THE IMAGE OF NURSING AND JOB SATISFACTION OF
UNITED STATES AIR FORCE NURSES

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The problem of this investigation was concerned with ascertaining the image of nursing and job satisfaction of United States Air Force nurses as determined by the type of nursing education and the length of time in the service. The classification included two groups each of diploma graduate and collegiate graduate nurses serving in either the first two-year tour of duty in the service or beyond.

The instruments employed were the Image of Nursing Questionnaire, the Bullock Job Satisfaction Scale, and a "Personal Data Questionnaire."

Twelve research questions were used in order to operationalize the investigation. Statistical techniques used included a two by two factorial analysis of the variance and Pearson product-moment correlation coefficients. Coefficients were computed between the raw scores of the two instruments for the variables of (1) nursing training, (2) time in the Air Force, (3) education, (4) experience, (5) rank, (6) specialty, and (7) hospital size.

A random sample of 800 female and 75 male nurses was surveyed. The percentage of returns, based on possible
returns, was 71.46. The female nurses had a return of 70.20 percent and the male nurses had a return of 84.05 percent.

The major findings of the study were the following:

1. Diploma graduate nurses serving beyond two years of duty had a significantly higher level of job satisfaction than the diploma graduate nurses serving in the first two-year tour of duty.

2. Collegiate graduate nurses in the first two-year tour of duty had a higher image of nursing, but the collegiate graduate nurses serving beyond two years had a significantly higher level of job satisfaction than the collegiate graduate nurses serving in the first two-year tour of duty.

3. There were no significant differences in the image of nursing and job satisfaction between the two groups of nurses serving beyond two years nor between the two groups of nurses serving in the first two-year tour of duty.

4. There were significant relationships between the image of nursing and job satisfaction for the following female nurse groups: (1) diploma graduates, (2) administrators, (3) general duty nurses, (4) colonels and majors, (5) nurses with diplomas in nursing and nurses with bachelor degrees, (6) nurses with over ten years of experience, and (7) nurses working in hospitals of over 300-bed capacity.
5. There were no significant relationships for any of the male nurse groups.

Major conclusions were as follows:

1. Diploma graduate nurses share a common image of nursing, while collegiate graduate nurses begin their nursing career with a significantly high image of nursing, which undergoes a change with experience that results in a somewhat less positive image of nursing.

2. The image of nursing for male nurses is not the same as the image of nursing for female nurses.

3. The type of nursing education does not determine the degree of job satisfaction.

4. The higher Air Force nurses advance in rank, the more satisfied they become with their job.

5. Job satisfaction increases with nursing experience and as nurses are assigned to larger hospitals in the Air Force.

It is recommended that there be a meaningful and effective counseling program for nurses serving in the first two-year tour of duty for the purpose of increasing personal job satisfaction. It is also recommended that plans be developed and implemented to minimize the time served in the smaller Air Force hospitals.
THE IMAGE OF NURSING AND JOB SATISFACTION OF
UNITED STATES AIR FORCE NURSES

DISSERTATION

Presented to the Graduate Council of the
North Texas State University in Partial
Fulfillment of the Requirements

For the Degree of

DOCTOR OF EDUCATION

By

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Denton, Texas
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CHAPTER I

INTRODUCTION

Nursing has undergone numerous and complex changes over the past decade, which are attributable, in part, to the increase in scientific knowledge, medical technology, and innovations emanating from social change. The National Commission on Nursing recognizes these changes and comments that "to ensure that nurses practice to their highest capacity will require changes in traditional roles and functions."¹

Thirty or more years ago, nurses generally worked alone, as in private duty nursing, and generally tended to the needs of a single patient. The nurse functioned largely under the direction of a single physician and her tools were few and simple. Today, the modern nurse, unlike her colleague of years ago, is found operating in a complex medical environment, along with many other nurses, performing a variety of involved tasks with little or no direct patient contact.²

Nursing continues to be regarded as an occupation in which the practitioner renders total patient care, but the


traditional image has been one associated with the nurse giving bedside care. It is apparent that this traditional image of nursing is somewhat in contrast to the viewpoint of nursing roles as stated by Saunders. Reissman and Rohrer are in agreement with this point of view and state, "That this traditional image—the nurse concerned with the 'total care' of the patient—is no longer true can be proved by anyone interested enough to observe nurses in most large hospitals." This often results in personal conflict which can affect an individual's productivity and the level of satisfaction obtained from the job.

In order to avoid this personal conflict and job dissatisfaction, the nurse must maintain a balance between what she expects of her performance in nursing and the image that she has of nursing. All too frequently, however, nurses evaluate their behavior and performance in relation to the conception of bedside care, which may not be appropriate to the working role.

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5 Joanne E. Berkowitz and Norman H. Berkowitz, "Nursing Education and Role Conception," Nursing Research, IX (Fall, 1960), 218.
In recent years there has been a shift in nursing education away from the traditional three-year diploma program to the collegiate nursing program. More and more nurses are receiving their education in institutions of higher learning and there is an increase in the number of nurses functioning in various nursing specialties. The foregoing should have an effect on the nurse's current image of nursing and job satisfaction. This in turn should be of concern to nurse administrators.

Thus, because of the recent and continuing changes in the role and functions of nurses, coupled with the increased emphasis on nursing education in institutions of higher learning, it seems incumbent upon nursing administrators to have an increased understanding of the nurse's present image of nursing and the level of job satisfaction.

Statement of the Problem

The problem of this study was to ascertain the image of nursing and the job satisfaction of nurses in the United States Air Force.

Purposes of the Study

The primary purposes of this study were to determine the image of nursing and the status of job satisfaction of female nurses who are

(1) graduates of a diploma nursing school, serving in the first two-year tour of duty in the Air Force,
(2) graduates of a diploma nursing school, serving beyond the initial two-year tour of duty in the Air Force,

(3) graduates of a collegiate nursing program, serving in the first two-year tour of duty in the Air Force, and

(4) graduates of a collegiate nursing program, serving beyond the initial two-year tour of duty in the Air Force.

Another purpose of this study was to investigate the relationship between the image of nursing and job satisfaction for the following: nursing specialty, hospital size, and the rank status of United States Air Force female nurses.

A final purpose of this study was to determine the image of nursing and job satisfaction of male nurses serving in the United States Air Force.

Research Questions

In order to make the investigation more manageable, answers to the following type questions were sought:

I. Is there a significant difference in the image of nursing and the level of job satisfaction, between the graduates of a diploma nursing school who are currently serving in the first two-year tour of duty in the Air Force and the graduates of a diploma nursing school who are currently serving beyond the initial two-year tour of duty in the Air Force?
II. Is there a significant difference in the image of nursing and the level of job satisfaction, between the graduates of a diploma nursing school who are currently serving in the first two-year tour of duty in the Air Force and the collegiate graduate nurses who are presently serving in the first two-year tour of duty in the Air Force?

III. Is there a significant difference in the image of nursing and the level of job satisfaction, between the graduates of a diploma nursing school who are currently serving beyond the initial two-year tour of duty in the Air Force and the collegiate graduate nurses who are presently serving beyond the initial two-year tour of duty in the Air Force?

IV. Is there a significant difference in the image of nursing and the level of job satisfaction, between the collegiate graduate nurses who are presently serving in the first two-year tour of duty in the Air Force and the collegiate graduate nurses who are presently serving beyond the initial two-year tour of duty in the Air Force?

V. Is there a significant difference in the image of nursing and the level of job satisfaction, between the diploma graduate nurses and the collegiate graduate nurses?

VI. Is there a significant difference in the image of nursing and the level of job satisfaction, between the nurses serving on the first tour of duty in the Air Force and nurses serving beyond the initial two-year tour of duty in the Air Force?
VII. What are the relationships between the image of nursing and job satisfaction for diploma graduate nurses and collegiate graduate nurses in the Air Force?

VIII. What are the relationships between the image of nursing and job satisfaction for nursing specialties of Air Force nurses?

IX. What are the relationships between the image of nursing and job satisfaction for the ranks of Air Force nurses?

X. What are the relationships between the image of nursing and job satisfaction for the educational levels of Air Force Nurses?

XI. What are the relationships between the image of nursing and job satisfaction for the number of years of graduate nursing experience of Air Force nurses?

XII. What are the relationships between the image of nursing and job satisfaction for nurses in Air Force hospitals of various sizes?

Background and Significance of the Study

A review of the literature reveals a wide array of research and articles pertaining to attitudes of nurses, role conceptions, nursing roles, and conflicts of nurses. Little, however, is observed related to job satisfaction per se and the component image of nursing, as perceived by a specific group of nurses or nurses in general.
Modern technology and recent scientific and medical advances have brought about many changes in the care of patients in hospitals, which, in turn, have added to the complexities of nursing functions and the nurse's role. The traditional image of the nurse is that of rendering total care to the patient at the bedside. This image is not valid today. There has been an increasing shift away from concentration on the sick person to emphasis on the mechanical and technical aspect of therapy and nursing care. Saunders states that this new role of nursing places considerable emphasis on teaching and administration and an increased focus on nursing specialization.

There is a wide disparity in the image of nursing as perceived by the various levels of nursing and auxiliary nursing personnel, as well as by the general public. These divergent views are somewhat motivated by the changes brought about in the nursing functions because of modern technology, and are greatly enhanced by the drive for professionalization.

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7 Reissman and Rohrer, p. 13.

8 Saunders, pp. 1094-1095.

of nursing. One of the major features that provides this professionalization has been an increase of nursing education in institutions of higher education, as recommended by the American Nurses Association.

