

THE UNIVERSITY OF OKLAHOMA HEALTH SCIENCES CENTER
GRADUATE COLLEGE

Authority for the Defense of the Master's Thesis

You are hereby informed that permission has been given Billye Gail Hutchison,
a candidate for the degree of Master of Science,
to appear for defense on March 22, 1999.

The committee in charge of the defense is as follows:

Dr. Anita C. All, Chair
Dr. Gary L. Loving
Dr. Herbert A. Nishikawa

The duty of the chair of the committee is to conduct the defense and to report the results to the Dean of the Graduate College. Since the defense may be given before the regular final examination period, the committee should make it clear to the candidate that he/she is not excused from taking his/her course examinations; moreover, he/she must maintain the grade average required for graduation.

The defense of the thesis may be oral, written, or a combination of oral and written. It may be restricted to the defense of the thesis and/or cover the coursework required for the degree. *Within 72 hours after the thesis defense, this form must be returned to the Graduate College with the results and signatures of all committee members.* A unanimous vote concerning the candidate's performance in defending the thesis is expected; however, some dissenting votes may be cast. If one member dissents, a minority report must be filed with the Graduate Dean. If the committee consist of three members of which two dissent, the performance is graded as unsatisfactory. If the committee consists of more than three members and two dissent, a minority report must be filed and the Graduate Dean will investigate. The Dean's decision will be final. If more than two members cast an unsatisfactory vote, the defense is to be graded unsatisfactory. Only one attempt is afforded the candidate in defending the thesis. If the defense is graded unsatisfactory, this decision is final and the defense cannot be repeated.

O. Ray Kling (RK)
O. Ray Kling, Ph.D., Dean, Graduate College

3-22-99
Date

Report of the Master's Thesis Defense

We, the undersigned, as a committee, report the following results:

SATISFACTORY

UNSATISFACTORY

(Cancel one)

Anita C. All Chair
Gary L. Loving
Herbert A. Nishikawa

I disagree with the Committee's evaluation. Refer to instructions above regarding the filing of a minority report.

THE UNIVERSITY OF OKLAHOMA HEALTH SCIENCES CENTER
GRADUATE COLLEGE

VALUES IDENTIFIED IN DIFFERENT GROUPS
OF AIR FORCE NURSES

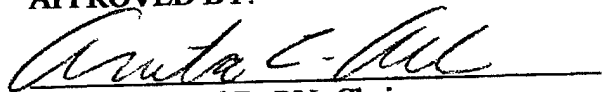
A THESIS
SUBMITTED TO THE GRADUATE FACULTY
in partial fulfillment of the requirements for the
degree of
MASTER OF SCIENCE

BY
BILLYE G. HUTCHISON, BSN, RN
OKLAHOMA CITY, OKLAHOMA

1999

**VALUES IDENTIFIED IN DIFFERENT GROUPS
OF AIR FORCE NURSES**

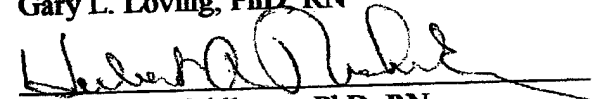
APPROVED BY:



Anita C. All, PhD, RN, Chair



Gary L. Loving, PhD, RN



Herbert A. Nishikawa, PhD, RN

THESIS COMMITTEE

COPYRIGHT

by

BILLYE G. HUTCHISON, RN, BSN

MAY 8, 1999

ACKNOWLEDGEMENTS

I wish to thank all those people who inspired me and spurred me on in this endeavor. As my thesis chair, Dr. Anita All consistently encouraged me and bolstered my confidence that I really could accomplish this monumental task. Her research and editing skills were greatly appreciated and her ability to make me see humor in situations where I alone could find none was a lifesaver, she was an exceptional mentor. Dr. Gary Loving helped to keep me focused, was always willing to explore a new idea, and assisted me in finding the perseverance to see it through to the end. Dr. Herbert Nishikawa encouraged me to delve deeper and clarify the meaning I was searching for, but always with charm, great wit, and a genuine and warm laugh that always put me at ease. I truly would never have accomplished this feat without the exemplary skills and assistance of my committee members. Finally, I thank Dr. Willis Owen for his consultative role and expertise in statistical analysis.

I must thank the Air Force for supporting my educational pursuit and Air Force nurse recruiter, TSgt John A. Smith, for being the inspiration for this research idea with his questions about Air Force nurses. I am thankful and appreciative of his assistance in locating Air Force Instructions and other military data. Finally, I thank God for the love of my husband Richard, my daughter Brandi and our new son Brad. Their patience and support through the chaos of writing this thesis while planning Brandi and Brad's wedding kept me going. They knew I would complete the process when, at times, I did not. I give a heartfelt thanks to each of these three most important people in my life.

TABLE OF CONTENTS

LIST OF TABLES.....	viii
LIST OF GRAPHS.....	ix
ABSTRACT.....	x
Chapter	
I INTRODUCTION.....	1
a. Problem Statement.....	3
b. Purpose.....	3
c. Study Questions.....	4
d. Definitions.....	4
e. Assumptions.....	9
f. Limitations.....	9
II THEORETICAL FRAMEWORK AND REVIEW OF LITERATURE.....	10
a. Theoretical Framework.....	11
b. Review of Literature.....	18
c. Transition through Developmental Life Stages.....	18
d. Transition through Personal Career Choices.....	27
e. Transition through Organizational Restructuring.....	36

	f. Transition to a Military Career.....	43
	g. Literature Summary.....	44
III	METHODOLOGY.....	46
	a. Research Approach and Design.....	46
	b. Population and Sample.....	47
	c. Sample Selection.....	48
	d. Procedure/Data Collection.....	49
	e. Instrument.....	51
	f. Reliability and Validity.....	51
	g. Study Questions and Method of Analysis.....	52
IV	DATA ANALYSIS.....	56
	a. Results.....	56
	b. Responses to Study Question 1.....	57
	c. Responses to Study Question 2.....	58
	d. Responses to Study Question 3.....	76
	e. Responses to Study Question 4.....	79
	f. Responses to Study Question 5.....	81
V	SUMMARY, DISCUSSION AND IMPLICATIONS.....	85
	a. Summary.....	85

b. Discussion.....	87
c. Limitations.....	92
d. Implications.....	93
e. Conclusion.....	94
 LIST OF REFERENCES.....	 95
 APPENDICES.....	 99
a. Facility Access Letter.....	100
b. Air Force Access Letter.....	103
c. Name Release Letter.....	106
d. Cover Letter.....	108
e. Informed Consent.....	111
f. Demographic Information.....	114
g. Instrument.....	117
h. Air Force Survey Letter of Approval.....	119
i. Institutional Review Board Letter of Approval.....	121

LIST OF TABLES

Table	Page
1. Values Frequencies.....	59
2. Group Statistics: Marital Status.....	77
3. Independent t-test for Marital Status.....	78
4. Analysis of Variance for Military Nursing Experience.....	80
5. Analysis of Variance for Civilian Nursing Experience.....	82

LIST OF FIGURES

Figure	Page
1. Values Frequencies by Score Categories.....	60
2. Values Frequency Distribution By Age Group.....	62
3. Values Frequency Distribution By Gender.....	66
4. Values Frequency Distribution By Educational Level.....	69
5. Values Frequency Distribution By Rank.....	72

ABSTRACT

Transition is a process of change that occurs throughout a person's lifetime in self-identity, life activities, and occupational choice and development. Fundamental personal values are reflected in the choices and decisions made in every aspect of our lives.

The conceptual framework of transition by Schumacher and Meleis included recognition of personal values as an integral piece of the transition process. This descriptive study's purpose was to identify values held by Air Force nurses. Participants were a convenience sample of 224 active duty Air Force nurses stationed at four Air Force medical facilities in the United States. The values of the Air Force nurses were identified using Nevill and Super's Values Scale survey.

Study results supported the values identified in the literature as important elements of transition. The study participants identified various combinations of these values in the categories of important or very important. Seven of the eight values were identified as important or very important across demographics of age, gender, educational level, military rank, marital status and classifications of years of Air Force or civilian nursing experience.

The study results have potential for education of military managers, administrators and recruiters. Personnel using this education may ease the transition process from civilian to military nursing, facilitate job placement to positions reflecting personally held values, and provide valuable insight for Air Force nurse recruiters who

have limited knowledge of the nursing profession. In all, this would promote job satisfaction and provide incentives for retention of military nurses in the Air Force.

CHAPTER I

INTRODUCTION

In our society today, healthcare organizations and their employees have been in a state of transformation. In response to organizational mergers and right sizing, changes occurred to ensure continued organizational existence and opportunities for employment. Changes by personnel varied in response to the transformation process. Positions were redefined or deleted and employees adapted or resigned to investigate other opportunities. Regardless of the personal response, transitions, viewed as a change in a state or condition (Allee, 1986), were required to ensure employment or provide for career mobility and stability to positions of increased responsibility. These transitions have included role adaptation, changing employers or geographic settings in the same career, or decisions to pursue a new career field. In the current state of organizational remodeling, any of the above transitions may have occurred more than once in a person's lifetime due to geographic moves, change in personal roles, familial influences on career, or completion of further education (Feldman, 1989). The rapidly changing healthcare environment, through mergers, rightsizing, and a change in focus to outpatient care also affected nursing positions once considered stable. Smaller facilities and the outpatient focus resulted in significant alteration or deletion of numerous positions and left many registered nurses (RNs) uncertain of job security and skeptical of previously projected

career plans (Knox, 1995). In turn, these changes may have led many individuals to career transitions.

Employed in a small community hospital, this investigator progressed from staff nurse to unit manager. However, with continued career progression limited in that setting due to administrative tenure, other avenues for career advancement were explored. One such avenue, military nursing, provided a challenge and an opportunity to advance both in clinical and managerial experience. After seven years of experience in a civilian setting, a career transition occurred to military nursing.

Early in 1998, an Air Force recruiter, working specifically to recruit nurses into the military, requested from this investigator specific military nursing information that he could offer potential recruits. The particular focus was registered nurses (RNs) with prior nursing experience. Abundant information was available regarding RN retention and recruitment in civilian settings, but information addressing RNs entering a military career was limited. Personal experience led to development of a list of military career benefits for an experienced RN. However, diverse or less distinct factors such as a conflict between a role and personal values, the length of a nursing career, or marital status conceivably influenced the decisions of other nurses. Other factors may have been due to the perceived stability of a military career, increases in rank and salary provided for education and experience, or the retirement benefits offered after twenty years of service. Therefore, this lack of information indicated that research was needed to investigate the

reasons experienced registered nurses leave civilian positions and enter the realm of military nursing.

Super (1957) proposed that uncertainty and change were the only constants in adult career development. Life or career transitions guided decisions or actions and few individuals remained in the same job throughout their career. Individuals voluntarily changed jobs to seek satisfaction in a new position or to find a position more closely associated with their values and ideas (Schumacher & Meleis, 1994; Super, 1957). They improved their satisfaction level through role change within jobs or transition to a new job. Included in this population seeking job change were persons wanting career development during a life-stage transition, those disappointed with earlier choices and anticipating role change, or those forced to change through job reorganization.

Problem Statement

Values, either intrinsic or extrinsic, are influential factors in the decision of registered nurses, with one or more years of civilian nursing experience, to begin an Air Force nursing career. The problem is to determine the influence of these values to consequent career satisfaction or ease of transition.

Purpose

The purpose of this research is to identify the values held by Air Force nurses. Information obtained about these values may provide valuable insight for Air Force nurse recruiters who have limited knowledge of the nursing profession and may provide military nurse managers with information to assist nurses in the transition to Air Force

nursing. Identification of specific values held by Air Force nurses may allow recruiters to provide potential nurse recruits with examples of career opportunities reflecting those values.

Study Questions

Exploratory descriptive research aims to describe a phenomenon or a new area in which little information is available. According to Polit and Hungler (1995), descriptive research in a new area may not provide adequate justification for a hypothesis. Study questions allow the problem statement to be broken down into specific focus areas.

1. What values are associated with Air Force nurses with one or more years of civilian nursing experience?
2. Do values of Air Force nurses occur in different frequencies in relation to age, gender, education, or other demographic characteristics?
3. Are there different values for single and married Air Force nurses?
4. Do values differ between groups of Air Force nurses with one year or less of Air Force nursing experience, two to four years of Air Force nursing experience, or with greater than five years of Air Force nursing experience?
5. Do values differ between groups of Air Force nurses with one year of civilian nursing experience, two to five years of civilian nursing experience, or with greater than five years of civilian nursing experience?

Theoretical Definitions

Theoretical definitions describe what something is, but do not tell how it is

measured. These definitions are necessary for study replication.

Air Force Nurses: registered nurses with an educational minimum of a Baccalaureate Degree from a National League of Nursing accredited program serving an active duty tour with the United States Air Force (United States Air Force, 1997).

Civilian nursing experience: registered nurses with one or more years of employment by a resource other than the United States military or Public Health service.

Demographics: characteristics of a population classified by age, sex, income for market research or sociological analysis (Neufeldt & Guralnik, 1997).

Factor: any of the circumstances, conditions that bring about a result, an element or constituent that makes a thing what it is (Neufeldt & Guralnik, 1997).

Marital status: may include, married; living together as husband and wife; joined in wedlock, divorced; legal and formal dissolution of a marriage, single; unmarried or characteristic of the unmarried state (Neufeldt & Guralnik, 1997).

RN: a nurse who, after completing extensive training and passing a State examination, is qualified to perform complete nursing services (Neufeldt & Guralnik, 1997).

Significant relationship: important continuing attachment or association between persons (Neufeldt & Guralnik, 1997).

Values: a moral ideal or code internalized to a person (Grundstein-Amado, 1995). A definition for each value to be measured was taken from Neufeldt & Guralnik (1997).

Ability Utilization: to make or put to use skill, capacity or competence.

Achievement: to do, succeed or accomplish.

Advancement: promotion, as to a higher rank, progress or improvement.

Aesthetics: the study or theory of beauty and of the psychological responses to it.

Altruism: unselfish concern for the welfare of others, selflessness.

Authority: the power or right to give commands, enforce obedience, take action or make final decisions.

Autonomy: having self-governance, function independently without control by others.

Creativity: artistic or intellectual inventiveness.

Cultural Identity: having the same ideas, customs, skills, and arts of a people or group that are transferred or passed along to succeeding generations.

Economic Rewards: monetary or material recompense given in return for action.

Economic Security: monetary or material protection, assurance, or stability.

Life Style: the consistent, integrated way of life of an individual as typified by his or her manner, attitudes, possessions, etc.

Personal Development: individual step or stage in growth, advancement.

Physical Activity: bodily behavior, function, or movement as opposed to the mind.

Physical Prowess: bodily superior ability, skill.

Prestige: reputation based on brilliance of achievement, character.

Risk: the chance of injury, damage, or loss; dangerous chance, hazard.

Social Interaction: reciprocal action between human beings living together as a group.

Social Relations: connection or manner of being connected or related as in thought or meaning between human beings living together as a group.

Variety: state or quality of being varied, absence of monotony or sameness

Working Conditions: state of circumstances of employment or occupation.

Operational Definitions

Operational definitions describe the procedure used to measure a concept or variable and provide the guide for study replication (Polit & Hungler, 1995).

Begin an Air Force nursing career: assuming an initial Air Force service obligation defined by direct commission by the President of the United States.

Demographics: the participants' replies to age, gender, educational level, years of military service and current rank, and years of civilian nursing experience on the demographic information sheet.

Marital status: the participants' replies to marital status on the demographic information sheet.

Values: as measured by the Values Scale (Nevill & Super, 1989).

These values are Ability Utilization, Achievement, Advancement, Aesthetics, Altruism, Authority, Autonomy, Creativity, Cultural Identity, Economic Rewards, Economic Security, Lifestyle, Personal Development, Physical Activity, Physical

Prowess, Prestige, Risk, Social Interaction, Social Relations, Variety, and Working Conditions. Nevill and Super (1989) provided sample statements to describe each value.

These were:

Ability Utilization: use of all my skills and knowledge.

Achievement: results which show that I have done well.

Advancement: get ahead.

Aesthetics: make life more beautiful.

Altruism: help people with problems.

Authority: tell others what to do.

Autonomy: act on my own.

Creativity: discover, develop, or design new things.

Cultural Identity: live where people of my religion and race are accepted.

Economic Rewards: have a high standard of living.

Economic Security: be where employment is regular and secure.

Life Style: live according to my own ideas.

Personal Development: develop as a person.

Physical Activity: get a lot of exercise.

Physical Prowess: work hard physically.

Prestige: be admired for my knowledge and skills.

Risk: do risky things.

Social Interaction: do things with other people.

Social Relations: be with friends.

Variety: have every day be different in some way from the one before it.

Working Conditions: have good space and light in which to work.

Assumptions

1. The participants will answer all questions truthfully.
2. Change is inevitable.
3. Values influence our career decisions.
4. An adequate number of responses will be achieved.

Limitations

1. Convenience sample of an intact group.
2. For mailed surveys there are no controls for conditions under which the questions are answered.
5. Data reflects only Air Force nurses.
6. Data may be influenced by the Hawthorne effect. The Hawthorne effect is defined as the effect on the dependent variable caused by subjects' awareness that they are participants under study (Polit & Hungler, 1995)

CHAPTER II

LITERATURE REVIEW

Introduction

This chapter explains the framework and reviews the literature describing the current knowledge related to transition. The nursing model of transition recognizes values as an integral piece of the transition process. The description of career development recognizes values in the development of self-concept that, in turn, impacts life and career choices. The nursing model and description of career development combined provide the theoretical framework for this study.

The transition process has been applied throughout all disciplines and professions. Transition as a change in a state or condition (Allee, 1986) was the process that defined all life activities and included passage through the stages of the life cycle or a personal or organizationally compelled role or career change. An example of transition that has been seen frequently in the civilian sector for both nursing and other professionals, was job progression and resultant role changes from entry level staff positions through managerial positions. This process required assumption of new responsibilities; however, the overall adjustment to a new role in the same organization was to similar and familiar organizational rules or policies. For a nurse leaving a civilian setting to assume the

military nursing role, a significant life change ensued with a transition to unfamiliar policies and expectations and this transition process was the focus for this study.

Theoretical Framework

The civilian nursing role focused on patient and family care, adherence to facility policies, and membership on committees directed toward patient and facility improvements. The military nursing role focused on patient and family care in peacetime, adherence to medical and general military regulations, and education and training to enhance care for military members in remote regions of the world in the event of chemical, biological or nuclear war. The nurse who chose to enter the military assumed a new nursing role and took on an entirely new experience with military regulations, officership expectations, and the training and skills required to function in a wartime setting. Schumacher and Meleis' (1994) nursing model of transition was applicable to this change. This model depicted transition related to universal properties, or those traits common to all transition, and multidimensional transition conditions that facilitated the process.

Transition was described as both a process and an outcome of complex linkages and interactions between a person and their environment and the transition model used Bridges (1991) three phases of entry, passage, and exit as its structure. Transition incorporated some aspects of change but instead of rigid and well-defined phases, there were no defining boundaries between the structural phases. The positive or negative direction of movement through these phases was described as fluid and occurring over

time. This movement through phases provided the first of the two universal properties of Schumacher and Meleis' (1994) transition model.

The second universal property of Schumacher and Meleis' (1994) transition model consisted of developmental life changes including individual roles, identity, relationships, abilities, and patterns of behaviors. For this study, role and identity were interpreted as related to age, gender, personal intrinsic or extrinsic values, or culture. Relationships included family history or tradition of military service or friendships with civilian or military members. Abilities included the challenge of higher education or new experiences. Finally, patterns of behaviors included the length of time in practice, search for personal and career stability or further autonomy in practice.

Throughout the transition process an individual experienced a personal feeling of well-being, comfort and mastery of skills needed, and satisfaction with the changes that had taken place. These were indicators of a healthy or positive personal outcome in transition and could occur at any point in the process. Completion of a transition indicated by a role or career change implied a person had synthesized the necessary skills and acquired the knowledge to assume the new role and function capably (Meleis & Trangenstein, 1994). The transition model (Schumacher & Meleis, 1994) was described in words common to all professions and depicted four major categories of transition: developmental, situational, health/illness, and organizational. For the purpose of this study, the model was applied to the situation of career transition to the military.

