterns when the rank ordering of the career orientations is compared. The rank ordering of the the orientations for the mobile reverting and mobile lateral patterns are the most closely related. The least relationship occurs between the mobile advancing career-pattern and the stationary place-bound, the mobile lateral, and the mobile reverting patterns.

Comparison With Previous Research

The literature includes a number of efforts by other researchers to develop categories of career groups for nurses and other health professionals. Kramer (1974) described four groups of nurses according to the criteria of bureaucratic role conception and professional role conception described by Corwin in 1968. Lewin and Olesen (1980) carried out a longitudinal study of post-baccalaureate nursing careers to investigate "the motive-to-avoid-success controversy," while Westbrook and Nordholm (1984) used the work of Lewin and Olesen as a basis to investigate vertical, mobile lateral and stationary place-bound career aspirations of a group of recently graduated female health professionals. A summary of the main points of the previous studies and the present study are presented in Table 7.15

From comparison of Kramer's typology with the typology developed in the present study it would appear that the characteristics of the two study groups, while similar and overlapping in some aspects, are not identical. The methodology and research instrumentation were completely different. Kramer was investigating professional and bureaucratic role conceptions and their relationship to the "reality shock" that new graduates experience, whereas the present study was concerned with factors that influence career orientation and choices as the career develops over a period of years. Bureaucratic and professional role conception characteristics could conceivably be integrated into the career orientation inventory framework. Kramer's subjects were only

Table 7.15

Career Patterns of Nurses: Summary of Related Research

Category	Kramer 1974	Lewin & Olesen 1980	Westbrook & Nordholm 1984	McLees 1988
Sample	N=220 (4x55) RN's.	N=36 Baccalaureate graduates.	N=139 Health professionals - physiotherapists occupational therapists and speech therapists. Mean age 23.4 years.	N=177 Graduates from hospital diploma college diploma and baccalaureate degree programs - 1976.
Methodology		Longitudinal Questionnaire	Survey Questionnaires which included Bem Sex Role Inventory and Attitudes Towards Women Scale	Survey Questionnaire
Typology	Longitudinal - 2 years Questionnaire and interviews		STATIONARY CAREERIST n=47 Did not plan to intensify their professional expertise 56.4% did not plan any specialization. Low masculinity scores. Rated themselves as less assertive, active as leaders, individualistic ambitious, sympathetic, understanding and compassionate than other groups	STATIONARY PLACE-BOUND CAREERIST n=17 All employed as staff nurses. Have worked in only one agency. All diploma program graduates. Not enrolled in postgraduate education. Have taken post-service courses. 60% have always worked in same area of practice. 94% were married. Probably have children. Involved in community activities. Family is important. Ambition is not important. Mean age at graduation 27 years.

RUTTERS n=55

Low bureaucratic-low professional role conception.
50% married.
Some community involvement.
No professional involvement.
Ambivalent or negative about post-graduate education.
Out of school 3 years
2.5 job changes.
Employed mainly as staff nurses.
Rated as less than successful by employers
Role deprivation score (19.4)-2nd lowest.
Withdrawn from everything connected

Table 7.15 (continued)

Category	Kramer 1974	Lewin & Olesen 1980	Westbrook & Nordholm 1984	McLees 1988
	with work situation - "It's a job."			
	LATERAL ARABESQUERS n=55 Low bureaucratic-high professional role conception. Age 22 years median (lowest). Almost all single. Employed mainly as staff nurses. Rated less than successful by employer. Tendency to job hop-3.8 jobs within 2 year period. Expressed positive intention of returning to graduate school or "to do something else in nursing or out where I can get more satisfaction." 25.0% left nursing within 2 years of initial data collection. 42.58% membership in professional associations. Little commitment to the organization but high commitment to professional values (35.84)-highest.	**LATERAL CAREERS n=12** 10 to 14 years steady work history. Moved from job to job at the same level. Personal satisfaction and sense of work well done central dimension of ambition and success. Getting better at job a source of satisfaction and success.	**LATERAL CAREERIST n=20** Planned to intensify their professional expertise by undertaking further study related to their occupation. 70% had taken specialist training. More androgynous than stationary careerists. More evidence of flexibility, adaptiveness, competence and psychological well-being.	**MOBILE LATERAL CAREERIST n=70** 79% diploma graduates. Very few completed postgraduate education programs. Have taken post-service courses. Have worked in more than one agency. Always worked as a staff nurse. Involved in community activities.
	BICULTURAL TROUBLEMAKERS n=55 High bureaucratic-high professional	**ADVANCING CAREERS n=24** 10 to 12 years steady work history	**CAREERISTS n=72** Aspired to higher status in profession.	**ADVANCING PLACE-BOUND CAREERIST n=15** Always worked in same agency.

Table 7.1s (continued)

Category	Kramer 1974	Lewin & Olesen 1980	Westbrook & Nordholm 1984	McLees 1988
	role conception. Age 23 years median. 25% married, few children. Employed mostly as staff nurses. 3.0 job changes but several transfers. 71% rated as highly succesful by employers. Role deprivation score mean high (32.5)-2nd highest. Labelled troublemakers by employers "she's constantly into things, wanting to change this that or the other thing." About 25% expressed intent to return to school. Risk takers - enjoyed their work. ORGANIZATION WOMAN n=55 High bureaucratic-low professional role conception. One third married - without children. Age 23 years median. Job tenure 6 years - longest. Few job changes - 1.9 mean. More in head nurse or supervisory positions. Often promoted within the organization. 50% rated as average by employers.	Started as staff nurse and after 12 years is a director of nursing. Employed in a hospital setting. "Advancement viewed as the only way a nurse could make her mark on the hospital environment.	36.1% had been involved in career related study. Saw themselves as more tender and cheerful than stationary careerists.	Has moved up in the organization. Graduated from all 3 types of program. Have taken postgraduate programs. All married-may have children. About half still work in original practice area. Involved in professional association. Not very involved in community activities Family is important. Ambition is more important. Job security is not important. Mean age on graduation 21 years. MOBILE LATERAL CAREERIST n=70 79% diploma graduates. Very few completed postgraduate. 5 have taken postgraduate BN. High post-service program participation. All currently employed. Very involved in the community. Lower than the mobile advancing group on ambition. Family is important. Mean age on graduation 21.5 years.

159

Table 7.15 (continued)

Category	Kramer 1974	Lewin & Olesen 1980	Westbrook & Nordholm 1984	McLees 1988
	25% rated successful. Low professional association membership. Low dropout rate Had job satisfaction which came from a positive attitude to the job and its rewards.			MOBILE ADVANCING CAREERIST n=47. Have moved from agency to agency but always upward 43% baccalaureate graduates 40% hospital diploma graduates. Several enrolled in postgraduate. programs. Least number married. Lowest incidence of children. Involved in administration and teaching. Ambition is important. May see themselves as an administrator or educator before nurse. Self-esteem is important. Variety/adventure is important. Family is not so important Mean age at graduation - 21 years.

out of nursing school 3 years whereas the subjects in the present study were all older, out of nursing school 10 years, and more likely to be involved in raising a family.

Kramer described four types of nurses: (1) the "rutters" who tended to stay in a staff nurse position, considered nursing "a job," were ambivalent about postgraduate education, were rated by their employers as "less than successful," and had some involvement in their community but none in their professional organization; (2) the "mobile lateral arabesquers" who were also employed predominantly as staff nurses, hopped from job to job, and expressed some intention to return to postgraduate education or do something else in nursing; (3) the "bicultural trouble makers" were employed mainly as staff nurses, were rated highly successful by their employers, were rated as "trouble makers" because they wanted to change things, enjoyed their jobs, and were "risk takers;" and (4) the "organization woman" who had made the least changes and had the longest tenure in their jobs, had moved into supervisory positions, been promoted within the organization, were rated as "successful with a positive attitude towards their job," and had very little involvement in their professional organization.

When Kramer's groups are compared with the groups identified in the present study there appears to be some overlap between the "rutters" and the "stationary place-bound careerists" in that both groups tend to stay in one place and at the same level. The "mobile lateral arabesquers" and the "mobile lateral careerists" also have some similarity in that again they are staff nurses and they hop from job to job. There is also some similarity between the "organization woman" and the "advancing place-bound careerist." Both groups appear to want to advance in the organization and in some instances they have furthered their education at the postgraduate level. The "organization woman" is also similar to the "mobile advancing careerist" in that she has moved at least three times and has had several transfers. However, one would only be able to say definitively that

the types described in the two studies were similar if the sampling and research methodology had been the same.

One of the findings in the Lewin and Olesen (1980) study was that "lateral" careers tended to occur only in areas where there was significant professional autonomy. A lateral career, as described by Lewin and Olesen, was one where there the "individual's work history revealed a pattern of moving from job to job (or staying in a single job) at the same level vis-á-vis supervisory responsibilities" (p. 622). Subjects who demonstrated laterality were not found in steady hospital employment. "Here, steady work led to advancement or propelled the nurse out of the hospital environment. Nurses who were not upwardly mobile within the hospital hierarchy tended to move into careers in other nursing fields" (p. 622). It is important to remember that they were investigating baccalaureate-educated nurses. Would they have found the same trends in a diploma-educated group of nurses?

The findings of the present study show that two of the career patterns met, in part, Lewin and Olesen's definition of laterality—the stationary place-bound careerists and the mobile lateral careerists. These careerists were mostly employed in the hospital setting but were predominantly graduates from either the college or hospital diploma programs. Respondents' comments tend to suggest that regardless of educational preparation, the nurse who wishes to remain or specialize at the staff nurse level will do so from a desire to become "confident and a good nurse" and to "work in a hospital on a one-to-one basis." The motives to return (mobile reverting careerist) or remain in the staff nurse position (stationary place-bound and mobile lateral careerist), and thus provide direct patient care are evidenced in the mean scores reported for the orientations; professional integrity for the mobile lateral careerists (mean=2.57) and, more importantly, the means for self-esteem for the other two groups (means=2.48 and 2.23 respectively). All three groups demonstrated mean scores which were within the "important" range on the self-

esteem orientation. Therefore, the conclusion can be drawn that there is a certain group of nurses who strive to work at the staff nurse level as this is the level where they get most professional satisfaction. As the largest group of employees in any agency it is important to consider the values, talents and motives the staff nurses have to offer to the organization.

Westbrook and Nordholm (p. 754) expressed a similar contention to Lewin and Olesen regarding the decision of nurses to specialize at the staff nurse level and move laterally, and stress that "such patterns of active decision need to be distinguished from failures to attain higher status goals." Their findings supported the view that "laterality and verticality are both patterns of career achievement that people actively pursue" (p. 754). They found more similarities between the lateral and vertical groups than between them and the stationary group. Their stationary group showed "uncertainty and indeterminacy in their self-concept." The group as a whole was found to be "not very ambitious." Laterality may be a different notion of success to the traditional upward mobility notion; it would appear to fit with the *career anchor* described by Schein (1978) as the technical/functional competence orientation. Schein found that there was a certain group who would change their place of employment rather than move upward in an organization if it meant that they would be moving out of their area of technical expertise.

Summary

A composite profile for each of the five distinct career/employment pattern groups identified from the analysis of the work history data has been presented in this chapter. An attempt has been made to label the patterns so that they are descriptive and encompassing of the nursing careers identified. The nursing respondents in this study are involved in five career patterns:

I.   The stationary place-bound pattern composed of nurses who had worked with only one agency and at the staff-nurse level.

II. The mobile lateral career-pattern composed of nurses who worked at the staff-nurse level but had been with more than one agency.

III The advancing place-bound career pattern composed of nurses who had always worked with one agency but had advanced to the charge-nurse level or higher.

IV The mobile reverting career pattern whereby nurses at the staff-nurse position and who had been with more than one agency had previously been employed at higher-level positions.

V The mobile advancing career pattern composed of nurses who have worked in more than one agency and had advanced to levels of responsibility beyond that of a staff-nurse.

In the second section of the chapter the career orientations for each of the career patterns were highlighted and differences between and within the career-pattern groups discussed.

The mobile lateral careerists are highly oriented towards family commitment and variety and adventure.

The advancing place-bound careerists are highly oriented towards family commitment, job security and ambition for leadership.

The mobile advancing careerists are highly oriented towards ambition for leadership, self-esteem, and variety/adventure.

Family commitment is very important to four of the career-pattern groups; it is important to the mobile advancing careerists.

Altruism is important to all career-pattern groups.

When compared to the other four career-pattern groups, the mobile advancing careerists show the most differences on the career orientations. They have significantly higher mean factor scores on several orientations: ambition for leadership (mean=2.72)

when they are compared with the stationary careerists (mean=1.84), the mobile lateral careerists (mean=2.09) and the mobile reverting careerists (mean=2.20); variety/adventure (mean=2.92) when they are compared to the stationary careerists (mean=2.25); and self-esteem (mean=3.67) when they are compared with the stationary careerists (mean=3.23) and the mobile lateral careerists (mean=3.24). They are significantly lower on family commitment (mean=3.23) when compared with the stationary careerists (mean=3.55). The mobile advancing careerists are the one group that appear to be the most career orientated in terms of the definition of career used in this study.

The rank-order correlation coefficient analysis reveals the closest correlation occurs between the mobile advancing careerists and the advancing place-bound careerists. The greatest differences among groups occurs between the mobile advancing careerists and the stationary place-bound careerists.

In the final section the findings concerned with career patterns for nurses and other women health professionals as presented by earlier researchers were compared. Similarities and differences were identified. The researcher raised several questions which will be discussed further in the discussion and summary chapter of the thesis.

In chapter 8 a review of the Career Determinant Inventory as an indicator of the career orientations of nurses is undertaken and its potential as an instrument for use in career counselling and human resources development with nurses is discussed.

CHAPTER 8

TOWARDS THE DEVELOPMENT OF AN INVENTORY FOR CAREER COUNSELLING

This chapter provides a review and assessment of the questionnaire developed for the study. The fifth objective of the study is addressed in the chapter.

To initiate development work on a career orientation questionnaire that could be used for human resources development purposes with nurses.

For the purposes of this study, career orientations are described as attributes of individuals that develop over time and which may influence a nurse's career-related decisions. The orientations emerge from the interaction between the person's values, motives, talents, and educational, life and work experiences. They are thought to guide, constrain, stabilize and integrate the person's career in a manner similar to that described by Schein in his concept of career anchors. Schein's (1978) career anchor concept formed the basis for the development of the Career Determinant Inventory and the Career History questionnaire. In the first section of the chapter the Career Determinants of Nurses questionnaire is reviewed. Subsequent sections provide an assessment of the questionnaire, comparisons with previous research and finally a summary and conclusions.

Assessment of the Questionnaire Used in the Study

The experiences and adventures the individual nurse is involved in, particularly in the education and early job stages of their career, influence developing values, motives, beliefs, and talents, and hence the decisions and choices made in relation to career and lifestyle. Thus, for the nurse who is seeking to gain greater control of his or her professional destiny and integrate the needs of work, self and family, it would appear to

be essential to gain a knowledge of where one's values, talents, motives and aspirations are oriented so that one can develop a "clear and workable self-concept" (Schein, 1980, p. 85). It is also important that employers recognize the talents, values, motives and aspirations individuals bring to the workplace as "it may be more productive to realize that any given occupation can meet a variety of needs and use a variety of talents" (Schein, 1980, p. 85).

Review of the Questionnaire

The instrument developed for this study was based on the concept of career anchors put forward by Schein (1978 & 1985), DeLong (1982), and Aune (1983). As outlined in previous chapters, Schein (1978) used an interview process to explore the concept, DeLong used a survey questionnaire process, and Aune used an interview process. Schein (1985) further refined DeLong's questionnaire for use as a self-diagnostic instrument. Schein and DeLong's work has been primarily with management graduates who were mostly men. Aune's work was with female nurses at different stages of their careers.

For this study the researcher developed a comprehensive questionnaire consisting of a Career History and two versions of a Career Determinant attitude survey. The work of the previous researchers was used to guide the development of the questionnaire.

Part I: Career History. The career history section consisted of questions designed to assess four sets of variables pertaining to the nursing career history: (A) education; (B) professional and community activities; (C) work history; and (D) demographic data concerning self and family.

Where appropriate, check-mark or numerical responses were sought. For selected questions an opportunity was provided for the respondent to give a written response. An opportunity to make a general descriptive response was given at the end of Part I.

A. Education. Information sought about the respondent's education included questions about age on completion of their basic nursing education program, the type of basic nursing education program taken, reasons for entering a particular program and further education programs undertaken. One question sought information about their reasons for entering a nursing program, while another sought information as to their reasons for leaving nursing if they were no longer actively involved in a nursing career.

B. Professional and/or Community Activities. Information pertaining to involvement in both professional and community organizations was sought through a series of five questions. Registration as a nurse in Alberta involves mandatory membership in the professional association (AARN), but this is not the case in provinces such as Ontario or in overseas countries; therefore, a question was asked as to their professional membership status and their involvement at the committee level in their professional organization. Respondents were also asked to indicate their involvement in community organizations.

C. Work History. In order to discover what had taken place over a ten-year work history period several questions were asked as to the type of position and agency where the respondents first first began their nursing career, the shortest and longest length of time in a position or agency, and the number of different agencies they had worked in. Three questions pertained to present employment and the area of practice respondents were engaged in. If they were in an administration or nursing education position, they were asked to indicate whether or not they thought of themselves primarily as a nurse or administrator/educator.