One aspect that influences the new student's image of nursing is the image of nursing as perceived by the general public. The public's image of nursing is that of the nurse rendering bedside care. Frequently, however, the student realizes that the nursing role and nursing functions differ sharply from the conception of nursing that she had upon entering the nursing program. This tends to initiate some confusion and conflict within the student as to what "real" nursing is. "When the nurse with an image of 'real' nursing as being bedside nursing care of patients approaches the actual job, she is in for a severe jolt." Frustration often results and job satisfaction is highly questionable. Benne and Bennis cite many experiential examples that confirm this point of view.

Taves, Corwin, and Haas state that "It is expected that the image of the occupation influences satisfaction with the

10 Reissman and Rohrer, p. 9.


13 Ibid., pp. 380-383.
job.\textsuperscript{14} This was a significant finding in their study, and they concluded that "if an image of the occupation is favorable . . . then membership in it will be personally rewarding."\textsuperscript{15} This finding was also supported in the study by Benne and Bennis.\textsuperscript{16}

Today, there are two major educational nursing programs with different orientations, that result in somewhat contrasting styles in the performance of nursing duties. The diploma nursing school has its traditional setting located in the hospital. The collegiate student is oriented in the academic environment, with a tendency toward functioning in a teaching or administrative capacity. The collegiate program is providing a greater number of nurses for the profession each year, whereas "almost 50 percent of the hospital schools have closed in recent years."\textsuperscript{17}

Value systems influenced by such contrasting frameworks result in different expectations and variations in the image of nursing and the resulting job satisfaction. In

\begin{itemize}
\item \textsuperscript{14} Marvin J. Taves, Ronald G. Corwin, and J. Eugene Haas, Role Conception and Vocational Success and Satisfaction (Columbus, 1963), p. 5.
\item \textsuperscript{15} Ibid., pp. 5, 36.
\item \textsuperscript{16} Benne and Bennis, "The Role of the Professional Nurse," p. 198.
\item \textsuperscript{17} National Commission for the Study of Nursing and Nursing Education, p. 6.
\end{itemize}
comparing diploma nurses with degree nurses, Corwin\(^\text{18}\) found differences in professional attitudes and degrees of personal conflict. His study demonstrated that the degree nurse maintained a relatively higher professional role concept, which resulted in a high level of conflict, than was seen in the diploma nurse. The degree nurse, because of her academic orientation, maintains a professional attitude, but experiences conflict when in the bureaucratic setting of the hospital. This finding was also supported in a study by Kramer.\(^\text{19}\) Corwin noted that the diploma nurse might be said "to have a bureaucratic personality consisting of both expressed loyalty to the hospital and motivation to succeed in it."\(^\text{20}\) He reports similar findings in another study.\(^\text{21}\)

Meyer\(^\text{22}\) found that degree nurses have a more positive orientation toward nursing and that diploma students emphasize the technical features. She concluded that these


\(^{19}\) Marlene Kramer, "Role Conceptions of Baccalaureate Nurses and Success in Hospital Nursing," Nursing Research, XIX (September-October, 1970), 429.

\(^{20}\) Corwin, p. 84.


findings indicate a difference in the image of nursing held by these two groups.

Another condition worthy of attention is the position or status of nurses in the hierarchy of the hospital environment. Attitudes, values, and the importance of functions vary according to one's position in the hospital. A survey by the American Nurses Association revealed that

There is virtually no relationship between respondents' education and their perception of the nurse's typical role. The data tend to support the logical conclusion that type of position has more influence on perception of typical nurse roles.\(^23\)

Taves, Corwin, and Haas found that nurses in a higher position were more satisfied with their job than lower ranking personnel. It is interesting that they found head nurses and supervisors had a higher job satisfaction score than their subordinates, although staff nurses were not more satisfied than those hospital personnel who were their subordinates.\(^24\)

Summarily, the review of the literature demonstrates many research studies related to the image of nursing, as well as job satisfaction in nursing. The major and most inclusive study pertaining to the image of nursing and job satisfaction is that reported by Taves, Corwin, and Haas. Their research, along with other similar studies, prompted


\(^{24}\)Taves, Corwin, and Haas.
this inquiry concerning the image of nursing and job satisfaction of nurses in the United States Air Force. The knowledge and understanding of the present image of nursing and the level of job satisfaction is a very significant factor in maintaining an effective and professional nursing team in the United States Air Force.

Definition of Terms

The terms used in this study are defined as follows:

1. A nurse is an individual who is a graduate of either a diploma program or a collegiate program awarding a bachelor's degree in nursing, who has successfully passed the state board test pool examination in nursing, and possesses current registration in at least one state, the District of Columbia, the Commonwealth of Puerto Rico, or a territory of the United States.

2. Image of nursing is the perceptual idea or mental picture of nursing held by an individual.

3. Job satisfaction is the feeling or attitudinal response within an individual that results from the work performed in an occupation.

4. Nursing position is the title given to an individual that signifies the status in the hierarchy of nursing functions. It refers to such levels of nursing as staff nurse, head nurse, or nursing administrator.

5. Nursing specialty refers to the work of major concentration of an individual in the performance of nursing duties, such as general nursing or psychiatric nursing.
6. Rank status is the military rank held by an individual in the Air Force.

Limitations of the Study

This study was limited to nurses serving in the United States Air Force and at bases located in the continental United States.

Basic Assumptions

1. It was assumed that the respondents would answer the instruments and questionnaire with sincerity and honesty.

2. It was assumed that the random sample of female nurses and male nurses selected in this study was representative of nurses serving in the United States Air Force.

3. It was assumed that the responses given to the Image of Nursing Questionnaire would reflect an attitude of the respondent to the occupation of nursing.

Procedures

Permission was secured from the United States Air Force to conduct this study using Air Force nurses (see Appendix I). A random sample of 800 female nurses and a random sample of 75 male nurses was selected by computer. A "Personal Data Questionnaire" (see Appendix B) and two instruments, Image of Nursing Questionnaire (see Appendix C and Appendix E) and the Bullock Job Satisfaction Scale (see Appendix D), were sent by mail to each nurse in the sample. A cover
letter was included to explain the purposes of the study (see Appendix A).

The data were tabulated, coded, and entered on IBM cards and statistical computations were made at the Data Processing Center at North Texas State University. The information from the personal data sheet was compiled into frequency distributions for the purpose of classification and was reported as percentages.

Statistical analysis of the respondents' raw scores for the two instruments was accomplished by the use of a two-by-two factorial analysis of the variance based on the variables of educational training and length of time in the Air Force. Educational training consisted of two groups: (1) diploma graduate nurses and (2) collegiate graduate nurses. Length of time in the Air Force included two groups: (1) first two-year tour of duty nurses and (2) those nurses serving beyond the initial two-year tour of duty.

The Pearson product-moment correlation coefficient between the raw scores of the two instruments was computed for the following female and male nurse groups:

(1) diploma graduate nurses,

(2) collegiate graduate nurses,

(3) nurses serving on the first two-year tour of duty in the Air Force Nurse Corps,

(4) nurses serving beyond the first two-year tour of duty in the Air Force Nurse Corps,
(5) nurses with only a diploma in nursing,
(6) nurses with a bachelor's degree,
(7) nurses with a master's degree,
(8) nurses with less than five years of nursing experience,
(9) nurses with five years, but less than ten years, of nursing experience,
(10) nurses with ten years, but less than twenty years, of nursing experience,
(11) nurses with over twenty years of nursing experience,
(12) nurses with less than two years of nursing experience in the Air Force Nurse Corps,
(13) nurses with two years, but less than five years, of nursing experience in the Air Force Nurse Corps,
(14) nurses with five years, but less than ten years, of nursing experience in the Air Force Nurse Corps,
(15) nurses with ten years, but less than twenty years, of nursing experience in the Air Force Nurse Corps,
(16) nurses with over twenty years of nursing experience in the Air Force Nurse Corps,
(17) lieutenants,
(18) captains,
(19) majors,
(20) colonels,
(21) administrators,
(22) psychiatric nurses,  
(23) operating room nurses,  
(24) anesthetists,  
(25) general duty nurses,  
(26) flight nurses,  
(27) nurses not assigned to hospitals,  
(28) nurses working in hospitals with less than fifty beds,  
(29) nurses working in hospitals with fifty, but less than one hundred, bed capacity,  
(30) nurses working in hospitals with 100, but less than 300, bed capacity,  
(31) nurses working in hospitals with over 300-bed capacity.

The Pearson product-moment correlation coefficient between the raw scores of the two instruments was also computed for (1) all the female nurses in the study, (2) all the male nurses in the study, and (3) all the female and male nurses in the study.

Summary

Chapter I has had as its purpose the introduction and statement of the problem. The background and significance section attempted to show the lack of studies available concerning the contemporary image of nursing and job satisfaction of nursing with particular emphasis on nurses.
in military service. The studies and reports referred to are dealt with in more detail in Chapter II.

In the last part of Chapter I are the procedures undertaken in this study. More specific information on these procedures is reported in Chapter III. The findings of this study are reported in Chapter IV. The conclusions and recommendations are presented in Chapter V.
CHAPTER II

REVIEW OF THE LITERATURE

The review of the literature was undertaken for the purpose of obtaining data pertaining to nursing roles and job satisfaction of nurses. The literature reviewed for the study was grouped into three categories: nursing roles, nursing attitudes, and job satisfaction of nurses.

Nursing Roles

Saunders\(^1\) has defined role as complex behavior expected of one occupying a given position. Benne and Bennis\(^2\) state that a role is a cluster of functions expected of a class of individuals in a system or organization in which they work. Taves, Corwin, and Haas\(^3\) have defined roles as prescribed norms and values which influence the life styles and behavior patterns shared by individuals of a given occupation.