According to Schumacher and Meleis (1994), situational changes of any career transition included assuming a new role, promotion, or changing practice settings. In this study, the change of practice settings was leaving the civilian realm to enter the military. The change impacted not only the nurse, but also family members or significant others. Defining a career transition in this process included the changes required by a new role and the adaptation over time necessary to achieve the new role. For the nurse entering the military, the changes and adaptations included the familiar nursing role and the unfamiliar officer role requiring adherence to military regulations and customs and assumption of a position of leadership and authority. Prior education and experience prepared the nurse to provide fundamental care to the ill military member or their dependents in peacetime. Specific military training prepared the nurse to provide trauma and battlefield nursing care during chaotic periods of war. The nurse's new identity included the role of officer with responsibilities to lead and mentor younger officers and enlisted team members.

In a military career, the transition model's (Schumacher & Meleis, 1994) first universal property of positive direction required achieving rank. This was accomplished through education and demonstration of continued competence in nursing skills, judgement, and leadership abilities. These areas were evaluated through a supervisor's completion of officer performance reports (OPR) which contributed to consideration for promotion through succeeding ranks.

The second universal property of Schumacher and Meleis' (1994) transition model was the change in personal role or life patterns as the transition from civilian to military life began. A new culture including military regulations, discipline, and role responsibility was amassed and synthesized, nursing was but one of the roles assumed. Life patterns changed in adapting to a military career through geographic moves and adaptation to military traditions and customs. These life pattern changes had an effect on every person interacting with the one in transition including family, friends, social acquaintances, and former fellow employees.

Schumacher and Meleis' transition model (1994) described important elements affecting the two previously described universal properties. These elements were identified as the multidimensional transition conditions and were changes in internal processes associated with facilitating a smooth and successful transition and outcome. These elements included meanings, expectations, levels of knowledge or skill, environment, level of planning, and emotional and physical well being. Meanings of the transition were the unique and individual intrinsic factors derived from values and their effect on personal life activities. They were personally perceived as positive, neutral, or negative and were the result of a personal decision for a particular action. Individual expectations of outcome also influenced transition. Expectations were perhaps unrealistic due to not having had prior experience or knowledge of the requirements for the transition. A person could not have known what to expect but could have had a preconceived idea of outcomes they would like to achieve. Knowledge level and skill in

nursing and the military also influenced the outcome and, for the new military role, could or could not have been sufficient to adapt to the situation. The study of military history and the education and expectations of officership were new experiences that required specific training. Successfully adapting to the role of military officer required military knowledge and perhaps different skills for this new function. Uncertainty of skill and knowledge could have been associated with fear of not having the ability to perform required activities or fear of a war scenario and personal responses and reactions.

The person's surrounding environment included the external resources available for support and assistance during the transition. In the transition model (Schumacher & Meleis, 1994) these resources were family members, friends, printed material, media or any other outside source. The support and assistance these resources provided functioned in bolstering and renewing confidence and encouraging the person in transition. Guidance and communication by a mentor also facilitated this part of the transition process by providing knowledge and thus easing the transition to a new organization. A mentor furnished pertinent organizational information, guidance over rough areas, aided the learning curve, and generally assisted the person in establishing comfort in the new role. A successful transition depended on planning and education before and during a change to smooth the process. A person contemplating any type of transition needed to look at the projected change from various perspectives to anticipate and plan for problems, new requirements, potential barriers, and plan actions to alleviate or minimize them. This lessened the chance of significant difficulties or dissatisfaction with the

change. Finally, emotional and physical well-being was considered since transitions of any kind, but especially a career transition, were fraught with emotional fluctuations. Fear, anxiety, insecurity, frustration, and doubt were all emotions that could occur during this process. Physical manifestations of these emotions, fatigue, nausea, and insomnia, would all have influenced the process of transition. Physical symptoms, in addition to tense emotions, could have led to distress and inhibited the transition process.

Schumacher and Meleis' (1994) transition model's second universal property was congruent with Super's (1957) description of career development in terms of choice of role or career and developmental life stages with parameters defined by age, gender, or developmental tasks. A career choice was a product of life experience and personal values and the stages of a career paralleled changes in developmental life stages.

Super (1957) viewed life experience as the path toward development of an individual's self-concept. The self-concept began its development in infancy and was influenced by roles portrayed by family members and family expectations related to life satisfaction, success, or intellectual pursuits. Further influence on the developing self-concept were values formed from family religious or cultural beliefs and activities. As the individual grew and progressed through life, these prior influences contributed to the decisions made regarding a life partner, personal areas of satisfaction, and career choice. The career chosen then progressed through five stages parallel to the developmental life stages.

Super's (1957) career stages included growth, exploration, establishment, maintenance and decline. The initial growth stage paralleled the time from conception to approximately age fourteen. It was during this stage of development that the individual self-concept was emerging as a product of family, cultural, and life experience influences. The second stage, exploratory, spanned the ages of fifteen to approximately age twenty-five. This stage included developmental tasks related to identification with the individual adult role, finding a marriage partner, and finding an occupation. The third career stage was that of establishment and consisted of establishing a family, home and place in the community, and building a business or developing a work history. The maintenance stage was the fourth and entailed flourishing in an occupational role and maintaining an intact home and family. The final fifth career stage was decline as family responsibilities lessened and activities in work and community became less of a life focus. This was the stage in which many retired from an occupation while others transitioned to a new career.

For an average person career changes have occurred many times during their lifetime for myriad reasons (Hutri, 1995). These transitions included personally revised roles or expectations based on values and beliefs, organizationally influenced restructuring of roles and careers, or developmental changes related to age or gender perceived in sociology and psychology as life-stages. The preceding transitions were integral portions of both Schumacher and Meleis' (1994) transition model and Super's (1957) theory of career development. Therefore guidance for the study and the

development of study questions were derived from the transition model and theory of career development. A transition resulting from any of the above became a state of change providing a person with new knowledge to assimilate and the need to redefine behaviors, actions, and perceptions of self in relation to the new setting. This transition did not occur in isolation but in accordance with events that occurred in a person's social structure and environment (Meleis, 1997).

Review of Literature

The review of literature provided information about the current knowledge concerning transition as a situational change in careers. This information also provided the context in which the study was conducted (Polit & Hungler, 1995). The available literature encompassed transition from the perspectives of life-stages, personal role change, organizational restructuring, and choosing a military career. The review of literature provided the foundation for the study and contributed to the explanation of the available information with respect to transition.

Transition through Developmental Life-Stages or Life-Cycles

Two investigators (Hughes, 1958; Neugarten, 1979) described the fluidity of the life cycle as marked by several role transitions through life-stages that were independent of age group restriction. The expectations of each life-stage were grouped and labeled, but it was recognized that individuals did not necessarily accomplish the life-stage tasks during certain age timetables. Instead of age, transitions were determined by relationships between people and their work or social environments. Work and life were

made up of phases or turning points influencing the choice to embark upon a new direction. Individual movement through the phases was dependent on prior life experiences and the impact of personal problems related to marriage, children, and education. These problems, perhaps causing insecurity and unease in personal career expectations, contributed to a person's desire for change in his life and career. For example, in middle age, transition increased personal introspection and led to a change in sense of self. This potentiated vulnerability toward occupational change and an exploration of new arenas to display professional talents. Personal identity was transformed and career or life goals were redefined.

Lowenthal, Thurnher, and Chiriboga (1975) viewed transition in relation to adult women and men during four life stages. The study included a convenience sample of 216 men and women of a large metropolitan area with cross-sectional data collection. Predominantly Caucasian groups were selected from the same geographic area and chosen from school and agency records to be homogenous and representative of middle and lower-middle class. The subjects, including friends and family members, were divided into four life-stage cohorts for the study representing the transitional stages of older adolescence, young adult, middle-age adult, and older adult. The hypothesis, though not specifically stated, inferred that differences existed for gender and life-stage in the adaptive methods used for transition.

The data collection tools were an intensive interview lasting an average of eight hours and the administration of four psychological instruments. The instruments were

the Bradburn Morale Scales, the Wechsler Adult Intelligence Scale Vocabulary and Block Design subtests, an Adjective Rating List of personality traits, and projective tests consisting of Murray Thematic Apperception Cards. Instrument reliability or validity data were not reported. However, the researchers (Lowenthal, et al., 1975) stated that no findings were reported unless they reached significance at the .05 level reducing the chance of rejecting a hypothesis that was true. For tests of psychological domain, this significance level was acceptable.

The study by Lowenthal et al. (1975) found specific adaptive procedures used in each of the four developmental stages. For the participants, transition into the roles of each developmental stage was defined by personal evaluation, planning, envisioning problems, and feelings of self-control. Personal control was found to be the factor most influential in adapting to the new stage. For this study (Lowenthal, et al., 1975) the interviewers wrote narrative accounts and included personal impressions and attitudes toward the subjects. No discussion of interviewer training was provided which led to a lack of generalizability, an opportunity for personal bias, inconsistency, and errors of recall affecting reliability of the data. Deliberate selection of a homogenous group limited group variability and non-random subject selection limited the generalizability of the study. Additionally, cultural bias and information sharing between cohorts was a possibility due to familial relationships between the subjects.

For Levinson (1978), transition was viewed in the context of life-cycle stages defined by age groups. The focus of the study was individual development throughout

the adult life cycle. Transition into and through each stage of the cycle was related to the developmental tasks required for that age group. The focused age group for this study was men in the mid-life decade, ages 35 to 45. Limiting the study to a small volunteer sample of 40 men was the researcher's personal choice due to limited resources. Additionally, the researcher's personal choice that determined the four diverse occupations may have resulted in personal bias. Limitations of the study were the volunteer sample, the researcher's choice of occupations, the exclusion of women, and an implied assumption of honest responses.

The tool used in Levinson's study (1978) was a biographical interview with no definitive name and no reliability and validity data reported. A single staff member conducted the interview each time, providing consistency. For publication Levinson (1978) summarized four individuals' interviews representative of each group and occupation. The author concluded that there were four overlapping eras of the life cycle with specific developmental tasks to be accomplished. For the specific period reviewed, mid-life transition, men reappraised their past for prior accomplishments and identified future goals yet to be achieved. Thus, the transition process became introspective and modification of current life activities was required to accomplish future goals. This process incorporated personal internal changes in conjunction with the external life influences.

Vaillant (1977) used a longitudinal study based on the Grant Study by Heath (1946) to review man's process of adaptation as he entered and passed through stages of

the life cycle. The original study sampled college sophomores attending private colleges with difficult entrance requirements. The sample from private institutions only was not representative of the general population. For Vaillant's study (1977), a subsample of graduates from the last three classes of the original study was taken. Data reflecting academic success, socioeconomic status and physical and psychological health were standardized and 202 men of this group were assigned a number. A random selection of numbers was used to choose the final 95 participants.

A two-hour interview, an intensive physical examination to determine physiological response to stress, and a psychological exam using six psychological rating scales were used to assess the subject's adaptation to changes in life. Interview questions were always asked in the same order to provide consistency. Psychological rating scales used in Vaillant's study (1977) included the Adult Adjustment Scale, Childhood Environment Scale, Objective Physical Health Scale, Marital Happiness Scale, Maturity of Defenses Scale, and Overall Outcome of Children Scale. Of the six scales used, interrater reliability was reported for the following three. The childhood environment scale, overall outcome of children scale, and the scale for the overall maturity of defenses were respectively .71, .78, and .77. No other reliability or validity information was provided to assess consistent or actual measurement of the attributes sought. The study concluded that changes or transitions through the stages of the life cycle were continuous, independent of methods used to adapt, and had no predictable outcomes specific to each stage.

Using Levinson's (1978) description of transition related to tasks and life stages, Hill and Miller (1981) also looked at the decision of job change in the "middle seasons" of a man's life. A convenience sample of 600 men with recent job changes was surveyed with a response rate of 15%. A 5-point Likert type scale was used to rate the influence of each of ten factors to the subjects' decision to change jobs. The expected finding was that the current period of transition was related to the importance attached to various job change decision factors. The data supported that the mid-life stage of transition, age 35-39, focused on factors related to personal achievement and goal accomplishment, congruent with Levinson's (1978) stage for this age group. The study limitations were the small response rate of 15%, the convenience sample, the use of males only, and the non-random selection decreasing the representativeness of the population

A study conducted by Faver (1984) reported information from 1120 women who contacted the University of Michigan Center for Continuing Education between 1964 and 1973. The premise of the study was that women who contacted this facility were anticipating or experiencing a transition in the area of education, work, or family and that differences occurred both between generational and life-cycle transitions. Cross-sectional data compared different age groups at one point in time. The data collection tool was a ten-page questionnaire that included demographics, prior and current employment, and a total of nine questions consisting of Likert type scales to measure the three attitudinal variables. Each variable was measured by three questions. These three attitudinal variables were attainment values of family and career, achievement

orientation, and career orientation. These characteristics were felt by the author to be the internal forces influencing change in career or life stage. The questionnaire had a 60% response rate. Reliability of the three scales was not reported. Construct validity for the scales was derived from the scales themselves and categorical variables developed from each scale that were related to variables expected to predict attainment, achievement, and life satisfaction values (Faver, 1979).

Group participants of Faver's study (1984) were divided into three age cohorts depicting different life cycle periods. Findings suggested a difference in achievement orientation between age and life cycle stages as a higher value was placed on career achievement by persons in the younger life cycle. Career values decreased with age and generation. As women aged, family values received a larger emphasis and surpassed career values. Life satisfaction ratings did not differ among the three cohorts. It was surmised that life-stage transitions in women's lives reflected the values and attitudes influenced by both individual life experiences and generation.

Viewing transition in later life as a step toward retirement described the work of Elder and Pavalko (1993). This study analyzed the data from the Stanford-Terman longitudinal study (Terman & Oden, 1959) of 450 men experiencing life-stage transitions. The use of data from 1959 was a limiting factor as many societal and technological changes have occurred in the past 34 years. The original sample was middle and upper class men with an IQ greater than or equal to 135 and was not representative of the general population. Interview and questionnaires collected life

history data for these men. Data were coded as one of two sets of codes developed by the researchers to define characteristics of retirement transition. Interrater reliability calculated by Kappa statistics ranged from .70 to 1.0. The study found that transition into stages of retirement occurred frequently and varied from complete cessation of work to cessation for short time periods to resuming the same career or an alternate career. Even in transition to retirement, the process was defined by new skills, education for a new role, personal adjustments, and all of the intervening processes necessary to accomplish it. Each of the preceding works Elder and Pavalko (1993), Faver (1984), Hill and Miller (1981), Hughes (1958), Levinson (1978), Lowenthal et al. (1975) Neugarten (1979), and Vaillant (1977) perceived transition as a relationship between life stage and the process of adaptation expected from each stage.

Job change related to later life (Bailey & Hansson, 1995) was reviewed in the context of social aging. Perceived obstacles to job change and adaptation in later life periods were reviewed. A 15 item mailed survey was used with a convenience sample of 140 employed men and women of diverse occupations. Recruitment of participants was continued until 70 men and 70 women were obtained. The survey was completed anonymously with a return rate of 30%. The 15-item survey had a coefficient alpha reported for the entire scale to be at least .80, indicating high internal consistency, and was directed toward career change late in life. Data analysis depicted three broad areas of concern for the older worker. A job change was felt to contribute to a feeling of being out of place, an awkward state for an older person who should be in a stable position. A

job change at a later age was felt to be looked at unfavorably with the possibility of discrimination related to age. Finally, for Bailey and Hansson (1995) it was conceivable that new skills were required for a job change and no value was given for previous traits or skills mastered. Rapid change in work environments made this transition a valid possibility.

Researchers (Bailey & Hansson, 1995) concluded that, no matter the age a transition occurred, the same functions, or transition conditions and elements, to acquire new skills and knowledge were required to provide a smooth transition. Career changes, even for this age group, were potential results of organizational restructuring requiring adaptation to new procedures, environments, and expectations. This was a cause of concern for the worker in the later life period when security and self-protection were considered to become the norm. At that point in their career it was felt they lacked motivation to change or adapt.

In summary, throughout the preceding studies and information (Bailey & Hansson, 1995; Elder & Pavalko, 1993; Faver, 1984; Hill & Miller, 1981; Hughes, 1958; Levinson, 1978; Lowenthal et al., 1975; Neugarten, 1979; Vaillant, 1977) the changes occurring during life stages exhibited similarity in the steps and modes of adaptation used to ensure successful passage through a transition period or the assumption of the new life stage. Regardless of age, gender, or developmental tasks used to depict the process, the requirements for transition were consistent with the second universal property of the transition model. There was a need, over time, to incorporate new knowledge and skills,

to redefine personal expectations for outcomes, and to plan for interactions between the person and the environment. Education occurred along the way when new skills were developed to cope with situations and activities required to achieve the transition.

Personal values and meanings were incorporated into this education and plans for career or life goals were altered to achieve a satisfactory outcome.

Transition through Personal Role or Career Choice

Personal motivation and job satisfaction were found to be contributing factors in a study by Price and Mueller (1981) reviewing reasons nurses changed jobs. Conducted as a longitudinal study, 1091 registered nurses participated representing seven church-operated general hospitals in medium sized metropolitan communities. The information collected by a questionnaire survey looked at nurses voluntarily leaving an organization. The survey was mailed to the homes of 1383 nurses with 1091 returned, an 80% response rate. The sample was non-random and, therefore, limited the representativeness of the study. Reliability for the questionnaire was determined by Cronbach's alpha with an average of .83 and none below .70. The findings indicated that opportunity, education, and job satisfaction influenced job change. Opportunity options were the largest predictor of nurses leaving for another job and salary was included in this opportunity. However, environmental influences, personal motivation, and peer support were also contributing factors.

Weiner (1985) and Wong, Wong and Mensah (1983) felt personal motivation, such as a desire to achieve a new goal, influenced career transition. Motivating factors

came from a person's external environment or were intrinsic to the individual. As an individual intrinsic factor, motivation provided the impetus to enter into a transition process. Throughout the process individuals developed ideas or notions about potential outcomes and had preferences toward which outcome they would prefer. Individuals searched for causality in their actions believing that those actions contributed to desired outcomes. They developed goals congruent with personal values to ensure completion of the tasks required for that new role. Outcomes of the transition were reflected in personal satisfaction and the integration of the new role with individual values. Therefore, intrinsic motivation to produce a valued outcome was the instigator of a transition and the force behind learning and attaining new knowledge and skills. Extrinsic motivation occurred from interaction with the environment and provided the encouragement and sustained the drive to achieve the transition.

Hall (1986) defined mid-career in terms of an intracareer role adjustment, a transition not directly related to age or life-stage development. A person in this role who wished to affect a transition looked at viable career options and was stimulated to change because of intrinsic or extrinsic motivators. External forces came from technology or job change requirements that forced an individual to look for something new. However, many people began the process due to a feeling of dissatisfaction with a current position, conflicts with personal values, or the desire for a change or new challenge. There was a feeling of personal responsibility for career, job satisfaction, and achievement of life goals.

Further depiction of the role change transition was provided by Shea, Adamczak and Flanagan (1987) in descriptions of their experiences as three nurses who left traditional nursing roles and transitioned to that of Flight Nurses. These three individual's experiences exhibited the structural phases and elements of the transition process. Initially each expressed fear and uncertainty of their ability to assimilate the skills necessary to perform a new role as they entered the process. Mentors and preceptors provided guidance and relevant information during the transition process. Shea et al. (1987) reported that preconceived ideas of the new role, in conjunction with completion of required training and skills, increased their personal confidence and reduced anxieties and fears as they became more independent. Each of the three progressed through the phases encompassing the transition process. This resulted in successful achievement of the role of flight nurse and confidence and satisfaction in their performance as the transition was completed.

Nicholson and West (1989) provided an additional description of the transition process. Though terminology varied, the process they described fit comfortably into the transition structure and associated elements and conditions contributing to successful transition outcome. Nicholson and West (1989) described transition as any major change in work role requirements or work context. Their cycle of transition encompassed five stages very similar in description to Schumacher and Meleis' (1994) transition model. These five stages were preparation, encounter, adjustment, stabilization, and preparation and were used to view careers, or work histories, as chains of transition cycles.