D. Demographic Information. In this section, information was sought as to the gender of the respondent, year of birth, marital status and the number of children and/or other dependents that they might have.

At the conclusion of Part I the respondents were thanked for their participation and then asked to proceed to either Part II or Part III, depending on their nursing career status.

Part II: Career Determinant Inventory (Nurses). Part II of the questionnaire was intended for those respondents who were currently involved in a nursing career, or even if they were not presently working, considered nursing to be their career. Items for this part were developed from the previous work of Schein (1978, 1985), DeLong (1982), and Aun. (1983) to reflect the values, motives, talents and aspirations a nurse might exhibit. Respondents were asked to think back over their career since graduating from their basic nursing program and to reflect on the factors which influenced their decisions about the jobs they had taken and the career moves that they made. Respondents were asked to respond, on a four-point scale, to the items according to the importance or truth of the item for them. Items were rated not important (1) to very important (4) or not true (1) to very true (4).

There were 47 items in this part of the questionnaire. On completion, respondents were thanked for their participation and asked if they would like to receive a summary of the study findings and whether they would be willing to participate in an interview.

Part III: Career Determinant Inventory (Non-Nurses). Part III of the questionnaire was intended for those respondents who were no longer involved in a nursing career, or if they were not presently working, did not see themselves returning to

a nursing career. Items for this part were identical to those in Part II with the exception that the words nursing, nursing education, nursing administration, hospital and health care agencies were changed to reflect a general work or career orientation.

There were also 47 items in this part of the questionnaire. On completion, respondents were thanked for their participation and asked if they would like to receive a summary of the study findings and whether they would be willing to participate in an interview.

Assessment of the Questionnaire

As noted in Chapter 3 the work of earlier researchers was considered in the development stages of the questionnaire: previous research on career anchors was summarized and compared and a worksheet was developed which was made up of a modified version of DeLong's items and Aune's characteristics. From this worksheet new items were written to reflect the behaviors, beliefs, motives and talents a nurse might exhibit. A major consideration was keeping the instrument to a length which would not place excessive demands on the time of the respondents, yet would obtain the information to meet the study objectives and maintain the conceptual intent. In this section, strengths and weaknesses of the study questionnaire are identified and discussed.

The Career History. There were several questions included in the career history which were not used in the the data analysis procedures. Small sample size of the subgroups was the most common reason for not including a particular variable in the statistical analysis. The variables which were not included were:

> Question 6. *What other nursing education programs have you enrolled in since graduating from your basic nursing program?* Public health and teaching diploma programs as options elicited no responses.

> Question 8. *Did you complete any other education (training) program prior to entering nursing?* The subsample N's were too small.

Question 14. *If you are no longer nursing and are in another profession (e.g. law) are you a member of that professional association?* The subsample N's were too small.

Question 19. *What area of practice did you work in in your first nursing job following registration? (please check all applicable responses)* 12 options were available. Too many variables were included in the question.

Several questions should be restructured in a more concise form. Questions 21 and 22—What has been the shortest/longest length of time you have been employed in a position?—and 23 and 24—What has been the shortest/longest length of time you have been employed in an agency/hospital?—obtained information that was non-essential, repetitious, and from the inconsistencies contained in the responses, the question was not always understood by the respondents.

Question 25. *For each of the agencies/hospitals in which you have worked indicate the number of positions that you held in that agency/hospital on the table below... Indicate if the position was part-time (PT) or full-time (FT).*

The table appears to be a concise approach to collecting a large amount of information. It would have been improved by the inclusion of the chronological ordering of the positions and moves respondents had made. Information relating to full-time and part-time employment would be more appropriately sought through a forced choice or numerical response in a separate question.

For future studies, the career-patterns that emerged from the the data contained on the table could be outlined and the question restructured.

Example: How would you describe the pattern that your career has followed?

1. Have you always worked in either a staff nurse and/or team leader position in the same hospital or agency?

2. Have you always worked in either a staff nurse and/or team leader position BUT in more than one (several) agency or hospital?

3. Have you always worked in the same hospital or agency BUT you have moved up to positions of increasing responsibility - (e.g. staff nurse, charge nurse, supervisor, assistant director,

director and/or instructor) to a position beyond staff nurse or team leader?

4. Have you worked at levels in the nursing structure beyond staff nurse or team leader in more than one agency or hospital BUT you are presently working at the staff nurse level (e.g. staff nurse, charge nurse, supervisor and now staff nurse)?

5. Have you worked in more than one agency or hospital AND have your positions involved an increasing level of responsibility (e.g. staff nurse, charge nurse then instructor in four different agencies)?

Information regarding full-time and part-time employment could be obtained by asking a simple question.

Have you worked full-time?

Always _____
75% _____
50% _____
25% _____
Never _____

How would you describe your present position?

Full-time _____
Part-time-permanent _____
Part-time-casual _____

Qn 35: If the answer to 34 (Do you have children) is yes, what are their ... deleted and replaced by a question requesting the number of children in ... ether or not they are dependent school-aged or pre-schoolers rather than ... children.

Other Questions. During the analysis process it became evident that there were several omissions in the data, thus preventing the researcher from drawing conclusions about the sample. Part of the incompleteness resulted from the decision by the researcher, in consultation with her supervisory committee, to eliminate the interview phase of the study after the questionnaire had been developed.

It would have been useful to seek information from respondents as to the influence of their spouse's or partner's career and work-related moves on respondents

careers. This information would have added considerably to the validity of the conclusions drawn concerning the mobile career-pattern groups. While these groups demonstrated significantly higher mean factor scores on the variety/adventure factor it was not possible to conclude if the degree of mobility respondents reported resulted from the need to change employment because of their spouse's employment transfer or from their own desire for change.

An open-ended question should have been included to elicit the respondents' perception of their career, the direction it was taking and the goals they perceived for themselves. Several respondents commented on their reasons for making certain career moves but these comments were not sufficiently consistent across all basic education and/or career pattern groups to be more than illustrative of some variables. Conclusions could not be drawn from the number or type of comments obtained.

The Career Determinant Inventory. The statistical analysis of the data gathered by the Career Determinant Inventory was outlined in Chapter 4. For the purposes of this discussion only Part II of the questionnaire, the Career Determinant Inventory (CDI), designed for those respondents who considered themselves to be involved in a nursing career, even though they may not be currently employed, will be considered. The Career Determinant Inventory consisted of 47 items that had been developed to express values, motives, or talents that might influence the career decisions of nurses.

Factor analysis was used to reduce the 47 variables into a smaller, more manageable and explainable set of variables. Orthogonal rotation procedures were used to determine the independence of the factors. Inspection of the varimax rotated factors analysis results indicated that there were fourteen possible solutions which accounted for

eigenvalues greater than 1.0. Three criteria were used to guide decisions related to the selection of the most appropriate factor solution.

1. The loading of an item should be greater than, or equal to, 0.40.

2. Items which loaded on more than one factor were retained in the factor with the higher loading, if the loading difference was more than 0.10.

3. The item contributed logically to the factor.

The support for these requirements was discussed in detail in Chapter 4. Application of the selection criteria resulted in the decision to use the eight factor solution accounting for 52.6% of the variance.

Using the eight-factor solution there were three items that loaded on two factors. As each of these pairs of items had a loading difference of at least 0.10 and appeared to fit logically with the factor on which they loaded highest, they were all retained with that factor. There were also three items that did not load clearly on any factor: these items were discarded.

The eight orientations identified were labelled and contained the Career Determinant Inventory Items as listed below.

1. Ambition for leadership included 10 items (35, 11, 3, 39, 4, 14, 25, 22, 27 and 12).

2. Job security included six items (40, 1, 32, 19, 15 and 13).

3. Family commitment included five items (47, 21, 44, 3 and 18).

4. Independence included five items (6, 8, 7, 2 and 30).

5. Variety/adventure included six items (28, 31, 26, 16, 43 and 46).

6. Altruism included six items (33, 23, 41, 9, 10 and 24).

7. Self-esteem included three items (38, 37 and 45).

8. Professional integrity included three items (34, 42 and 29).

Reliability of the Instrument

Strickland and Waltz (1986, p. 85) assert that "reliability and validity are essential characteristics of any measuring device or method and determine the degree of confidence that one can place in the measurements." In the present study, issues of reliability and validity were addressed (1) during the developmental stages of the questionnaire, (2) by comparing the factor analysis results with those from similar studies, and (3) by conducting a post study field-test.

Reliability and Intercorrelations Among Factors

The split-half technique was the method used to compute the coefficient of internal consistency or homogeneity of the factor items. Using an odd-even split, the items for each of the eight factors were divided into two halves. The scores for individual respondents were then calculated, thus giving each respondent two sets of scores. The Guttman Split-half was the formula elected from the SPSS program. The results of the split-half analysis reveals that the reliability coefficients ranged from .83 for ambition for leadership (factor 1) to .62 for professional integrity (factor 8). These reliability coefficients indicate that the orientations identified from the Career Determinant Inventory appear to consist of items that are homogeneous and measure the same characteristic (Seaman, 1987, p. 232).

The Pearson product-moment correlation coefficient test was used to assess the strength of the relationships among the eight career orientation factors. Results of the Pearson product-moment correlation indicate there is a positive correlation between ambition for leadership (factor 1) and four other factors: job security (factor 2), independence (factor 4), variety/adventure (factor 5), and self-esteem (factor 7), however, ambition for leadership reveals a negative correlation with family commitment (factor 3). Positive correlations are also evident between the orientations independence

. (factor 4) and altruism (factor 6), independence (factor 4) and self-esteem (factor 7), and variety/adventure (factor 5) and self-esteem (factor 7). A negative correlation is found between variety/adventure (factor 5) and family commitment (factor 3).

Comparisons with the findings from previous research (DeLong, 1982) indicated that the factors that emerged from the factor analysis (see Chapter 4) were essentially different in their factor loading patterns. When a further factor analysis procedure, using the the eight orientations as the items, was applied they reduced to three factors in a manner similar to DeLong's (1982, pp. 58-59) findings. DeLong had reduced his original eight factors to "three main career orientations." The orientations he identified as autonomy and creativity loaded under one factor, managerial competence and variety clustered together with "technical competence showing a strong negative association," while service, identity and security formed the third factor .

In the present study three main factors were also identified. Ambition for leadership, variety/adventure and self-esteem clustered under the first factor, with family commitment forming a negative association. Factor 2 revealed a strong relationship between altruism and family commitment. The third factor was formed by job security and professional integrity. Independence double loaded on both Factor 1 and Factor 2. The loading value for independence did not meet the criterion of at least .10 difference as outlined in the selection criteria.

Field-Test of the Career Determinant Inventory

In order to further assess the usefulness ability of the instrument in indicating the career orientation of nurses, a field-test was carried out. The Career Determinant Inventory was given to a convenience sample of 14 senior nurses with similar career profiles. The nurses were either graduate students (PhD) in the department of

Educational Administration or had recently graduated with either a PhD or MEd degree. Twelve members of the sample returned the completed inventory.

The Field-Test Sample

The 12 nurses were currently employed as instructors, professors, administrators, consultants or students. They had moved to several different agencies during their careers and they had advanced to increasing levels of responsibility on the career ladder. Seven were or had been married and six had children. The mean years of nursing experience for the group was 23.1 years. These women could be described as successful career-oriented nurses.

The Field-Test Process

The Career Determinant Inventory (CDI) was revised slightly prior to the field-test: the three items that did not load on a factor were deleted and the item numbering adjusted. The revised CDI consisted of 44 items (Appendix E). The instructions on the front cover were the same as those given to the research respondents. On completion of the questionnaire the respondents were asked to complete the Inventory Scoring Sheet, a self-scoring sheet devised for the revised Inventory.

Because of their achievements and experience the researcher had anticipated that the field-test group would score significantly higher, than the research groups, on ambition for leadership, self-esteem, altruism, and professional integrity. Analysis of the data obtained through the CDI did not totally support this prediction. The mean factor scores for the post-test group, the rank-ordering of the orientations within the group and the range value are shown in Table 8.1.

Examination of Table 8.1 shows self-esteem as the orientation with the highest mean factor score (mean=3.70); it is a "very important" value for the field-test group.

Altruism (mean=3.35), independence (mean=3.30), professional integrity (mean=3.30), ambition for leadership (mean=3.05), variety/adventure (mean=2.80), and job security (mean=2.64) are all "important" values and motives for the field-test group, whereas family commitment (mean=2.41) is a "not very important" value.

Table 8.1

Rank-Order, Mean Factor Scores, and Mean Range Value for Career Orientations of the Field-Test Group

Determinant	Rank	Mean	Range Value
Ambition for leadership	5	3.05	important
Job security	7	2.64	important
Family commitment	8	2.41	not very important
Independence	3.5	3.30	important
Variety/adventure	6	2.80	important
Altruism	2	3.35	important
Self-esteem	1	3.70	very important
Professional integrity	3.5	3.30	important

The field-test group were also compared with the research subjects. One-way analysis of variance was used to determine if there were any significant differences between the research groups and the field-test group. Statistical analyses revealed significant differences on several career orientations. The respondents in the research group were categorized in two ways: present position and career patterns. The research group and the field test group were compared according to these categories.

Table 8.2 presents the results of the analysis comparing the present position groups (staff nurse, management, instructor and not working) and the field-test group.

Table 8.2

One-Way Analysis of Variance on Mean Factor Scores According to Present Position of the Nurses and Field-Test Groups

Orientation	Group A Staff Nurse N=103 Mean	Group B Management N=25 Mean	Group C Instructor N=16 Mean	Group D Not working N=24 Mean	Group E Field-test N=12 Mean	F-ratio	Significantly Different Groups
Ambition for leadership	2.07	2.92	2.67	2.26	3.05	20.06***	B>A, B>D, C>A, E>A, E>D
Job security	2.56	2.63	2.25	2.28	2.64	2.53	
Family commitment	3.64	3.27	3.31	3.43	2.41	12.25***	A>E, B>E, C>E, D>E
Independence	3.28	3.28	3.59	3.28	3.31	1.36	
Variety/adventure	2.69	2.79	2.94	2.88	2.79	1.08	
Altruism	3.19	3.16	3.30	3.37	3.35	1.05	
Self-esteem	3.31	3.73	3.69	3.17	3.70	8.75***	B>A, B>D, C>A, C>D, E>A, E>D
Professional integrity	2.44	2.23	2.75	2.58	2.92	4.71***	E>A, E>B

***Significant at <0.001

Group A includes Staff Nurse and Team Leader categories
Group B includes Charge Nurse, Supervisor, Assistant Director, and Director categories
Group C includes Instructor and Clinical Specialist categories
Group D includes Home-makers and Currently Not Employed
Group E includes Graduate Students, Consultants, Administrators and Professors.

Examination of the table shows that there are four orientations where a significant difference is found between the present position groups and the field-test group. On the orientation, ambition for leadership, the mean factor score of the field-test group is significantly higher (mean=3.05) than either the staff nurse group (mean=2.07) or the not working group (mean=2.26). The situation is reversed on the family commitment orientation, where all four research sample groups have significantly higher mean factor score than the field-test group.

Significant differences are found between the field-test group (mean=3.70) and the staff nurse (mean=3.31) and not working (mean=3.17) groups on the self-esteem determinant. The field-test group also presents a higher mean factor score on professional integrity than either the staff nurse group (mean=2.44) or the management group (mean=2.73).

When the mean factor scores of the field-test group are compared to the scores of the career-pattern groups significant differences involving the field-test group are found on three of the career orientations. The results are presented in Table 8.3 .

The field-test group is shown to have a significantly higher mean factor score (mean=3.05) on ambition for leadership compared to the stationary place-bound careerists (mean=1.84), the mobile lateral careerists, (mean=2.09) and the mobile reverting careerists (mean=2.20). Again the situation is reversed on the family commitment determinant. The stationary place-bound (mean=3.55), the mobile lateral (mean=3.60), the advancing place-bound (mean=3.61), and the mobile reverting (mean=3.60) careerists all show significantly higher mean factor scores than the field-test group (mean=2.41). The mobile advancing careerists (mean=3.23) are the only career-pattern group where there is no significant difference between them and the field-test group for family commitment.

Table 8.3

One-Way Analysis of Variance on Mean Factor Scores According to Career Patterns of the Nurses and Field-Test Groups

Orientation	Pattern I Stationary Place-bound N=17 Mean	Pattern II Mobile Lateral N=70 Mean	Pattern III Advancing Place-bound N=15 Mean	Pattern IV Mobile Reverting N-27 Mean	Pattern V Mobile Advancing N=47 Mean	Pattern VI Field-test N=12 Mean	F-ratio	Significantly Different Groups
Ambition for leadership	1.84	2.09	2.54	2.20	2.72	3.05	14.26***	III>I, V>I, V>II, V>IV, VI>I, VI>II, VI>IV
Job security	2.83	2.48	2.50	2.41	2.40	2.64	1.53	
Family commitment	3.55	3.60	3.61	3.60	3.23	2.41	9.53***	I>VI, II>V, II>VI, III>VI, IV>VI
Independence	3.35	3.23	3.41	3.26	3.36	3.31	0.58	
Variety/adventure	2.25	2.78	2.66	2.75	2.92	2.79	3.25**	II>I, V>I
Altruism	3.01	3.27	3.32	3.14	3.24	3.35	1.21	
Self-esteem	3.23	3.24	3.37	3.40	3.67	3.70	9.92***	V>I, V>II
Professional integrity	2.23	2.57	2.21	2.48	2.48	2.92	3.39**	VI>I, VI>III

*** Significant at <0.001   ** Significant at <0.01

I   = staff nurse positions in one agency
II = staff nurse positions in several agencies
III = positions at different levels in one agency
IV = positions at several levels in more than one agency, presently employed as a staff nurse
V   = positions at several levels in more than one agency, presently employed at charge nurse level or above
VI = field-test group presently employed as consultants, administrators, professors and graduate students

On the professional integrity orientation the field-test group presents a significantly higher mean factor score (mean=2.92) than either the stationary place-bound careerists (mean=2.23) or the mobile advancing careerists (mean=2.21).