Several articles and studies reviewed were related to the changing roles and functions of nurses, generally indicating a conflict within nurses between the actual operation of nursing duties and the concept of what the specific

\(^1\)Saunders, p. 1094.

\(^2\)Benne and Bennis, "The Role of the Professional Nurse," p. 196.
functions ought to be. There are numerous reasons why nurses enter the profession; however, many later realize their dissatisfaction because of the lack of fulfillment of their expectations. Hughes, Hughes, and Deutcher⁴ (hereafter referred to as the Hughes report) state that in some instances the reasons given for entering nursing could have been satisfied as well by some other means of livelihood. However, altruistic purposes are frequently given, namely, helping others and seeing patients get well.

Strauss succinctly described the complex and changing role of nurses and stated,

... American nursing is a women's occupation that is massive in scope. ... Work occurs mainly in three or four types of establishments, where there is a strong tendency to control by the medical profession and where three job functions (teaching, administration, and bedside nursing) are characteristically blurred. However, they are becoming more distinct, but bedside nursing is still believed to be the chief rationale for "nursing." There is a tendency for specialization to follow hierarchical lines up the administrative ladder or to follow medical specialization itself; there is a host of educational programs which seem to represent both the occupation's attempt to get "professional" legitimation through higher education and a genuine desire to improve the services which the occupation offers to its clients.⁵


Nahm\(^6\) alleges that nurses spend little time with patients and perform too many non-nursing functions. She believes that the rewards for nursing are inadequate for the responsibilities that nurses assume. She also states that the turnover rate of nurses in hospitals is too high and that far too many collegiate graduate nurses leave the hospital environment after little experience there.

Schmitt,\(^7\) in an article concerned with conflict in nursing, says that a major source of conflict present in nursing is the difference between the older "maternal" view of nursing and that of the "professional and scientific" approach to nursing advocated by many institutions.

Saunders\(^8\) believes that the rapid and complex changes taking place in nursing have resulted in widespread uncertainty about what properly is the nurse's role. He states that nursing duties are being shifted from one nursing level to another, and concludes that these changes are perhaps inevitable because of the increase in technological changes. He views the new nursing role as one in which managerial

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\(^7\)Madeline H. Schmitt, "Role Conflict in Nursing," American Journal of Nursing, LXVIII (November, 1968), 2348.

\(^8\)Saunders, pp. 1097-1098.
responsible tasks are the chief concern, and recommends that nurses should be proud of that fact.

Sledge and Rohrer\(^9\) report in their study that graduate nurses were primarily concerned with performing highly technical procedures and that many of the nursing duties consisted of providing supervision of care by other nursing personnel. They report that nurses frequently state their desire for patient contact, but are found performing other functions. They state, "One of the most documented findings . . . is that there appears to be a hiatus between what the nurses say and what they do."\(^10\)

The Hughes report declares that the separation of the nurse from the patient results in a dilemma for the nurse, which frequently causes guilt feelings. However, it was not unusual to observe the nurse supposedly desirous of the bedside patient relationship; but, when the opportunity exists for the fulfillment of such a role, she makes little or no effort to do so.\(^11\)

In an article by Benne and Bennis\(^12\) relative to role confusion in nursing, four prevalent expectations that


\(^10\)Ibid., p. 75.

\(^11\)Hughes, Hughes, and Deutcher, p. 152.

\(^12\)Benne and Bennis, "The Role of the Professional Nurse," p. 196.
determine the character of the nurse's role are listed. They are (1) official expectations, (2) the expectations of colleagues, (3) reference groups outside the nurse's work area, and (4) the nurse's own self-image of what she should do. The authors also state that "When these expectations reinforce each other and are consistent, the role definition is stable. Motivation and job satisfaction are high and—other things being equal—high work productivity results."¹³

The nurse's image of what she regards as the most important of her functions has received considerable attention in several articles and studies. Sledge and Rohrer¹⁴ report a strong emphasis by nursing personnel on the importance of patient care. The image of patient care generally connotes bedside care. Strauss¹⁵ says that the image of the nurse at the bedside continues despite the increasing number of nurses involved in teaching and administration. He says that when nurses are involved in teaching and administration, there exists the need to justify their functions in terms of the benefit to the patients.¹⁶ He recommends that "The occupation should take steps toward more open recognition of its dual functions (bedside nursing and administration)."¹⁷

¹³Ibid.
¹⁴Sledge and Rohrer, p. 108.
¹⁵Strauss, p. 85.
¹⁶Ibid., p. 96.
¹⁷Ibid., p. 107.
Sledge and Rohrer\textsuperscript{18} demonstrate the confusion and conflict of nursing perceptions and nursing roles. They note two major themes germane to the nurse's role and service tasks: supervisory functions and the performance of technical duties. The frequency of performed daily tasks indicated that charting, administering medications, and post-operative nursing care are the most frequently performed duties. When the nurses were questioned about the attainment of job satisfaction, the majority replied that giving bedside care was the most satisfying. The authors note, however, that "When it comes down to actual performance as evaluated in all the measuring instruments used, there was a conspicuous absence of any reference to bedside care."\textsuperscript{19}

Reissman and Rohrer illustrated the discrepancy between what nurses desire and what they actually do. They state,

On the basis of a close check of actual activity, such statements are based more on a repetition of professional dogma than on a realistic appraisal of the facts. On medical wards, the nursing staff had a proportionately greater amount of time in which to give bedside care, yet actually performed less care functions than did the staff in surgical wards during the same time interval.\textsuperscript{20}

The Hughes report included findings of studies performed in various sections of the country undertaken to ascertain

\textsuperscript{18} Sledge and Rohrer, pp. 88-89.
\textsuperscript{19} Ibid., p. 90.
\textsuperscript{20} Reissman and Rohrer, p. 12.
the task functions of nursing levels within hospitals. They found the complexities and disagreements encountered to be numerous, which may explain the partial difficulty of being precise in stating just what the proper nursing functions and division of nursing duties are. They point out that

In the thousands of details in these surveys, some general trends and conditions are discernible. In the first place they show unanimously that bedside care is no longer the principal occupation of the professional nurse, and the higher the nurse rises in the hospital hierarchy—if she becomes a director of nursing service or a head nurse, for example—the less does she see the patient.

The changes in modern nursing as the result of scientific technology and social advancement have not been without their effect on nursing roles and functions. Corwin elaborates on the effects of the bureaucratized hospital environment, whereby the nurse has become subordinate to, in large measure, the administrative routines regulated by central offices. The administration not only regulates the routines and policies but hires, evaluates, and determines the sources for rewarding work by means of promotion and tenure. The conflict that results within the nurse is that while she is supposed to want patient contact, she is rewarded for the performance of skills which do not involve patient contact.

21 Hughes, Hughes, and Deutcher, pp. 124-131.
22 Ibid., p. 131.
Saunders considers several factors he believes worthy of consideration in order to shed some light on assessing the role and functions of nurses. First, nursing is a highly diversified occupation in which individuals perform a multitude of tasks in such a wide range of situations that it is frequently difficult to observe a commonality. Second, nursing is an occupation that has a somewhat ambiguous status. Third, nursing is somewhat isolated, especially in regard to having much contact with other occupational groups. Fourth, nursing, as an occupation, is generally conservative insofar as change is concerned. Fifth, nursing is organized, which Saunders recognizes as a highly important characteristic.

He regards the characteristic of organization as nursing's bureaucratic system, and although he admits the efficiency of getting things done in a bureaucratic organization, he likewise points out a major disadvantage, namely the fostering of dissatisfactions and the lack of acceptance of individuality.

In view of Saunders' reference to the conservatism of nursing, Pellegrino demonstrated the conservative nature of nursing when considering change by saying, "One of the first

24Saunders, pp. 1094-1096.
difficulties we met . . . was the resistance of nurses themselves to take up new and expanded roles. . . ."

The Hughes report summarizes the essential role of the professional nurse as being an organizer, teacher, and administrator, while the practical nurse tends to the bedside care of the patients. The authors are explicit in stating that an underlying difficulty of nursing rests with the variety of roles of the nurse in the hospital, as well as the fact that all position titles contain the word nurse. Another aspect, which adds to the difficulty, is the fact that all nurses begin with an education whereby the "touch tasks" are emphasized as if all were going to have identical functions. They say that the term "nursing" has become a "catch-all" for a multitude of occupations, including administration and teaching, in which the advancement to such positions of necessity leads away from the care of the sick. They conclude that the result has been one of chaos and frustration and in reality may be regarded "as the struggle of some occupations to take form and split off from what has always been regarded as a single career."  


26 Hughes, Hughes, and Deutcher, p. 135.

27 Ibid., pp. 230-231.
The review of the literature as related to nursing roles demonstrates that the profession of nursing has been and continues to be in a state of change. These changes in nursing have resulted in the establishment of new and different functions for the professional nurse, which have placed the nurse in a new and somewhat different role. Several authors indicate the conflict and confusion presently seen in nursing is generally associated with the difference between what nurses think they should do and what they actually do.

Nursing Attitudes

Forer\textsuperscript{28} discusses several personality factors affecting occupational choice. He believes that the selection of a vocation is the culmination of an individual's psychological development. Employing the psychoanalytic criteria, he regards vocational choice as primarily motivated by unconscious forces. He considers the economic purposive nature of job selection to be of secondary importance. Essentially, he regards occupational choice as an outlet for and fulfillment of personal and psychological needs.