Transformation began with the author's (Nicholson & West, 1989) description of the affective content of transition. This included preparation for the transition or change and entry into the process. In this stage, anxiety regarding personal capabilities to fulfill a contemplated new role was evident. It was during this time that an individual made adjustments in attitude and skill to go along with their projected role change. As they moved into the encounter portion of this stage there was stress but also positive actions related to personal challenge, freedom, satisfaction, and fulfillment. Following the encounter phase was the period of role adjustment involving personal change and the molding of the job to fit personal values and requirements. Stabilization was the succeeding phase and was evident in the continuity of work history depicted by job mobility and assumption of different roles or movement to different organizations. During this stage, the need existed to remodel and improvise as a means of adapting to these changes. The final stage was that of individual-organization interaction to complete the preparation needed for the new setting. Mentors and support services were used to guide the final transformation process. It was in this stage that the individual determined the congruence between personal and organizational values, culture, and social expectations. The authors (Nicholson & West, 1989) felt employer changes were often influenced by dissatisfaction with job setting or external pressures as evidenced in prior study reports (Hall, 1986; Price & Mueller, 1981).

Knoelbel, Fuller and Misener (1991) focused on the nurse practitioner (NP) role in primary care. The study provided an analysis of reasons nurse practitioners

transitioned to the role of NP as well as reasons for staying in the role. A descriptive correlational survey was conducted of 128 NPs and 35 nurse midwives. There was a 90% survey return rate, with 14 deemed unusable, leaving a total of 132 subjects. Reasons were not cited for why 14 surveys were unusable. This total represented 81% of the total NP and midwife population of South Carolina. The 60-item questionnaire consisted of sociodemographic data, the Index of Job Satisfaction (IJS) and the Minnesota Satisfaction Questionnaire-Short Form (MSQ-SF) to assess job satisfaction. The group was heterogeneous regarding sociodemographic data increasing the variability of the group, and there was no prior reliability or validity information reported for the measurement tools. Scores from the IJS for global job satisfaction ranged between 40-87, with a mean of 68.13 and a standard deviation (SD) of 9.63. This indicated a moderate level of job satisfaction overall. The scores from the MSQ for general job satisfaction ranged between 36-100, with a mean of 75.28 and SD 11.77. This indicated a moderate to high level of satisfaction with particular aspects of the job. The MSQ included intrinsic and extrinsic job satisfaction items and separate scoring of these scales indicated a high level of satisfaction with intrinsic factors and dissatisfaction with the extrinsic factors of the job.

Knoelbel et al. (1991) speculated that in completing the transition to the NP role an intrinsic factor, personal satisfaction, was a major indicator of role change. Furthermore, through the continued revision of health care, NPs reasons for staying in the role were also related to intrinsic values or factors influencing job satisfaction and

personal motivation. The process of transition to the new NP role began with a desire to improve personal job satisfaction and progressed along the transition process incorporating new knowledge. This action produced the desired outcome, that of achieving the NP role which promoted personal satisfaction and aided the decision to remain in the role.

Bridges (1991) description of change and transition was that change was situational and external while transition was the internal psychological process people go through to adjust to a new situation. The end of a job was a change that set off a cascade of secondary changes placing the people it affected into transition. Ending a job required leaving the old situation behind including the locale, the peer group, and the old way of doing things. Fear and anxiety were evident in this stage as something new began and various emotions ranging from denial to acceptance of the change were exhibited. Movement progressed into what he described as the neutral zone, an area where new learning, planning, and seeking assistance allowed an individual to adjust to requirements of the new role. This instituted the new beginning. As in Schumacher and Meleis' (1994) transitional process, Bridges' (1991) transition cycle also overlapped with no clear boundaries between phases.

In Bridges' (1991) depiction of transition it was possible for an individual to be in more than one stage at the same time and movement was marked by a change in the dominance of one phase as it gave way to the next. During this transition an individual used forecasting to predict and plan for opportunities, problems and potential barriers.

Worst and best case scenarios were projected to prepare contingency actions or decisions. Goals were redefined and support networks were used to obtain feedback and knowledge.

An example of a personal choice in changing a job or career was provided in a study conducted by Hutri (1996). Hutri felt an occupational crisis was the impetus to contemplate a career change. Definition of occupational crises was a period of confusion, job dissatisfaction, conflict over career choices, or a career an individual felt had reached an endpoint. This study used a convenience sample of 277 Finnish employees of various occupations participating in personnel training arranged by their employers or trade unions. The study instrument was the Occupational Crises Scale (OCS) questionnaire. The tool consisted of five questions in a Likert type scale related to work-related anxiety, inability to solve work problems, and tendency to change careers. The tool was available in both Finnish and English and was anonymously completed by the subjects during their training sessions.

Occupational Crises Scale's reliability was determined by Cronbach's alpha and reported as .75. Convergent and divergent validity of the OCS was provided by comparison with The Perceived Stress Scale, Spielberger's Anxiety Scales, Beck's Depression Scale, Paulhus's Self-Deception and Impression Management Scales and the Anger Scale. No validity data was reported. Results of Hutri's study (1996) suggested that an occupational crisis state combined various emotions of stress, depression, anxiety and anger and predicted employees contemplating a career change.

Savino and Krannich (1996) provided a view of role or career transition in the form of a guideline. Transition process from a military career to a civilian career resulting from military downsizing, separation from the military, or retirement was the focus of the guideline. The summation of the information was the need for an individual to rationally plan for the event before it occurred. This process, similar to Bridges (1991) transition process, required critical self-evaluation to determine personal strengths, weaknesses, and deficits in needed areas of education or skill. Networking with agencies or personal contacts to determine options were part of the planning process. Realistic goals and expectations were developed before stepping into the transition process. A successful and satisfying outcome was expected to result from prior anticipation of difficulties in the passage process (Savino & Krannich, 1996).

Pumpian, Fisher, Certo and Smalley (1997) postulated a view of personal transition as evolution. Researchers viewed career change as a normal part of career development. Their perspective came from experience with supportive employment and rehabilitation programs. In these employment areas, successful job placement of an individual was determined to be a reason to close a case and terminate support services. This decision for termination, however, did not take into account the rapidly expanding process of technology or the requirement for movement within and between jobs as a necessity in career development. Regular upward movement in a job was considered natural in general employment, however, they surmised that few workers established job stability without several job changes and diverse experience gained over many years.

Pumpian et al. (1997) concluded that job transition was a necessity to ensure survivability and was a natural outcome of prior experience, education, and network development. They recognized the need for continued supportive services as a natural part of career mobility, which now included transition. Job changes were no longer considered a failure but a natural progression requiring support for training and other services conducive to a successful outcome.

Shea and Selfridge-Thomas (1997) also described personal transition in the experiences of three new nurse practitioners. Prior employment as emergency department staff nurses provided these nurses with basic assessment and judgement capabilities and the trauma skills necessary to function in a busy emergency room. Completion of higher education as nurse practitioners (NP) required entry into a personal role transition. NPs relied heavily on prior knowledge but the new role demanded an intense level of thinking and functioning, requiring synthesis and application of new knowledge. The transition period progressed over a period of two years and led them through the phases of Schumacher and Meleis' (1994) model of transition incorporating entry, passage and exit.

The interaction between each new nurse practitioner (NP) in their role transition from emergency department staff nurse to that of primary care provider and the familiar emergency room environment facilitated transition passage. Familiarity with staff and surroundings provided support and encouragement and the education process provided integration of concepts and meanings and their application. Each NP developed personal

expectations of the role and reported anxiety and fear of the transition process, yet each anticipated and planned for potential difficulties using supportive peers and mentors (Shea & Selfridge-Thomas, 1997). Completion of the steps of transition led to a successful exit from the process and assumption of the collaborative role of the nurse practitioner.

In summary, throughout the individual role or career transition chosen, the process described by the preceding information established the importance of internal motivation and personal actions based on individual values to facilitate transition. In conjunction with external influences transition was accomplished. Various educational processes and personal driving factors for attaining acceptable outcomes provided support for each of the interrelated conditions of the transition process. Each description and definition offered for transition complemented each other and diversely portrayed the universal properties and associated elements of Schumacher and Meleis' (1994) transition model.

Transitions through Organizational Restructuring

The literature related to the effects of healthcare or organizational restructuring was predominantly information of a descriptive nature. Few studies related to this area were found. A history of transition was provided by Bridges (1994) and its inception described by the job shifts of 1780 England. During this time a new way of working emerged and changed the way of life for the people who resisted the change. A transition was required between the old ways of village life to the new ways of industry and jobs.

Transition was an entry into new ways of doing things. Transition did not come quickly, as a new culture and an educational process were required of the people to adjust and assume the new role. Old ways had to be abandoned or drastically reworked and new ways learned and assimilated into their lifestyle. A similar process occurred years later in the United States and continued a slow advancement in the transition required from persons immigrating to this country.

Feldman and Brett (1985) and London and Stumpf (1986) looked toward the future and viewed transition as an occurrence from new jobs and job displacement from new technology, new career development opportunities, and decreased organizational size requiring employee adaptability and flexibility. Personnel were expected to accept changes and relocations to prove loyalty to a company and meet company needs, regardless of personal satisfaction. Career progression was defined as no longer predictable, but volatile and rapidly changing, defined by a need to look realistically toward the future and prepare or plan for changes required.

Feldman (1989) expected transition to occur several times throughout a lifetime due to the accepted practice of corporate reorganization. He discussed the history of the transition process as socialization to a new position looking at individual needs and values along with those of the organization or group. Inter and intra-role conflicts were resolved as workers transitioned within organizations or from one organization to another. Important aspects of their transitions included social support, skill acquisition, and environmental influences all impacting satisfaction and acceptance. Prior discussion

by Feldman and Brett (1985) advocated advance notice to an employee of a transition to allow preparation, training, and development of support to achieve positive transition with a good outcome.

One discussion provided by Krannich (1993) depicted career change as an action induced by organizational realignment or rapid technological change resulting in deleted jobs or extensive skill refinement. Though not a personal choice, he felt career and re-career would occur several times in a person's work life and afforded the individual the possibility of personal control in shaping a new role to meet personal specifications and goals. Control in this period of fluctuation required preparation for transition before it actually occurred. Krannich (1993) called this taking the initiative and preparing for potential change by refining skills, obtaining education, and eliciting the support of family and friend networks to encourage and sustain a person during the transition passage. Personally planned changes for a career included establishing realistic goals and examination of potential pitfalls that could occur along the way. This worked toward promotion of a successful transition.

Wilson and Greenburg (1994) examined the application of transition to a work design project. Their view of transition was as an internal process directed toward change. Again, an intrinsic or extrinsic motivator provided the impetus for entry. Through the transition passage, education was provided about why the transition was needed and how it was to be accomplished. Provision was made for the staff to learn any new skills required. This was accomplished through on the job training, training

sessions, or in-services. Environment played a role as well as management's encouragement and support of employees and staff. Finally, exit was accomplished with the redefinition and revision of the work setting. The shared transition process developed ownership in those participating.

Discussion of the effects of downsizing in our organizations and the requirements for people adjusting to those changes was provided by Handy (1994). Satisfactory transitions required the use of paradoxes to balance the contradictions and inconsistencies in lives and jobs. Effective management of a transition required the person to organize it in their mind and plan for the change and inevitable choices and decisions that would be encountered. There was a constant flux during the process and what worked before possibly would not work again because of changing circumstances. This caused fear and uncertainty during transition. There was development of alternatives, new ideas, skills, and options to survive and prosper throughout the process, or a return to old processes with retention of constructive portions. Encouragement and support were necessary along the way and permission to excel or change was obtained from those in the surrounding environment. This environment included family, friends, or mentors who provided the companionship throughout the transition.

Planning for potential outcomes provided a sense of direction and a path to follow to achieve the final goal of transition. For Handy (1994), the unintended consequences of change were the paradoxes that were managed by finding a path through, around, or over them, to achieve the ultimate goal. Personal goals and values were maintained to balance

personal and organizational commitments and responsibilities. Perpetuation of connections to areas of personal importance and a sense of continuity were expected to provide personal comfort through the transitions expected throughout the lifetime. Personal control was exerted over these occurrences to provide personal and environmental stability.

Knox (1995) provided a review of nurse executives and the requirements of transition to leadership and management roles. In both civilian and military hospitals, nurse executive roles were either deleted or revised to incorporate activities not previously associated with nursing functions. Nurse executives then had to make the transition to the new requirements of the role. Methods to ensure a smooth process included personal and environmental interaction or networking. It also included taking action to develop or improve knowledge and skills required by the career transition with planning and anticipation of problems or barriers and devising methods to overcome them. For Knox (1995), the phases of this career transition for nurse executives included feelings of shock or relief of the required transition and entry into the transition process. Shock occurred for those who did not anticipate or prepare for a change in their career course. Relief occurred for those aware of organizational restructuring and assisting in the formulation of the new corporation. The final stage of transition to the new path involved incorporating all of those actions and applying them to the new role, a process of adapting to new expectations and challenges. This correlated with the structure and elements of the transition process of entry, passage and exit.

Jones (1996) provided an exploration of registered nurse (RN) turnover and the changing health care system. Her study examined relationships between professional, employment, economic and sociodemographic factors and the internal or external turnover behavior of RNs. The study was a secondary analysis of existing cross-sectional data obtained from the National Sample Survey of Registered Nurses. The sample consisted of 15,056 RNs, 9% of whom had changed jobs (internal turnover) and 15% of whom had changed employers (external turnover) in the year prior to the survey, approximately one fourth of the sample. The remaining RNs (76%) had not experienced a job or employer change in the year prior to the survey. A limitation of the study was the unknown factor of voluntary or involuntary job change.

Using regression analysis, Jones (1996) found the incidence of turnover by employer change was higher for male RNs and unmarried nurses. RNs with children living at home were less likely to have changed jobs or employers. Baccalaureate prepared RNs and nurses with graduate degrees were more likely to change jobs (internal turnover) and nurses with graduate degrees exhibited an even higher likelihood of employer change (external turnover). It was implied that turnover was expected to rise with increased educational level due to additional opportunities afforded by higher education. However, years of nursing experience and positions in nursing management also influenced turnover rates. Manager positions or long-term experience decreased the likelihood of change in internal positions or employers. In contrast, RNs in staff nurse roles, occupational and long-term care settings, and specialty areas were more likely to

change employers. For all factors, wage increases decreased the incidence of external turnover.

Though Jones (1996) identified numerous triggers for job change, one implication for the current healthcare evolution was implied. These triggers would result in job changes increasing the possibility of nurse transition to new positions or employers. This increase would result from the diversity in educational requirements for roles and opportunities developed during organizational and healthcare system changes.

Mateo, Newton and Wells (1997) discussed planned and unplanned role transitions for nurse administrators and managers. Organizational redesign, downsizing, and cost cutting frequently abolished management positions and caused personnel to begin a transition process. Potential for role change required continuous career management to seek methods to increase employability value. This required planning, education, and networking. Role changes occurred throughout careers and fostered the option to explore new avenues as planned or unplanned changes occurred. Consistently, the same theme and phases related to the transition model are found in each application of the process.

Throughout the literature devoted to transition in organizational restructuring, the transition process was reflected by activities consistent with the transition model. Again depicted was the entry into the transition process, the decisions made, and beginning explorations to discover the requisite knowledge or skills to move forward through the process. Other life roles during this time became important in structure and support for

making the transition. These personal and social supports were integral in coping and adapting through the process and included learning processes for skills and attitudes to prepare for the new role. All through the transition process the personal values, choices, and adaptations were meshed with support structures to increase a sense of self-identity leading to satisfaction and a positive change outcome. Exit from the transition process was the establishment of a sense of identity in the new role.

Transition to a Military Career

A transition from a civilian nursing role to the military nursing role would be called by some a significant career change. However, no literature was found describing the specific process of transition to a military nursing career. One article (Tziner, 1983) was available that discussed the choice of the military as a career. In this article, the process of choosing and committing to a military career was at least partially influenced by the individual's self-concept.

Tziner (1983) attempted to identify specific motivating characteristics attributed to persons who chose an organizational or military career. Through analyses of theoretical models associated with occupational and organizational careers and the United States Army, Tziner (1983) identified characteristics he felt were indicative of an individual's commitment to an organizational career. These characteristics included a balance between an individual's self-concept and the chosen career, harmony between the individual's occupational needs and potential career rewards, expertise in a career that resulted in limited career alternatives and social supports associated with successful

accomplishment of job expectations. Other characteristics were the individual's perception of current job status, the undesirability of new career challenges and accumulated personal and professional resources in a career that accrued with time. Motivating characteristics suggested by Tziner (1983) were positively correlated between personal self-concept, described by Super (1957) as a product of personal values and the career chosen, as well as congruence between the stability or security needs of the individual and the rewards of the career.

According to Tziner (1983), the prevalent value described for individuals in the Army was altruism, the willingness to sacrifice self for the good of others. This was depicted by the comradeship that developed between soldiers through group training. The rewards and reinforcements of a military career were acquired by promotion to successive rank and commensurate salary increases. Promotion occurred because of job performance and thus ensured continuance and stability of the military career through time.

Summary

Transitions occur throughout life, from birth to death and every path taken in between. Regardless of whether transition was viewed from the direction of developmental life stage, personal career choice, or organizational evolution, commonalties of the process were seen throughout. The transition process described in any arena included the structure, associated properties, conditions, and elements identified by Schumacher and Meleis (1994). Though characterized or labeled by others

with different terminology, the transition structure consistently depicted was that of a fluid movement through a process including an entry, a passage, and an exit to an outcome. Common elements of planning, personal definitions of changes related to individual values, education, and support groups or mentors emerged as relevant influences in the transition process. Each of these elements affected the individual changes in personal identity, role, relationships, abilities, or life activities required to complete the transition process. This process will be applied in the exploration of values as factors that influence a career transition from civilian to military nursing.

CHAPTER III

METHOD

Introduction

The descriptive research process by which the study was conducted is described in this chapter. Descriptive research uses an exploratory process that attempts to describe a group or occurrence for which there is little or no knowledge. In this study the values identified by Air Force nurses were the focus. The method included the research approach and design, descriptions of the population and sample, the steps and procedures required to conduct the investigation and a description of the tool used to analyze the data collected. Limitations of this descriptive study included a nonrandom sample, lack of investigator control of conditions under which data was collected and, for this study, the data reflected only Air Force nurses. The Hawthorne effect, caused by subjects' awareness of participation in a study, may also have influenced the data.

Research Approach and Design

The approach used for the investigation was a descriptive survey of values associated with registered nurses in the Air Force. This study identified specific values associated with this population of Air Force nurses. The study also used a cross-sectional design that provided data collection at one point in time. Since a descriptive study does not have clear independent and dependent variables, the variables in the proposed

investigation were the various values identified by registered nurses in the Air Force. The survey was a mailed, anonymous, pencil and paper instrument utilized to develop information about this relatively new area of inquiry. An acceptable response rate for mailed surveys is 35% (Polit & Hungler, 1995). An acceptable rate was not obtained with the initial mailing (30%) therefore a second mailing was accomplished.

Population and Sample

There are over 12,000 nurses in the combined branches of the United States military, 4800 of which are in the Air Force Nurse Corp (Rhoton, 1998). Selection criteria for military nurses include a baccalaureate degree and one year of nursing experience prior to entering military service. Differences include variety in levels of nursing experience exceeding one year, clinical focus areas, educational preparation beyond the baccalaureate level, and demographic characteristics.

The sample (N=224) consisted of all registered nurses with one year or more of civilian nursing experience currently serving an active duty tour in the United States Air Force (USAF) and whose entry into the military was no more than six years ago. Results of this study can only be generalized to this sample. The sample of nurses, a subset of the population available for the study, were from USAF nurses stationed at Tinker Air Force Base (AFB), Oklahoma; Nellis AFB, Nevada; Keesler AFB, Mississippi; and Hill AFB, Utah. The study sample was those participants who met the study criteria and completed and returned the survey.