Comparison With Previous Research

A survey of nursing research instruments reveals few instruments that have been developed to assist nurses in the identific of their career orientations. Ward and Fetler's 1979 (pp. 90-97 & 362-382) lation of nursing education research instruments includes only two instruments that could be useful to-nurses in assessing their career options. They are both self administered questionnaires.

1. *Choice of Teaching Nursing as a Career Questionnaire* designed by Frances M. Farthing to assess factors related to the career choice of teachers of nursing (Ward & Fetler, 1979, pp. 90-97)

2. *Nursing Leadership Behavior Questionnaire* designed by Jean Kelley to measure perceptions of the importance of various leadership behaviors for general hospital nursing supervision from head nurses, nursing supervisors, nursing directors and senior nursing students (Ward & Fetler, 1979, 362-382).

These questionnaires do measure aspects of the career decision-making process but they are restricted in their application. They are either very lengthy or require considerable modification in order to meet the objectives for a study such as the present one.

Hefferin and Kleinknecht (1986, pp. 44-48) report on the development of the *Nursing Career Preference Inventory*. The authors report the purpose of the inventory to be as follows:

> to-assist nurses in determining which of the four primary nursing practice areas—clinical, administration, research or education—are most reflective of their personal work activity or preferences, and which of 14 customary hospital nursing role positions most often encompass the preferred work activity patterns.

They report their developmental process and the validity and reliability of the instrument in detail and conclude:

> obviously, the practical utility of a nursing work interest inventory lies in the accuracy with which the instrument's subscales continue to represent realistic concepts of nursing work functions.

and that:

> the NCPI can be a useful tool in career development programs that are designed to assist nurses towards selecting nursing role positions and building career plans that reflect their own personal talents and interests. [4]

Derr (1986, p. 184) has taken the concepts—motives, values, talents and perceived constraints—and developed "self-assessment tools that can be used to evaluate and interpret an individual's internal career success map." A career success map is determined by using a formula:

$$CSM = (M+V+T) - PC$$

> CSM, *the career success map*, equals *motives* plus *values* plus *talents*, minus *perceived constraints*.

The individual is able to use the tools Derr has developed to create a profile which they can use to determine their dominant career orientation, their backup orientation, and make decisions about their future career moves and choices. Users are advised to work with a partner or friend to check their perceptions. This approach is similar to that presented by Schein (1985) in his do-it-yourself book *Career Anchors: Discovering Your Real Values.*

Summary and Conclusions

The results of the factor analysis, the reliability coefficients obtained by the Split-half techniques, and the Pearson product-moment correlation coefficients indicate that the Career Determinant Inventory appears to be reliable and valid measure of the values, motives, and talents that may influence the careers of nurses.

A field-test using a group of nurses who could be described as having successful careers indicates that it is possible to predict how individuals might score on the Career Determinant Inventory. The researcher had predicted that the field-test group would score higher than the research group on the ambition for leadership, self-esteem and altruism career orientation factors. The findings revealed significantly higher mean factor scores on three orientations—ambition for leadership, self-esteem and professional integrity when the field-test group was compared to the present position groups from the research sample and two orientations—ambition for leadership and professional integrity when the field-test group was compared to the career-pattern groups. When the mean factor scores for the field-test group were rank-ordered self-esteem was ranked first.

Nursing research instrumentation has been criticized for the lack of, sharing, testing and modification of existing and new tools (Strickland & Waltz, 1986, p. 89) and the inaccuracy of "the terms validity and reliability" in nursing studies (Knapp, 1985, p. 189). Further research is required to confirm the reliability and validity of the Career Determinant Inventory as an instrument that could be used in human resources development with nurses. The researcher would like to see the questionnaire used with different samples and the inclusion of the ideas relating to career mapping, as put forward by Derr (1986), incorporated into a nursing instrument. The impact of family, the need to blend family, work and self, and belonging to a predominantly female profession are all possible constraints that individuals needs to consider when planning their careers.

In future research, the researcher recommends that the title of the questionnaire developed for this study should be changed to the *Career Orientation of Nurses Questionnaire*. This title would reflect the intent of the inventory more appropriately than the term "determinants." The term "determinant" appears to be too decisive and deterministic for the present stage of study.

Chapter 9 presents a summary of the study findings, conclusions and implications for further research and practice.

CHAPTER 9

SUMMARY, DISCUSSION AND IMPLICATIONS

This final chapter presents (1) an overview of the study, (2) a summary of the findings, (3) a discussion of the findings, (4) and implications for practice and further research.

Overview of the Study

The study is reviewed below in terms of the purpose of the study, the objectives that guided the research, the rationale for the study, the conceptual framework, and the research methodology.

Purpose of the Study

The major purposes of the study were to explore the influence of life events, family responsibilities, education, work history and professional and community involvement on the development and crystallization of career orientations and to identify and explore the extent to which these career orientations guide and hold the graduate nurse in career related decisions. A third purpose was the development of an instrument which could be used to identify the career orientations of nurses for human resources development purposes.

Specific Objectives

In order to fulfil the purposes outlined it was necessary to achieve the following objectives.

1. To identify the factors that may be used to describe the career orientations of nurses.

2. To describe the differences between those respondents who perceive themselves to be pursuing a nursing career and those who do not.

3. To explore the relationships, between selected education, family, community/professional involvement and work history variables and nurses career orientations

4. a. To create a career typology using selected work history variables.

   b. To describe these career patterns in terms of selected education, family, community/professional activity, and work variables.

   c. To explore relationships between the career patterns and career orientations.

5. To initiate development work on a career orientation questionnaire that could be used for human resources development purposes with nurses.

Rationale for the Study

A concern of writers in the nursing literature has been the need for nurses to attain control of their professional careers, to develop a sense of career rather than job, to implement a career development program for themselves, and seek work with organizations that will support them in achieving their goals. Smith (1982) specifically identified the increasing complexity of nursing practice and education, the current shortages   urses with clinical and commu   ty health skills and the need for academically prepared nurses for positions of leadership in education administration and research as reasons why nurses should plan their careers. Along with this, the dissatisfaction of nurses with their work situations, the recognition they receive, the responsibility they assume and conditions within which they practice have lead to unrest, and in recent years, withdrawal of service through strikes.

A concern for "individual identity" is one of the reasons for trying to understand careers (Van Maanen,1977, p. 3). This involves having some knowl dge of the person's "experienced past and anticipated future." When applied to a nursing career such knowledge involves awareness and concer   for the total lifestyle of the individual. Events which occur within the person's immediate family situation can affect the worklife

and career aspirations of the employee. For a profession which is comprised primarily of women the demands of family may act as a constraint to a career, a factor which may conflict with the bureaucratic goals of the organization.

Conceptual Framework

For the purposes of this study career orientations are considered to be attributes of individuals that develop over time and which influence the career related decisions made by nurses. Derived from the work of Schein (1978), Derr (1980), DeLong (1982), and Aune (1983) these orientations have been conceptualized as emerging from the interaction between the person's values, motives, talents, and life and work experiences. The individual interacts with the social environment, which encompasses the family, education and the work place. As a family member, the individual is exposed to the values, concerns and responsibilities of that family. The experiences and adventures the person is involved in, particularly in the education and early job stages of their life, influence the values, motives, aspirations and talents which develop. In the workplace, the individual is exposed to feedback about his or her performance. If the feedback is supportive and consistent with the individual's own perceptions, expectations and values the feedback will be perceived as positive, affirming the career choice and thus predictive of success. Involvement in community and professional activities may result from the influence of social and professional expectations. The values, motives, aspirations and talents which the individual develops influence the subsequent decisions which will be made regarding work and career.

The Respondents

The respondents in this study were 202 graduate nurses from nursing education programs in Alberta in 1976. The respondents from the college and hospital diploma

programs were from a randomized proportional sample, whereas all graduates from the baccalaureate degree programs were contacted if a current address was available. Forty-eight baccalaureate graduates, 97 hospital diploma and 57 college diploma graduates returned the questionnaire completed. Of those who returned the completed questionnaire 25 (12.4%) indicated that they were no longer actively involved in a nursing career.

Research Methodology

Three hundred and sixty questionnaires were sent to 61 baccalaureate degree program graduates, 175 hospital diploma graduates and 124 college diploma graduates. The questionnaire consisted of three parts—Part I: The Career History, Part II: The Career Determinant Inventory (for those respondents who considered themselves still actively involved in a nursing career), and Part III, The Career Determinant Inventory (for those respondents who were no longer involved in a nursing career). Respondents were instructed to complete Part I and either Part II or Part III. The questionnaire was designed to identify; (1) steps the respondents had taken in their career, (2) their involvement in community and educational activities, (3) family responsibilities, and (4) their attitudes towards professional, work and family values and talents.

Data analysis techniques reflected the descriptive nature of the study and developmental processes of the Career Determinant Inventory. Statistical techniques such as means, frequency counts, factor analysis, analyses of variance and correlational analyses were used to analyze the quantitative data acquired. Responses to open-ended questions were analyzed by content and used to illustrate or support quantitative findings. The non-nursing respondents and nursing respondents were compared and then dealt with separately.

Summary of the Findings

The study objectives were derived from the conceptual framework and the review of the related literature. In this section the major findings are summarized according to the five objectives for the study.

1. Factors That May be Used to Describe the Career Orientations of Nurses.

Eight seemingly discrete factors were identified from the factor analysis of the 47 items on the Career Determinant Inventory. The eight factors accounted for 52.6 percent of the variance. It was found that three items did not meet the selection criteria for inclusion on a factor. The variables that clustered in each of the factors appear to provide a basis for description of attributes that could be influential in developing orientations that influence an individual's career. The eight career orientations identified were:

1. *ambition for leadership*, consisting of 10 items that describe a desire for management and leadership positions within the workplace and profession;

2. *job security*, consisting of 6 items that describe a need for employment security, benefits and prestige within the organization;

3. *family commitment*, consisting of 5 items that describe values related to raising or being part of a family;

4. *independence*, consisting of 5 items that express independence and individuality in the work place;

5. *variety/adventure*, consisting of 6 items that express a need for variety, change and adventure in their career;

6. *altruism*, consisting of 6 items that describe a need to help and be of service to others;

7 *self-esteem*, consisting of 5 items that describe values of personal and professional self-worth; and

8. *professional integrity*, consisting of 3 items that describe a sense of professional honesty and completeness.

To determine internal consistency of the items on the Career Determinant Inventory questionnaire reliability coefficients were computed using the split-half technique. The coefficients obtained indicate that the career-orientations identified from the Career Determinant Inventory appear to consist of items that are homogeneous and have sufficient stability and reliability to measure the attitudes, motives and talents that influence nurses in their career decisions. The relationship among the eight career orientation factors was measured using the Pearson product-moment correlation coefficient test. The results from this test indicated a positive relationship between ambition for leadership, job security, independence, variety/adventure and self-esteem. A negative relation was found between family commitment and variety/adventure and ambition for leadership. The intercorrelations that were found indicate that the relationship between the individual Career Determinant Inventory factors is mostly moderate to weak.

2. Differences Between Those Respondents Who Perceive Themselves to be Pursuing a Nursing Career and Those Who Do Not.

The respondents who replied that they were no longer involved in a nursing career demonstrated significant differences in their responses in relation to the nursing group on seven of the Career Development Inventory items. The non-nurses scored considerably higher on items concerned with the importance of the family and maintaining a balance between their work and family life, the need for independence in the work environment, opportunities to be creative, and the prestige of being identified with an organization. However, their scores were significantly lower than the nurses group on three items involving job security, helping others, and being responsible for other groups of people in the work place. Their reasons for leaving nursing were generally related to an overall

dissatisfaction with nursing as a career because of stress in the work place, frustration with working conditions, family commitments along with the decision to raise their children independently, or health problems. Several of the non-nurse respondents had developed careers in other professions .

The results of the t-test when the the nurses and non-nurses responses to the career determinant inventory items were compared suggest that the non-nurses appear to consider freedom from organization restriction to be an important value. They also appear to have sought alternative careers in professions where they have greater freedom to express their creativity and individuality: careers such as chiropractor, music teacher, family business, broadcasting and religious ministry.

3. The Relationships Between Selected Education, Family, Community/Professional Involvement and Work History Variables and Nurses' Career Orientations

When the nurses' career orientations were analyzed in terms of selected education, family, community/professional involvement and work history variables, differences were found on six variables.

Graduates of a Particular Type of Nursing Program. An analysis of the mean factor scores on the career orientation variables in terms of the type of basic nursing education program identified significant differences on three career orientations; ambition for leadership, job security and self-esteem.

The graduates of the baccalaureate degree programs scored higher (mean=2.57) than either the college (mean=2.26) or hospital (mean=2.17) diploma program graduates on the ambition for leadership orientation. The opposite result occurred on the job security orientation. In this situation the hospital diploma graduates (mean=2.51) and college diploma graduates (mean=2.26) scored higher on the orientation than the baccalaureate degree graduates (mean=2.18).

Recollection of Decision to Become a Nurse. Those respondents who had a specific recollection of when they decided to become a nurse scored significantly higher on two career orientations; altruism (mean=3.30) and professional integrity (mean=2.56), when compared to those who do not have a specific recollection of their career decision (means=2.07 and 2.26).

Postgraduate and Post-Service Education. The pursuit of postgraduate and post-service education was considered to be an "important" event in the nurses' career. Analyses of these variables in terms of the career orientations revealed significant differences for both variables. Those respondents who have a postgraduate qualification beyond their basic nursing education program scored significantly higher on three career-orientation factors. The high scores were on the ambition for leadership (mean=2.73), variety/adventure (mean=3.27) and self-esteem (mean=3.65) orientations. The respondents who had not pursued postgraduate qualifications in nursing scored significantly higher on the family commitment (mean=3.55) and independence (mean=3.67) orientations. Those who had participated in clinical nursing post-service courses scored significantly higher on the ambition for leadership (mean=2.53), independence (mean=3.52) and self-esteem (mean=3.67) orientations while those without post-service courses scored significantly higher on the variety/adventure orientations (mean=2.70). The respondents who had participated in short courses related to nursing were found to have significantly higher scores on the variety/adventure (mean=2.95) orientation.

Family Status. Two aspects of family status revealed differences when variables were analyzed in terms of the career-orientation factors; marital status and whether the respondents had children.

Significant differences were found on three of the career-orientation factors when marital status was considered. The married respondents had a significantly higher mean score for family commitment (mean=3.67) in comparison with either those who are not married (mean=2.84) or those who are divorced or widowed (mean=2.47). Variety/adventure is substantially more important to those who have never married (mean=3.12) than to the respondents presently married (mean=2.67), while the divorced or widowed respondents scored higher (mean=2.93)than the married group (mean=2.41) on the professional integrity orientation.

If respondents have children it was found that their score was higher on the family commitment (mean=3.71 compared to 2.41) and altruism (mean=3.26 compared to 3.07) orientations than those without children. On the other hand, those respondents without children scored higher on the ambition for leadership (mean=2.44 compared to 2.21) and variety/adventure career-orientation (mean=3.14 compared to 2.61).

Involvement in Community and Professional Organizations. The respondents holding office or volunteer positions in community organizations were found to have higher scores on the family commitment orientation (mean=3.62 compared to 3.38) while those not holding such offices scored higher on the variety/adventure orientation(mean=2.85 compared to 2.64). Significantly higher scores were realized by those respondents holding office in a professional association than those without such offices in the ambition for leadership orientation (mean=2.53 compared to 2.24). For the nurses, those who are involved in advancing careers could be deemed to have a greater perception of career. They had higher scores on ambition for leadership and self-esteem, they have advanced their level of responsibility within the nursing hierarchy and in the case of the mobile advancing careerists, they have advanced their educational level.

The high altruism scores for all career-pattern groups (mean range 3.01 to 3.32) may be indicative of a perception of nursing as a vocation rather than a career. On the other hand, mean factor scores on ambition for leadership were consistently low for all five career-pattern groups (mean range 1.84 to 2.75). This particular orientation is the most encompassing of the values, motives, and talents associated with a strong perception of career.

Functional Area of Practice. The functional areas of practice identified were related to levels of responsibility within the nursing hierarchy rather than clinical practice areas. Four levels of responsibility were identified: (1) staff nurse—consisting of respondents currently employed as staff nurses and/or team leaders, (2) management—consisting of respondents employed as charge-nurses, supervisors, assistant directors and directors, (3) instructors—consisting of respondents employed as instructors, professors or clinical specialists, and (4) not-working—consisting of respondents who were unemployed, homemakers or students in a post-graduate program.