Hoppock\textsuperscript{29} presents an eclectic viewpoint and outlines a more encompassing structure of vocational choice as follows:

1. Occupations are chosen to meet needs.
2. The occupation that we choose is the one that we believe will best meet the needs that concern us.
3. Needs may be intellectually perceived or they may be only vaguely felt as attractions which draw us in certain directions. In either case, they may influence choices.
4. Vocational development begins when we first become aware that an occupation can help to meet our needs.
5. Vocational development progresses and occupational choice improves as we become better able to anticipate how well a prospective occupation will meet our needs. Our capacity thus to anticipate depends upon our knowledge of ourselves, our knowledge of occupations, and our ability to think clearly.
6. Information about ourselves affects occupational choice by helping us to recognize what we want and by helping us to anticipate whether or not we will be successful in collecting what the contemplated occupation offers to us.
7. Information about occupations affects occupational choice by helping us to discover the occupations that may meet our needs and by helping us to anticipate how well satisfied we may hope to be in one occupation as compared with another.
8. Job satisfaction depends upon the extent to which the job that we hold meets the needs that we feel it should meet. The degree of satisfaction is determined by the ratio between what we have and what we want.
9. Satisfaction can result from a job which meets our needs today or from a job which promises to meet them in the future.

10. Occupational choice is always subject to change when we believe that a change will better meet our needs.\(^{30}\)

Sarbin and Hardyck\(^{31}\) did a study of conformance as a personality variable of role perception. They defined conformance as the response of a large proportion of a subculture or group as applied to overt behavior. Their findings confirm that the accuracy of an individual's role perceptions bear a positive relationship to functional adaptation in the social world.

A study was conducted by Davis\(^ {32}\) to ascertain the difference in the self-concept and occupational role expectations of 100 women students who had selected nursing and social work. She found the nursing student self-concept best described as dependable, capable, and conscientious, with a tendency to be submissive and sustain subordinate roles. Their perception of the nursing role was one calling for an industrious, dependable, and methodical person possessing an ability to submit and maintain subordinate roles while being considerate, cooperative, adaptable, and conventional.

\(^{30}\)Ibid.


Beaver examined the personality attributes of eighty-six student nurses at Knapp College of Nursing at Santa Barbara and an equal number of education majors at the University of California, Santa Barbara College. Using the Minnesota Multiphasic Personality Inventory, she identified sixty-six items that differentiated the two groups. Four major categories were identified as describing personality characteristics of the student nurse as contrasted with the education majors. The first category consisted of ten items related to the Social-Sexual Factor. This factor signified a preference for masculine activities and a preference for association with her own sex. The second category included twelve items expressing displeasure with dirty stories, sexy shows, and gossip. This factor exemplifies a duty to a life goal that inspires and motivates the nurse. The third category consisted of eleven items that indicated a lack of concern about her own health and the absence of hypochondriacal symptoms. The fourth category consisted of twenty items related to Freedom from Neuroticism, which was indicative of emotional stability. Anxiety and tension were found to be lacking, home life was considered pleasant, and the nurses made no claim to personal importance. Beaver also presents evidence to support the emotional stability of student nurses.

Costello,\textsuperscript{34} in an article concerned with attitudes of nurses, describes many factors relevant to personality traits of nurses and nurses' perceptions of their role. He was interested in the 1960 report of the Canadian Nurses Association, which stated that one fifth of all withdrawals from nursing schools were attributable to a dislike for nursing. He regards the same dislike of nursing to be an important factor in withdrawal from nursing after graduation. Costello believes there exists a conflict between what the nurse expects to find in practice and what she actually does find. He reported that the more intelligent students were prone to boredom as a result of repetitive task functions and hence developed negative attitudes toward nursing. Implicit in his article is the possibility of emerging negative attitudes that result in decreased job satisfaction. He believes this factor is probably more important in nursing than in most other professions. He states that personality aspects of the nurse have much influence on the nurse's response to the practice of nursing. In the article, Costello reports several studies of personality traits of nurses which generally indicated that nurses have a need for deference, order, conformity, and submissiveness. In contrast, they have less need for dominance, autonomy, and independence.\textsuperscript{35}

\textsuperscript{34}C. G. Costello, "Attitudes of Nurses to Nursing," \textit{The Canadian Nurse}, LXIII (June, 1967), 42-44.

\textsuperscript{35}For a rebuttal to the Costello article see E. Kemp and J. Peitchinis, "Nurses' Attitudes: Fact or Fallacy," \textit{The Canadian Nurse}, LXIV (February, 1968), 51-54.
Devereaux and Weiner discuss factors of a psychological nature pertinent to the status of nurses. They present the historical development of the nurses' social position with particular emphasis given to the affective domain of nursing care as it relates to nurse-patient relationship. They consider this feature of nursing to be an important task of nursing education, whereby the nurse must be liberated to dispense affection, "which means that the effective nurse must be an emotionally mature person." 

Vaughan conducted an investigation of the attitudes of nursing students to ascertain the effectiveness of the nurse-patient relationship. She reports the often-expressed desire on the part of nurses for more patient contact, yet the tendency of nurses to avoid opportunities for more nurse-patient interaction was evident. In her study, she sought to determine the attitudes of student nurses toward direct patient care. She found no significant difference, in attitudes toward direct patient care, between diploma and degree program student nurses. Further, she found that the

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37 Ibid., p. 634.


39 Ibid., p. 117.
collegiate senior students tended to have more favorable attitudes toward direct patient care than the diploma senior students, although collegiate sophomore students showed slightly more favorable attitudes than collegiate senior students.

Lentz and Michaels report that medical nurses were more concerned with the psychological aspects of patient care, while the surgical nurse demonstrated a greater desire for technical proficiency.

Abdellah, in an article describing aspects of nursing care and nurse-patient relationships, reports that nurses spend most of their time on functions away from the patient and that a nurse spends an average of eighteen minutes with each patient every eight hours. She reports findings indicating the need for the nurse to have a comprehensive and personal understanding of the patient's problem, which she says transcends the mere attention of meeting the immediate physical needs of the patient. She states that, in view of the fact that nurses say they want and desire patient contact, the attitude continues to be one whereby nursing care consists of caring for a patient with a diagnosis and of

40 Ibid., p. 128.  
41 Ibid., p. 129.  
42 Edith M. Lentz and Robert G. Michaels, "Comparisons Between Medical and Surgical Nursing," Nursing Research, VIII (Fall, 1959), 196.  
administering medications and treatments. She says there exists the need for attitudinal changes to "prepare nurses to assume a supportive and counseling role in the care of their patients."\(^44\)

In an effort to ascertain the attitudes of nurses toward their profession and organization, the American Nurses Association conducted a random sample survey of subscribers to the *American Journal of Nursing*.\(^45\) In the survey 7,500 subscribers were sampled, and there was a 40 percent return of the questionnaires. The respondents consisted of 87 percent registered nurses, 12 percent students, and 1 percent graduate nurses who were not yet registered.

In an attempt to gain some insight into the attitudes of nurses toward the nursing profession, the questionnaire sought responses to items pertinent to nurses' roles and values. When asked about the qualities necessary to succeed in nursing, 46 percent of the respondents indicated "intelligence, creativity, and imagination." Thirty-five percent selected "interest in helping people," while 18 percent answered "ability to follow instructions and dependability."\(^46\)

One fifth of the supervisors, head nurses, and staff nurses rated the ability to follow orders most highly. It

\(^{44}\)Ibid., p. 275.
\(^{45}\)"Nurses, Nursing, and the ANA," pp. 808-815.
\(^{46}\)Ibid., p. 810.
is of interest to note that head nurses were the only group to rate humanitarianism as being more important than intelligence. The value of humanitarianism was rated somewhat differently by student nurses than by registered nurses. Forty-seven percent of the students and 35 percent of the registered nurses valued humanitarianism over intelligence. 47

In reference to the attitudes of nurses to the nursing profession and its values, 90 percent of the respondents felt that direct patient care lacked the prestige that it should have. Ninety percent did not think that doctors and nurses shared the same concept of the nurse's role, while another 91 percent did not see their jobs threatened by the increase in the number of other health workers. 48

Habenstein and Christ 49 conducted a study of nurses and reported different types of role conceptions which nurses have toward their work. The study indicated a general lack of consensus among nurses in regard to the nurse's role. The types described by the authors include descriptions that reflect attitudes of nurses, which they categorized as "professionalizer," "traditionalizer," and "utilizer."

The professionalizer is not so much motivated by dedication or ideal, but rather is concerned with the application

47 ibid.  
48 Ibid., p. 811.  
of knowledge and intelligence to her experiences. She is characterized as one who is impersonal with patients and is concerned with administrative and supervisory duties. The traditionalizer is preoccupied with the ideal as personified by Florence Nightingale. She is motivated by a sense of dedication and is less concerned with knowledge. The basis of her behavior lies in the wisdom of accumulated experience. The focus of her attention is the patient. The utilizer has no particular dedication to any ideal, but is simply performing a job. She works by the clock, has an attitude of indifference, and is concerned only with the performance of the task assigned.

In a study by Reissman and Rohrer, a typology of nurses is reported and listed as "dedicated," "converted," "disenchanted," and "migrant." The dedicated nurse enters hospital work because of positive reasons and desires to remain in that type of work. The converted person enters hospital work for negative reasons, but has come to like the work and desires to continue in it. The disenchanted nurse enters for positive reasons, but has developed a negative attitude and wishes to leave it. The migrant nurse enters hospital work for negative reasons and does not desire to remain in it.

50 Ibid., p. 41.  
51 Ibid., p. 42.  
52 Ibid.  
53 Reissman and Rohrer, p. 170.
There are many factors and variables that affect nurses' attitudes and ultimately influence, to some degree, job satisfaction. The findings of the National Commission of Nursing substantiate the effect of conflict on attitudes toward nursing roles and the need for congruence in the nurse's functions. Admittedly, the changing of one's behavior pattern is often threatening and sometimes painful because of the difficulty in accepting new roles.