The study identified the values of Air Force nurses. Demographic information on age, gender, education level, marital status, number of years of Air Force nursing, rank, and number of years of civilian nursing experience were evaluated for any trends related to the measured values. Inclusion criteria consisted of the following:

1. Married or unmarried males and females.
2. Participants have practiced as a nurse in a civilian employment setting for at least one year before deciding to enter the military.
3. Participants currently hold active duty status in the United States Air Force
4. Participants entered military service on or after January 1992. This group of nurses were junior officers serving their initial three or four year contract obligation or they had completed the initial obligation and had selected continuation in a military career.

Exclusion criteria included:

1. Nurses who previously completed a military service commitment in nursing or any other career role as they represented a different population. Their reasons for returning to the military were felt to be different than for those entering the military for the first time.

Sample Selection

A convenience sample of 224 eligible USAF nurses stationed at four Air Force medical facilities who agreed to participate in the proposed investigation and completed the survey were used. A list of available nurses was obtained from the Commander or

Chief Nurse Executive of each facility. Each eligible nurse was contacted by letter to request his or her participation in the study.

Procedure/Data Collection

1. Permission for access to the nurses at each Air Force Medical facility was obtained through a personal letter (Appendix A) requesting sponsorship from the Commander or Chief Nurse Executive of each of the four medical facilities participating.

2. Personal telephone contact with the nursing division of the Air Force Surgeon General's office ensured notification was provided to the proper authorities. The information provided included the study topic and its purpose or benefit to the Air Force.

3. This research proposal was submitted to the University of Oklahoma Institutional Review Board for expedited status review and approval.

4. After receiving access permission from each Air Force facility, permission to survey USAF personnel was requested by letter (Appendix B) from USAF Headquarters, Randolph AFB Texas.

5. Upon approval by USAF Headquarters, a list of eligible nurses was requested from the Commander or Chief Nurse Executive of each of the four USAF medical facilities (Appendix C). A master list of names of eligible participants was compiled and each participant was assigned a number. This master list was secured in a locked file cabinet in the investigator's home.

6. After receiving approval by the Institutional Review board, a survey packet was mailed to each eligible participant. Each packet contained a cover letter (Appendix

D), an informed consent form (Appendix E), a demographic information sheet (Appendix F), the survey instrument (Appendix G), and an addressed postage paid return envelope.

The survey instrument was assigned a number for identification and matching to demographics and to assure the anonymity of participants' responses. Each cover letter and instrument also included an identical Air Force survey control number (SCN) on the bottom left-hand corner. This number indicated Air Force Headquarters approval to survey military personnel. (The identical SCN precluded the possibility of matching a response to a particular individual.)

The cover letter and consent form introduced the investigator and described the study, its purpose, importance, benefits, and risks. The letter stated that participation in the proposed study was voluntary and that declining to participate in the study would not affect current position or opportunity for promotion. Participants were informed of the approximate amount of time required to complete the survey, that no one could match responses with names, and that supervising officers would not have access to their responses. The cover letter requested completed surveys be postmarked by two weeks after the initial mailing date. Two weeks after the initial mailing to the sample (N=224) a 35% return rate had not occurred, therefore a second mailing to those who had not returned the research packet was done.

7. To ensure participant anonymity no personal identifiers were available on any survey. Participants returned the completed surveys directly to the investigator in a pre-addressed postage paid envelope with assigned numbers that further protected anonymity.

Numbers were compared to and checked off the master list before opening the envelope. Once opened and the survey removed, the envelope was destroyed. All data was secured in a locked cabinet in the investigator's home.

8. Results were reported as group data only. Group results were provided in the form of a report to Air Force nurse recruiters, USAF Surgeon General's office, and, upon request, were available to the nurses participating in the study.

Instrument

The data collection instrument was The Values Scale developed by Nevill and Super (1989). The instrument consisted of 105 items using Likert type scales and took approximately 30 to 45 minutes to complete. Twenty-one separate value scales were developed utilizing five items. At least two items related to work and at least two items related to values in general. Value scales measured include; Ability Utilization, Achievement, Advancement, Aesthetics, Altruism, Authority, Autonomy, Creativity, Economic Rewards, Life Style, Personal Development, Physical Activity, Prestige, Risk, Social Interaction, Social Relations, Variety, Working Conditions, Cultural Identity, Physical Prowess, and Economic Security.

Reliability and Validity

Nevill and Super (1989) reported two measures of reliability for the Values Scale, internal consistency for high school, university and adult populations, and stability for the university population. The alpha coefficients for internal consistency were above .65 for all values in the three populations except for alpha coefficients of .60 for Life Style and

.62 for Personal Development in the high school population and .62 for Variety in the university population. Test-retest of stability for 18 scales had reliability coefficients reported of .70. Three scales Ability Utilization, Life Style and Personal Development had alpha coefficients for internal consistency of .67, .60, and .62 respectively and test-retest correlations for stability of .52, .61, and .65 respectively. Therefore, these three value scales were reported to be less reliable in identifying these particular values as compared to the reliability of the other eighteen value scales.

Content validity of the Values Scale was assured by the method of development. Development included writing each item according to a consensus of the definitions of each value, review of values literature, assimilating categories with similar meanings, and eliminating meaning duplication. Additionally, the definitions were written in small cross-national working groups and were reviewed by project directors. Construct validity of the tool was supported by factor structure. In factor analysis the 21 value scales factored into essentially the same five factors for high school, university, and adult populations. These five factors were inner oriented, group oriented, material, physical prowess and physical activity. Research studies of career development at different ages and cultural groups (Macnab & Fitzsimmons, 1987; Yates, 1990) correlated positively with the Values Scale.

Study Questions and Method of Analysis

Study Question 1. What values are associated with Air Force nurses with one or more years of civilian nursing experience?

Scores obtained from The Values Scale were used to describe the values identified by the participants. Individual values identified as very important reflected scores of 16 or greater out of a possible score of 20 (Nevill & Super, 1989). These values were presented in a frequency table.

Study Question 2. Do values of Air Force nurses occur in different frequencies in relation to age, gender, education or other demographic characteristics?

A frequency distribution was constructed to examine the differences in values identified as important for each demographic characteristic. Values defined as very important were indicated by an individual score of 16 or greater (Nevill & Super, 1989).

Study Question 3. Are there different values for single and married Air Force nurses?

The mean scores from the eight values of Ability Utilization, Advancement, Achievement, Altruism, Autonomy, Economic Reward, Economic Security, and Personal Development were calculated for two groups, married and unmarried participants. An independent t-test was used to analyze any statistical significance of the differences between the means for each value of the two groups. The literature supported these eight values as elements affecting transition. Faver (1984), Hill and Miller (1981), and Tziner (1983) cited achievement and advancement as important characteristics in transition and Altruism (Tziner, 1983) was regarded as the prevalent value for military members in the Army. Jones (1996) and Price and Mueller (1981) identified Economic Reward as a career influence and Economic Security was described by Bailey and Hansson (1995) and

Tziner (1983) as a consideration in career change. The importance of Ability Utilization and Personal Development in career or role changes were described by Bailey and Hansson (1995), Hill and Miller (1981), Shea and Selfridge-Thomas (1997), and Knoelbel, Fuller and Misener (1991). Finally, autonomy was acknowledged as a value or characteristic common to all transition (Handy, 1994; Lowenthal, Thurnher, & Chiriboga, 1975).

Study Question 4. Do values differ between groups of Air Force nurses with one year or less of Air Force nursing experience, two to four years of Air Force nursing experience, or with greater than five years of Air Force nursing experience?

Participants were divided into three groups defined by years of military service. The three groups were delineated as one year of service or less, two to four years of service, and five or more years of service. For each of the three groups, the means of the eight values identified in study question three as elements affecting transition were compared by analysis of variance (ANOVA).

Study Question 5. Do values differ between groups of Air Force nurses with one year of civilian nursing experience, two to five years of civilian nursing experience, or with greater than five years of civilian nursing experience?

Participants were divided into three groups defined by years of civilian nursing experience. The three groups were delineated as one year of civilian nursing experience, two to five years of civilian nursing experience, and greater than five years of civilian nursing experience. For each of the three groups, the means of the eight values identified

in study question three as elements affecting transition were compared by analysis of variance (ANOVA).

Summary

The combined military nurse population numbers over 12,000 with 4,800 in the Air Force alone. The use of four geographically dispersed Air Force medical facilities provided a sample of this population. The inclusion and exclusion criteria restricted the number of participants available at each facility but defined the target group. Time and attention to detail was required in seeking approval to access military personnel through research of pertinent military regulations and strict adherence to the procedures involved. Individually mailed packets included appropriate study information, a consent form, the demographic data sheet and The Values Scale survey that provided the data used to answer the research questions.

CHAPTER IV

ANALYSIS OF DATA

Introduction

The procedures used to organize the data and answer the research questions are reviewed in this chapter. Study questions that were answered focused on values of nurses in the United States Air Force. Information collected could have implications for military recruitment of nurses, assistance in the transition to military nursing, as well as recruitment and retention of nurses in civilian agencies by identifying values regarded as important in personal careers

Results

Surveys were mailed to 224 participants and 109 were returned: a response rate of 49%. However, only 94 surveys were usable, a rate of 42%. The remaining 15 surveys were unusable due to participant's prior active duty service (12) or lack of a returned informed consent (3). Four other surveys were returned unopened to the investigator due to the recipient's recent military separation or permanent change of station. Data analysis utilized descriptive and inferential statistics. Level of significance for inferential statistics was set at 0.05.

Response to Study Question 1

Study Question 1. What values are associated with Air Force nurses with one or more years of civilian nursing experience? Scores obtained from The Values Scale described the values identified by the participants. Each question from The Values Scale was ranked on a Likert type scale of one to four. Each value was evaluated by a group of five questions for a possible score of one to twenty. Values were classified by four categories of importance. Scores of 1-5 were values of little to no importance, scores of 6-10 identified values of somewhat importance, scores of 11-15 were values that were important and scores of 16-20 were very important values. Therefore, individual values identified as very important reflected scores of 16 or greater out of a possible score of 20 (Nevill & Super, 1989). The frequencies of each of the twenty-one values are presented in Table 1.

Frequencies of each of the twenty-one values that were identified in four categories of importance are displayed in Figure 1. The participants identified eight values whose highest frequencies reflected the category of very important. In descending order of frequency the values were, Ability Utilization, Economic Security, Achievement, Personal Development, Life Style, Working Conditions, Economic Rewards and Advancement. Omitting Life Style and Working Conditions, the remaining six values were recognized in the literature review as characteristics of transition.

Value scores identified by their highest frequency in the category of important included, in descending order; Social Interaction and Variety, Authority, Autonomy,

Creativity, Altruism, Prestige and Cultural Identity, Social Relations and Physical Activity, and Aesthetics. Value scores identified by their highest frequency in the category of somewhat important were Physical Prowess and Risk. There were no values whose highest frequency was in the category of having little to no importance. Values identified by the participants in the categories important to very important included the eight values supported by the literature as values characteristic of transition. These eight values were Ability Utilization, Achievement, Advancement, Altruism, Autonomy, Economic Reward, Economic Security and Personal Development.

Response to Study Question 2

Study Question 2. Do values of Air Force nurses occur in different frequencies in relation to age, gender, education or other demographic characteristics? A frequency distribution was constructed to examine the differences in values identified as important to very important for each demographic characteristic. Values defined as very important were indicated by an individual score of 16 or greater, important values were indicated by scores of 11-15, somewhat important values were indicated by scores of 6-10 and values of little to no importance were indicated by scores of 1-5 (Nevill & Super, 1989). Values reported for each of the demographic characteristics were arranged in descending order of frequencies unless otherwise specified. Frequencies of values identified for the three age groups are displayed in Figure 2.

Forty-seven participants (50%) of the age group 21-30 identified eleven values as very important. Three values receiving the highest and identical frequencies in the very

Table 1

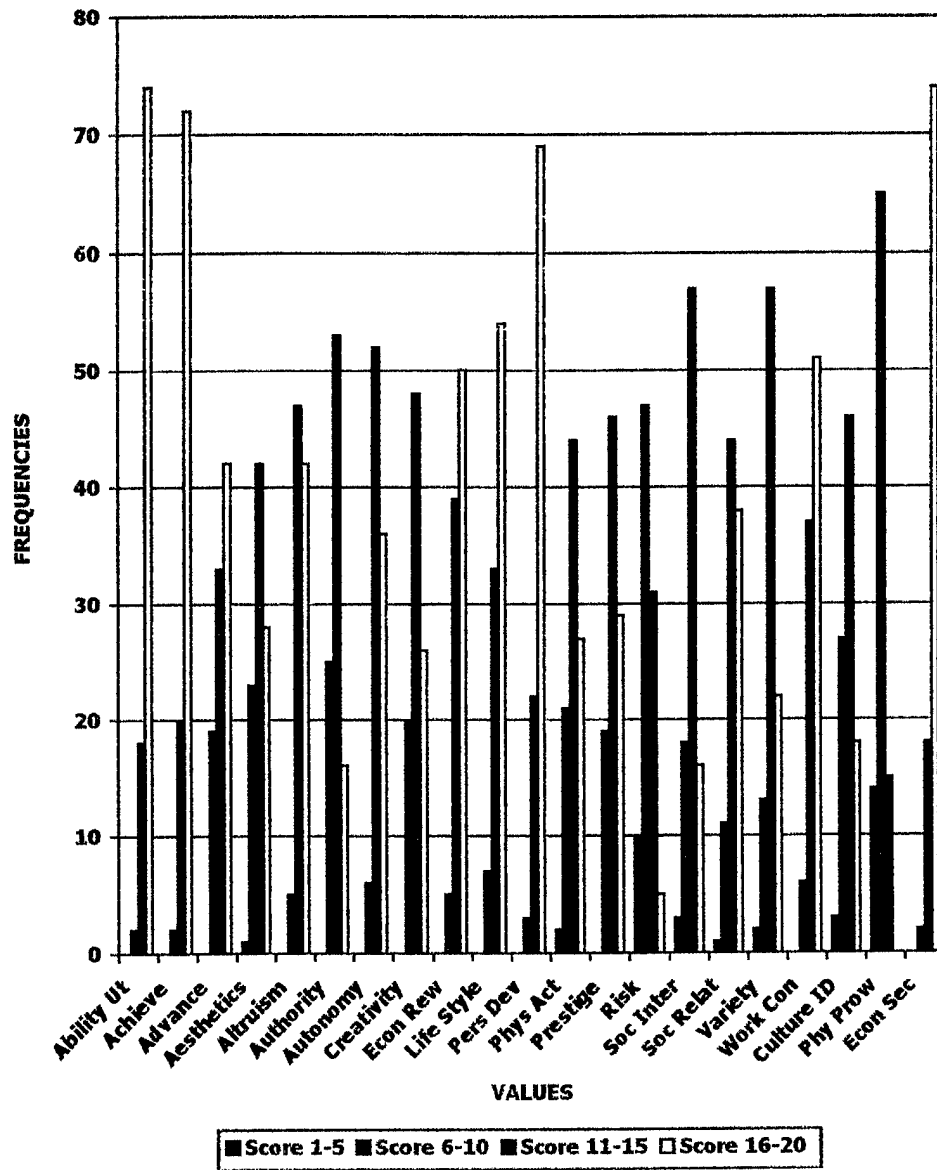
Values Frequencies

Values	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Tot
Abil Ut					1	1		1	3	3	11	14	16	19	11	14	94
Achieve					1	1	1	2	1	4	12	10	14	16	17	15	94
Advance			2	1	3	13	4	5	9	6	9	13	9	10	7	3	94
Aesthetic	1	1	1	6	7	8	5	5	9	13	10	11	6	3	4	4	94
Altruism			1		2	2	5	3	10	15	14	8	9	11	6	8	94
Authority		2	2	4	7	10	9	11	11	14	8	3	4	5	2	2	94
Auton					3	3	10	11	10	6	15	9	12	7	5	3	94
Creat		1	2	6	3	8	8	6	7	10	17	6	9	3	2	6	94
Econ Rew				2		3	5	4	4	10	16	12	10	12	8	8	94
Life Style				2	1	4	2	4	6	8	13	12	14	12	11	5	94
Pers Dev					1	2		3	4	10	5	12	16	15	22	4	94
Phy Act	2	2	3	5	3	8	8	14	8	7	7	3	11	9		4	94
Prestige		4	2	1	3	9	5	7	12	5	17	4	3	8	6	8	94
Risk	10	16	4	7	5	12	9	8	8	2	4		2		1	2	94
Social Int	3	1	2	4	4	7	9	7	14	14	13	4	4	5	3		94
Social Rel	1			4	1	6	2	10	13	7	12	16	7	9	4	2	94
Variety	2		2	3	3	5	10	9	12	16	10	9	5	3	4	1	94
Work Con					2	4	4	6	3	8	16	11	8	10	14	8	94
Culture ID	3	2	7	6	5	7	9	11	11	7	8	5	4	5	3	1	94
Phy Prow	14	14	16	14	14	7	3	8	2	1	1						94
Econ Sec					1	1		2	6	2	8	8	5	9	20	32	94

Scores of 1-5 indicate little or no importance, Scores of 6-10 indicate some importance, Scores of 11-15 indicate important, Scores of 16-20 indicate very important

Figure 1

Values Frequencies by Score Categories



important category were Ability Utilization, Personal Development and Economic Security. The remaining eight values with highest frequencies in this category were Achievement, Life Style, Working Conditions, Altruism and Economic Rewards, Advancement and Social Relations, and Aesthetics. Values identified with highest frequencies as important were Social Interaction and Variety, Authority, Creativity and Physical Activity, Autonomy, Prestige and Cultural Identity. Two values identified by highest frequencies as somewhat important were Physical Prowess and Risk.

The age group 31-40 included 33 participants (35%) and they identified seven values as very important. The three values receiving the highest frequency in the very important category were Achievement, Ability Utilization and Economic Security. The remaining values with the highest frequencies in the very important category were Personal Development, Economic Rewards, Life Style and Working Conditions. Those values identified by highest frequencies as important were Social Interaction, Aesthetics, Autonomy, Altruism and Variety, Authority, Prestige and Cultural Identity, Creativity, Social Relations, Advancement and Physical Activity. Values whose highest frequencies were in the category of somewhat important were Physical Prowess and Risk.