The findings identified several orientations where one or more groups demonstrated significantly higher mean factor scores. The management group scored higher on the ambition for leadership orientation (mean=2.92) than either the staff nurse group (mean=2.07) or not-working group (mean=2.26). The instructor group also scored higher on this orientation than the staff nurse group (mean=2.67 compared to 2.07). The staff nurse group scored higher than the management group on the family commitment orientation (mean=3.67 compared to 3.27). On the self-esteem orientation, both the management group (mean=3.73) and the instructor group (mean=3.69) scored higher than either the staff nurse (mean=3.31) and not-working groups (mean=3.17). The instructor group scored higher (mean=2.75) than the management group (mean=2.23) on the professional integrity orientation.

If the respondents in these groups had always worked in the same area of clinical practice then they were seen to score significantly higher on job security than those who had changed areas of clinical practice. Conversely, those who changed their area of practice scored higher on the variety/adventure orientation.

Mobility. The mobility of respondents, as evidenced by working in a number of different agencies, revealed significant differences between groups on three of the career-orientation factors. Those respondents who had worked in four or more agencies scored considerably higher (mean=2.95) than the respondents who had work experience with fewer than three agencies. The ambition for leadership and professional integrity mean factor scores were significantly higher for those respondents who had worked for three agencies (mean=2.85) in comparison with those who had worked in only one agency (mean=2.32).

4. **Exploring the Feasibility of Developing a Career Pattern Typology**

    a. To create a career typology using selected work history variables.

    b. To describe these career patterns in terms of selected education, family, community/professional activity, and work variables.

    c. To explore relationships between the career patterns and career orientations.

The study revealed five career patterns into which the nursing respondents could be categorized. The patterns identified were labelled according to employment characteristics reported by the respondents.

1. The stationary place-bound pattern composed of nurses who had worked with only one agency and at the staff-nurse level.

2. The mobile lateral career-pattern composed of nurses who worked at the staff-nurse level but had been with more than one agency.

3 The advancing place-bound career pattern composed of nurses who had always worked with one agency but had advanced to the charge-nurse level or higher.

4 The mobile reverting career pattern composed of nurses working in staff-nurse positions, who had worked with more than one agency and who had previously been employed at higher-level positions.

5. The mobile advancing career pattern composed of nurses who have worked in more than one agency and had advanced to levels of responsibility beyond that of a staff-nurse.

An analysis of the career patterns in terms of the career orientations revealed significant differences among the groups on four of the eight career-orientation factors. The differences appeared on the ambition for leadership, family commitment, variety/adventure and self-esteem orientations. The stationary careerists scored lower on ambition for leadership (mean=1.84) than either of the advancing place-bound careerists (mean=2.54) and mobile advancing careerists (mean=2.72). They also scored lower on variety/adventure (mean=2.25) than either the mobile lateral careerists (mean=2.78) and mobile advancing careerists (mean=2.92) and on self-esteem (mean=3.23) than the mobile advancing careerists (mean=3.67).

. The mobile lateral careerists scored higher (mean=3.60) than the mobile advancing careerists (mean=3.23) on family commitment and the stationary place-bound careerists (mean=2.78 compared to 2.25) on variety/adventure. They scored lower than the mobile advancing careerists on the ambition for leadership and self-esteem orientations.

The advancing place-bound careerists score was significantly higher (mean=2.72) than the stationary place-bound (mean=1.84) careerists on the ambition for leadership career-orientation factor. The mobile reverting careerists demonstrate only one significant difference from all other groups; they are significantly lower (mean=2.20) than the mobile

advancing careerists (mean=2.72) on ambition for leadership. Important differences occur between the mobile advancing careerists and the other four career pattern groups. This particular group had significantly higher mean factor scores than the stationary place-bound group on three orientations. The three orientations were: (1) ambition for leadership, (2) self-esteem, and (3) variety/adventure. They are also had considerably higher scores than either the mobile lateral or the mobile reverting careerists on the ambition for leadership orientation.

5. Initiate Development Work on a Career Orientation Questionnaire That Could be Used For Human Resources Development Purposes With Nurses

For this study the researcher developed a comprehensive questionnaire consisting of a Career History and two versions of a Career Determinant attitude survey. The work of previous researchers—Schein (1978 & 1985), DeLong (1982), and Aune (1983)— was used to guide the development of the questionnaire.

The results of the factor analysis, the reliability coefficients obtained by the split-half techniques, and the Pearson product-moment correlation coefficients indicate that the Career Determinant Inventory appears to reliable and valid measure of the values, motives, and talents that may influence the careers of nurses.

In order to further assess the usefulness ability of the instrument in indicating the career orientation of nurses, a field-test was carried out. The Career Determinant Inventory was given to a convenience sample of 14 senior nurses with similar career profiles. The nurses were either graduate students (PhD) in the department of Educational Administration or had recently graduated with either a PhD or MEd degree. The field-test using a group of nurses who could be described as having successful careers indicates that it is possible to predict how individuals might score on the Career Determinant Inventory.

In future research, the researcher recommends that the title of the questionnaire developed for this study should be changed to the *Career Orientation of Nurses Questionnaire.*. This title would reflect the intent of the inventory more appropriately than the term "determinants." The term "determinant" appears to be too decisive and deterministic for the present stage of study.

Discussion of the Findings

In the following four subsections career orientations, career-patterns of nurses and women, the role of the organization in career development and the usefulness of the Career Determinant Inventory in career counselling are examined in relation to the study findings and related literature.

Career Orientations

The eight career orientations that emerged from the analysis of the Career Determinant Inventory (CDI) appear to represent values, motives, aspirations and talents characteristic of nurses. The findings are consistent with previous work on career anchors. Schein (1978) identified five career anchors, Derr (1980), identified nine, DeLong (1982) identified eight , and Aune (1983) identified five career anchors. The present study has identified eight orientations that are somewhat similar to the career anchors identified earlier.

Schein (1978, p. 170) had suggested the possible presence of a service anchor within professions such as social work and medicine and that if women were included in the research there might be a higher percentage of them who would "be anchored in the more affiliative, service kinds of career preoccupation because of prior socialization to be affiliative." Aune (1983, p.32) tentatively defined a service anchor which would "have as it's dominant motive some contribution to the welfare and the well-being of one' fellow

human beings." The CDI items developed to reflect Aune's view of service anchor reveal a strong service/altruism orientation for all groups of respondents in the present study. Altruism is an "important" value for all subgroupings. This theme of helping or being of service to others was also evident in the comments respondents made reg::ding their decision to become a nurse. Aune (1983, p. 78) reports service as the "key factor in career decisions of nurses." Altruism is also evident in the respondents considerable level of participation in community organizations, particularly if they have children. Whether or not altruism is peculiar to women and their career orientation could not be ascertained from the present study—this is an area for further study.

Another issue that has been raised by Schein (1978), Derr (1980), DeLong (1982) and Aune (1983) is whether or not individual's Have a single definable anchor. Schein developed profiles for his subjects that indicated that although they may have a dominant orientation towards a career anchor they consider the values and talents characteristic of other anchors as equally important. DeLong identified strong relationships between career orientations. He found that autonomy and creativity, managerial competence and technical competence, and service, identity and security formed "strong" relationships.

Derr (1980) argues for a developmental patterning of career a chors; career anchors coexisting with some becoming more dominant as the the individual develops a career-pattern over time. He also suggests that as a career pattern develops, opportunities present or luck intervenes, the individual may even seize a second-career opportunity. This may be the c or some of the 25 non-nursing respondents who have changed their career direction since graduation from their basic nursing education program. Derr found there were a number of naval officers who were "turned off" the military, the opportunities were limited or another career opportunity had presented. These people had embarked on or were considering other career options.

In the present study a relationship was found between ambition for leadership, variety and self-esteem. Family commitment, altruism and independence also formed a relationship as did job security and professional integrity. These finding are consistent with those of DeLong (1982). Although nurses appear to have several definite career orientations, with none being particularly dominant, it was not evident from the study findings if the orientations emerge and change over time, as Derr suggests, or if they are present and stable throughout.

Aune (1983) in her study of nurses found that staff nurses were most interested in security, autonomy, technical competence and managerial orientations. The staff nurse respondents in the present study exhibited highest orientations towards family commitment, self-esteem, independence and altruism. The management group in the present study exhibited highest orientation towards self-esteem, independence, family commitment and altruism compared to Aune's managerial nurses who exhibited autonomy and managerial anchors. Aune's nurse educator group exhibited autonomy, managerial and technical anchors, whereas, in the present study, the instructor group exhibited highest orientation towards self-esteem, independence, family commitment and altruism.

Debate is evident throughout the career anchor literature as to the most appropriate method for collecting data related to career anchors. DeLong (1982) and Derr (1980 & 1986) have both asserted that the questionnaire approach may not be appropriate as a means of identifying career anchors and the internal career orientations of individuals. The results of the present study appear to confirm the presence of values, motives and to some extent talents and aspirations that are important or true of nurses in their feelings, concerns and beliefs about their career and the relationship of that career to their family life. What has not been possible, in the researchers opinion, is the confirmation as to whether these values, motives and talents tend to "guide, constrain, stabilize and integrate

the person's career" (Schein, 1978, p. 127). It would appear that values, motives and talents do act as constraints. Comments from respondents concerning the influence their children have on their work-pattern, indicate family commitment has a constraining effect on the direction their career is taking at the 10-year point. The CDI*questionnaire is useful as an assessment tool but in its present form it is not able to reveal the extent to which the orientations guide, stabilize and integrate the person's career.

Career Patterns of Nurses and Women

It had not been the intent of the researcher to concentrate on the aspect of women's careers in this study but the findings necessitate addressing this issue. Nursing is a profession comprised predominantly of women and the study findings confirm this; therefore, the issues concerning women and their careers cannot be ignored.

Earlier the researcher raised several questions in relation to the orientation of the respondents towards the ambition for leadership orientation. The mobile advancing careerists exhibited the highest mean factor score (mean=2.72) on this determinant—a low score when compared to the range for all groups on family commitment (3.61 to 3.23). Is this lack of ambition for leadership a characteristic of nurses and their careers? Is it because the profession is predominantly female? Does a high family commitment and a fairly high altruism orientation negate an orientation towards values such as wanting to become a leader in the profession, seeking the challenge of organizing others or being involved at the decision-making level in the profession?

Similar questions have been raised by other researchers. Harmon (1970) found that at age 18 career committed women and non-career committed women did not have different plans. Later the "career" women tended to stay in college longer, earn higher degrees and work more. They married later, had fewer children at a later age, and they said they would always work or return to work when the children were older. Young

(1984, p. 25), in her study of the professional commitment of nurses found that marriage was still and important variable when women were "considering full-time commitment to a professional career in nursing." A re.. nt study of registered nurses from Saskatchewan (Laing, 1986) identified sex role attitudes, work commitment, and family consideration as three factors that influence participation in the labor force. Laing found that:

- sex role attitudes have become more egalitarian and those nurses holding such attitudes are more likely to participate in the labor force;

- nurses who have interruptions in their work history were more common than those who had not; and

- nurses with children below age 11 were less likely to work.

Laing (1986, p. 175) did not find a strong relationship between education and participation in the work force; therefore, she refutes the argument that "baccalaureate entrance to practice would increase labor force participation."

The present study tends to reaffirm the findings of these studies. The nurses who have mobile advancing careers are perhaps the most career oriented of the five career patterns identified. They have the highest education qualifications, are less likely to be ..ried, have fewer children, and while they reported the least proportion in current employment, they have the greatest proportion participating in postgraduate education programs. Contrary to Laing's findings this group has the highest incidence of baccalaureate educated respondents; therefore, the conclusion could be drawn that a baccalaureate degree is a predictor of career status advancement. This finding substantiates Aune's (1983, p. 37) finding that "degree nurses seek positions that allow them to maximize their interests and expertise."

In another study, Nolan (1985) identifies commitment to wife-mother-housewife as a factor common to the four work patterns demonstrated by the 47 nurses she studied. She found that her findings confirmed the notion that nursing is seen as a career where marriage and motherhood can be combined with a lifetime commitment to nursing.

Overall, the findings from the present study reflect confirm many of the findings previous studies of women and nurses. There were a few respondents who match Super's (1957) "stable homemaking" pattern of no work experience or a short work period followed by a stable homemaking career pattern. There was a group (the stationary careerists) who have a career pattern similar to a "stable pattern" (Nolan, 1985), a "steady state career" (Friss, 1981), "rutters" (Kramer, 1974), and "stationary" (Westbrook & Nordholm, 1984). Another group exhibits lateral careers similar to those described as "lateral arabesquers" (Kramer, 1974), "lateral careerists" (Lewin & Olesen, 1980) and "transients" (Friss, 1980). Those who have stationary advancing careers demonstrate some of the characteristics described by Friss (1980) as a "linear career" and Kramer (1974) as the "organization woman." The mobile reverting careerists exhibit characteristics similar to those labelled by Nolan (1984) as "double track" and Friss (1980) as "spiral" and the mobile advancing career is in some aspects similar to the career labelled "advancing" by Lewin and Olesen (1980) and Westbrook and Nordholm (1984). Regardless of the label given to the career patterns identified, a high degree of commitment to family, concomitant interruptions in employment and in some instances a lack of ambition to achieve status through upward mobility, appear to be a common finding noted by researchers investigating the careers of female nurses. However, the question still remains—are the careers of female nurses different from the careers of male nurses when variables such as career orientations are used to study the values, motives and talents influencing career decisions. It is the opinion of this researcher that there would be considerable differences found between the gender groups on variables such as the ambition for leadership, independence, and self-esteem career-orientations.

Organizational Practices and Career Development

Given that childbearing and childrearing, and the resultant commitmﾗnt ﾜo family life are central to the majority of female nurses and their careers, it would be reasonable to expect the organizations they work for to take these factors into consideration—to recognize that this large proportion of their work force have conflicting values that they must deal with if they are committed to a career in nursing. Vestal (1983b, p. 193)) urges nurses to be responsible for planning their careers and to "take time to consider details of how the organization functions." This would appear to be a mutual problem; nurses need to consider how the organization functions and the organization needs to consider how its nurse employees function.

In their submission to the Premier's Commission on future health care for Albertans, the Alberta Association of Registered Nurses (1988) highlights some of the problems experienced by nurses concerning the quality of work life. Problems such as "instability, variability, and uncertainty" of staffing patterns and staffing levels as well as "educational level and availability of nursing staff." They see the need for opportunities for education related to the relearning required when nurses reenter the work force and they recommend provision "for clearly delineated career paths separate from the administrative role for registered nurses and establish rewards and recognition accordingly." The Association recommends:

> Establish[ment of] improved mechanisms for financial and professional recognition of the clinical expertise.
>
> Select[ion of] candidates for first-line and middle nurse manager positions who possess the knowledge and skill base required for the role.
>
> Groom[ing of] potential first-line nurse managers by providing opportunities for selected staff nurses to gain knowledge and skills associated with the management function of the agency.
>
> Develop[ment of] planned orientation and management development programs for first-line and middle managers.

> Ensur[ing] that all agencies establish orientation programs for nurses related specifically to equipment and technology prior to work assignments (p. 43).

More than 60 percent of the respondents in the present study are employed at the staff nurse level. If they are to find satisfaction in their work they need the opportunity to develop their careers. Such opportunity is possible through well developed career planning programs—personal and institutional. There is a considerable amount of nursing literature available on how to plan your career, improving nurses' work life, and assisting nurses towards professional growth (Araujo, 1980; Kleinknecht & Hefferin, 1982; Morrison & Zubelman, 1982; Vestal, 1983a; Campbell & Williams, 1983; Vestal, 1983b; Swansburg & Swansburg, 1984; Smith, 1985; AARN/AHA, 1984/85; Merker, Mariak & Dwinnells, 1985; Wintz, 1985; Banning 1987; Daniels, 1987). There appears to be a reluctance on the part of institutions to act in accordance with this knowledge base. In 1980 a report of the Alberta Hospitals Association (AHA) recommended the provision of nursing career paths for nursing staff because of the lack of advancement available to the staff nurses. The report warned "if career paths are not made available, nurses will look to other fields for advancement" (AHA, 1980, p.347). In 1985 a joint committee of the AARN and AHA noted:

> Quality patient care can be achieved if the working environment in which a nurse practices is one that encourages staff development and promotes recognition of self-worth. Historical patterns of compensation, however, discouraged nurses with experience and expertise in providing direct nursing care to patients from remaining in the clinical area (p. 4).

The report then went on to once again recommend the provision of career paths for nursing staff. In 1988 the AARN is still recommending the provision of clinical career paths for nursing staff in agencies operated by members of the AHA. Nothing has changed.

From the review of the related literature and t the study findings it can be concluded that:

1. Nurses appear to be engaged on a dual career path. They are committed to nursing and to raising their families. The two careers may parallel each other or they may alternate depending on the needs of the family.

2. Organizations do not appear to recognize the complexity of career issues for a female workforce. They continue to promote concepts such as career ladders yet they fail to provide the means by which such concepts become reality.

3. Despite a plethora of studies about the quality of worklife, turnover and retention of nurses, the work conditions remain such that nurses leave because of dissatisfaction, stress and feelings of helplessness.

4. For the nurses involved in this study a concept of career would appear to develop from:

   - socialization during childhood and early adulthood;
   - a need to be of service and help to others;
   - values related to family;
   - success in the workplace; and
   - a sense of self-esteem.