Job Satisfaction

Friedlander conducted a study to examine underlying sources of job satisfaction. He used a questionnaire administered to 10,000 engineering, supervisory, and salaried employees of a large manufacturing company. Analysis of the data identified three factors: (1) social and technical environment, (2) intrinsic self-actualizing work aspects, and (3) recognition through advancement. The findings indicated a significant relationship between sources of job satisfaction and the age, salary, and position categories. The younger age groups showed a concern with meaningful duties which utilized their best abilities, thus giving the feeling of achievement. An F test among the three means for the measures of overall job satisfaction indicated no

54 National Commission for the Study of Nursing and Nursing Education, pp. 87-88.

significant differences. Both intrinsic and extrinsic factors were found as sources of job satisfaction since no single factor of the three-factor groups had greater overall job satisfaction.

A study by Kuhlen sampled 108 men and 95 women teachers to ascertain the relationship between perceived needs and job satisfaction. The Edwards Personal Preference Schedule, a special rating scale, and a questionnaire were administered for the purpose of testing the hypothesis that "those individuals whose measured needs are relatively stronger than the potential of the occupation for satisfying those needs . . . will tend to be frustrated and hence to be less well satisfied with their occupation." The obtained correlations for men and women were .25 and .02, respectively and the findings were interpreted as supporting the hypothesis, for men, but not for women, that satisfaction with work is a function of the degree to which an individual's needs can be satisfied in an occupation. However, the findings did show that women who were dissatisfied had the highest achievement needs, while those most satisfied in their work perceived the job as potentially satisfying to the high achievement needs.

57 Ibid., p. 56.
58 Ibid., pp. 62-63.
Robinson, Connors, and Robinson report findings which demonstrate a significant relationship between satisfaction needs and the degree of job satisfaction. They report that job satisfaction is greater for those whose needs satisfaction are met in the job situation.

Pearlin conducted a study to examine structural properties related to the alienation of the nursing force from its work. Essentially, the study was concerned with the authority and opportunity structure as it related to job satisfaction. He defines alienation as "a feeling of powerlessness over one's own affairs--a sense that the things that importantly affect one's activities and work are outside his control." Pearlin's study was conducted at Saint Elizabeth's Hospital, a 7500-bed federal hospital in Washington, D.C. Questionnaires were sent to all nursing personnel below the level of nursing supervisor and to the individuals in charge of the 156 wards. Questionnaires returned included 1138 out of 1315 sent to nursing personnel and 152 out of 156 sent to those individuals in charge of the wards. The findings reveal that alienation was intensified under


\[61\] Ibid., pp. 315-316.
conditions that minimize interaction between superordinates and subordinates, and when there was a great disparity between positions. Second, the reality was recognized that there were fewer high positions available than there were aspirants for them; consequently, alienation was seen to a great degree among the low achievers, whereas alienation was remarkably low among the high or successful achievers. When the low achievers were satisfied with pay, promotion, and social mobility, much of the alienation was dissipated. Conversely, when the high achievers were dissatisfied with these rewards, alienation was intensified.62

Nahm63 states that much of the ability and success necessary to render the best of nursing service is dependent not only on essential knowledge, "but also upon the interest in the work and satisfaction derived from it."64 She conducted a study of 100 private duty nurses, 100 institutional nurses, and 75 public health nurses in Minnesota to measure the extent of satisfaction or dissatisfaction, and to determine whether or not there was "a relationship between nursing school and job satisfaction, and between both nursing school and job satisfaction and attitude toward nursing as an occupation."65 The findings indicated that 98 percent of the

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63Helen Nahm, "Job Satisfaction in Nursing," American Journal of Nursing, XL (December, 1940), 1389-1392.
64Ibid., p. 1389. 65Ibid., p. 1390.
nurses had a satisfactory attitude toward nursing and 78 percent liked their jobs. Twenty-one percent were indifferent to their jobs. The majority had entered nursing believing they would obtain satisfaction out of the work. Fifty-four percent entered nursing with little knowledge of the work and 35 percent entered because of the desire to serve humanity. Nahm estimated, on the basis of the study, that 60 percent of the nurses were highly satisfied in their jobs, 20 percent were dissatisfied, while another 20 percent were neither satisfied nor dissatisfied. 66

Mayro and Lasky, 67 in their investigation of nurses' attitudes and job satisfaction, found four major areas of concern to the nurses affecting positive aspects of the work conditions. The factors included (1) interpersonal relationships, (2) working conditions, (3) professional role, and (4) job benefits. Areas of dislike included (1) floating, (2) interpersonal tension, (3) assignments, and (4) personnel policies. Frustration and low morale resulted when personnel policies were vague and inconsistent and especially when communications with the authority was regarded as inadequate.

66 Ibid., pp. 1390-1392.

Gross and Brown conducted a study to determine the differences in psychological needs and personality traits between registered nurses and practical nurses as they related to job satisfaction. They administered the Edwards Personal Preference Schedule and the Survey of Interpersonal Values to twenty-five registered nurses and twenty-five licensed practical nurses in a general hospital in Florida. Their findings demonstrate a contrast between the registered nurses and the general female population. The registered nurses are assertive, desire accomplishment and recognition of their knowledge and authority, and enjoy leadership and direction over others. The data indicate that the registered nurses possess a capacity for empathy, but they are not generous or sympathetic. The licensed practical nurses differed from the general female population in expressing a greater need for achievement and deference, and expressed a lesser need for autonomy, affiliation, and nurturance.

Gross and Brown contend that insight and understanding, by the administrative authority, of the personality need factors of nurses and its influence and effect on job satisfaction could enhance and improve nursing care. They conclude that the needs and values of the registered nurse

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69 Ibid., pp. 79-80.
favor the role of supervisor rather than the commitment to the routine aspects of patient care. They infer from the data that the licensed practical nurses are not so much concerned with recognition and status, but rather accept and appreciate structure and controls.\textsuperscript{70}

Corwin\textsuperscript{71} investigated 169 staff nurses and 67 junior and senior student nurses, all with a diploma or degree training, to ascertain the various role conceptions and the role frustration experienced by different nurses with different training backgrounds and in different stages of their careers. He found that degree students developed relatively less bureaucratic role conceptions than did diploma students, due, in part, to their difference in training and nursing orientation. Degree students were less certain of the nursing role conceptions than diploma students, perhaps because the degree students receive the classroom teaching and the on-the-job supervision from different personnel.

Corwin states that the professional self-concepts of degree nurses are increasingly threatened by the bureaucratic role. Thus, degree students and degree nurses have a low identification with the hospital, while maintaining a high professional identity, which often results in conflict and frustration in their level of job satisfaction. The diploma nurses whose training programs are subordinate to

\textsuperscript{70}Ibid., pp. 82, 87. \textsuperscript{71}Corwin, pp. 69–86.
the hospital administration develop a high level of identification to the hospital, with a similar role concept. This absence of role conflict enhances the level of job satisfaction. 72

Kramer 73 reports similar findings in a study conducted to examine career patterns, functional characteristics, and types of adjustments in role conceptions to bureaucratic employment of baccalaureate graduate nurses. She employed interviews and administered an attitude questionnaire to 220 nurses in 37 medical centers in the United States. Each of the participating centers selected six nurses according to the following criteria: (1) two nurses considered very successful, (2) two nurses considered average in success, and (3) two nurses considered less successful than average. By means of an ex post facto research design, three subgroups were formed: 74 nurses as "highly successful," 74 nurses as "average successful," and 72 nurses as "less successful." 74

Kramer's findings indicate that the nurses rated as highly successful had greater loyalty to the bureaucratic organization than their less successful counterparts. The data reveal that the highly successful group also maintained a high professional concept, but the less successful nurses also maintained a high professional role concept. Kramer

72Ibid., pp. 82-83. 73Kramer, pp. 428-439. 74Ibid., pp. 431-432.
suggests the probability that the less successful nurses drop their loyalty to the bureaucratic organization in favor of retaining their high professional role concepts. Thus, both the highly successful and less successful nurses had a significantly higher professional role conception than did the average successful nurses. She emphasizes the need for administrative personnel to recognize the importance and relevance of the combination of professional and bureaucratic role conceptions. The conflict and frustrations that often develop from these conceptions frequently discourage work interest and creativity, and ultimately affect the level of job satisfaction.  

The National Commission on Nursing reports that, in comparison to all other baccalaureate female graduates, the baccalaureate degree nurses show a lower percentage of career participation at almost all points across a time line. The commission says that nurses will probably be most satisfied when they are permitted to engage in practice, when recognition and responsibility is rendered for what they do, and when more independence and latitude of judgment is permitted. Thus, new forms of recognition and compensation are needed for nurses.

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75Ibid., pp. 434-438.

76National Commission for the Study of Nursing and Nursing Education, pp. 90-91.
Many factors related to job satisfaction are reported in the numerous studies of the Hughes report. Nursing personnel working in small hospitals, generally 100 beds or less, experience a sense of being part of a team and thus develop a "we feeling." Conversely, surgical nurses have a tendency to become frustrated and unhappy with the boredom and routine "small" surgical operations frequently performed in the small hospitals, and consequently, they usually migrate to the larger metropolitan medical complexes in order to maintain proficiency as nursing specialists. Another factor affecting the satisfaction of the operating room nurse is that she "always has the support and the guidance of the surgeon and this freedom from responsibility is said to be one of the attractions of her job: 'operating room nursing is nursing without responsibility.'"