Fourteen participants (15%) in the final age group 41-50 identified eight values as very important with the same three values, Ability Utilization, Personal Development and Economic Security, receiving the highest frequencies as in the 21-30 age group. Achievement, Economic Rewards, Working Conditions, Life Style and Cultural Identity were the remaining values receiving the highest frequencies in the very important

Figure 2

Values Frequency Distribution By Age Group

Age Group 21-30

n=47

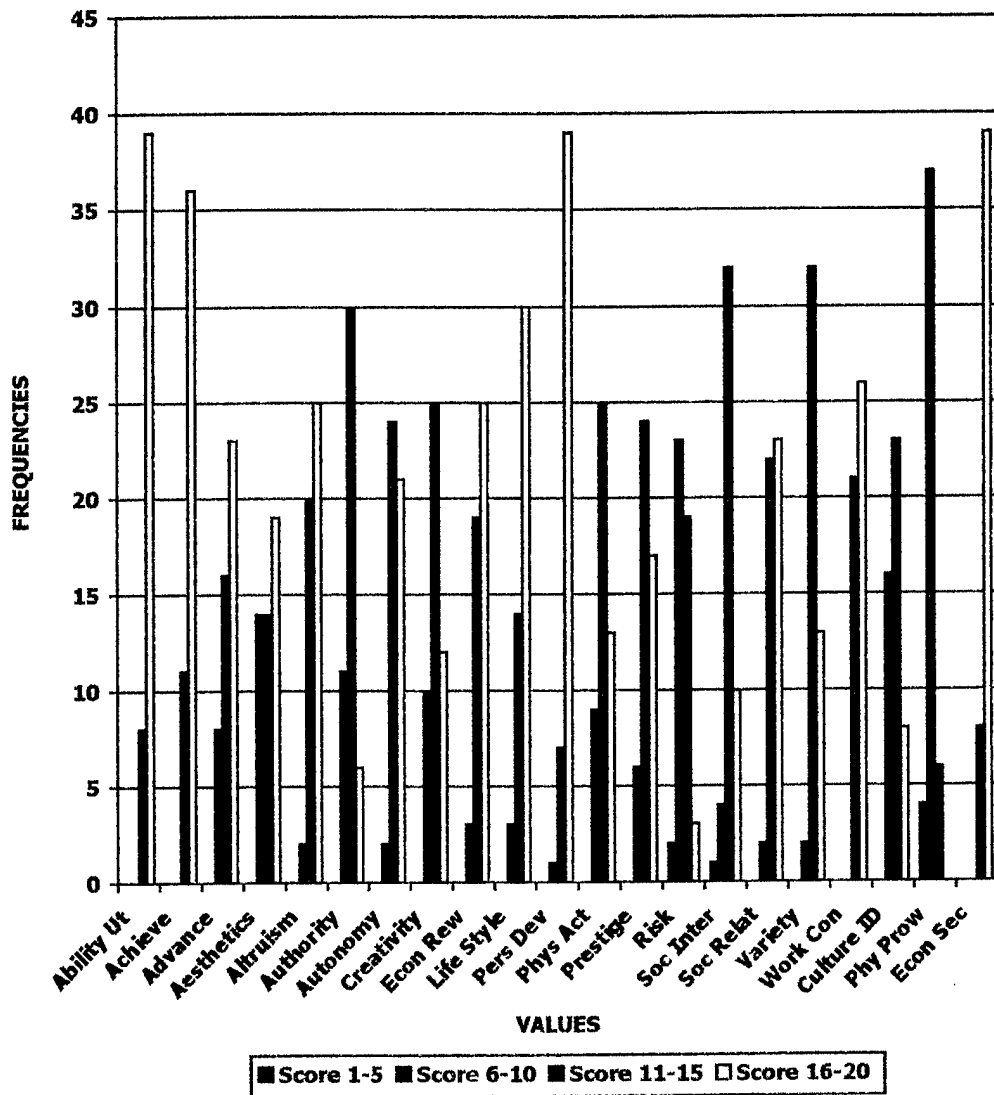


Figure 2 cont.

Values Frequency Distribution By Age Group

Age Group 31-40

n=33

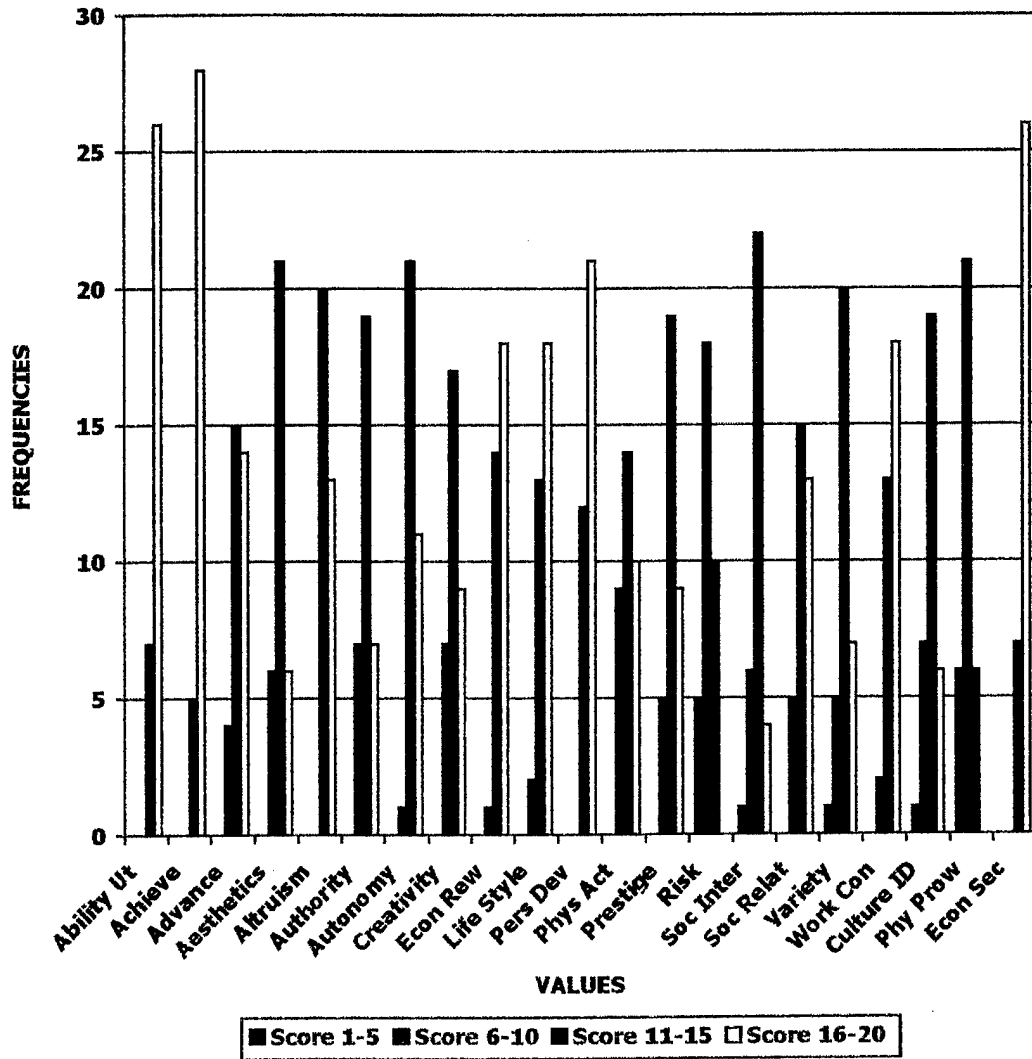
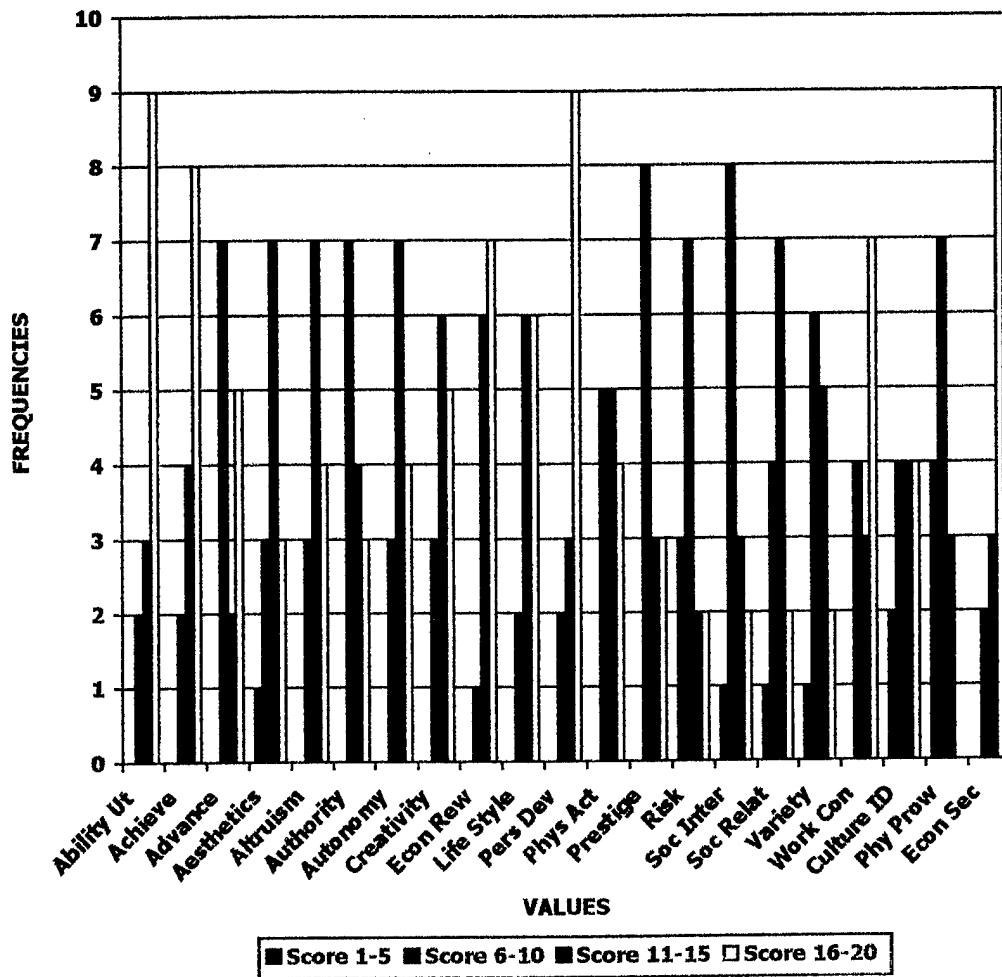


Figure 2 cont.

Values Frequency Distribution By Age Group

Age Group 41-50

n=14



category. The value Life Style was identified with identical frequencies in the two categories of very important and important, and Cultural Identity had identical frequencies in the categories of very important, important and somewhat important. This age group identified values with the highest frequencies in the important category as Aesthetics, Altruism, Autonomy and Social Relations, Creativity, Life Style, Physical Activity and Cultural Identity. The value Physical Activity had identical frequencies in the categories of important and somewhat important. Values with highest frequencies identifying them as somewhat important were Prestige, Social Interaction, Advancement, Authority, Risk and Physical Prowess followed by Variety, Physical Activity and Cultural Identity.

Gender was the second demographic characteristic examined and the value frequencies for both male and female participants are displayed in Figure 3. Male participants numbered 22 (23%) and identified Ability Utilization, Achievement and Economic Security as the three values with highest frequencies in the very important category. The remaining values with highest frequencies in this category were Personal Development and Altruism. Values with highest frequencies in the category of important were Authority, Social Interaction, Social Relations, Economic Rewards, Variety and Autonomy, Cultural Identity, Advancement, Life Style, Prestige, Working Conditions, Creativity, Physical Activity and Aesthetics. The values of Physical Prowess and Risk received the highest frequencies for the category of somewhat important for both males and females.

Figure 3

Values Frequency Distribution By Gender

Males

n=22

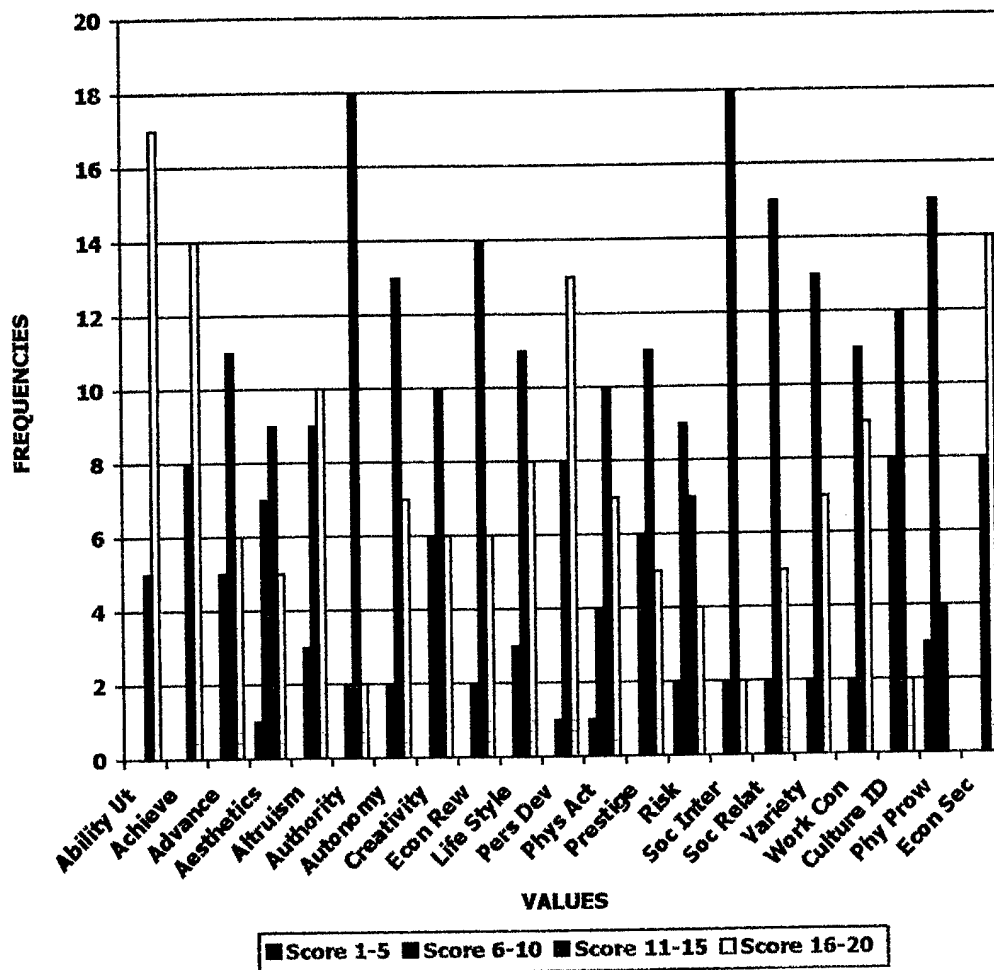
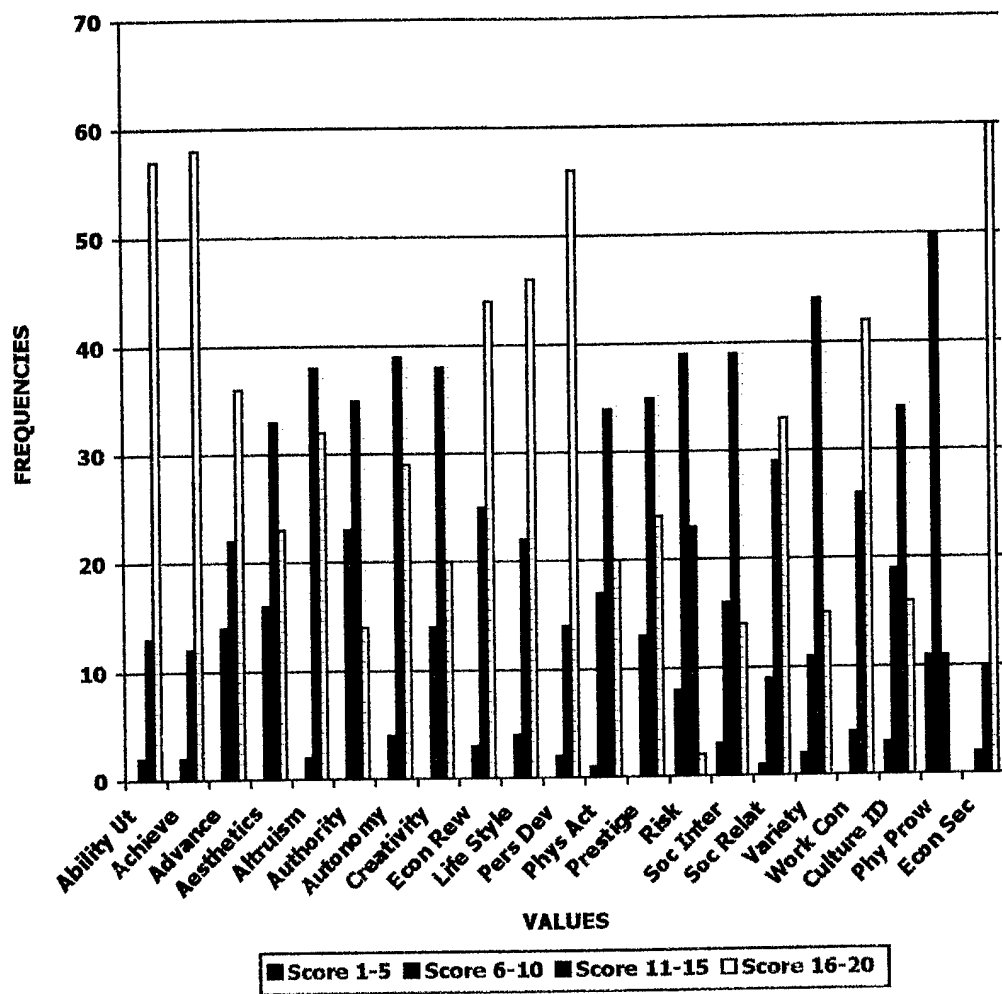


Figure 3 cont.

Values Frequency Distribution By Gender

Females

n=72



Seventy-two female participants (77%) identified Economic Security, Achievement and Ability Utilization as the three values with highest frequencies in the category of very important. The remaining values with highest frequencies in the very important category were Personal Development, Life Style, Economic Reward, Working Condition, Advancement and Social Relations. Variety, Autonomy and Social Interaction, Altruism and Creativity, Prestige and Authority, Cultural Identity, Physical Activity and Aesthetics received the highest frequencies in the important category.

Educational level was also one of the demographic characteristics examined. Value frequencies identified by Baccalaureate and Masters prepared participants are presented in Figure 4. Eighty-nine participants (96%) had a Baccalaureate degree. This group of participants identified Economic Security, Ability Utilization and Achievement as the three values receiving the highest frequencies in the very important category. The remaining values with highest frequencies in this category were Personal Development, Life Style, Working Conditions, Economic Rewards and Advancement. Values identified by highest frequencies as important were Social Interaction, Variety, Authority, Autonomy, Creativity, Altruism, Prestige and Cultural Identity, Social Relations, Physical Activity and Aesthetics. Physical Prowess and Risk received the highest frequencies as somewhat important values. The remaining five participants held a Master's degree (0.05%) and identified Ability Utilization, Achievement and Personal Development as the three values receiving the highest frequencies in the very important category. Creativity received identical frequencies in both the very important and