The Use of the Career Determinant Inventory In Career Counselling The findings of the study indicate that the Career Determinant Inventory has the ability to identify values, aspirations, beliefs and motives that are characteristic of nurses career orientations. Orientations appear to affect the decisions and choices nurses make with regard to their careers.

While there is not conclusive evidence that the orientations individuals exhibit determine career decisions, it is evident that awareness of where one's strengths, values and talents are oriented would enable nurses to make more informed decisions in relation to their careers. Therefore, it would seem to be of value both to the individual nurse and the organizations where nurses are employed to capitalize on instruments that assist in the identification of career orientations. Such an exercise would be a consciousness-raising process for both the individual and the organization and would provide the nurse with more control over her or his career.

The Career Determinant Inventory could be used as a self-assessment tool along with interviews in a process, similar to those developed by Schein (1985) and Derr (1986), of

collaborative human resources development that involves the employee and the organization.

Implications for Practice and Further Research

This study has several implications for practice and related policy development for organizations that educate and employ nurses and other predominantly female professionals such as teachers. Practices and policies that are supportive of career planning promote identification and development of strengths, interests and goals that are of benefit to all concerned. Staff turnover, dissatisfaction and stress in the workplace is costly. Nurses who are in work situations that are congruent with their career aspirations are more likely to experience job satisfaction, which in turn gives rise to staffing stability, commitment to the organization and the opportunity for innovation in nursing practice and health care delivery.

Implications for Practice

There is a need, by both the individual and the organization to recognize the relationship of the person's internal career and the organization's responsibilities and expectations—the external career.

Implications for the Individual (Internal) Career. Individual nurses need to recognize that they can control their professional destiny by planning their own unique personal career. Planning should involve:

- Assessment of strengths—values, motives, aspirations and talents—in relation to self work and family.

- Assessment of perceived constraints—present or future— in relation to self, family and work.

- Identification of desired goals in relation to self, work and family and based on assessed strengths and constraints.

- An outline of a career path—education, work experience, travel—to achieve desired goals.

- Evaluation and reassessment of strengths, perceived constraints, goals and plans at frequent intervals.

In planning their own unique personal career program the individual nurse should involve family, friends and the organization in the process.

Implications for the Organization (External) Career. Organizations that employ nurses have responsibilities and expectations in relation to the career plans of individuals in their employment. Responsibilities include:

1. Recognizing and and implementing working conditions that are conducive to retaining and/or promoting the career plans of the individual.

2. Implementing lateral and advancing career-paths with particular attention to the career opportunities for staff nurses.

3. Acceptance of the notion of the dual-career as a realistic career option for women.

4. Assisting nurses to recognize and manage their career potential.

5. Cooperating with nurse employees, educators, and experts to develop and use nursing-oriented instruments and packages similar to those promoted by Schein (1985) and Derr (1986) for human resources development and career counselling purposes.

6. Nursing education and nursing service will find ways to promote the excitement, challenge and adventure of a nursing career.

The organization can expect:

1. That individual nurses will assume responsibility for planning and promoting their own career.

2. Nursing education programs will promote career-oriented values.

Implications for Research

The implications for future research concerning the career orientations of nurses are both substantive and methodological. Both the reality of career orientations and the

methods by which they are identified and assessed are areas for further research. The career orientations identified are the products of a particular statistical procedure—factor analysis—and the labels attached are an attempt to explain the factor objectively. As Kerlinger cautions (1973, p. 188), "it is easy to name a factor and then believe there is reality behind the name."

Further research is required to explore the extent to which the career orientations identified in the study do influence the career decisions nurses make. The conceptual model for the study was developed to help clarify the nature of the concept of career orientation and the elements underlying the formation of careers. It guided the researcher in the development of the research instruments and the identification of the objectives for the study. It has been a useful model in focussing the study and, in the opinion of the researcher, could be used to guide further studies in the career development of nurses. It would be particularly useful as a model for the development of a longitudinal study of the emergence of career orientations.

The Career Determinant Inventory has elicited eight fairly distinct career orientations that appear to be characteristic of nurses, yet there is still a need to investigate the developmental stages of career orientations.

- Do they form over a 10 to 15 year period?

- Does change occur as the result of socialization, work experiences, life events and education experiences?

- How much is happenstance an influence on the direction that a person's career takes?

- Are there critical points in the careers of nurses?

- Do career orientations remain stable over time?

Although ambition for leadership is significant in relation to several career history variables and career patterns it is necessary to note that the highest rank-place attained was

sixth place and the highest mean factor score was 2.72. Several questions for further research arise from these findings.

- Is a lack of ambition for leadership a characteristic of nurses and their careers? Is it because the nursing profession is predominantly female in composition?

- Does a high family commitment and a moderately high altruism orientation negate an orientation to values such as wanting to become a leader in the profession, seeking the challenge of organizing others, or being involved at the decision-making level in the profession? Or is it that the organizational climate and structure of the work-place does not encourage interest in administration during those early formative years of the nurse's career?

- Is altruism a career-orientation that is particularly strong for female nurses or would a sample of male nurses reveal a similar orientation?

The greater proportion of the study respondents indicated that they worked in staff nurse position in either a stationary place-bound or mobile lateral career pattern. Questions arising from this finding relate to the relationship between these two career patterns and the career-orientations of job security, adventure/variety and family commitment.

- Do these staff nurses choose to work in these (stationary place-bound and mobile lateral) career patterns because this is a level where they get the most professional satisfaction? Or are they working in these career patterns because they see no other alternatives if they are committed to combining family and nursing?

- Is a mobile lateral career-pattern more "career-oriented" than a stationary place-bound career-pattern?

•   What are the constraints that influence these career patterns?

There is also a need for further studies that both refine the present instruments and explore, through interviews. the career perceptions of nurses. Interviews would allow the researcher to probe the values, motives and events in the subjects career. The Career Determinant Inventory requires repeated testing to establish reliability. It also requires testing as a career counselling tool in a variety of settings, with a variety of subjects and with nurses at various stages in their careers. The researcher believes that it has potential as a career counselling tool and could be used in conjunction with self-assessment instruments; such as those developed by Schein and Derr, and counselling interviews in the workplace.

Concluding Remarks

A study of careers and career orientations can be justified as appropriate to the discipline of educational administration. The administration of educational programs at all levels, from preschool to postgraduate, is concerned with the development of skills, knowledge and values that enable individuals to live and work in careers that are valued and fulfilling. The study of careers enables employers and educators to identify people who are career oriented whether they are nurses or teachers.

Nursing and teaching are two careers that are characterized as being predominantly female careers. Considerable money and time is spent on the education of these women, yet there is continuing neglect of them once they have graduated. Little attention is given to the promotion of career tracks based on educational preparation and ability. Tactics employed to overcome chronic problems of turnover and cyclical staffing shortages are usually short-term and involve sporadic salary and working condition improvements. Because these professions are comprised largely of women they have not been granted the same status and promotion opportunities as male-oriented profession.

The childbearing responsibilities women assume are used as an excuse to keep these professions low-status.

Studies such as this one which identify career patterns and career orientations indicate that there are women who are concerned with a stable career that maximizes their strengths, skills and values. Administrators and educators cannot ignore this potential.

REFERENCES

Alberta. Advanced Education and Manpower. (1975). *The report of the Alberta task force on nursing education.* Edmonton, AB: Author

Alberta. Advanced Education. (1979). *Alberta health and social services training programs inventory: academic years 1974-1979.* Advanced Education Programs Services Division, Health and Social Services Programs Branch. Edmonton, AB: Author.

Alberta Association of Registered Nurses. (1978). *Summary of staff vacancies active treatment hospitals, auxiliary hospitals & Alberta hospitals.* Mimeographed material, AARN.

Alberta Association of Registered Nurses. (1988). Alberta Association of Registered Nurses brief on concerns of registered nurses in Alberta hospitals and nursing homes to the Premiers Commission on Future Care for Albertans Edmonton, AB: March 14, 1988.

AARN/AHA. (1985). *Position paper on quality of working life.* Fourth Report of Alberta Association of Registered Nurses/Alberta Hospitals Association Joint Committee on Nursing Manpower Issues, Edmonton, AB: Authors.

Alberta Hospitals Association. (1980). *Nursing manpower: A study of factors in nursing supply and demand in Alberta hospitals and nursing homes.* Edmonton, AB: Author.

Anantrasirichai, A. (1988). *The bureaucratic characteristics of the supervisory units at the provincial level in Thailand.* Unpublished doctoral dissertation, University of Alberta.

Anderson, A.B., Basilevsky, A., & Hum, D.P.J. (1983). Measurement: Theory and techniques. In P.H. Rossi, J.D.Wright, & A.B. Anderson (Eds.), *Handbook of Survey Research* (pp. 231-281). Orlando, FL: Academic Press.

Araujo, M. (1980). Creative nursing administration sets climate for retention. *Hospitals, 54* (May 1), 72-61.

Aune, R.C. (1983). *The career anchors of selected groups of nurses.* Unpublished doctoral dissertation, University of Utah.

Babbie, E.R. (1973). *Survey research methods.* Belmont, CA: Wadsworth.

Banning, J.A. (1987). Nursing for a lifetime? *Canadian Nurse, 83* (March), 3.

Bohrnstedt, G.W. (1983). Measurement. In P.H. Rossi, J.D.Wright, & A.B. Anderson (Eds.), *Handbook of Survey Research* (pp. 70-115). Orlando, FL: Academic Press.

Canadian Nurses Association (1984). *Report of ad hoc committee on entry to practice to Board of Directors, February 20-24.* Unpublished report: Author.

Campbell, D.T., & Stanley, J.C. (1963). *Experimental and quasi-experimental designs for research.* Chicago: Rand McNally.

Campbell, J.P. & Williams, T. (1983). Marketing to nurses through an incentive program. *Journal of Nursing Administration*, 13 (October), 9-12.

Castonguay, T., & Maquera, M. (1977). *Looking Back: A five year descriptive study of Grant MacEwan Community College nursing program.* Edmonton,AB: Grant MacEwan Community College.

Cleland, V.A., Bass, R., McHugh, N., & Montano, J. (1976). Social and psychological influences on employment of married nurses. *Nursing Research*, 25 (2), 90-97.

Colavecchio, R. (1982). Direct patient care: a viable career choice. *Journal of Nursing Administration,* 12 (July-August), 17-22.

Common factors foster RN retention: Study. (1983). *Hospitals,* 57 (12), 70.

Daniels, D. (1987). Planning your nursing career for the year 2000. *AARN Newsletter,* March, 11.

De Long, T.J. (1982). Career orientations of MBA Alumni: A multidimensic il model. In R. Katz (Ed.), *Career Issues in Human Resource Management* (pp. 50-64). Englewood Cliffs, NJ: Prentice-Hall.

Derr, C.B. (1980). More about career anchors. In C.B. Derr (Ed.),*Work, Family, and the Career* (pp. 166-187). New York: Praeger.

Derr, C.B. (1982). Career switching and organizational politics: The case of naval officers. In R. Katz (Ed.), *Career Issues in Human Resource Management* (pp. 65-84). Englewood Cliffs, NJ: Prentice-Hall.

Derr, C.B. (1986). *Managing the new careerists.* San Fransisco: Jossey-Bass.

Downie, N.M., & Heath, R.W. (1965). *Basic statistical methods* (2nd ed.). New York: Harper & Row.

Driver, M.J. (1982). Career concepts-a new approach to career research. In R. Katz (Ed.), *Career Issues in Human Resource Management* (pp. 23-34). Englewood Cliffs, NJ: Prentice-Hall.

Field, P.A. (1978). *A follow-up study of graduates from the four year B.Sc. programme in nursing, University of Alberta.* Edmonton: University of Alberta.

Field, P.A., & Morse, J.H. (1985). *Nursing research: The application of qualitative approaches..* London, UK: Croom Helm.

Friss, L. (1981). An expanded conceptualization of job satisfaction and career style. *Nursing Leadership,* 4 (4), 13-22.

Guba, E.G., & Lincoln, Y.S. (1981). *Effective evaluation.* San Francisco: Jossey-Bass.

Gutteridge, T.G., & Hutcheson, ".G. (1984). Career development. In Nadler, L. (Ed.),*The Handbook of Hum* Resource Development (Chapt. 30). New York: John Wiley.

Hall, D., & Lerner, P. (1980). Career development in work organizations: Research and practice. *Professional Psychology*, 11 (June), 428-435.

Hall, R.H. (1975). *Occupation and the social structure* (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall.

Hardy, L.K., Sinclair, H., & Hughes, J. (1984). Nursing careers: Findings of a follow-up survey of graduates of the nursing education and administration certificate courses of the Department of Nursing Studies, University of Edinburgh, 1958-1975. *Journal of Advanced Nursing*, 9, 61¹ 618.

Harmon, L.W. (1970). Anatomy of career commitment in women, *Journal of Counselling Psychology*, 17 (1), 17-80.

Harty, H. (1979). Questionnaire design and administration. *New Directions for Institutional Advancement*, 6, 19-26.

Hefferin, E.A., & Kleinknecht, M.K. (1986). Development of the nursing career preference inventory. *Nursing Research*, 35 (1), 44-48.

Howard, J.M., and Brooking, J.I. (1987). The career paths of nursing graduates from Chelsea Colllege, University of London. *International Journal of Nursing Studies*, 24 (3), 181-189.

Humphries, D. (1979). *Survey '79: A follow-up study of Foothills Hospital School of Nursing graduates and their career patterns 1968 through 1978*. Calgary, AB: Foothills Hospital.

Imai, R.H. (1977). A preliminary report on the state of nursing manpower in Canada and the need for new approaches to manpower planning. Unpublished report, Health and Welfare, Ottawa.

Johnson, W.L., & Dixon, P.N. (1984). Response alternatives in Likert scaling. *Educational and Psychological Measurement*, 44, 563-567.

Keough, G. (1977). The need for nursing career development. *Journal of Continuing Education in Nursing*. 8 (3), 5-6.

Kerlinger, F.N. (1973). *Foundations of behavioral research* (2nd ed.). New York: Holt, Rinehart & Winston.

Kim, J.O. (1975). Factor analysis. In N.H.Nie, C.H. Hull, J.G.Jenkins, K. Steinbrenner, & D.H. Bent (Eds.), *Statistical Package for Social Sciences (SPSS)* (pp 468-514). New York: McGraw-Hill.

Kim, J.O., & Mueller, C.W. (1978). *Introduction to factor analysis: What it is and how to do it*. Beverly Hills, CA: Sage.

Kleinknecht, M.K, & Hefferin, E.A. (1982). Assisting nurses toward professional growth: a career development model. *Journal of Nursing Administration* , 12 (July-August), 30-36.

Knapp, T.R. (1985). Validity, reliability, neither. *Nursing Research,* 34 (3), 189-197.

Kramer, M. (1974). *Reality shock: why nurses leave nursing.* St Louis: Mosby.

Laing, G.P. (1986). *Factors associated with married registered nurses' labour force participation.* Unpublished doctoral dissertation, University of Calgary.

Laschinger, H.K., & Boss, M.W. (1984). Learning styles of nursing students and career choices. *Journal of Advanced Nursing,* 9, 375-380.

Lewin, E., & Olesen, V. (1980). Lateralness in women's work: new views on success. *Sex Roles,* 6 (4), 612-629.

Lincoln, Y.S., & Guba, E.G. (1985). *Naturalistic inquiry.* Beverly Hills, CA: Sage.

Lopata, H.Z., Miller, C.A., & Barnewolt, D. (1984). *City women: work, jobs, occupations, careers. vol. 1: America.* New York: Praeger.

Madill, H.M. (1985). *Work related issues in occupational therapy.* Unpublished doctoral dissertation, University of Alberta.

MacGuire, J.M. (1971). The nurse/graduate in the United Kingdom career paths. *International Nursing Review,* 18 (4), 367-379.

MacQueen, L.W., & Ignatovich, F.R. (1986). *An importance weighted approach to overall job-facet satisfaction of teachers.* Paper presented at American Education Research Association, San Francisco, CA.

McClure, M.L., M.A. Poulin, M.D. Sovie, & Wandelt, M.A. (1983). *Magnet hospitals: Attraction and retention of professional nurses.* Kansas City, MI: American Nurses' Association.

McMillan, S.M. (1985). *Survey of Canadian nursing graduate students' job satisfaction and their reasons for graduate education.* Unpublished master's research project, University of Western Ontario.

Merker, L.R., Mariak, K.A., & Dwinnells, D.W. (1985). *The clinical career: Planning and implementation.* New York: Springer.

Morrison, R.S., & Zebelman, E. (1982). The career concept in nursing. *Nursing Administration Quarterly,* 7 (Fall), 60-68.

Munro, B.H. (1983). Young graduate nurses: Who are they and what do they want? *Journal of Nursing Administration,* 13 (June), 21-26.

Myroon, J.L. (1982). *Attitudes of educational administrators toward human resources accounting.* Unpublished doctoral dissertation, University of Alberta.

National League for Nursing, Division of Research. (1979). Summary report on. American nurse career-pattern study: baccalaureate degree nurses ten years after graduation. *Journal of Advanced Nursing*, 4 (March), 687-692.

Nolan, J.W. (1985). Work patterns of midlife female nurses. *Nursing Research*, 34 (May/June), 150-154.