The general duty nurse is frequently burdened with a great deal of work. She has the responsibility of caring for a wide diversity of type patients and oftentimes too many to care for. The authors state that it is not unusual to find the general duty nurse unhappy with this burden of responsibility, as evidenced by the data of the Arkansas study, where 80 percent of the general duty nurses said that

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77 Hughes, Hughes, and Deutcher, p. 75.
78 Ibid., p. 76.
79 Ibid., p. 78.
80 Ibid., p. 79.
they would not care to be promoted to a supervisory position because of the increased responsibilities. 81

The authors report on the many studies which reveal that the job satisfactions of nurses are rather general and diffuse, although complaints and frustrations are somewhat more detailed. Common frustrations expressed were dissatisfaction with salary, the lack of opportunities for advancement, the schedule of working hours, and the distribution of duties. Numerous studies reported in the text reveal the grievance of too much desk work performed by professional nurses. 82

Reissman and Rohrer 83 report similar findings concerned with job satisfaction. They state, "the major source of dissatisfaction stemmed from specific complaints in the work situation. 'Low wages and/or long hours,' 'the shortage of nurses,' and 'overwork' are the most frequently encountered responses." 84 They state that all of the nursing personnel except head nurses indicated that the care of the patients was the most satisfying part of their work. Head nurses seemed to derive their greatest satisfaction from the administration or teaching within their nursing units. The responses given to inquiries about job satisfaction of nursing

81 Ibid., p. 93. 82 Ibid., pp. 218-220.
83 Reissman and Rohrer, p. 75.
84 Ibid.
personnel were simple or generalized statements, although some of the nurses expressed intense positive feeling that resulted from the nursing care given to patients.\(^{85}\) Bullock reports similar findings in his study.\(^{86}\)

The typology of nurses, used by Reissman and Rohrer,\(^{87}\) reveal that all types of nurses listed patient care as the primary source of job satisfaction. The dedicated nurse rated patient care as the single most important aspect and all other reasons were inconsequential. The converted nurse received the greatest satisfaction in rendering service to others, although that was not perceived or considered important when the job was first undertaken. Patient care was of lesser concern to the disenchanted and to the migrant individuals. The dedicated nurse reported nothing as being unsatisfactory, while the converted person directed her dissatisfaction on herself. Both the dedicated and the converted nurse shared a sense of devotion to the hospital. The disenchanted individual directed her major complaints against other personnel, whereas the migrant person found dissatisfaction with everything.

\(^{85}\)Ibid., pp. 152-153.

\(^{86}\)Robert P. Bullock, "Position, Function, and Job Satisfaction of Nurses in the Social System of a Modern Hospital," Nursing Research, II (June, 1953), 11.

\(^{87}\)Reissman and Rohrer, pp. 171-174.
Habenstein and Christ\(^88\) identified various factors of job satisfaction reflective of the typology they described. The professionalizer believes her knowledge of the clinical context of the situation serves the patient to a greater extent than an approach to the patient as a whole person. The clinical problem becomes more important than the patient. The traditionalizer is not bothered to a great degree by the functions of dirty-work tasks, and continues to be concerned with the touch aspects of nursing care often referred to as "tender, loving care." She is regarded as "the conscience of the whole system of hospital nursing care."\(^89\)

In summation of the findings pertinent to job satisfaction of the typology of nurses, the authors state,

\[\ldots\] the Traditionalizer, with a keen awareness of the source of her satisfactions learns that "tender loving care" has its own rewards. The "case" oriented Professionalizer thrills to an awareness of a job well done, in a technical sense, in a "mission accomplished" kind of perception. The Utilizer displays a more sanguine response. For her it's "another day, another dollar."\(^90\)

In an essay by Davis, Olesen, and Whittaker,\(^91\) dealing with problems of collegiate nursing education, several

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\(^88\)Habenstein and Christ, pp. 78-79.
\(^89\)Ibid., p. 79.
\(^90\)Ibid., pp. 89-90.
elements related to job satisfaction are presented. The authors found a progressive disenchantment, on the part of the students, with hospital nursing. Many of the students' dissatisfactions were centered about the depersonalization of the patient and the obsessive concern with technical procedures.

Zaleznic, Christensen, and Roethlisberger,\textsuperscript{92} in their study of job satisfaction in industry, report that high satisfaction is related to regular group membership and that low job satisfaction is related to non-group membership. They suggest the possibility that without membership in a group, the job cannot generally become a compensating factor in determining overall job satisfaction. The authors conclude that an individual's job satisfaction varies with his rewards and benefits from management as well as to his participation in the group. Their data reveal that

1. Where an individual is rewarded both by management and the group, he will be satisfied.
2. Where an individual is rewarded by management but not by the group, he will be dissatisfied.
3. Where an individual is not rewarded by management but is rewarded by the group, he will be somewhat dissatisfied.
4. Where an individual is rewarded neither by management nor the group, he will be the most dissatisfied.\textsuperscript{93}


\textsuperscript{93}Ibid., p. 438.
In this regard, Taves, Corwin, and Haas\textsuperscript{94} have placed great emphasis and importance on the relationship of personal satisfaction to the success and effectiveness of the organized hospital. However, it is their suggestion that perhaps some dissatisfaction may be a requirement for flexibility and innovation essential for long-term success of the organization. It seems to be precisely this flexibility and innovation that is necessary to bring about the required adjustment to the many changes current in nursing today. Nahm says it well when she states,

Nursing has realities to face: new concepts of health care, its own history, its own nostalgia and that of associated professions, its own education. Only if these are faced can nursing develop in all its dimensions and release the creative possibilities of all its practitioners.\textsuperscript{95}

In summary, the review of the literature reveals the changing roles and functions of the professional nurse, as well as many factors affecting nurses' attitudes, that influence, to some degree, job satisfaction. Through the review, it was concluded that many variables affect the level of job satisfaction, notably educational training, position, experience, personal needs, group interpersonal relations, work rewards, individual attitudes, and nursing role expectations.

\textsuperscript{94}Taves, Corwin, and Haas, p. 74.

\textsuperscript{95}Nahm, "Nursing Dimensions and Realities," p. 19.
CHAPTER III

PROCEDURES

The problem of this study was to ascertain the image of nursing and job satisfaction of nurses in the United States Air Force. A "Personal Data Questionnaire" was used for the specific purpose of gathering pertinent information about each respondent (see Appendix B). The two instruments used for obtaining and interpreting the data were the Image of Nursing Questionnaire (see Appendix C and E) and the Bullock Job Satisfaction Scale (see Appendix D). Permission for the use of the two instruments in this study was requested from the publisher (see Appendix F). The request to use the two instruments was granted by the publisher and the authors (see Appendix G).

Instruments

The 800 female nurses and the 75 male nurses in the sample were requested to respond with the pertinent information to the nine items on the "Personal Data Questionnaire." The classification of these data included

(1) highest level of education achieved,
(2) number of years of graduate nursing experience,
(3) number of years in the Air Force Nurse Corps,
(4) specialty work area in nursing,
(5) rank status in the Air Force, and
(6) number of beds in hospital.

This information was used to analyze the relationship of variables that could affect an individual's current image of nursing and the level of job satisfaction.

The Image of Nursing Questionnaire was devised by Taves, Corwin, and Haas and was published in Role Conception and Vocational Success and Satisfaction (Ohio State University Bureau of Business Research Monograph No. 112). The instrument consists of thirty-six items, of which twenty-one are significant in their intent to elicit the degree to which nursing is seen as a desirable and rewarding occupation. Therefore, the instrument was used for the purpose of determining the relationship of the image of nursing to job satisfaction.

The respondees were asked to indicate how they felt about each statement in the Image of Nursing Questionnaire by underlining the appropriate response to each item. The choice of responses included "strongly agree," "agree," "undecided," "disagree," and "strongly disagree." The scoring of the instrument was performed by the employment of a five-point scale. Five points were awarded for the most positive or favorable response to each statement, and one point was given for the least favorable response. The sum of the scored item responses was the raw score for the
respondent. The highest possible raw score was 105, while the lowest possible raw score was 21.

The instrument was originally devised in a study by Haas, Taves, and Shaw to determine the influence of family and friends on prospective aspirants to the selection of nursing as an occupation. They hypothesized that "the image of the profession held by a particular person might be more or less favorable depending on the content of that image." ¹ They continue:

It was assumed on a priori grounds that the girls who had selected nursing as their own future vocation would have, on the whole, a more favorable view of the nursing profession than would girls who had selected some other occupation in preference to nursing.²

In their study of 390 girls who had selected nursing and 403 girls who had chosen some other occupation, it was shown that there was a significant difference (at the .05 level) for 21 of the 36 items. "A 'double-cross' validity check affirmed the ability of the scale score as a whole to discriminate between the two 'known groups.'"³

Taves, Corwin, and Haas⁴ employed the instrument in another study and found a positive relationship (r = .33) between the favorableness of the image of nursing and the

² Ibid., p. 90.
³ Ibid.
⁴ Taves, Corwin, and Haas, pp. 53-54.
expressed job satisfaction. They further conclude in their study that "the official position held in the hospital influences the relationship, supervisory personnel deriving satisfaction from hospital authority rather than professional prestige."^5

In order to ascertain the image of nursing of the male nurses, who comprise approximately 10 percent of the United States Air Force Nurse Corps, a revised Image of Nursing Questionnaire was constructed (see Appendix E). The Image of Nursing Questionnaire for the male nurses includes all the items of the original instrument, with the various changes undertaken for the purpose of appropriateness to the male gender.

The Bullock Job Satisfaction Scale was used to measure the way an individual feels about the work performed. The scale was devised by Robert Bullock and Ronald G. Corwin, and originally was published in Social Factors Related to Job Satisfaction (Ohio State University Bureau of Business Research Monograph No. 70). The instrument is a criterion measure used for the separation of extreme groups in which mean scores may be derived to determine if a significant difference exists indicating job satisfaction vis-à-vis dissatisfaction.