Figure 4

Values Frequency Distribution By Educational Level

Baccalaureate Degree

n=89

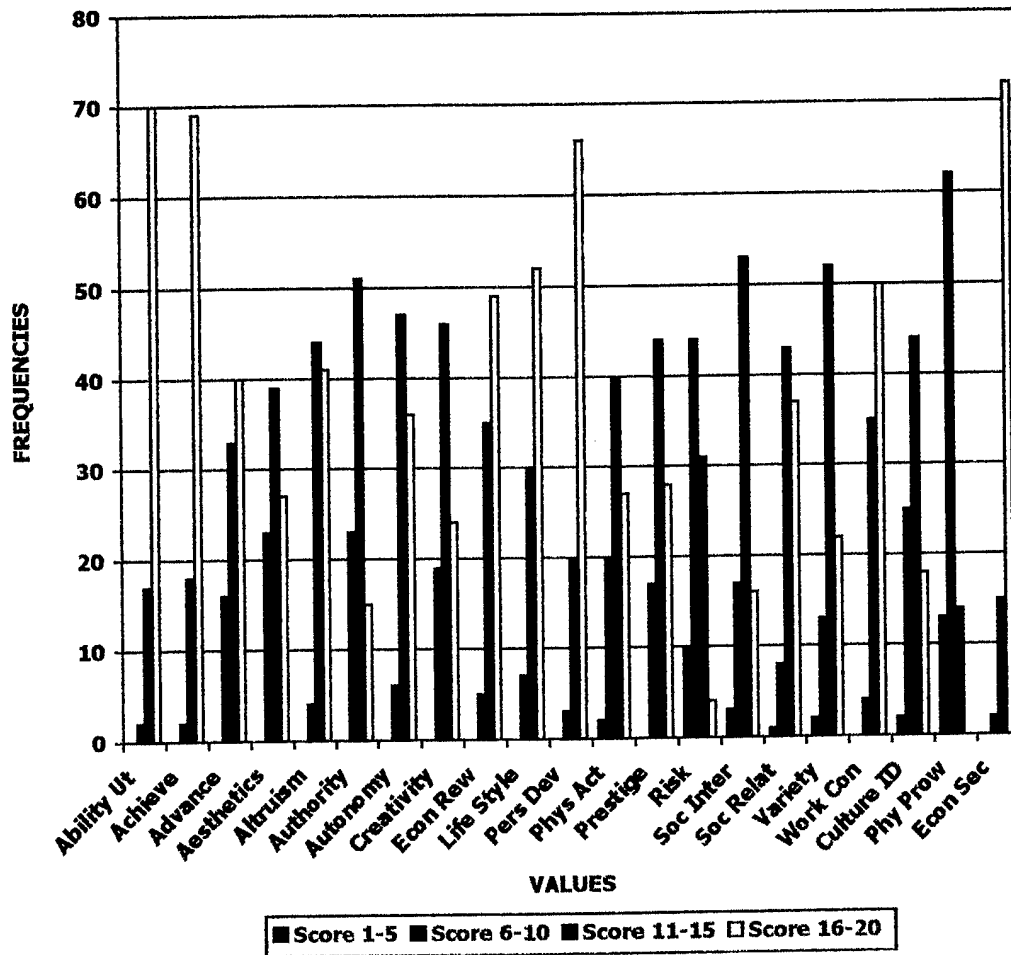
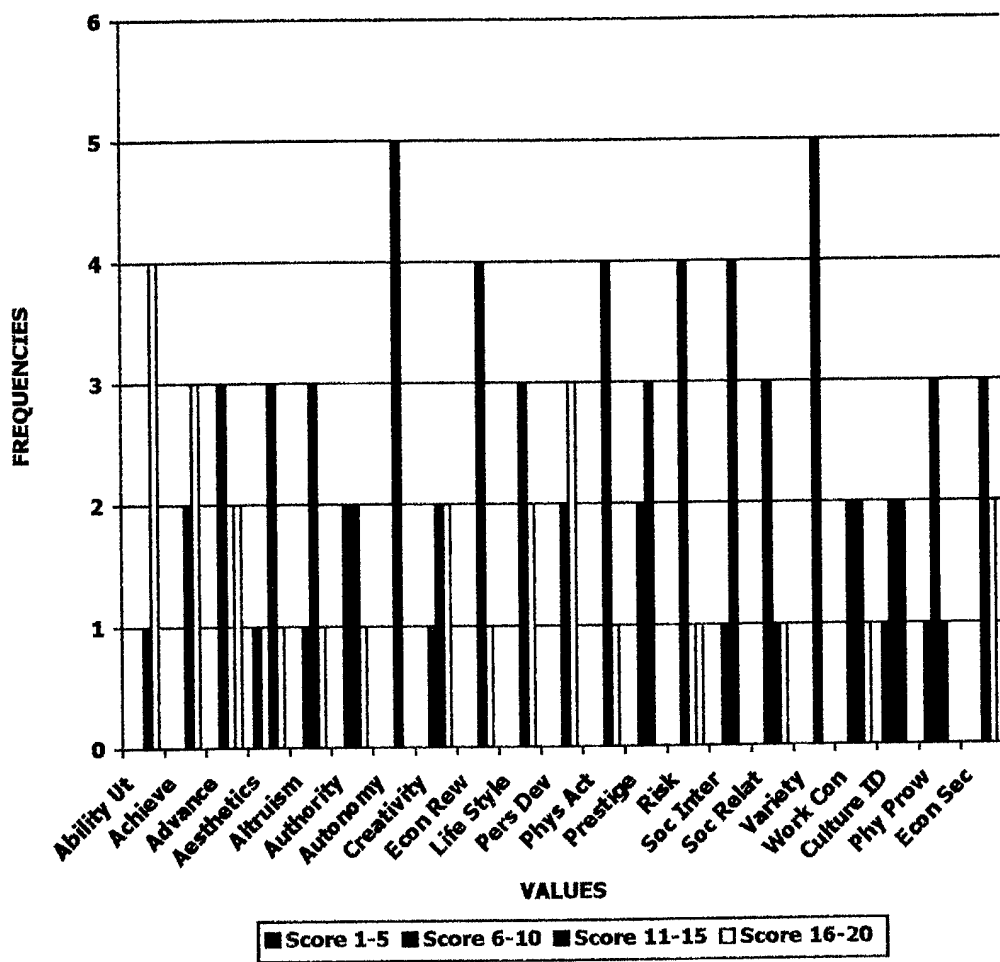


Figure 4 cont.

Values Frequency Distribution By Educational Level

Masters Degree

n=5



important categories. Values categorized by their highest frequencies in the important category were Autonomy and Variety, Economic Rewards, Physical Activity and Social Interaction, Aesthetics, Altruism, Life Style, Prestige, Economic Security and Creativity. The values with highest frequencies in the somewhat important category included Risk, Advancement, Social Relations, Physical Prowess, Authority, Working Conditions and Cultural Identity. The participants with Master's degrees were a small group but were congruent with the Baccalaureate prepared participants in identifying Ability Utilization and Achievement as two of the top three values of highest importance.

The final demographic characteristic examined was military rank and these value frequencies are displayed in Figure 5. For the 16 participants (17%) in the rank of second lieutenant Ability Utilization and Achievement were the two values of highest frequency in the category of very important. Altruism and Personal Development tied as the values having the third highest frequencies in the category of very important. The remaining values with highest frequencies in the category of very important were Economic Security, Advancement, Life Style, Working Conditions, Social Relations with identical frequencies in both very important and important categories, and Aesthetics. Values with highest frequencies as important were Autonomy, Creativity, Physical Activity, Variety, Cultural Identity, Economic Rewards, Prestige, Social Interaction, Social Relations, Authority and Risk. The value with highest frequency in the somewhat important category was Physical Prowess.

Figure 5

Values Frequency Distribution By Rank

Second Lieutenant

n=16

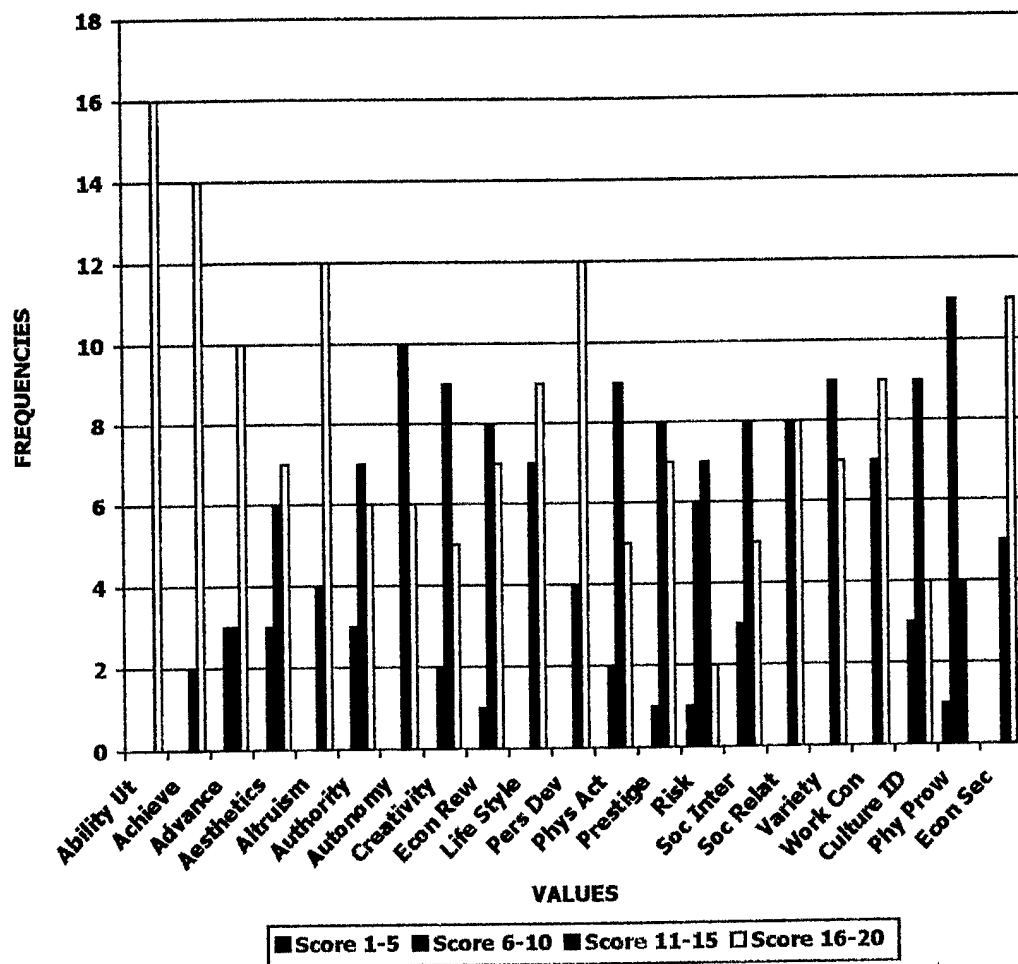


Table 5 cont.

Values Frequency Distribution By Rank

First Lieutenant

n=34

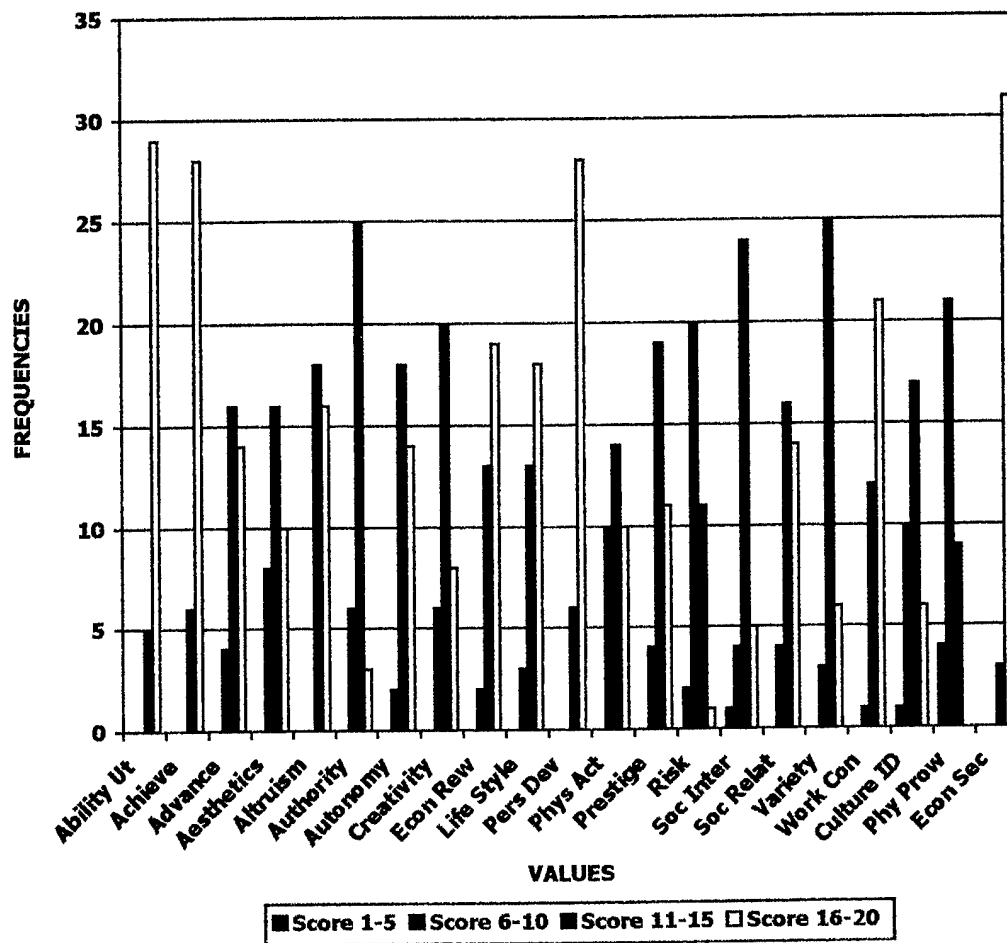
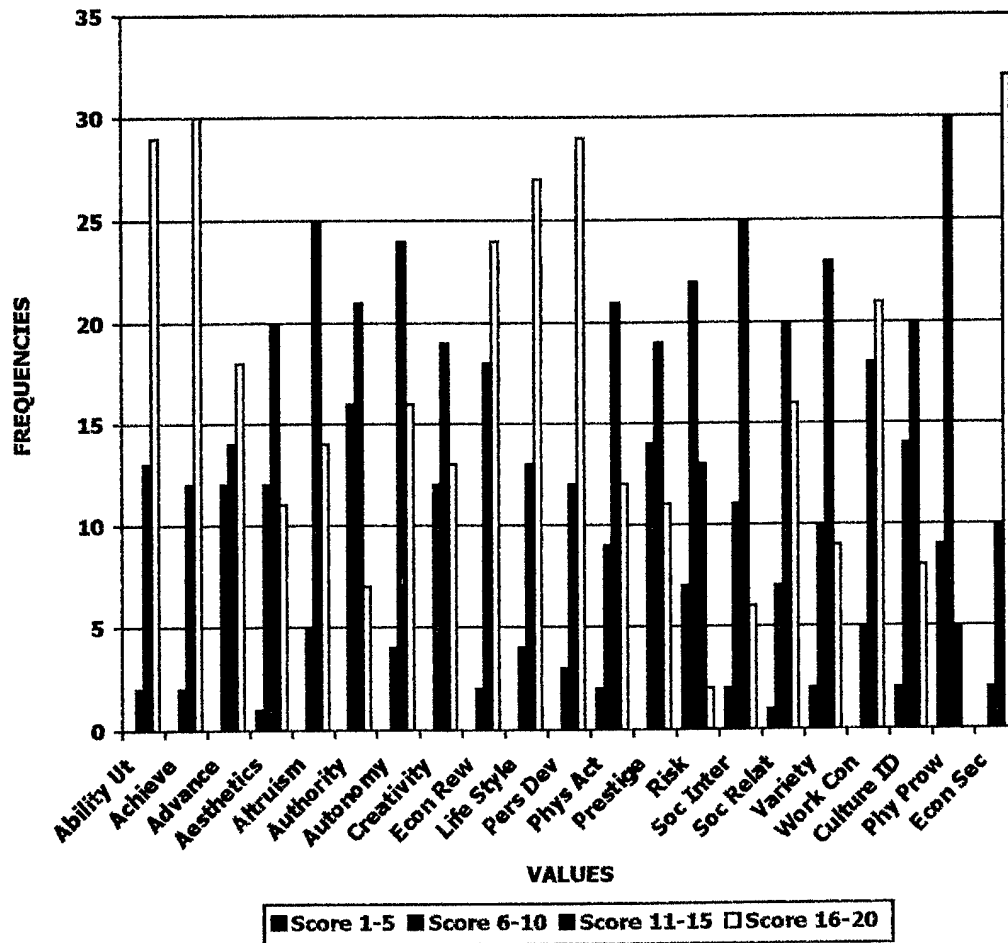


Table 5 cont.

Values Frequency Distribution By Rank

Captain

n=44



The 34 participants (36%) holding the rank of first lieutenant identified Economic Security and Ability Utilization as the values of highest frequency in the very important category. Achievement and Personal Development were tied as the values having the third highest frequencies in this category. The remaining values with highest frequencies in the very important category were Working Conditions, Economic Rewards and Life Style. Values with highest frequencies in the important category were Authority, Variety, Social Interaction, Creativity, Prestige, Altruism, Autonomy, Cultural Identity, Advancement, Aesthetics and Social Relations and Physical Activity. The values of highest frequencies of somewhat importance were Physical Prowess and Risk.

Finally, for the 44 participants (47%) in the rank of Captain, Economic Security and Achievement were the two values of highest frequency for the very important category. Ability Utilization and Personal Development were tied as the values having the third highest frequencies in this category. The succeeding values with highest frequencies in the very important category were Life Style, Economic Rewards, Working Conditions and Advancement. Values with the highest frequencies in the important category were Altruism, Social Interaction, Autonomy, Variety, Authority, Physical Activity, Aesthetics, Social Relations and Cultural Identity, Creativity and Prestige. The values of Physical Prowess and Risk had highest frequencies in the somewhat important category.

Throughout the various demographic characteristics analyzed, the participants consistently identified three values as very important and with high levels of frequency.

These values included Ability Utilization, Achievement and Personal Development, each one a value identified and supported by the literature as important to transition. A fourth value, Economic Security, was identified as very important by all groups except for the Masters prepared participants.

Response to Study Question 3

Study Question 3. Are there different values for single and married Air Force nurses? The mean scores of eight values, Ability Utilization, Advancement, Achievement, Altruism, Autonomy, Economic Reward, Economic Security, and Personal Development, were calculated for two groups, married and single participants. Faver (1984), Hill and Miller (1981), and Tziner (1983) cited achievement and advancement as important characteristics in transition and Altruism (Tziner, 1983) was regarded as the prevalent value for military members in the Army. Jones (1996) and Price and Mueller (1981) identified Economic Reward as a career influence and Bailey and Hansson (1995) and Tziner (1983) described Economic Security as a consideration in career change. The importance of Ability Utilization and Personal Development in career or role changes were described by Bailey and Hansson (1995), Hill and Miller (1981), Shea and Selfridge-Thomas (1997), and Knoelbel et al. (1991). Finally, autonomy was acknowledged as a value or characteristic common to all transition (Handy, 1994; Lowenthal et al., 1975).

An independent t-test was used to analyze any statistical significance of the differences between the means for each of the eight values in the two groups. The null

Table 2

Group Statistics: Marital Status

N = 94

Values		Mean	Std. Deviation	Std. Error Mean
Ability Utilization	Group 1	16.9184	2.2898	.3271
	Group 2	17.2222	2.1626	.3224
Achievement	Group 1	17.1224	2.3947	.3421
	Group 2	17.1778	2.3864	.3557
Advancement	Group 1	14.7143	3.4641	.4949
	Group 2	14.0444	3.2541	.4851
Altruism	Group 1	15.1224	2.7661	.3952
	Group 2	15.5111	3.0425	.4535
Autonomy	Group 1	14.7551	2.8906	.4129
	Group 2	14.3111	2.7702	.4129
Economic Rewards	Group 1	16.1837	2.8626	.4089
	Group 2	15.0667	2.7831	.4149
Personal Development	Group 1	16.3061	2.5100	.3586
	Group 2	17.0000	2.3160	.3452
Economic Security	Group 1	17.9796	2.5124	.3589
	Group 2	17.4000	2.7667	.4124

Note. Group 1 = Married participants, n=49; Group 2 = Unmarried (single) participants, n=45.

Table 3

Independent t-test for Marital Status

Values		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	T	df	Sig. (2-tailed)
Ability Utilization	Equal variances assumed	.167	.684	-.660	92	.511
	Equal variances not assumed			-.662	91.923	.510
Achievement	Equal variances assumed	.000	.999	-.112	92	.911
	Equal variances not assumed			-.112	91.376	.911
Advancement	Equal variances assumed	.372	.544	.964	92	.338
	Equal variances not assumed			.967	91.949	.336
Altruism	Equal variances assumed	.356	.552	-.649	92	.518
	Equal variances not assumed			-.646	89.096	.520
Autonomy	Equal variances assumed	.002	.966	.759	92	.450
	Equal variances not assumed			.760	91.826	.449
Economic Rewards	Equal variances assumed	.134	.715	1.915	92	.059
	Equal variances not assumed			1.917	91.692	.058
Personal Development	Equal variances assumed	.434	.512	-1.389	92	.168
	Equal variances not assumed			-1.394	91.997	.167
Economic Security	Equal variances assumed	1.580	.212	1.064	92	.290
	Equal variances not assumed			1.060	89.058	.292

Note. $p < .05$.

hypothesis stated that there was no relationship between marital status and the identified eight values, $H_0: \mu_1 = \mu_2$. The alternative hypothesis stated there was a relationship between marital status and the identified values, $H_1: \mu_1 \neq \mu_2$. Group statistics of the eight values for both the 49 married (52%) and 45 single (48%) participants are presented in Table 2. The independent t-test displayed in Table 3 found no statistical significance between the means for each value related to married or single status, thus the null hypothesis was accepted and the alternative hypothesis rejected.