Otto, L.B., Call, V.R.A., & Spenner, K.I. (1981). *Design for study of entry into careers*, Lexington, MA: Heath.

Peitchinis, J. (1975). *A study of the effectiveness if the educational program preparing the first class of nursing graduates the University of Calgary, 1974.* Unpublished report to the Faculty of Nursing, University of Calgary.

Polit, D., & Hungler, B. (1983). *Nursing research: Principles and methods* (2nd ed.). Philadelphia: Lippincott.

Prescott, P.A. (1986). Vacancy, stability and turnover of registered nurses in hospitals. *Research in Nursing and Health*, 9, 51-60.

Reid, N.G., Nellis, P., & Boore, J. (1987). Graduates in Northern Ireland: their career paths, aspirations and problems. *International Journal of Nursing Studies*, 24 (3), 215-225.

Rossi. P.H., Wright, J.D., & Anderson, A.B. (Eds.) (1983). *Handbook of survey research.* Orlanda, Fl: Academic Press.

Roth, J.A. (1963). *Timetables.* Indianapolis, IN: Bobbs-Merrill.

Schein, E.H. (1971). The individual, the organization, and the career: a conceptual scheme. In R.E. Hill, E.L. Miller, & Lowther, M.A. *Adult Career Transitions* (pp. 17-38). Graduate School of Business Administration: University of Michigan.

Schein, E.H. (1977). Career anchors and career paths: a panel study of management school graduates. In Van Maanen, J. *Organizational Careers*, New York: Wiley.

Schein, E.H. (1978). *Career dynamics: Matching individual and organizational needs.* Reading, MA: Adison-Wesley.

Schein, E.H. (1980). Career theory and research: some issues for the future. In C.B. Derr (Ed.),*Work, Family, and the Career* (pp. 357-365). New York: Praeger.

Schein, E.H. (1980). *Organizational psychology* (3rd ed.). Foundations of Modern Psychology series, Englewood Cliffs, NY: Prentice-Hall.

Schein, E.H. (1983). Individuals and careers. In J. Lorsch (Ed.), *Handbook of Organizational Behavior*, Englewood Cliffs, NJ: Prentice-Hall. (Mimeographed material provided by the author.

Schein, E.H. (1985). *Career anchors: Discovering your real values.* San Diego, CA: University Associates.

Seaman, C.H.C. (1987). *Research methods*. (3rd ed.). Norwalk, CT: Appleton & Lange.

Smith, M.M. (1982). Career development in nursing: An individual and professional responsibility. *Nursing Outlook*, 30 (February), 128-131.

Sovie, M.D. (1983). Fostering professional nursing careers in hospitals: the role of staff development, Part 2. *Journal of Nursing Administration*, 13 (January), 30-35.

Spenher, K.I., Otto, L.B. & Call, V.R.A. (1982). *Career lines and careers*. Lexington, MA: Heath.

Stein, J. (Editor in Chief). (1980). *The random house dictionary*. New York: Ballantine.

Stevens, K.R. (1983). *Power and influence: A source book for nurses*. New York: Wiley.

Strickland, O.L., & Waltz, C.F. (1986). Measurement of research variables in nursing. In P.L. Chin (Ed.), *Nursing Research Methodology: Issues and Implementation*. (pp. 79-90). Rockville, MD: Aspen. (Information presented at International Council of Nurses 18th Quadrennial Congress, Tel Aviv, Isreal, June 1985).

Stufflebeam, D.L. (1985). *Conducting educational needs assessment*. Boston, MA: Kluwer-Nijhoff.

Super, D.E. (1957). *The psychology of careers*. New York: Harper & Brothers.

Swansburg, R.C., & ..nsburg, P.W. (1984). *Strategic career planning and development for es*. Rockville, MD: Aspen.

Thorndike, R.M. (1978). *Correlational procedures for research*. New York: Gardner.

Van Maanen, J. (1977). *Organizational careers: Some new perspectives*. New York: Wiley.

Van Maanen, J., & Schein, E.H. (1977). Career development. In J.R. Hackman, & J.L. Suttle (Ed.), *Improving Life at Work* (Chapt. 2). Santa Monica, CA: Goodyear.

Vestal, K.W. (1983a). Nursing careerism: challenges for the nursing administrator. *Nursing Clinics of North America*, 18 (September), 473-479.

Vestal, K.W. (1983b). Career development as a power strategy. In K.R. Stevens (Ed.), *Power and Influence: A Source Book for Nurses* (pp. 187-216), New York; Wiley.

Waltz, C., & Bausell, R.B. (1981). *Nursing research: Design, statistics and computer analysis*. Philadelphia: Davis.

Ward, M.J., & Fetler, M.E. (1979). *Instruments for use in nursing research.* Denver, CO: WICHE.

Weismann, C.S. (1982). Recruit from within: hospital nurse retention in the 1980s. *Journal of Nursing Administration,* 12 (May), 24-31.

Westbrook, M.T., & Nordholm, L.A. (1984). Characteristics of women health professionals with vertical, lateral, and stationary career plans. *Sex Roles,* 10 (9/10), 743-754.

Wilensky, H.L. (1961). Orderly careers and social participation: the impact of work history on social integration in the middle mass. *American Sociological Review,* 26 (4), 521-539.

Wilson, J. (1987). Why nurses leave nursing. *Canadian Nurse,* 83 (3), 20-23.

Wintz, L. (1987). Career paths of nurses: When is a nurse no longer a nurse? *Journal of Nursing Administration,* 17 (4), 33-37.

APPENDIX A:

CAREER DETERMINANTS OF NURSES QUESTIONNAIRE

CAREER DETERMINANTS OF NURSES

This questionnnaire consists of three parts:

If you are currently involved in nursing, or consider nursing
to be your career, even if you are not presently working,
complete Parts I and II only.

If you are no longer involved in a nursing career please
complete Parts I and III only.

The three parts are as follows:

Part I, Career History, is concerned with your career/work history. Please complete the details of your career since you graduated from your basic nursing education program.

Part II, Career Determinant Inventory, is concerned with the feelings and attitudes of those of you who are still involved in a nursing career. Think back over your career since graduating from your nursing program. Think about the factors which influenced your decisions about the jobs you took, the specialty area and/or area of practice you chose, and any other career moves you made. Also, think about the things that are important to you as you consider your future career. There are no wrong answers.

Part III, Career Determinant Inventory, is concerned with the feelings and attitudes of those of you who are no longer involved in a nursing career. As in Part II, you are to think back over your career since graduating from your nursing program. Think about the factors which influenced your decisions about the jobs you took, and any other career moves you made. Also, think about the things that are important to you as you consider your future career. There are no wrong answers.

REMEMBER, DO NOT COMPLETE BOTH PARTS II AND III; COMPLETE ONE OR THE OTHER.

Thank you for completing the questionnaire.
Your cooperation is appreciated.

CAREER DETERMINANTS OF NURSES

ART I: CAREER HISTORY

Please check or fill in the appropriate response.

. **EDUCATION**

1   1 - 4

1. What was your age when you completed your basic nursing program? _____ years   5, 6

2. What factors influenced your choice of basic nursing education program? (please check all applicable responses)

only program available	____	7
geographical closeness	____	8
financial reasons	____	9
advice of friend/relative	____	10
family ties/responsibilities	____	11
career plans	____	12
did not know about any others	____	13
other	____	14
(specify) _____		15

4. What is your highest level of of education?

RN diploma	____	1	16
Baccalaureate(basic)	____	2	
Baccalaureate(post-basic)	____	3	
Master's (nursing)	____	4	
Master's (non-nursing)	____	5	
Doctorate (nursing)	____	6	
Doctorate (non-nursing)	____	7	

5. Are you currently enrolled in an advanced education program?

No	____	1	
Baccalaureate(post-basic)	____	2	17
Master's (nursing)	____	3	
Master's (non-nursing)	____	4	
Doctorate (nursing)	____	5	
Doctorate (non-nursing)	____	6	

6. What other nursing education programs have you enrolled in since graduating from your basic nursing program? (please check all applicable responses)

None	____	18
Clinical specialty course	____	19
(specify) _____		20, 21
Public Health diploma	____	22
Teaching diploma	____	23
Other	____	24
(specify) _____		25, 26

Do not
write in
this
space

7.   Do you have a specific recollection of when you decided to become a nurse?

                                          yes   ____   1   27
                                          no   ____   2

      If yes, can you remember the early experience(s) that prompted you to make that decision?

      Please describe._____

      _____

      _____

8.   Did you complete any other education (training) program prior to entering nursing?
      (please check all applicable responses)

                        No   28
                        Registered Nursing Assistant   ____   29
                        Bible College   ____   30
                        University degree   ____   32
                        Other   ____   33
                            (specify) _____   34 - 42

9.   Are you currently employed as a nurse?

                                          yes   ____   1,   43
                                          no   ____   2

10. If your answer is **no**, do you still maintain your registration as a nurse?

                                          yes   ____   1   44
                                          no   ____   2

11. If you are no longer nursing, can you remember the experience(s) that prompted you to
      leave nursing
      Please describe._____

      _____

      _____

12. If you are no longer nursing, what work related programs have you   45, 46
      enrolled in since graduating from your basic nursing program?   47, 48
      (e.g., if you are working in real estate indicate the preparation course/s   49, 50
      you took).   51, 52
                                                                                     53, 54
      _____

      _____

Do not write in this space

B. PROFESSIONAL/COMMUNITY ACTIVITIES

13. Are you a member of your professional nursing association?
(e.g. AARN)

yes	____	1
no	____	2

55

14. If you are no longer nursing and are in another profession (e.g. law) are you a member of that professional association?

yes	____	1
no	____	2

56

15. Have you ever, or do you currently hold office or a committee position in your professional association?

yes	____	1
no	____	2

57

16. Have you ever been, or are you currently involved in any community organizations?
(e.g., Rotary, Girl Guides)
(please check all applicable responses)

no	____	58
church	____	59
service	____	60
youth	____	61
political	____	62
community league	____	63
other	____	64
(specify) _____		65, 66

17. Have you ever, or do you currently hold office or a committee position or work in some volunteer capacity in any of these organizations?

yes	____	1
no	____	2

67

C. WORK HISTORY

18. In what type of agency/hospital did you take your first nursing job?
(please check only one)

never worked	____	1
general hospital (urban)	____	2
general hospital (rural)	____	3
long term care hospital	____	4
psychiatric hospital	____	5
nursing home	____	6
community health	____	7
home care	____	8
occupational health	____	9
doctor's office	____	10
other	____	11
(specify) _____		70, 71

68, 69

2
1 - 4

19. What area of practice did you work in in your <u>first</u> nursing job following registration? (please check all applicable responses)

medical/surgical nursing	_____	5
obstetrical nursing	_____	6
pediatric nursing	_____	7
psychiatric nursing	_____	8
emergency nursing	_____	9
operating room nursing	_____	10
intensive care nursing	_____	11
community health nursing	_____	12
geriatric nursing	_____	13
home care	_____	14
float	_____	15
other	_____	16
(specify) _____		17

20. How many different agencies/hospitals have you worked for as a nurse?

one	_____	1	18
two	_____	2	
three	_____	3	
four or more	_____	4	

21. What has been the <u>shortest</u> length of time you have been employed in a position?

_____ months   19, 21

22. What has been the <u>longest</u> length of time you have been employed in a position?

_____ months   22, 24

23. What has been the <u>shortest</u> length of time you have been employed in an agency/hospital?

_____ months   25, 27

24. What has been the <u>longest</u> length of time you have been employed in an agency/hospital?

_____ months   28, 30

25. For each of the agencies/hospitals in which you have worked indicate the number of positions that you held in that agency/hospital on the table below. For example, if you worked as a **staff nurse** on 3 different units at agency/hospital A and then moved to a **charge nurse** position in the same agency/hospital followed by an **instructor** position at agency/hospital B, you would fill in the table as follows. Indicate if the position was **part-time (PT)** or **full-time (FT)**.

READ THIS EXAMPLE

HOSPITAL/AGENCY

POSITION	A	B	C	D	E
Staff Nurse	3 (FT)				
Team Leader					
Charge nurse (or equivalent)	1 (FT)				
Supervisor (or equivalent)					
Assistant DON (or equivalent)					
Director of Nursing (or equivalent)					
Instructor		1 (PT)			

NOW COMPLETE THE FOLLOWING TABLE

HOSPITAL/AGENCY

POSITION	A	B	C	D	E
Staff Nurse					
Team Leader					
Charge nurse (or equivalent)					
Supervisor (or equivalent)					
Assistant Director of Nursing (or equivalent)					
Director of Nursing (or equivalent)					
Instructor					
Clinical/Program Specialist					
Other (specify)					

31 - 70

26. What is your position at present? _____

27. How long have you been in your present position? _____ months

28. Have you always worked in the same area of practice (e.g., psychiatric nursing)?

yes	___	1
no	___	2

29. If you are in nursing education or nursing administration, do you consider yourself as an administrator or educator first and a nurse second.

yes	___	1
no	___	2

D. DEMOGRAPHIC INFORMATION

30. Year of birth. _____

31. Gender.

female	___	1
male	___	2

32. Marital status.

never married	___	1
married	___	2
divorced/separated	___	3
widowed	___	4

33. If you are married, what age were you when you first married?

_____ years

34. Do you have children?

yes	___	1
no	___	2

35. If the answer to 34 is yes, what are their ages?

child # 1	___
child # 2	___
child # 3	___
child # 4	___
child # 5	___
child # 6	___

36. Do you have dependents or family responsibilities apart from children (e.g., aged parents)?

<div align="center">

yes ____ 1
no ____ 2

</div>

If yes, please describe dependent and kind of responsibility.

_____

_____

_____

37. If there are any comments you would like to make about your career, or any information you think should be added, please do so.

_____

_____

_____

_____

_____

_____

_____

Thank you for completing Part I of the questionnaire.

If you are currently involved in nursing, or consider nursing to be your career, even if you are not presently working, would you now turn to the next page and complete Part II.

If you are no longer involved in a nursing career, or do not see yourself returning to one would you turn to page 13 and complete Part III.

DO NOT COMPLETE BOTH PARTS II AND III, COMPLETE ONE OR THE OTHER.

PART II: CAREER DETERMINANT INVENTORY

Instructions

Think back over your career since graduating from your nursing program. Think about the factors which influence your decisions about the jobs you take, and the career moves that you make. How you think and feel now is what is important, so respond to the questions in the present.

SECTION A: HOW IMPORTANT ARE THE FOLLOWING TO YOU?

For each of the items listed below CIRCLE the one that best describes how IMPORTANT that item is to you in your career decisions.

1=not important   4=very important

	Not important		Very important		
1. An organization which will give me long term job security is...	1	2	3	4	5
2. A position where I am able to set my own work hours, schedule and pace is...	1	2	3	4	6
3. Being able to maintain a balance between my profession and my family and friends is...	1	2	3	4	7
4. The challenge of organizing others is...	1	2	3	4	8
5. Being identified and known as a nurse is...	1	2	3	4	9
6. To be able to develop my own nursing style is...	1	2	3	4	10
7. Being able to make my own decisions about the nursing care of my patients is...	1	2	3	4	11
8. Challenging work situations are...	1	2	3	4	12
9. The opportunity to see others change because of what I do is...	1	2	3	4	13
10. Being able to use my interpersonal and helping skills in the care of my patients or working with students is...	1	2	3	4	14

For each of the items listed below CIRCLE the one that best describes how IMPORTANT that item is to you in your career decisions.

1=not important   4=very important

	Not important		Very important		Do not write in this space
	1	2	3	4	
11. To become a leader in my profession is...	1	2	3	4	15
12. The opportunity to use my skills in ce... ...g new approaches to nursing care or teaching .	1	2	3	4	16
13. Working with advanced technological equipment is...	1	2	3	4	17
14. Being involved at the decision-making level in my profession is...	1	2	3	4	18
15. The prestige which results from being identified with a particular hospital or agency is...	1	2	3	4	19
16. A career which enables me to work in a variety of practice or teaching areas is...	1	2	3	4	20
17. A career which is free from hospital/agency restriction in terms of my nursing practice is...	1	2	3	4	21
18. Being able to work as a nurse while I raise my family is...	1	2	3	4	22
19. Security through benefits such as a pension plan is...	1	2	3	4	23
20. Becoming more expert in my area of practice or teaching is...	1	2	3	4	24
21. Being able to take time out from my nurisng career to raise my family is...	1	2	3	4	25

Please turn to the next page.

SECTION B: HOW TRUE ARE THE FOLLOWING OF YOU?

For each of the items listed below CIRCLE the one that best describes how TRUE that item is of you in your career decisions.

1=not true   4=very true

	Not true			Very true	
22. Advancement in my career has been the motivating factor in the work related moves I have made.	1	2	3	4	26
23. I have always seen my nursing (education or practice) career as an opportunity to help other people.	1	2	3	4	27
24. I prefer to work for an agency or hospital which will value my contribution.	1	2	3	4	28
25. Throughout my career I have been motivated by the opportunity to introduce new ideas in my work situation.	1	2	3	4	29
26. Throughout my career I have been motivated by a sense of adventure.	1	2	3	4	30
27. I have always wanted to become a consultant or have my own private nursing practice.	1	2	3	4	31
28. The opportunity to test my skill in different work settings is what I really want from nursing.	1	2	3	4	32
29. I prefer to have responsibility for a group of patients or students.	1	2	3	4	33
30. I believe that my career is as important as the career of my spouse/partner [or it would be if I had a partner/spouse].	1	2	3	4	34
31. The ability to move about and work in different places has been important to me in my career.	1	2	3	4	35
32. I like to think of myself as part of a particular hospital, health care or education agency.	1	2	3	4	36

For each of the items listed below CIRCLE the one that best describes how TRUE that item is of you in your career decisions.