^5Ibid.
The respondees were asked to select one of five responses to ten statements in the Bullock Job Satisfaction Scale that would indicate how they felt about the work they do. The scoring of the instrument was accomplished by the use of a five-point scale. Five points were given for the most favorable response to each question and one point was given for the least favorable responses. The sum of the scored item responses was the raw score for an individual. The highest possible raw score was fifty, while the lowest possible raw score was ten.

The Pearson product-moment correlation coefficient between test-retest scores for this instrument was .94. One split-half sample application demonstrated a correlation coefficient of .93, which was uncorrected for attenuation. Two other split-half reliability coefficients were determined, one from an ex-employee group and another from an employee group. The ex-employee test-retest reliability yielded a coefficient of .82, and when corrected for attenuation by the Spearman-Brown formula was .90. The employee group split-half reliability was .81 and when corrected for attenuation was .90.  

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Collection of the Data

A random sample of 800 female and 75 male nurses, stationed at Air Force bases located in the continental limits of the United States was selected by computer at the Human Resources Laboratory, located at Lackland Air Force Base in San Antonio, Texas.

A "Personal Data Questionnaire" and the two instruments, Image of Nursing Questionnaire and the Bullock Job Satisfaction Scale, were sent by mail to each nurse in the sample. A cover letter was included to explain the purposes of the study (see Appendix A). Each individual was requested to complete the enclosed forms and to return them in the enclosed stamped envelope within twenty-one days. A follow-up letter along with the personal data sheet, the two instruments, and a self-addressed, stamped envelope were sent to all non-respondents thirty days after the first mailing to renew the appeal for them to participate in the study (see Appendix J).

Treatment of the Data

The statistical analysis of the respondents' raw scores for the two instruments was accomplished by the use of a two-by-two factorial analysis of the variance, based on educational training and the length of time in the Air Force. This statistical design consisted of two rows and two columns. The row data represented the two types of educational training and the data represented in the columns were for the two
variables of length of time in the Air Force. Row I con-
tained the diploma graduate nurse figures and Row II con-
tained the collegiate graduate nurse data. Column I con-
tained the data for nurses in the first two-year tour of
duty and Column II contained the data of the nurses serving
beyond the initial two-year tour of duty in the Air Force.

The Pearson product-moment correlation coefficients
between the raw scores of the two instruments were also com-
puted for the following female and male nurse groups:

1. diploma graduate nurses,
2. collegiate graduate nurses,
3. nurses serving on the first two-year tour of duty
in the Air Force Nurse Corps,
4. nurses serving beyond the first two-year tour of
duty in the Air Force Nurse Corps,
5. nurses with only a diploma in nursing,
6. nurses with a bachelor's degree,
7. nurses with a master's degree,
8. nurses with less than five years of nursing experi-
ence,
9. nurses with five years, but less than ten years, of
nursing experience,
10. nurses with ten, but less than twenty, years of
nursing experience,
11. nurses with over twenty years of nursing experience,
12. nurses with less than two years of nursing experience in the Air Force Nurse Corps,

13. nurses with two years, but less than five years, of nursing experience in the Air Force Nurse Corps,

14. nurses with five years, but less than ten years, of nursing experience in the Air Force Nurse Corps,

15. nurses with ten years, but less than twenty years, of nursing experience in the Air Force Nurse Corps,

16. nurses with over twenty years of nursing experience in the Air Force Nurse Corps,

17. lieutenants,

18. captains,

19. majors,

20. colonels,

21. administrators,

22. psychiatric nurses,

23. operating room nurses,

24. anesthetists,

25. general duty nurses,

26. flight nurses,

27. nurses not assigned to hospitals,

28. nurses working in hospitals with less than 50 beds,

29. nurses working in hospitals with 50, but less than 100, bed capacity,

30. nurses working in hospitals with 100, but less than 300, bed capacity,
31. nurses working in hospitals with over a 300-bed capacity.

The Pearson product-moment correlation coefficients between the raw scores of the two instruments were also computed for

(1) all the female nurses in the study,
(2) all the male nurses in the study,
(3) all the female and male nurses in the study.

The decision on the level of significance for the two-by-two factorial analysis of the variance as well as for the Pearson product-moment correlation coefficients, was arbitrarily set at the .05 level. All critical ratios were rounded to two decimal places.

The statistical data of the two by two factorial analysis of the variance for the two instruments—Image of Nursing Questionnaire and the Bullock Job Satisfaction Scale—are presented in tabular form. Significant interaction required further statistical testing, which was accomplished by the test of simple effects for columns separately for each row in the table and for rows separately for each column in the table. The r values for the correlation data are also presented in tabular form. All of the statistical computations, with the exception of the tests of simple effects and the simple analysis of the variance, were made at the North Texas State University Computer Center, Denton,
Texas. The tests of simple effects and the simple analysis of the variance were computed by hand.
The first six questions of the study dealt with the differences in the image of nursing and the level of job satisfaction as related to educational training and the length of time in the Air Force. Educational training consisted of two groups: (1) diploma graduate nurses and (2) collegiate graduate nurses. Length of time in the Air Force included two groups: (1) first two-year tour of duty nurses and (2) nurses serving beyond the initial two-year tour of duty. The last six questions dealt with the relationship between the image of nursing and the level of job satisfaction as related to (1) the type of nursing training, (2) nursing specialty, (3) nursing experience, (4) Air Force nursing experience, (5) rank status in the Air Force, (6) educational levels of Air Force nurses, and (7) the bed capacity of Air Force hospitals.

The findings presented are related to the following questions:

I. Is there a significant difference in the image of nursing and the level of job satisfaction between the graduates of a diploma nursing school who are currently serving in the first two-year tour of duty in the Air Force
and the graduates of a diploma nursing school who are currently serving beyond the initial two-year tour of duty in the Air Force?

II. Is there a significant difference in the image of nursing and the level of job satisfaction between the graduates of a diploma nursing school who are currently serving in the first two-year tour of duty in the Air Force and the collegiate graduate nurses who are presently serving in the first two-year tour of duty in the Air Force?

III. Is there a significant difference in the image of nursing and the level of job satisfaction between the graduates of a diploma nursing school who are currently serving beyond the initial two-year tour of duty in the Air Force and the collegiate graduate nurses who are presently serving beyond the initial two-year tour of duty in the Air Force?

IV. Is there a significant difference in the image of nursing and the level of job satisfaction between the collegiate graduate nurses who are presently serving in the first two-year tour of duty in the Air Force and the collegiate graduate nurses who are currently serving beyond the initial two-year tour of duty in the Air Force?

V. Is there a significant difference in the image of nursing and the level of job satisfaction between the collegiate graduate nurses and the collegiate graduate nurses?

VI. Is there a significant difference in the image of nursing and the level of job satisfaction between the nurses
serving on the first tour of duty in the Air Force and nurses serving beyond the initial two-year tour of duty in the Air Force?

VII. What are the relationships between the image of nursing and job satisfaction for diploma graduate nurses and collegiate graduate nurses in the Air Force?

VIII. What are the relationships between the image of nursing and job satisfaction for nursing specialties of Air Force nurses?

IX. What are the relationships between the image of nursing and job satisfaction for the ranks of Air Force nurses?

X. What are the relationships between the image of nursing and job satisfaction for the educational levels of Air Force nurses?

XI. What are the relationships between the image of nursing and job satisfaction for the number of years of graduate nursing experience of Air Force nurses?

XII. What are the relationships between the image of nursing and job satisfaction for nurses in various size hospitals of the Air Force?

Summary of the Response to the Study

Data presented in the following three tables indicate the number of questionnaires returned and the percentage of the total number of returns. A total of 875 questionnaires
was sent out, of which 118 were returned from the postal service because of incorrect or unknown addresses of the respondents. Also indicated are the number of possible returns and the number of actual returns from the respondents, as well as the percentage of the total number of returns, based on the possible number of returns from the sample.

As shown in Table I, a total of 875 questionnaires was sent out to Air Force nurses serving at Air Force bases throughout the continental limits of the United States. A total of 541 Air Force nurses returned the questionnaire, for a return of 61.82 percent.

### TABLE I

**RESPONSE TO THE STUDY**

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Sent</th>
<th>No. of Returns</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>800</td>
<td>483</td>
<td>60.37</td>
</tr>
<tr>
<td>Males</td>
<td>75</td>
<td>58</td>
<td>77.33</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>875</td>
<td>541</td>
<td>61.82</td>
</tr>
</tbody>
</table>

Indicated in Table II are the percentages of returns based on the possible number of returns. The total number of questionnaires sent out, minus the number of questionnaires returned from the postal service, shows the possible number of returns as 757. The percentage return, based on the
TABLE II

DISTRIBUTION OF POSSIBLE RETURNS

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Possible Returns</th>
<th>No. of Returns</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>588</td>
<td>483</td>
<td>70.20</td>
</tr>
<tr>
<td>Males</td>
<td>69</td>
<td>58</td>
<td>84.05</td>
</tr>
<tr>
<td>Total</td>
<td>757</td>
<td>541</td>
<td>71.46</td>
</tr>
</tbody>
</table>

possible returns was 71.46. The female nurse respondents had a return of 70.20 percent, and the male nurse respondents had a return of 84.05 percent.