Response to Study Question 4

Study Question 4. Do values differ between groups of Air Force nurses with one year or less of Air Force nursing experience, two to four years of Air Force nursing experience, or with greater than five years of Air Force nursing experience? Participants were divided into three groups defined by years of military service. The three groups were: (1) 27 participants (29%) with one year of Air Force nursing experience or less, (2) 52 participants (55%) with two to four years of Air Force nursing experience, and (3) 15 participants (16%) with five or more years of Air Force nursing experience. For each group the means of the eight values identified in study question two as elements affecting transition were compared by analysis of variance (ANOVA). ANOVA was used to determine whether or not the number of years of Air Force nursing experience produced different results. Means, standard deviations and ANOVA of the eight values identified by the three different groups are reported in Table 4. The null hypothesis stated that there

Table 4

Analysis of Variance for Air Force Nursing Experience

		GP 1 n=27	GP 2 n=52	GP 3 n=15	df	F	Sig.
Ability Utilization	Mean	17.8519	17.0577	15.6667			
	Std. Dev.	2.0135	1.7977	3.1997			
	Between Gp				2	5.066	.008*
	Within Gp				91		
Achievement	Mean	17.9259	17.2115	15.5333			
	Std. Dev.	1.6624	2.2170	3.2484			
	Between Gp				2	5.385	.006*
	Within Gp				91		
Advancement	Mean	15.1111	14.0769	14.2000			
	Std. Dev.	3.2265	3.5361	2.9809			
	Between Gp				2	.867	.424
	Within Gp				91		
Altruism	Mean	16.0370	15.3462	13.8667			
	Std. Dev.	2.3449	2.7716	3.7582			
	Between Gp				2	2.832	.064
	Within Gp				91		
Autonomy	Mean	14.9630	14.4423	14.1333			
	Std. Dev.	2.5643	2.8589	3.2484			
	Between Gp				2	.483	.619
	Within Gp				91		
Economic Rewards	Mean	16.2222	15.4423	15.3333			
	Std. Dev.	3.1419	2.8174	2.5261			
	Between Gp				2	.763	.469
	Within Gp				91		
Personal Development	Mean	17.3704	16.7692	14.8667			
	Std. Dev.	1.9044	2.0158	3.6423			
	Between Gp				2	5.831	.004*
	Within Gp				91		
Economic Security	Mean	18.2222	17.6923	16.8000			
	Std. Dev.	2.5013	2.3972	3.5092			
	Between Gp				2	1.414	.249
	Within Gp				91		

Note. Gp=Groups. GP1=One year or more of Air Force nursing experience, GP2=Two to four years, GP3=Five or more years. Std. Dev. = Standard Deviation. *p< .05.

was no difference between the three groups for the eight identified values, $H_0: \mu_1 = \mu_2$.

The alternative hypothesis stated there was a difference between the three groups for the eight identified values, $H_1: \mu_1 \neq \mu_2$.

Of the eight values compared by ANOVA in Table 4, statistically significant differences between the three groups of years of Air Force nursing experience were found for three values. These values were Ability Utilization ($p = .008$), Achievement ($p = .006$) and Personal Development ($p = .004$). Therefore, the null hypothesis was rejected and the alternative hypothesis accepted. The number of years of Air Force nursing experience produced differences in the values of Ability Utilization, Achievement and Personal Development for the participants.

Response for Study Question 5

Study Question 5. Do values differ between groups of Air Force nurses with one year of civilian nursing experience, two to five years of civilian nursing experience, or with greater than five years of civilian nursing experience? Participants were divided into three groups defined by years of civilian nursing experience. The three groups were: (1) 50 participants (53%) with one year of civilian nursing experience, (2) 25 participants (27%) with two to five years of civilian nursing experience, and (3) 19 participants (20%) with greater than five years of civilian nursing experience. For each of the three groups, the means of the eight values identified in study question two as elements affecting transition were compared by ANOVA.

Table 5

Analysis of Variance for Civilian Nursing Experience

		GP 1 n=50	GP 2 n=25	GP 3 n=19	df	F	Sig.
Ability Utilization	Mean	16.7600	17.0000	17.9474			
	Std. Dev.	2.1434	2.5166	1.8700			
	Between Gp				2	2.021	.138
	Within Gp				91		
Achievement	Mean	17.1400	16.8400	17.5789			
	Std. Dev.	2.1286	2.7791	2.5015			
	Between Gp				2	.517	.598
	Within Gp				91		
Advancement	Mean	14.1600	14.7200	14.5789			
	Std. Dev.	2.9648	3.6460	4.0595			
	Between Gp				2	.263	.769
	Within Gp				91		
Altruism	Mean	15.6600	15.0400	14.7368			
	Std. Dev.	3.0879	2.7307	2.5570			
	Between Gp				2	.845	.433
	Within Gp				91		
Autonomy	Mean	14.5000	14.4800	14.7368			
	Std. Dev.	2.7939	2.9029	2.9598			
	Between Gp				2	.055	.946
	Within Gp				91		
Economic Rewards	Mean	15.6800	15.0000	16.4211			
	Std. Dev.	2.5590	3.3541	2.8928			
	Between Gp				2	1.344	.266
	Within Gp				91		
Personal Development	Mean	16.7000	16.3200	16.8947			
	Std. Dev.	2.3755	2.4953	2.5797			
	Between Gp				2	.331	.719
	Within Gp				91		
Economic Security	Mean	17.6800	17.5600	17.9474			
	Std. Dev.	2.6683	2.7246	2.5706			
	Between Gp				2	.118	.889
	Within Gp				91		

Note. GP=Group. GP1=One year of civilian nursing experience, GP2=Two to five years, GP3=Greater than five years. Std. Dev. = Standard Deviation. $p < .05$.

Means, standard deviations and ANOVA for the eight values identified by the three groups are reflected in Table 5. The null hypothesis stated that there was no difference between the three groups for the identified eight values, $H_0: \mu_1 = \mu_2$. The alternative hypothesis stated that there was a difference between the three groups for the identified eight values, $H_1: \mu_1 \neq \mu_2$. For the eight values compared by ANOVA in Table 5, there were no statistically significant differences in the means of the eight values related to the number of years of civilian nursing experience. Therefore, the null hypothesis was accepted.

Summary

Ninety-four of 224 Air Force nurses completed and returned the Values Scale survey and demographic sheet. The low response rate (42%) was disappointing since the investigator was also a member of the Air Force Nurse Corp and expected higher support of the study by fellow Nurse Corp members. The eight values, Ability Utilization, Achievement, Advancement, Altruism, Autonomy, Economic Reward, Economic Security and Personal Development, identified and supported by the literature as important elements of transition were also identified by the participants as important or very important in various combinations dependent upon demographic or group criteria.

Seven of the eight values were identified as important or very important across demographics of age, gender, educational level and military rank as well as across classifications of marital status and years of Air Force or civilian nursing experience.

Only advancement was not identified in these categories by those participants in the age group of 41-50 and Masters prepared participants. For these two groups, advancement was considered only as having some importance.

CHAPTER V

SUMMARY, DISCUSSION AND IMPLICATIONS

Introduction

Personal values are a significant part of our identity and influence every decision and action we make in our lives. The identification of personal values and recognition of these values in relationship to transition could be beneficial in this time of organizational transformation. Though only Air Force nurses were participants in this descriptive study, the findings may have implications for personnel in staff and management positions in other organizations.

Summary

The purpose of this research was to identify the values held by Air Force nurses. The study questions answered were: 1) What values are associated with Air Force nurses with one or more years of civilian nursing experience? 2) Do values of Air Force nurses occur in different frequencies in relation to age, gender, education, or other demographic characteristics? 3) Are there different values for single and married Air Force nurses? 4) Do values differ between groups of Air Force nurses with one year or less of Air Force nursing experience, two to four years of Air Force nursing experience, or with greater than five years of Air Force nursing experience? 5) Do values differ between groups of

Air Force nurses with one year of civilian nursing experience, two to five years of civilian nursing experience, or with greater than five years of civilian nursing experience?

The design used for this study was a descriptive survey of values associated with registered nurses in the Air Force. The study also used a cross-sectional design that provided data collection at one point in time. The Values Scale by Nevill and Super (1989) was utilized as the data collection instrument. This instrument was a mailed, anonymous, pencil and paper survey which took approximately 30 to 45 minutes to complete. The instrument consisted of 105 items using Likert type scales to evaluate twenty-one separate value scales. Each value scale was measured by a group of five questions where at least two items related to work and at least two items related to values in general. Value scales measured included; Ability Utilization, Achievement, Advancement, Aesthetics, Altruism, Authority, Autonomy, Creativity, Economic Rewards, Life Style, Personal Development, Physical Activity, Prestige, Risk, Social Interaction, Social Relations, Variety, Working Conditions, Cultural Identity, Physical Prowess, and Economic Security.

The participants of the study were USAF nurses stationed at Tinker Air Force Base (AFB), Oklahoma, Nellis AFB, Nevada, Keesler AFB, Mississippi, and Hill AFB, Utah. Each participant was a registered nurse with no previous active duty military service time, had one year or more of civilian nursing experience, was serving a current active duty tour in the United States Air Force (USAF) and whose entry into the military was no more than six years ago.

In this sample of Air Force nurses (N=94), each nurse had executed a transition from a civilian nursing position to one of a military nurse and officer. Using The Values Scale (Nevill & Super, 1989) the participants identified seven of the eight values that were identified in the literature review as important characteristics of transition. The participants consistently identified these values as important or very important regardless of age, gender, educational level, military rank, marital status, years of Air Force nursing experience or years of civilian nursing experience.

Discussion

Values were identified as important aspects of role and identity in the second universal property of Schumacher and Meleis model of transition (1994) and Super's (1957) stages of career development. Specifically, the literature (Bailey & Hansson, 1995; Faver, 1984; Handy, 1994; Hill & Miller, 1981; Jones, 1996; Knoelbel et al., 1991; Lowenthal et al., 1975; Price & Mueller, 1981; Shea & Selfridge-Thomas, 1997; Tziner, 1983) supported eight particular values as characteristics common to transition. These eight values included Ability Utilization, Achievement, Advancement, Altruism, Autonomy, Economic Rewards, Economic Security and Personal Development. Almost all of the study participants (95%) invariably identified each of these eight values in the categories of very important or important.

Though the demographic characteristic of age did influence the ranking of the identified values by frequency, Ability Utilization and Economic Security consistently achieved the highest frequencies in the very important category. Each of the age groups

regarded the values of Personal Development, Economic Rewards, Life Style and Working conditions as important. Additionally, each group identified Physical Prowess and Risk as somewhat important values. Differences among the groups found that the 21-30 age group identified Altruism, Advancement, Aesthetics and Social Relations as very important and the 41-50 age group added Cultural Identity as very important. It must be noted however, that for the 41-50 age group Cultural Identity was of equal frequency in the categories of very important, important and somewhat important.

There were no differences among the groups in many of the values identified as important. However, the 31-40 and 41-50 age groups identified Aesthetics, Altruism, and Social Relations in the important category instead of very important as identified by the 21-30 group. The 31-40 age group also added advancement to the important category. It was interesting to note that the 41-50 age group placed Advancement in the somewhat important category with Authority, Prestige, Social Interaction and Variety. Perhaps as age increases, social groups, social activities and careers become more stable, career advancement in the military plateaus and further career progression becomes less important.

For the demographic characteristic of gender, male and female participants identified the same top four values, Ability Utilization, Achievement, Personal Development and Economic Security. For male participants Altruism was added as very important. For the female participants Life Style, Economic Rewards, Work Conditions, Advancement and Social Relations were considered to be very important values. The

same five values were identified by the male participants as merely important. The values of Economic Rewards, Work Conditions and Advancement identified by female participants as very important may be because women have historically received lower pay and opportunities for advancement. Perhaps men equate advancement with achievement or ability utilization and expect advancement to occur as a natural outcome of acceptable job performance. The very important status given by female participants to Life Style and Social Relations may partially be explained by socialization theory regarding gender (Crooks & Baur, 1996) that proposes men and women were socialized differently. Women were described as more socially interactive, nurturing, and emotionally and verbally expressive while men were taught to be assertive, independent and emotionally composed and distant (Crooks & Baur, 1996; MacDonald, 1988).

Educational level looked at both Baccalaureate and Masters prepared participants and each group identified the same values of Personal Development, Ability Utilization and Achievement as very important with the addition of Creativity by the Masters prepared participants. It must be noted that Creativity had the same frequency for this group in both the very important and important categories. However, differences between the two occurred in all categories. For the Baccalaureate prepared participants very important values included Economic Security, Life Style, Working Conditions, Economic Rewards and Advancement while two of these values, Economic Security and Economic Rewards, were classified only as important for the Masters prepared participants. The Baccalaureate participants identified important values as Authority,

Creativity, Cultural Identity and Social Relations while the Masters participants found these values as only somewhat important along with Working Conditions. Masters prepared participants were the second group of participants to place advancement in the somewhat important category. Educational level differences may be related to increased satisfaction with personal identity and job, broader employment opportunities, increased salary, benefits and autonomy and improved job security or stability usually associated with an advanced degree.

Military rank was the final demographic characteristic. A majority (70%) of the three ranks of participants held the same values as very important. These values were Ability Utilization, Achievement, Personal Development, Working Conditions, Life Style and Economic Security. Differences included the values of Social Relations, Aesthetics and Altruism regarded only by second lieutenants as very important. For Air Force nurses, Altruism would be expected to be a very important value and it is interesting that second lieutenants alone identified this as very important. As a rule, second lieutenants are new to nursing and the role of military officer. Their social relationships and activities are important for information, feedback and support during this transition.

Those in the rank of captain added Economic Rewards as a very important value. This may be related to the sizeable salary increase commensurate with promotion to the rank of captain as well as anticipated future promotions. Values identified as important were similar for all three ranks. Only second lieutenants viewed Risk and Economic Rewards as important values. Perhaps because second lieutenants are new to the military

system and unsure of military responsibilities or world-wide obligations, Risk was more important to them. Additionally, this group looks forward to promotion opportunities with related increases in salary and benefits.

It was interesting that first lieutenants were the only group that regarded Advancement as merely an important value. For the other two groups, this value was identified as very important. First lieutenants have completed one promotion and are between the ranks of second lieutenant and captain. For the Air Force nurse officer, promotions to succeeding rank through captain are essentially automatic if the officer complies with military regulations, military education and performs his or her job competently. It is not until the rank of major that promotion becomes significantly competitive. That may explain why first lieutenants do not consider Advancement as important at this stage of their military career.

Eight values supported by the literature as important characteristics of transition (Bailey & Hansson, 1995; Faver, 1984; Handy, 1994; Hill & Miller, 1981; Jones, 1996; Knoelbel et al., 1991; Lowenthal et al., 1975; Price & Mueller, 1981; Shea & Selfridge-Thomas, 1997; Tziner, 1983) were analyzed according to marital status, years of Air Force nursing experience and years of civilian nursing experience. The findings indicated that values were not different for married or single Air Force nurses. However, the frequencies for the same eight values were different for those Air Force nurses with one year of Air Force nursing experience, two to four years of Air Force nursing experience and five or more years of Air Force nursing experience. The number of years

of Air Force nursing experience produced a difference in the frequencies for the values of Ability Utilization, Personal Development and Achievement. The eight values were also analyzed by the division of the participants into three groups; Air Force nurses with one year of civilian nursing experience, two to five years of civilian nursing experience and greater than five years of civilian nursing experience. The number of years of civilian nursing experience prior to entry into the military produced no difference in the frequencies of the eight values for the participants.

Limitations

The relatively low response rate of 42% was a study limitation. The response rate may have been influenced by Air Force nurses on leave or temporary duty in another location (TDY) for weeks or up to 120 days. Air Force nurses are mobile and it is not unusual for nurses to be pulled from their assigned duty location to improve staff levels at another facility or for a permanent change of station (PCS) where the member is transferred to another base. A military member may also separate from the military upon completion of their service obligation, due to a medical condition or various other reasons. Air Force personnel are also subjected to numerous surveys that could account for the relatively low response rate. Finally, since Air Force nurses alone made up the sample, the study is generalizable only to Air Force nurses and not to other branches of military nurses or civilian nurses making transitions in other types of career changes.

Implications

The results of this study may provide valuable insight for Air Force nurse recruiters who are not medical professionals and therefore have limited to no knowledge of the nursing profession. The results may provide recruiters with a better understanding of general values of Air Force nurses and may define areas of emphasis the recruiters may use when interviewing prospective nurses for the military. Military Senior Nurse Executives and nurse managers may benefit from the information to better match the individual with a position leading to improvement in productivity and skill utilization. These uses could lead to improvements in recruiting numbers, job satisfaction for both the new nurse officer and the nurse manager, appropriate use of human resources and improved retention of nurses in the Air Force.

A similar study could be conducted with civilian nurses to compare the values identified by both groups to look for differences and similarities. The results could provide valuable information for target areas for Air Force recruitment of civilian nurses and could be used in civilian institutions in both self-identification of personal values related to career satisfaction or in matching individuals to positions promoting job satisfaction and retention. Further studies would not have to be limited to nurses because any organization could benefit from an analysis of personnel values. A future study could be conducted to evaluate Air Force nurses' decisions for entry into the military. Now that values deemed important have been identified, the reasons associated with

those values that attract nurses to the military could be identified and the information utilized by Air Force recruiters.

Conclusion

Values are important elements of the transition process from civilian to military nursing. Personal values are reflected in the choices and decisions made in every facet of our lives. In this survey of Air Force nurses, the seven of the eight values identified in the literature, Ability Utilization, Achievement, Advancement, Altruism, Autonomy, Economic Reward, Economic Security or Personal Development consistently appeared in the categories of important or very important regardless of demographics or other characteristic grouping of the participants. This finding supported the role of values in the second universal property of Schumacher and Meleis' (1994) model of transition and Super's (1957) description of career development. Though this information provided a benefit specific to the United States Air Force, it is possible that further studies of this subject could be advantageous for personnel in other military and non-military organizations.

List of References

- Allee, J. G. (Ed.). (1986). Webster's new encyclopedia of dictionaries. United States: Ottenheimer.
- Bailey, L. L., & Hansson, R. O. (1995). Psychological obstacles to job or career change in late life. Journal of Gerontology, 50B(6), P280-P288.
- Bridges, W. (1991). Managing transitions: Making the most of change. Reading, MA: Addison-Wesley.
- Bridges, W. (1994). Jobshift. Reading, MA: Addison-Wesley Publishing.
- Crooks, R. & Baur, K. (1996). Our sexuality (6th ed.). Pacific Grove, CA: Brooks/Cole.
- Elder, G. H., & Pavalko, E. K. (1993). Work careers in men's later years: Transitions, trajectories, and historical change. Journal of Gerontology, 48(4), S180-S191.
- Faver, C. A. (1979). Women and achievement orientation across the life-cycle (Doctoral dissertation, University of Michigan, 1979). Dissertation Abstracts International, 40, 2924-A.
- Faver, C. A. (1984). Women in transition. New York, NY: Praeger.
- Feldman, D. C. (1989). Careers in organizations: Recent trends and future directions. Journal of Management, 15(2), 135-156.
- Feldman, D. C., & Brett, J. M. (1985). Trading places: The management of employee job changes. Personnel, 62(4), 61-65.
- Grundstein-Amado, R. (1995). Values education: A new direction for medical education. Journal of Medical Ethics, 21(3), 174-178.
- Hall, D. T. (1986). Breaking career routines: Midcareer choice and identity development. In R. A. Katzell (Ed.), Career development in organizations (pp. 120-159). San Francisco, CA: Jossey-Bass.
- Handy, C. (1994). The age of paradox. Boston, MA: Harvard Business School Press.

Heath, C. W. (1946). What people are: A study of normal young men. Cambridge, MA: Harvard University Press.

Hill, R. E., & Miller, E. L. (1981). Job change and the middle seasons of a man's life. Academy of Management Journal, 24(1), 114-127.

Hughes, E. C. (1958). Men and their work. Glencoe, IL: The Free Press.

Hutri, M. (1995). The role of work-related causal attributions in occupational crises. The Journal of Psychology, 129(2), 167-180.

Hutri, M. (1996). When careers reach a dead end: Identification of occupational crisis states. The Journal of Psychology, 130(4), 383-399.

Jones, C. B. (1996). Registered nurse turnover and the changing health care system. Nursing Connections, 9(1), 35-48.

Knoelbel, P. W., Fuller, S. G., & Misener, T. R. (1991). Job satisfaction of nurse practitioners: An analysis using Herzberg's theory. The Nurse Practitioner, 16(4), 43, 46, 48, 50, 52, 55-56.