1=not true   4=very true

	Not true			Very true	Do not write in this space
33. I want a career in which I can be committed to improving the life of other people.	1	2	3	4	37
34. My career has been motivated by concern for my own sense of freedom.	1	2	3	4	38
35. I want to be [I am] involved in nursing or education administration.	1	2	3	4	39
36. I prefer to be responsible for the leadership of a particular group of staff.	1	2	3	4	40
37. I want to have the opportunity to be involved in the decisions that will affect my work.	1	2	3	4	41
38. I see myself as a valuable member of the nursing or teaching team in my hospital or agency.	1	2	3	4	42
39. I will move [I have moved] into an administration position (head nurse, supervisor etc.) only if [as] it gives me more opportunity to develop my clinical or teaching expertise.	1	2	3	4	43
40. I want to work in an organization where I can be sure of life-time employment.	1	2	3	4	44
41. Helping other people attain their goals has always been more important to me than earning a high salary.	1	2	3	4	45
42. I would move to another agency or hospital rather than accept a promotion out of my chosen area of nursing or teaching practice.	1	2	3	4	46
43. I prefer to work for an agency or hospital which will allow me to remain in one geographical location.	1	2	3	4	47
44. If I had to make a choice between my family's needs and a promotion which involved a move to another geographical area I would choose my family.	1	2	3	4	48

Please turn to the next page.

For each of the items listed below CIRCLE the one that best describes how
TRUE that item is of you in your career decisions.

1=not true   4=very true

	Not true			Very true
45. I believe that I am highly skilled in my area of nursing or teaching practice.	1	2	3	4
46. Remaining in my present geographical location is more important than promotion.	1	2	3	4
47. Raising a family is an important part of my career.	1	2	3	4

49

50

51

Thank you for completing the questionnaire

Would you like to receive a summary of the study findings?

Yes ____   No ____

Would you be willing to participate in an interview?

Yes ____   My telephone number is _____

No ____

PART III: CAREER DETERMINANT INVENTORY

Instructions

Think back over your career since graduating from your basic nursing program. Think about the factors which influence your decisions about the jobs you take, and the career moves that you make. How you think and feel now is what is important, so respond to the questions in the present.

SECTION A: HOW IMPORTANT ARE THE FOLLOWING TO YOU?

For each of the items listed below CIRCLE the one that best describes how IMPORTANT that item is to you in your career decisions.

1=not important   4=very important

	Not important		Very important		
1. An organization which will give me long term job security is...	1	2	3	4	5
2. A position where I am able to set my own work hours, schedule and pace is...	1	2	3	4	6
3. Being able to maintain a balance between my profession and my family and friends is...	1	2	3	4	7
4. The challenge of organizing others is...	1	2	3	4	8
5. Being identified and known as a member of my profession is...	1	2	3	4	9
6. To be able to develop my own work style is...	1	2	3	4	10
7. Being able to make my own decisions about my work is...	1	2	3	4	11
8. Challenging work situations are...	1	2	3	4	12
9. The opportunity to see others change because of what I do is...	1	2	3	4	13
10. Being able to use my interpersonal and helping skills in my work is...	1	2	3	4	14

Please turn to the next page.

For each of the items listed below CIRCLE the one that best describes how IMPORTANT that item is to you in your career decisions.

1=not important   4=very important

	Not important		Very important		
	1	2	3	4	
11. To become a leader in my profession is...	1	2	3	4	15
12. The opportunity to use my skills in developing new approaches to my work is...	1	2	3	4	16
13. Working with advanced technological equipment is...	1	2	3	4	17
14. Being involved at the decision-making level in my profession is...	1	2	3	4	18
15. The prestige which results from being identified with a particular organization is...	1	2	3	4	19
16. A career which enables me to work in a variety of work situations is...	1	2	3	4	20
17. A career which is free from bureaucratic restriction in terms of my work is...	1	2	3	4	21
18. Being able to work while I raise my family is...	1	2	3	4	22
19. Security through benefits such as a pension plan is...	1	2	3	4	23
20. Becoming more expert in my area of work is...	1	2	3	4	24
21. Being able to take time out from my career to raise my family is...	1	2	3	4	25

SECTION B: HOW TRUE ARE THE FOLLOWING OF YOU?

For each of the items listed below CIRCLE the one that best describes how
TRUE that item is of you in your career decisions

1=not true   4=very true

		Not true			Very true	
22. Advancement in my career has been the motivating factor in the work related moves I have made.		1	2	3	4	26
23. I have always seen my career as an opportunity to help other people.		1	2	3	4	27
24. I prefer to work for an organization which will value my contribution.		1	2	3	4	28
25. Throughout my career I have been motivated by the opportunity to introduce new ideas in my work situation.		1	2	3	4	29
26. Throughout my career I have been motivated by a sense of adventure.		1	2	3	4	30
27. I have always wanted to become a consultant or have my own private business.		1	2	3	4	31
28. The opportunity to test my skill in different work settings is what I really want from my job.		1	2	3	4	32
29. I prefer to have responsibility for a group of people.		1	2	3	4	33
30. I believe that my career is as important as the career of my spouse/partner [or would be if I had a spouse/partner].		1	2	3	4	34
31. The ability to move about and work in different places has been important to me in my career.		1	2	3	4	35
32. I like to think of myself as part of a particular organization.		1	2	3	4	36

For each of the items listed below CIRCLE the one that best describes how TRUE that item is of you in your career decisions

1=not true   4=very true

	Not true			Very true	
33. I want a career in which I can be committed to improving the life of other people.	1	2	3	4	37
34. My career has been motivated by concern for my own sense of freedom.	1	2	3	4	38
35. I want to become [I am] involved in administration.	1	2	3	4	39
36. I prefer to be responsible for the leadership of a particular group of people.	1	2	3	4	40
37. I want to have the opportunity to be involved in the decisions that will affect my work.	1	2	3	4	41
38. I see myself as a valuable member of the work-force in my job.	1	2	3	4	42
39. I will move [I have moved] into an administration position (supervisor etc.) only if [as] it gives me more opportunity to develop my work skills.	1	2	3	4	43
40. I want to work in an organization where I can be sure of life-time employment.	1	2	3	4	44
41. Helping other people attain the goals has always been more important to me than earning	1	2	3	4	45
42. I would move to another organization rather than accept a promotion out of my chosen area of expertise.	1	2	3	4	46
43. I prefer to work for an organization which will allow me to remain one geographical location.	1	2	3	4	47
44. If had to make a choice between my family's needs and a promotion which involved a move to another geographic area I would choose my family.	1	2	3	4	48

Please turn to the next page.

For each of the items listed below CIRCLE the one that best describes how TRUE that item has been and continues to be in your career decisions.

1=not true   4=very true

	Not true			Very true	
45. I believe that I am highly skilled in my area of practice.	1	2	3	4	49
46. Remaining in my present geographical location is more important than promotion.	1	2	3	4	50
47. Raising a family is an import ř my career.	1	2	3	4	51

Thank you for completing the questionnaire

Would you like to receive a summary of the study findings?

Yes ____   No ____

Would you be willing to participate in an interview?

Yes ____   My telephone number is _____

No ____

APPENDIX B:

SUMMARY OF CAREER ANCHOR RESEARCH

Summary: Career Anchor Research

Author	Target Group	Anchors/Variables	Research Methodology
SCHEIN 1961-1973	Sloan School of Management Alumni. N=44 Classes: 1961; 1962; 1963	1. Managerial competence +interpersonal +analytical +emotional stability	Interviews and/or questionnaire +1 year - interview +3-5 years - brief questionnaire +11-12 years - interview
		2. Technical/functional +expertise challenge +analytical work	Final interview 2-3 hours long Taped
		3. Security +stability +reliance on organization	[Career history, reasons for movements, attitudes]
		4. Creativity +create something of own +freedom from org. constraints +entreprenurial	
		5. Autonomy/independence +freedom +autonomy	
DERR 1977 - 1979	Naval officers N = 154 (25 wives also included) Interview Questionnaire - 88% return	1. Managerial +upwardly mobile +evolutionary	Questionnaire (Chatwin and Derr) Interview - questions after Schein "Is it possible to explore career anchors using only a questionnaire?" Derr, 1980
		2. Technical	
		3. Security	

Summary: Career Anchor Research (Continued)

Author	Target Group	Anchors/Variables	Research Methodology
Derr (continued)		4. Identity affiliation	1986 Derr has published a series of self assessment questionnaires: **Individual Career Orientations**
		5. Autonomy	Includes - personal constraints Has forced choice (either/or) responses
		6. Creativity +growth oriented +entreprenurial	Typology changed +Ahead +Secure +Free +Balanced +High
		7. Warrior - adventurer	
DELONG 1982	Graduates (MBA) School of Industrial Administration Purdue University N = 600. Pop. = 1224 320 returns (55%)	1. Technical competence	Questionnaire 55% return
		2. Autonomy	Followup questionnaire - 100 random selected from N=320. 73% return Pearson Product Moment,Coefficient test - retest
		3. Service	
		4. Identity	
		5. Variety	Factor Analyses 1. 48X48 correlation matrix R factoring
		6. Managerial competence	2. Summary - 3 factors 1 variety & managerial competence
		7. Security }later combined	2 autonomy & creativity
		8. Security	3 service, identity & security

Summary: Career Anchor Research (Continued)

Author	Target Group	Anchors/Variables	Research Methodology
DeLong (continued)		9. Creativity	- technical negative for F1 Has developed the: Career Orientation Inventory
AUNE 1983	Pilot: 10 M.Sc. graduate students -professional nurses Study: 40 nurses + 10 administrators + 10 educators + 10 nurse practitioners + 10 staff nurses		Pilot: N=10 Work history (Derr) Interviews - taped (summarized) - trends and patterns - career anchor characteristics Second reviewer summarized tapes and identified career anchors. Study: N=40 minimum of 5 years as a nurse (1 year in specialty area) random sampling from small pops<50 work history interviews (not taped)

Anchors/Variables detail:

	NA	NE	NP	SN
1. Autonomy (8)	2	3	1	2
2. Managerial (17)	8	3	3	3
3. Technical (13)	-	4	6	3
4. Security (1)	-	-	-	1
5. Unidentified (1)	-	-	-	1

There is no career anchor singularly
characteristic of a particular group

6. Service (35)

243

APPENDIX C:

CORRESPONDENCE

Dr. L. Lewchuk

Alumni Reunion Representatives

Directors of Nursing Education Programs

Letter to Survey Subjects

Follow-up Letter to Survey Subjects

244

September 3, 1986

Dr. L. Lewchuck
Director
School of Nursing
University of Alberta Hospital
Edmonton, Alberta
T6G 2B7

Dear Dr. Lewchuck:

As I indicated on the telephone this morning I am a student in the Ph.D. program in the Department of Educational Administration at the University of Alberta. My research interest is in career development in nurses with a focus on the process by which graduate nurses make decisions about their careers and the places they choose to work in. For the purposes of my doctoral dissertation research I am investigating the factors which act as determinants of career choices and orientations for nurses . To do this I want to study graduate nurses who are some years into their careers; thus I have selected the graduates of the year 1976 as the study population.

For the study I would like to be able to survey the 64 graduates of the basic baccalaureate programs in Alberta in 1976 and 200 from the diploma programs, 100 from the hospital schools and 100 from the college programs. I am hoping that the schools, hospital, university and college, still have addresses for the students that graduated from their programs ten years ago and that I will be able to access their lists and contact graduates.

The study plan involves sending a questionnaire to all subjects, a follow-up postcard to nonrespondents two weeks later, and a follow-up letter to those who have still not responded after four or five weeks. Those who request it will be sent a summary of the study findings.
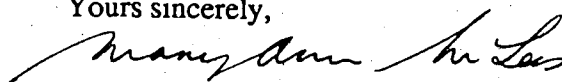
The second phase of the study involves interviewing five subjects from each subsample. The interviewees will be selected from the respondents who indicate willingness to participate in an interview. The investigator will contact these people and arrange the interview schedule.

At all times confidentiality will be maintained. All studies conducted in the Department of Educational Administration at the University of Alberta must be approved by the Ethics Review Committee.

I would appreciate your presenting my request to the next meeting of the Directors of Nursing Education Programs in Alberta. For your information I have enclosed an outline of my proposed study. Should you require further information I can be contacted at the University of Alberta, Department of Educational Administration at either 432 4913 or 432 4909.

Thank you for your consideration of my request.

Yours sincerely,

Mary Ann McLees, R.N., M.S.
Ph.D. Student

University of Alberta
Edmonton

Canada T6G 2G5

Department of Educational Administration
Faculty of Education

7-104 Education Building North, Telephone (403) 432-5241

Date

Name of Alumnae Representative
address
city, province
postal code

Dear (Given Name):

I am a nurse who is a doctoral student in the Department of Educational Administration at the University of Alberta. My dissertation is concerned with the career development of nurses and the talents, motives and values that influence the decisions that nurses make in relation to their careers. The group of nurses that I would like to be able to contact for my study is the graduates from the three types of nursing programs in Alberta; particularly the graduates from 1976.

Because I am interested in career development I would like to be able to contact graduates who are presently not actively involved in nursing, as well as those who are still nursing. Apparently the AARN only has lists of those who are currently registered in Alberta, thus there are graduates from the 1976 classes who will not be on the AARN lists. Therefore, I am seeking alternate ways of contacting graduates from the 1976 classes. Since this year appears to be the year of reunions I decided to contact the Alumnae Reunion Committees and seek their cooperation. I have already had a positive response from both the U of A and U of C 1976 Alumnae.

I want to request the names and addresses of the 1976 graduates from your class so that I can contact them and ask them to participate in my study. Participation would involve completing a two part questionnaire: Part I is a career history and Part II is an opinion survey. Because I also want to interview a small number of graduates from each of the types of nursing education programs, respondents will be asked if they would be willing to participate in an interview. All responses will be confidential and only used as part of the collective data. While identification numbers will be on each questionnaire, they are for follow-up purposes only, i.e., reminders to non-respondents. Those who wish to receive one will receive a copy of the summary of the study findings.

I would appreciate it if I could have access to your up-to-date alumnae lists for 1976, for the purpose of contacting them and seeking their participation in my study. Anticipating a positive response to my request I am enclosing a self addressed, stamped, return envelope for you to use. If you have any questions, or require further information, I can be contacted at the University. My phone number is 434-4913.

Thank you for your consideration of my request.

Yours sincerely,

Mary Ann McLees, R.N., M.S.
Ph. D. Student

University of Alberta
Edmonton

Canada T6G 2G5

Department of Educational Administration
Faculty of Education

7-104 Education Building North, Telephone (403) 432-5241

248

Date

Fullname
Position
Department»
city, province
postal code

Dear (Name of Director of Nursing Program):

Some weeks ago Dr. Les Lewchuk sent you a copy of my letter to him requesting access to the most up-to-date lists and addresses that you have for the graduates from your diploma nursing program in 1976. As I have not received anything from you, I am again submitting my request for your consideration.

I am a nurse, presently studying in the Ph.D. program in the Department of Educational Administration at the University of Alberta. My research interest is in the career development of nurses, with a focus on the process by which graduate nurses make decisions about their careers, and the places they choose to work.

For the purposes of my doctoral dissertation research I am investigating the factors which act as determinants of career choices and orientations for nurses. To do this I want to study graduate nurses who are some years into their careers; thus, I have selected the graduates of the year 1976 as the study population.

For the study I would like to be able to survey graduates from all the nursing programs in Alberta; hospital diploma, college diploma and basic baccalaureate. I am hoping that the schools; hospital, college and university, still have addresses for the students that graduated from their programs ten years ago and that I will be able to access their lists and contact the graduates. I could use the AARN membership lists, but they only have those graduates who are currently registered in Alberta and as I am as interested in those who have moved and/or left nursing as those who are still practising these are not the most suitable lists.

The study involves sending a questionnaire to all subjects, a follow-up letter to nonrespondents two weeks later, and a further follow-up letter to those who have still not responded after four or five weeks. Those who request it will be sent a summary of the study findings.

The second phase of the study involves interviewing a small sub-sample from each type of education program. The interviewees will be selected from the respondents who indicate willingness to participate in an interview.
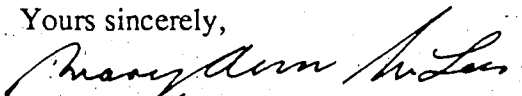
At all times confidentiality will be maintained. All studies conducted in the Department of Educational Administration at the University of Alberta must be approved by the Ethics Review Committee.

Should you require further information I can be contacted at the University of Alberta, Department of Educational Administration at either 432 4913 or 432 4909.

Thank you for your consideration of my request. I look forward to hearing from you.

Yours sincerely,

Mary Ann McLees, R.N., M.S.
Ph.D. Student

Date

Fullname
address
city, province
postal code

Dear (Given Name of Study Subject) :

The factors which influence, and the process by which nurses make decisions about their careers, is the focus of a study I am doing for my doctoral degree in Educational Administration at the University of Alberta. A career has been described as the series of work related experiences and adventures which a person passes through during a lifetime. It involves notions of success and reflects the individuals needs, values and aspirations along with the expectations and values which are imposed by society.