Knox, S. (1995). Career transitions of the nurse executive. Nursing Administration Quarterly, 19(4), 62-70.

Krannich, R. L. (1993). Careering and re-careering for the 90's (3rd ed.). Manassas Park, VA: Impact.

Levinson, D. J. (1978). The season's of a man's life. New York, NY: Ballantine Books.

London, M., & Stumpf, S. A. (1986). Individual and organizational career development in changing times. In R. A. Katzell (Ed.), Career development in organizations (pp. 21-49). San Francisco, CA: Jossey-Bass.

Lowenthal, M. F., Thurnher, M., & Chiriboga, D. (1975). Four stages of life. San Francisco, CA: Jossey-Bass.

Mateo, M. A., Newton, C. L., & Wells, R. W. (1997). Making planned and unplanned role transitions. Journal of Nursing Administration, 27(9), 17-23.

Macnab, D. & Fitzsimmons, G. W. (1987). A multitrait-multimethod study of work-related needs, values, and preferences. Journal of Vocational Behavior, 30, 1-15.

MacDonald, Kevin B. (1988). Social and Personality Development. New York: Plenum Press.

Meleis, A. I. (1997). Theoretical nursing: Development and progress (3rd ed.). Philadelphia, PA: Lippincott.

Meleis, A. I., & Trangenstein, P. A. (1994). Facilitating transitions: Redefinition of the nursing mission. Nursing Outlook, 33(4), 255-259.

Neufeldt, V. & Guralnik, D. B. (Eds.). (1997). Webster's new world college dictionary (3rd ed.). New York, NY: Macmillan.

Nicholson, N., & West, M. (1989). Transitions, work histories, and careers. In M. B. Arthur, D. T. Hall, & B. S. Lawrence (Eds.), Handbook of career theory (pp. 181-201). Cambridge, NY: Cambridge University Press.

Neugarten, B. L. (1979). Time, age, and the life cycle. The American Journal of Psychiatry, 136(7), 887-894.

Nevill, D. D. & Super, D. E. (1989). The values scale, (2nd ed.). Palo Alto, CA: Consulting Psychologists Press.

Polit, D. F., & Hungler, B. P. (1995). Nursing research: Principles and methods, (5th ed.). Philadelphia, PA: J.B. Lippincott.

Price, J. L., & Mueller, C. W. (1981). A causal model of turnover for nurses. Academy of Management Journal, 24(3), 543-565.

Pumpian, I., Fisher, D., Certo, N. J., & Smalley, K. A. (1997). Changing jobs: An essential part of career development. Mental Retardation, 35(1), 39-48.

Rhoton, N. (1998, March). Rightsizing the Air Force nurse corp. The Nightingale Express, 7-8.

Savino, C. S., & Krannich, R. L. (1996). From Air Force blue to corporate gray. Manassas Park, VA: Impact.

Schumacher, K. L., & Meleis, A. I. (1994). Transitions: A central concept in nursing. IMAGE: Journal of Nursing Scholarship, 26(2), 119-127.

Shea, L. E., Adamczak, P., & Flanagan, T. J. (1987). Transition to flight nursing: Three Experiences. Journal of Emergency Nursing, 13(4), 31A-35A.

Shea, S. S., & Selfridge-Thomas, J. (1997). The ed nurse practitioner: Pearls and pitfalls of role transition and development. Journal of Emergency Nursing, 23(3), 235-237.

Super, D. E. (1957). The psychology of careers. New York, NY: Harper and Brothers.

Terman, L. M., & Oden, M. H. (1959). Genetic studies of genius: The gifted group at mid-life. Stanford, CA: Stanford University Press.

Tziner, A. (1983). Choice and commitment to a military career. Social Behavior and Personality, 11(1), 119-128.

United States Air Force. (1997). Regular Air Force and special category accessions. Air Force Instruction 36-2002. Washington D.C.: Author.

Vaillant, G. (1977). Adaptation to life. Boston, MA: Little Brown.

Weiner, B. (1985). An attributional theory of achievement motivation and emotion. Psychological Review, 92(4), 548-573.

Wilson, M. E., & Greenberg, L. (1994). Case studies in work redesign: Easing the transition of a work redesign project. Journal of Emergency Nursing, 20(6), 28A.

Wong, J., Wong, S., & Mensah, L. L. (1983). A conceptual approach to the development of motivational strategies. Journal of Advanced Nursing, 8(2), 111-116.

Yates, L. V. (1990). A note about values assessment of occupational and career stage age groups. Measurement and Evaluation in Counseling and Development, 23(1), 39-43.

APPENDICES

APPENDIX A

Facility Access Letter

Date

Capt Billye G. Hutchison
14360 Whippoorwill Vista
Choctaw, OK 73020

Lt Col (.....)
XX MDG/SGN
XXXXXXXXXX
XXXXAFB, XX XXXXX

Dear Colonel (.....)

I am an Air Force Institute of Technology sponsored graduate student at the University of Oklahoma Health Science Center College of Nursing. In May, you and I spoke briefly regarding a survey of the XXnd MDG nurses to begin data collection for my thesis. I wish to identify the values of registered nurses in the Air Force.

The information obtained may provide valuable insight for Air Force nurse recruiters who have limited knowledge of the nursing profession. The identification of specific values held by Air Force nurses may allow recruiters to provide potential nurse recruits with examples of career opportunities reflecting those values.

Eligible nurses will complete a one-time pencil and paper Values Scale survey and demographic information sheet and return it to me by mail in a postage paid addressed envelope. The survey requires approximately 30 to 45 minutes to complete. The thesis committee chairperson, Dr. Anita All, and The University of Oklahoma Health Sciences Center Institutional Review Board approved the study and there are no risks to the nurses participating in this study. To ensure participant anonymity, no personal identifiers will be available on any survey. Data analysis will use descriptive and inferential statistics and results will be reported as group data only.

Survey approval is pending from Headquarters AFPC. No mailings will occur until the Air Force approves the survey. After receiving Headquarters approval, I will contact you requesting only the names of the nurses meeting the research criteria. For this research, the inclusion criteria are active duty nurses, without prior military service, that entered the Air Force on or after January 1992.

Attached for your review is a copy of the research instrument. If you have any questions please call me at (405) 769-7722, or my major professor, Dr. Anita All, Associate Professor, at (405) 271-1555.

Thank you for your assistance. I look forward to identifying information Air Force nurse recruiters will use to interview and select future military nurses.

Sincerely

BILLYE G. HUTCHISON, Capt, USAF, NC

Attachment:

- 1. Research Instrument with Cover Letter**

APPENDIX B

Air Force Access Letter

Date

MEMORANDUM FOR HQ AFPC/DPSAS

**XXX X Street West, Ste XX
XXXXXXXXX AFB, XX XXXXX-XXXX**

**FROM: Capt Billye G. Hutchison
14360 Whippoorwill Vista
Choctaw, OK 73020**

**SUBJECT: Request for Survey Approval of Air Force Personnel
(ACTION MEMORANDUM)**

- 1. I am an Air Force Institute of Technology sponsored graduate student at the University of Oklahoma Health Sciences Center College of Nursing planning my thesis research. I wish to identify the values of registered nurses in the Air Force. This will necessitate a survey of active duty Air Force nurses. I am requesting survey approval to provide the data necessary to complete the thesis requirement of the program.**
- 2. The information obtained about these values may provide valuable insight for Air Force nurse recruiters who have limited knowledge of the nursing profession. The identification of specific values held by Air Force nurses may allow recruiters to provide potential nurse recruits with examples of career opportunities reflecting those values. Supplying the results to recruiter headquarters may foster new insight in developing procedures to attract nurses to the military.**
- 3. The research instrument consists of the attached one-time pencil and paper Values Scale survey and demographic information sheet. This will be mailed to 400 active duty nurses meeting the research criteria and assigned to the four Air Force medical facilities that have granted sponsorship for data collection. The facilities include Hill, Keesler, Nellis and Tinker AFB. For this research, inclusion criteria are active duty nurses, without prior military service, that entered the Air Force on or after January 1992. After receiving Air Force survey approval, the participating facilities will provide the researcher with the name and address of each nurse meeting the above criteria.**
- 4. To ensure participant anonymity no personal identifiers will be available on any survey. Participants returning the completed surveys directly to the investigator in an addressed postage paid envelope will further protect anonymity. Data analysis will utilize descriptive and inferential statistics and results will only be reported as group data**

5. The study received approval from the thesis committee chairperson, Dr. Anita All, and the Oklahoma University Health Sciences Center Institutional Review board. Informed consent will be obtained from each participant and there are no risks to him or her.

6. I am seeking survey approval to initiate data collection starting October 1998. If you have any questions please call me at (405) 769-7722, or my major professor, Dr. Anita All, Associate Professor, at (405) 271-1555.

7. Thank you for your prompt assistance. I look forward to identifying information Air Force nurse recruiters will use to interview and select future military nurses.

BILLYE G. HUTCHISON, Capt, USAF, NC

Attachment:

1. **Research Instrument with Cover Letter**

APPENDIX C

Name Release Letter

Date

Capt Billye G. Hutchison
14360 Whippoorwill Vista
Choctaw, Ok 73020

Col ()
XX MDG/SGN
XXXXXXX
XXXX AFB, XX XXXXXXXX

Dear Col (...)

Thank you for participating as a sponsor in my thesis research. I received approval from Air Force Headquarters to survey the nursing personnel assigned to the XXnd Medical Group who meet the study criteria. The Survey Control Number (SCN) is USAF SCN 98-63 (expires 31 December, 1998). I am requesting the names of the nurses who are:

active duty without prior military service that entered the Air Force on or after January 1992.

Upon receipt of your list, I will mail a survey to each eligible nurse to begin data collection. Thank you again for your assistance.

Sincerely

BILLYE G. HUTCHISON, Capt, USAF, NC

Attachment:

1. HQ AFPC approval

APPENDIX D

Cover Letter

Date

Capt Billye G. Hutchison
14360 Whippoorwill Vista
Choctaw, OK 73020

Military Rank and Name
XXXX MDG
XXXXXX St
XXXXXXXXX AFB, XX XXXXXXXXX

Dear Name

I am an Air Force Institute of Technology (AFIT) sponsored graduate nursing student at the University of Oklahoma College of Nursing planning my thesis research. I wish to identify the values of registered nurses in the Air Force. The information obtained may provide valuable insight for Air Force nurse recruiters who have limited knowledge of the nursing profession. The identification of specific values held by Air Force nurses may allow recruiters to provide potential recruits with examples of career opportunities reflecting those values.

You are being contacted because you are an active duty nurse assigned to one of four sites sponsoring data collection. You are eligible to participate because you have had at least one year of nursing experience as an RN prior to entering the military, you had no prior military service, and you entered active duty on or after January 1992.

Participation will involve completion of a Values Scale survey and demographic information sheet taking approximately 30 to 45 minutes and mailing the survey back in the addressed stamped envelope. Please mail the completed survey and consent form to me by (Date).

Your participation is voluntary and your answers will be anonymous. No personal identifiers will be available on any survey. Your supervisors will not know if or how you responded. Participant responses will NOT be shared individually or as a group with your supervisor or medical facility and will not affect current position or opportunity for promotion. A group data summary only will be provided to Headquarters AFPC and the USAF Surgeon General's office.

There are no consequences or risks to you if you decide not to participate and there is no compensation awarded for participation in the study. Feel free to call me at (405) 769-7722 if you have any questions or my thesis committee chair, Dr. Anita All (405) 271-2306. If you have questions about your rights as a research subject, you may contact the Office of Research Administration at (405) 271-2090.

I greatly appreciate your input and participation. Thank you in advance for your assistance in this study.

Sincerely,

BILLYE G. HUTCHISON, Capt, USAF, NC

Attachment:

1. **Research Instrument**
2. **Informed Consent**

THIS INFORMATION IS SUBJECT TO THE PRIVACY ACT OF 1974

APPENDIX E

Informed Consent

**UNIVERSITY OF OKLAHOMA
HEALTH SCIENCE CENTER
Individual Consent Form**

PROJECT TITLE: Identification of Values in Different Groups of Air Force Nurses

RESEARCHERS: Anita C. All, RN, Ph.D.
University of Oklahoma, Health Science Center

Billye Gail Hutchison, BSN
Graduate Student
University of Oklahoma
Health Sciences Center
College of Nursing
Captain United States Air Force Nurse Corp

PURPOSE: The purpose of this research is to identify and describe values held by Air Force Nurses. The information obtained about these values will meet an Air Force need and may provide valuable insight for Air Force recruiters to use when recruiting registered nurses for military service. This identification may allow recruiters to provide potential registered nurse recruits with career opportunities that reflect their values. You are being asked to participate because you are a registered nurse who currently holds active duty status in the Air Force and entered the Air Force on or after January 1992.

DESCRIPTION: If you volunteer to participate in this research you will be asked to complete a survey of values. The Values Scale consist of 106 items that you will be asked to rank for degree of importance to you from one to four (one being least important and four being very important). The survey will take about 30 to 45 minutes to complete. If you agree to participate you will be asked to return the demographic information sheet, the consent form, and the values survey in the enclosed stamped addressed envelope. Anyone not returning the first survey or not indicating their un-willingness to consent to participate will be sent a second demographic information sheet, consent form, and values survey and asked to return them in an enclosed stamped addressed envelope.

COSTS: There will be no cost to you for your participation nor will you be paid for your participation.

RISKS/BENEFITS: Risks to you are minimal, though you may learn more about your personal values as a result of your participation in the research study.

SUBJECT ASSURANCES: Your participation in this study is voluntary. You have not given up any of your legal rights or released any individual or institution from liability for negligence. You have the **RIGHT TO REFUSE TO PARTICIPATE** and Your **RIGHT TO WITHDRAW FROM PARTICIPATION AT ANY TIME** during the study will be respected with no coercion or prejudice.

The results of your participation will be strictly confidential. An identification number will be used to record your responses only and your name will not be included with the data. The information that is obtained may be used for publication. There will be no identification of the subjects for any other reason than matching the identification numbers with a master mailing list in order to repeat mailing the packet to any individual not responding to the first mailed packet or not indicating refusal to participate in the research study.

The researchers will be the only people who will have access to the data before it is entered into a computer data file for statistical analysis. All packets will have an identification number on each sheet and these and the mailing list will be destroyed immediately after the data is entered into the computer program. Confidentiality of the participants will be maintained.

Participants will additionally be asked demographic questions that may be used in further analysis of the data. The participants' addresses will be used only for follow-up mailing. The addresses will be destroyed after the follow-up mailing is completed.

AUTHORIZATION: By signing this consent form you have acknowledged that you have read the above and understand the nature of this study and agree to participate.

If you have any concerns about your selection for this study or how you are treated, you should contact Dr. Anita C. All at 405-271-2306 during the day or at 405-373-0153 during the evenings or Captain Billye Gail Hutchison at 405-769-7722 day or evening. You may additionally contact the Director of Research Administration, in the OUHSC Office of Research Administration at 405-271-2090.

Participant's Signature

Date

Researcher as Witness Signature

Date

APPENDIX F
Demographic Information

DEMOGRAPHIC INFORMATION

1. Age: (Check one)

21 – 30 _____

31 – 40 _____

41 – 50 _____

51 – 60 _____

> 60 _____

2. Gender: _____ Male _____ Female

3. Highest Educational Level: (Check one)

_____ BS

_____ BSN

_____ MS

_____ MSN

_____ PhD

4. Please indicate your current marital status. (Check one)

_____ Married

_____ Single

5. Number of years of Air Force nursing service: (Check one)

_____ 1 year or less

_____ 2-4 years

_____ 5 or more years

6. Current rank: (Check one)

_____ 2nd Lt

_____ 1st Lt

_____ Capt

_____ Maj

7. Number of years of civilian nursing experience prior to entry into the United States

Air Force Nurse Corp: (Check one)

_____ 1 year

_____ 2-5 years

_____ Over 5 years

APPENDIX G

Instrument

SAMPLE ITEMS FOR THE

VALUES SCALE

by Drs. Donald E. Super and Dorothy D. Nevill

How important to you are the values listed below? Please read each state, then use the following scale to show how important that value is to you:

- 1 means of little of no importance
- 2 means of some importance
- 3 means important
- 4 means very important

It is now or will in the future be important for me to...

- 1. Use all my skills and knowledge.
- 21. Be where employment is regular and secure.
- 40. Work where people of my ethnic origin have good job possibilities.
- 54. Be physically active in my work.
- 66. Be able to think in terms of advancement.
- 74. Cultivate my inner life.
- 86. Get the feeling I have really achieved something at work.
- 105. Know that I can always make a living.

“Reproduced by special permission of the Publisher, Consulting Psychologists Press, Inc., Palo Alto, CA 94303 from **THE VALUES SCALE** by Drs. Donald E. Super and Dorothy D. Nevill J.P.Jordaan. Copyright 1985 by Consulting Psychologists Press, Inc. All rights reserved. Further reproduction is prohibited without the Publisher’s written consent.”

APPENDIX H

Air Force Survey Letter of Approval



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE PERSONNEL CENTER
RANDOLPH AIR FORCE BASE TEXAS

17 August 1998

MEMORANDUM FOR CAPTAIN HUTCHISON

FROM: HQ AFPC/DPSAS
550 C Street West, Suite 35
Randolph AFB TX 78150-4737

SUBJECT: Request for Survey Approval of Air Force Personnel (Your Letter, 4 Aug 98)

Your request to administer "The Values Scale" to Air Force Personnel has been reviewed and is assigned a Survey Control Number (SCN) USAF SCN 98-63. This number and authorization will expire on 31 December 1998.

With regard to the survey and its associated results, it is important to draw your attention to the provisions of the Freedom of Information Act (FOIA). Under the FOIA, the results of your survey can be requested by the public. Please ensure that the SCN appears either in the cover letter or on the face of the survey itself.

Questions or concerns can be directed to me at COM (210) 652-5680. Thank you and good luck with your data collection efforts.

JLR

MICHAEL J. BENSON, Lieutenant, USAF
Personnel Survey Analyst

APPENDIX I

Institutional Review Board Letter of Approval



The University of Oklahoma
Health Sciences Center

IRB NUMBER: 07941
EXPEDITED: #9
APPROVAL DATE: 09/19/98

OFFICE OF RESEARCH ADMINISTRATION

Dr. Anita All
Administrative Management
CNB 372

SUBJ: Value Identified in Different Groups of Air Force Nurses.

Dear Dr. All:

I have reviewed the above-referenced protocol and consent form, and hereby grant expedited approval. It is my judgment that the rights and welfare of individuals who may be asked to participate in this study will be respected; that the proposed research, including the process of obtaining informed consent, will be conducted in a manner consistent with the requirements of 45 CFR 46, as amended; and that the research involves no more than minimal risk to subjects.

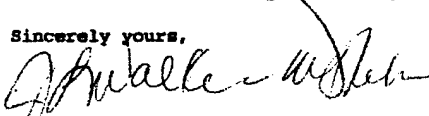
As principal investigator of this protocol, it is your responsibility to insure that this study is conducted as approved. Any modifications to the protocol or consent form, initiated by you or by the sponsor, will require prior approval, which you may request in an amendment letter or memorandum to me. All study records, including copies of signed consent forms, must be retained for three (3) years after termination of the study.

It is a condition of this approval that you report promptly to me any serious, unanticipated adverse effects experienced by subjects in the course of this research, whether or not they are directly related to the study protocol. These adverse effects include, but may not be limited to, any experience that is fatal or immediately life-threatening, is permanently disabling, requires (or prolongs) inpatient hospitalization, or is a congenital anomaly, cancer or overdose. For multi-site protocols, I must be informed of serious adverse effects at all sites.

The approval granted here is effective for one year. Should you wish to maintain this protocol in an active status beyond that date, you will need to provide me with a progress report summarizing study results to date. IRB staff in the Office of Research Administration will request that progress report from you approximately ten weeks before the anniversary date of your current approval.

If you have questions about these procedures, or need any additional assistance from the Board, please contact IRB staff. Finally, please review your professional liability insurance to make sure your coverage includes the activities in this study.

Sincerely yours,


Joan L. Walker, M.D.
Chair, Institutional Review Board

JLW/EHC/cc