You have been selected from among the graduates of nursing programs in Alberta in 1976, to participate in the study. The study has two phases. Phase I involves the collection of information regarding the career/work history, and the attitudes, motives, values and talents which influence nurses when they are making decisions about their careers. Phase II involves interviewing a number of the people, who completed the questionnaire and asking them about the feelings, beliefs, and concerns they have experienced in the career decisions they have made over the years.

Would you be kind enough to take about 45 minutes of your time to complete the attached Career Determinants of Nurses questionnaire and return it to me in the enclosed self addressed envelope. You may be assured of complete confidentiality. You will note that the questionnaire does have an identification number which is for mailing purposes only. This is so that the name of the respondent can be checked off the mailing list when the questionnaire is returned. Your name will never be used for any other purpose.

If you are willing to participate in the interview phase, would you check the appropriate space on the last page of the questionnaire, also include you phone number so that I can contact you easily. If you would like to receive a copy of the study summary when the research is completed, check the appropriate space which is also on the last page of the questionnaire.

Thank you for the time you have taken to complete the questionnaire. Please read the instructions carefully and note that you complete either Parts I and II or Parts I and III; not all three.

Yours sincerely

Mary Ann McLees, R.N., M.Sc.
Ph.D. Candidate

Date

Fullname
address
city, province
postal code

Dear (Given Name of Study Subject):

Some weeks ago you should have received a questionnaire entitled Career Determinants of Nurses. If you have not already done so, would you be kind enough to complete the questionnaire and return it to me in the self-addressed envelope that was provided. If you have already completed the questionnaire and returned it please ignore this letter.

The questionnaire takes approximately 30 minutes to complete and consists of three parts; you are asked to complete Parts I and II or Parts I and III, depending on whether or not you are still involved in a career in nursing.

Thank you for taking the time to assist me in my study.

Yours sincerely

Mary Ann McLees, R.N., M.S.
PhD Candidate

APPENDIX D:

ADDITIONAL TABLES

Table D.2

Demographic Characteristics by Career Pattern for Those Still Involved in a Nursing Career

Demographic Characteristics	I Stationary N=17		II Lateral N=70		Career Pattern III Vertical stationary N=15		IV Mobile reverting N=27		V Mobile advancing N=47	
	f	%	f	%	f	%	f	%	f	%
Can Recall When Decided to Become a Nurse	9	52.9	42	60.0	9	60.0	19	70.4	37	78.7
Married (includes widowed or divorced)	16	94.1	60	85.7	15	100.0	26	96.3	40	85.1
Have children	15	88.2	54	77.1	11	73.3	22	81.5	28	59.6
Currently Employed	15	88.2	58	82.9	14	93.3	27	100.0	37	78.7
Have Always Worked in Same Area of practice	10	58.8	13	18.6	7	46.7	5	18.5	7	14.9
Involved in Community Organizations	14	82.4	58	82.9	10	66.7	24	88.9	40	85.1
Hold Office or Volunteer Position in Community organization	7	41.2	36	51.4	6	40.0	19	70.4	20	42.6
Hold Office in Professional Organization	2	11.8	12	17.1	4	26.7	4	14.8	11	23.4

I   = staff nurse positions in one agency
II = staff nurse positions in several agencies
III = positions at different levels in one agency
IV = positions at several levels in more than one agency, presently employed as a staff nurse
V = positions at several levels in more than one agency, employed at charge nurse level or above

Table D.1

Basic and Post Basic Nursing Education by Career Pattern for Those Still Involved in a Nursing Career

Nursing Education	Career Pattern									
	I Stationary N=17		II Lateral N=70		III Vertical stationary N=15		IV Mobile reverting N=27		V Mobile advancing N=47	
	f	%	f	%	f	%	f	%	f	%
Basic Nursing Program: Hospital Diploma	5	29.4	10	14.3	5	33.3	14	51.9	19	40.4
College Diploma	12	70.6	45	64.3	5	33.3	9	33.3	8	17.0
Baccalaureate	-	-	15	21.4	5	33.3	4	14.8	20	42.6
Highest Level of Education: RN	17	100.0	53	75.7	9	60.0	18	66.7	21	44.7
BN	-	-	17	24.3	6	40.0	9	33.3	22	46.8
Master's	-	-	-	-	-	-	-	-	4	8.5
Doctorate	-	-	-	-	-	-	-	-	-	-
Enrolled in Postgraduate Nursing Education Program	-	-	5	7.1	3	20.0	2	7.4	15	31.9
Completed a Clinical Nursing Program	3	17.6	8	11.4	2	13.3	8	29.6	10	21.3
Completed Nursing Related Short Course	4	23.5	17	24.3	3	20.0	7	25.9	9	19.1

I = staff nurse positions in one agency
II = staff nurse positions in several agencies
III = positions at different levels in one agency
IV = positions at several levels in more than one agency presently employed as a staff nurse
V = positions at several levels in more than one agency, employed at charge nurse level or above

Table D.3

Rank Order For Career Determinant Inventory Item Mean Scores

For Those No Longer Involved In A Nursing Career and Those Still Involved in a Nursing Career

Career Determinant Inventory Item	Non-Nursing Group		Nursing Group	
	Rank	Mean	Rank	Mean
3 Being able to maintain a balance between my profession and and my family and friends is important to me.	1	3.96	1	3.83
44 If I had to make a choice between my family's needs and a promotion which involved a move to another geographical area I would choose my family.	2	3.68	2	3.73
10 Being able to use my interpersonal skills in my work is important to me.	3.5	3.56	3	3.58
24 I prefer to work for an organization which will value my contribution.	3.5	3.56	4	3.54
38 I see myself as a valuable member of the workforce in my organization.	5.5	3.52	6	3.50
20 Becoming more expert in my area of work is important to me.	5.5	3.52	11	3.40
6 To be able to develop my own work style is important to me.	8	3.48	15	3.23
37 I want to be involved in the decisions that will affect my work.	8	3.48	9.5	3.44
7 Being able to make my own decisions about my work is important to me.	8	3.48	7.5	3.47
2 A position where I am able to set my own work hours, schedule and pace is important to me.	11	3.36	17.5	3.20
8 Challenging work situations are important to me.	11	3.36	12	3.38

(Continued) Table D.3. Rank Order For Career Determinant Inventory Item Mean Scores

47	Raising a family is an important part of my career.	11	3.36	5	3.52
17	A career which is free from organization restriction in terms of my work is important to me.	13	3.28	37.5	2.34
21	Being able to take time out from my career to raise my family is important to me.	14	3.21	9.5	3.44
9	The opportunity to see others change because of what I do is important to me.	15.5	3.20	13	3.32
46	Remaining in my present geographical position is more important than promotion.	15.5	3.20	19	3.07
45	I believe that I am highly skilled in my area of practice.	17	3.16	14	3.24
33	I want a career in which I can be committed to improving the life of other people.	18	3.12	16	3.21
12	The opportunity to use my skills in developing new approaches to my work is important to me.	19	3.08	29.5	2.69
30	I believe that my career is as important as the career of my spouse/partner (or would be if I had a spouse/partner).	20.5	3.00	17.5	3.20
16	A career that enables me to work in a variety of work situations is important to me.	20.5	3.00	23	2.78
5	Being identified and known as a member of my profession is important to me.	22	2.96	24	2.76
23	I have always seen my career as an opportunity to help other people.	23.5	2.88	7.5	3.47
14	Being involved at the decision-making level of my profession is important to me.	23.5	2.88	25.5	2.74
26	Throughout my career I have be motivated by a sense of adventure.	25	2.72	29.5	2.69
4	The challenge of organizing others is important to me.	27.5	2.68	33	2.55

(Continued) Table D.3 Rank Order For Career Determinant Inventory Item Mean Scores

No.	Item				
43	I prefer to work for an organization which will allow me to remain in one geographical location.	27.5	2.68	22	2.97
18	Being able to work while I raise my family is important to me.	27.5	2.68	21	3.01
32	I like to think of myself as part of a particular organization.	27.5	2.68	32	2.62
34	My career has been motivated by my own sense of freedom.	30	2.64	34	2.54
25	Throughout my career I have been motivated by the opportunity to introduce new ideas in my work situation.	31	2.52	29.5	2.69
1	An organization which will give me long term job security is important to me.	32.5	2.44	20	3.05
15	The prestige which results from being identified with a particular organization is important to me.	32.5	2.44	45	2.64
41	Helping others attain their goals has always been more important to me than earning a high salary.	35	2.36	35	2.53
29	I prefer to have responsibility for a group of people.	35	2.36	25.5	2.74
31	The ability to move about and work in different places has been important to me in my career.	35	2.36	27.5	2.72
11	To become a leader in my profession is important to me.	37.5	2.32	41	2.19
19	Security through benefits such as a pension plan are important to me.	37.5	2.32	27.5	2.72
36	I prefer to be responsible for the leadership of a particular group of people.	39	2.16	40	2.20
28	The opportunity to test my skill in different work settings is what I really want from my job.	40	2.12	37.5	2.34

(Continued) Table D.3 Rank Order For Career Determinant Inventory Item Mean Scores

#	Item				
39	I will move (have moved) into an administration position only if (as) it gives me more opportunity to develop my work expertise.	41.5	2.08	39	2.22
42	I would move to another organization rather than accept a promotion out of my chosen area of expertise.	41.5	2.08	43	2.11
13	Working with advanced technological equipment is important to me.	44	2.04	37.5	2.34
22	Advancement in my career has been the motivating factor in the work related moves I have made.	44	2.04	46	1.95
27	I have always wanted to become a consultant or have my own business.	44	2.04	47	1.95
35	I want to be (I am) involved in administration.	46	1.88	44	2.09
40	I want to work in an organization where I can be sure of life-time employment.	47	1.72	42	2.13

APPENDIX E:

CAREER DETERMINANT INVENTORY—FIELD-TEST

Letter to field-test

Career Determinant Inventory

CDI Self-Scoring Form

University of Alberta
Edmonton

Department of Educational Administration
Faculty of Education

260

Canada T6G 2G5

7-104 Education Building North, Telephone (403) 432-5241

October 28, 1987

Dear

Would you be kind enough to assist me in the final stage of my study, *The Nursing Career: Factors That Determine Career Choices.* I am in the process of developing a self-scoring form of the questionnaire I used in the study and need assistance in testing the reliability of the format.

If you would complete the attached questionnaire I would be very grateful. It will probably take about 20 minutes.

When you have completed the questionnaire, place it in the enclosed, self-addressed return envelope, and send it back to me through the campus mail. If possible I would like the completed questionnaire back by November 10, 1987.

Many thanks. When the study is complete I will be willing to share the findings with you.

Yours sincerely,

Mary Ann McLees

CAREER DETERMINANT INVENTORY

The Career Determinant Inventory is concerned with the feelings and attitudes of nurses about their nursing career. Think back over your career since graduating from your basic nursing program. Think about the factors which influenced your decisions, about the jobs you took, the specialty area and/or area of practice you chose, and any other career moves you made. Also, ☐ the things that are important to you as you consider you future career. There are no wrong answers to the questions.

What is your present employment position (or last, if you are a student)?

If you are in nursing education or nursing administration, do you consider yourself to be an administrator or educator first and a nurse second?   Yes _____ No _____

How many years is it since you completed your basic nursing education program?

_____ years

Please continue to the next page

CAREER DETERMINANT INVENTORY

Instructions

Think back over your career since graduating from your nursing program. Think about the factors which influence your decisions about the jobs you take, and the career moves that you make. How you think and feel now is what is important, so respond to the questions in the present.

SECTION A: HOW IMPORTANT ARE THE FOLLOWING TO YOU?

For each of the items listed below CIRCLE the one that best describes how IMPORTANT that item is to you in your career decisions.

1=not important   4=very important

	Not important		Very important	
1. An organization which will give me long term job security is...	1	2	3	4
2. A position where I am able to set my own work hours, schedule and pace is...	1	2	3	4
3. Being able to maintain a balance between my profession and my family and friends is...	1	2	3	4
4. The challenge of organizing others is...	1	2	3	4
5. To be able to develop my own nursing style is...	1	2	3	4
6. Being able to make my own decisions about the nursing care of my patients is...	1	2	3	4
7. Challenging work situations are...	1	2	3	4
8. The opportunity to see others change because of what I do is...	1	2	3	4
9. Being able to use my interpersonal and helping skills in the care of my patients or working with students is...	1	2	3	4
10. To become a leader in my profession is...	1	2	3	4

Please turn to the next page.

For each of the items listed below CIRCLE the one that best describes how IMPORTANT that item is to you in your career decisions.

1=not important   4=very important

	Not important		Very important

11. The opportunity to use my skills in developing new approaches to nursing care or teaching is...   1   2   3   4

12. Working with advanced technological equipment is...   1   2   3   4

13. Being involved at the decision-making level in my profession is...   1   2   3   4

14. A career which enables me to work in a variety of practice or teaching areas is...   1   2   3   4

15. Being able to work as a nurse while I raise my family is...   1   2   3   4

16. Security through benefits such as a pension plan is...   1   2   3   4

17. The prestige which results from being identified with a particular hospital or agency is...   1   2   3   4

18. Being able to take time out from my nursing career to raise my family is...   1   2   3   4

SECTION B: HOW TRUE ARE THE FOLLOWING OF YOU?

For each of the items listed below CIRCLE the one that best describes how TRUE that item is of you in your career decisions.

1=not true   4=very true

	Not true		Very true

19. Advancement in my career has been the motivating factor in the work related moves I have made.   1   2   3   4

20. I have always seen my nursing (education or practice) career as an opportunity to help other people.   1   2   3   4

For each of the items listed below CIRCLE the one that best describes how
TRUE that item is of you in your career decisions.

1=not true   4=very true

	Not true		Very true

21. I prefer to work for an agency or hospital which will value
my contribution.   1 2 3 4

22. Throughout my career I have been motivated by the opportunity to
introduce new ideas in my work situation.   1 2 3 4

23. Throughout my career I have been motivated by a sense of adventure. 1 2 3 4

24. I have always wanted to become a consultant or have my own private
nursing practice.   1 2 3 4

25. The opportunity to test my skill in different work settings is what I
really want from nursing.   1 2 3 4

26. I prefer to have responsibility for a group of patients or students. 1 2 3 4

27. I believe that my career is as important as the career of my
spouse/partner.   1 2 3 4

28. The ability to move about and work in different places has been
important to me in my career.   1 2 3 4

29. I like to think of myself as part of a particular hospital, health care
or education agency.   1 2 3 4

30. I want a career in which I can be committed to improving the
life of other people.   1 2 3 4

31. My career has been motivated by concern for my own sense of freedom. 1 2 3 4

32. I want to be (I am) involved in nursing or education administration. 1 2 3 4

33. I want to have the opportunity to be involved in the decisions that
will affect my work.   1 2 3 4

Please turn to the next page.

For each of the items listed below CIRCLE the one that best describes how TRUE that item is of you in your career decisions.

1=not true   4=very true

	Not true		Very true	
34. I prefer to be responsible for the leadership of a particular group of staff.	1	2	3	4
35. I see myself as a valuable member of the nursing or teaching team in my hospital or agency.	1	2	3	4
36. I will move into an administration position (head nurse, supervisor etc.) only if it gives me more opportunity to develop my clinical or teaching expertise.	1	2	3	4
37. I want to work in an organization where I can be sure of life-time employment.	1	2	3	4
38. Helping other people attain their goals has always been more important to me than earning a high salary.	1	2	3	4
39. I would move to another agency or hospital rather than accept a promotion out of my chosen area of nursing or teaching practice.	1	2	3	4
40. I prefer to work for an agency or hospital which will allow me to remain in one geographical location.	1	2	3	4
41. If I had to make a choice between my family's needs and a promotion which involved a move to another geographical area I would choose my family.	1	2	3	4
42. I believe that I am highly skilled in my area of nursing or teaching practice.	1	2	3	4
43. Remaining in my present geographical location is more important than promotion.	1	2	3	4
44. Raising a family is an important part of my career.	1	2	3	4

Thank you for completing the questionnaire

Career Determinant Inventory Score Sheet

Fill in the score for each item, total the score and divide by the number given.

Ambition		Job security		Family commitment		Independence	
32	___	37	___	44	___	5	___
10	___	1	___	18	___	7	___
34	___	29	___	41	___	6	___
36	___	16	___	3	___	2	___
4	___	17	___	15	___	27	___
13	___	12	___				
22	___						
24	___						
11	___						
19	___						
Total	___		___		___		___
÷10	___	÷6	___	÷5	___	÷5	___

Variety/Adventure		Altruism		Self-esteem		Professional integrity	
25	___	30	___	35	___	31	___
28	___	20	___	33	___	39	___
23	___	38	___	42	___	26	___
14	___	8	___				
40	___	9	___				
43	___	21	___				
Total	___		___		___		___
÷6	___	÷6	___	÷3	___	÷3	___

If your score is between 0 - 1.75 the characteristic is of little influence for you in the career decisions that you make.

If your score is between 1.75 - 2.74 the characteristic is of moderate influence for you in the career decisions that you make.

If your score is between 2.75 - 4.00 the characteristic is of great influence for you in the career decisions that you make.