The data reported in Table III show the percentages of the population of the Air Force Nurse Corps, as represented

TABLE III

PERCENTAGE OF THE POPULATION SURVEYED BY THE SAMPLE

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Number Surveyed</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Sample</td>
<td>875</td>
<td>23.38</td>
</tr>
<tr>
<td>Sample Returns</td>
<td>541</td>
<td>14.46</td>
</tr>
<tr>
<td>Female Returns</td>
<td>483</td>
<td>14.35</td>
</tr>
<tr>
<td>Male Returns</td>
<td>58</td>
<td>15.46</td>
</tr>
</tbody>
</table>

by the survey sample. The total Air Force Nurse Corps population was 3742 at the time the sample was randomly selected. Approximately 10 percent of the Nurse Corps was comprised of male nurses, for a total of 375 men. The number of female nurses was approximately 3367 at the time the sample was selected. The sample consisted of 23.38 percent
of the total population, and the sample returns comprised 14.46 percent of the total population. The female nurse sample returns represented 14.35 percent of the female population, and the male nurse returns represented 15.46 percent of the male population.

Data Related to Questions I through VI for the Image of Nursing Questionnaire

The first six questions of the study dealt with the image of nursing and job satisfaction as they related to the type of nursing education and the length of time served in the Air Force. The data relevant to the image of nursing in the first six questions of the study are presented in the following thirteen tables.

In the two-by-two factorial design the rows indicate the type of nursing education. Row I contains the diploma graduate nurse figures and Row II contains the collegiate graduate nurse data. The column data represent the length of time in the Air Force Nurse Corps. Column I contains the first two-year tour of duty nurse figures and Column II contains the information relevant to the nurses serving beyond the initial two-year tour of duty in the Air Force Nurse Corps.

The data in Table IV contain the figures for the four main groups in the study. There were 179 nurses serving in the first two-year tour of duty, and 362 nurses serving beyond the first two-year tour of duty. Four hundred and
sixty-one nurses were graduates of a diploma program and eighty nurses were graduates of a collegiate nursing program.

**TABLE IV**

THE NUMBERED OBSERVATIONS FOR THE IMAGE OF NURSING QUESTIONNAIRE

<table>
<thead>
<tr>
<th>Row</th>
<th>Column I First Two Years</th>
<th>Column II Beyond Two Years</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Diploma</td>
<td>141</td>
<td>320</td>
<td>461</td>
</tr>
<tr>
<td>II Collegiate</td>
<td>38</td>
<td>42</td>
<td>80</td>
</tr>
<tr>
<td>Total</td>
<td>179</td>
<td>362</td>
<td>541</td>
</tr>
</tbody>
</table>

The means of the Image of Nursing Questionnaire are presented in Table V. The collegiate graduate nurses serving in the first two-year tour of duty had the highest mean of 71.95, and the collegiate graduate nurses serving beyond the first two-year tour of duty had the lowest mean of 67.48. The mean of all the nurses was 69.55. The mean of the diploma graduates was 69.54, and the mean of the collegiate graduates was 69.60.

**TABLE V**

THE MEANS FOR THE IMAGE OF NURSING QUESTIONNAIRE

<table>
<thead>
<tr>
<th>Row</th>
<th>Column I First Two Years</th>
<th>Column II Beyond Two Years</th>
<th>Row</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Diploma</td>
<td>70.08</td>
<td>69.30</td>
<td>69.54</td>
</tr>
<tr>
<td>II Collegiate</td>
<td>71.95</td>
<td>67.48</td>
<td>69.60</td>
</tr>
<tr>
<td>Total</td>
<td>70.47</td>
<td>69.09</td>
<td>69.55</td>
</tr>
</tbody>
</table>
graduates was 69.60. The mean of the nurses serving in the first two-year tour of duty was 70.47, and the mean of the nurses serving beyond the first two-year tour of duty was 69.09.

The complete statistical data for the two by two factorial analysis of the variance for the Image of Nursing Questionnaire are reported in Table VI. The F-ratio for the row means was not significant, which indicated that there was no significant difference in the image of nursing between the diploma graduate nurses and the collegiate graduate nurses. The F-ratio for the column means was statistically significant at the .001 level. This indicated that the attitude toward nursing, as reflected by the Image of Nursing Questionnaire, was significantly higher for the nurses serving in the first two-year tour of duty than for the nurses serving beyond the initial two-year tour of duty in the Air Force. The F-ratio for interaction was significant at the
.02 level, which indicated that the variables of nurse's training and the length of duty tour did not combine in an additive manner.

One of the major purposes for conducting a two-by-two factorial analysis of the variance is to determine how two variables would combine. When an F-ratio for interaction is not significant, it indicates that the variables combine additively. If, however, the F-ratio for interaction is significant, then the variables combine nonadditively.¹ Roscoe² states that when a significant interaction occurs, then further statistical analysis is required in order to determine where the differences lie.

Since the F-ratio for interaction was significant, it was then necessary to compute the tests of simple effects for rows and columns. Therefore, the tests of simple effects were computed between the following groups:

1. first two-year tour of duty diploma graduates and diploma graduates serving beyond the first two-year tour of duty,

2. first two-year tour of duty diploma graduates and the first two-year tour of duty collegiate graduates,


3. first two-year tour of duty collegiate graduates and collegiate graduates serving beyond the first two-year tour of duty,

4. diploma graduates serving beyond the first two-year tour of duty and collegiate graduates serving beyond the first two-year of duty.

As revealed in Table VII, there was no significant difference in the image of nursing between the diploma graduate nurses serving in the first two-year tour of duty and the diploma graduate nurses serving beyond the first two-year tour of duty. The F-ratio of .4237 was not significant at the .05 level.

An examination of the data in Table VIII reveals that there was no significant difference in the image of nursing between the diploma graduate nurses and the collegiate graduate nurses serving in the first two-year tour of duty.
TABLE VIII
THE TEST OF SIMPLE EFFECTS FOR THE IMAGE OF NURSING QUESTIONNAIRE BETWEEN DIPLOMA FIRST AND COLLEGIATE FIRST, SUMMARY OF THE DATA

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>115.9138</td>
<td>1</td>
<td>115.9138</td>
<td>2.4657</td>
<td>&gt; .05</td>
</tr>
<tr>
<td>Within Groups</td>
<td>25,224.1096</td>
<td>537</td>
<td>47.0095</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The data shown in Table IX reveal that the collegiate graduates serving in the first two-year tour of duty had a significantly higher image of nursing, with a mean of 71.95, than the collegiate graduates serving beyond the first two-year tour of duty, who had a mean of 67.48. The F-ratio of 14.1050 was significant at the .05 level.

TABLE IX
THE TEST OF SIMPLE EFFECTS FOR THE IMAGE OF NURSING QUESTIONNAIRE BETWEEN COLLEGIATE FIRST AND COLLEGIATE BEYOND, SUMMARY OF THE DATA

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>663.0780</td>
<td>1</td>
<td>663.0780</td>
<td>14.1050</td>
<td>&lt; .05</td>
</tr>
<tr>
<td>Within Groups</td>
<td>25,224.1096</td>
<td>537</td>
<td>47.0095</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table X contains the data for the test of simple effects between the diploma graduates serving beyond the first two-year tour of duty and the collegiate graduates serving beyond the first two-year tour of duty. The F-ratio of 2.3548 was
TABLE X

THE TEST OF SIMPLE EFFECTS FOR THE IMAGE OF NURSING QUESTIONNAIRE BETWEEN DIPLOMA BEYOND AND COLLEGIATE BEYOND, SUMMARY OF THE DATA

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>110.6998</td>
<td>1</td>
<td>110.6998</td>
<td>2.3548</td>
<td>&gt; .05</td>
</tr>
<tr>
<td>Within Groups</td>
<td>25,224.1096</td>
<td>537</td>
<td>47.0095</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

not significant at the .05 level, which indicated no significant difference in the image of nursing between the two groups.

A significant F-ratio was obtained in only two simple analyses of the variance for the female nurses when the male nurse groups were separated from the whole sample. The data in Tables XI and XII show a significant F-ratio at the

TABLE XI

THE SIMPLE ANALYSIS OF THE VARIANCE FOR THE IMAGE OF NURSING QUESTIONNAIRE BETWEEN COLLEGIATE FIRST AND DIPLOMA BEYOND, SUMMARY OF THE DATA FOR FEMALE NURSES

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>169</td>
<td>1</td>
<td>169.00</td>
<td>3.89</td>
<td>&lt; .05</td>
</tr>
<tr>
<td>Within Groups</td>
<td>13,869</td>
<td>320</td>
<td>43.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14,038</td>
<td>321</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
.05 level when the collegiate graduates serving in the first two-year tour of duty were compared with either of the diploma or collegiate graduates serving beyond the first two-year tour of duty. The greatest significance was between the two collegiate nurse groups, in which the collegiate graduates serving in the first two-year tour of duty demonstrated the highest image of nursing.

TABLE XII

THE SIMPLE ANALYSIS OF THE VARIANCE FOR THE IMAGE OF NURSING QUESTIONNAIRE BETWEEN COLLEGIATE FIRST AND COLLEGIATE BEYOND, SUMMARY OF THE DATA FOR FEMALE NURSES

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>279</td>
<td>1</td>
<td>279.00</td>
<td>5.10</td>
<td>&lt; .05</td>
</tr>
<tr>
<td>Within Groups</td>
<td>3,713</td>
<td>68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3,992</td>
<td>69</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

An examination of the data in Tables XIII through XVI shows no significant F-ratios between the following female nurse groups for the Image of Nursing Questionnaire:

1. diploma graduates in the first two-year tour of duty and the diploma graduates serving beyond the first two-year tour of duty (Table XIII),

2. diploma graduates in the first two-year tour of duty and the collegiate graduates in the first two-year tour of duty (Table XIV),
TABLE XIII

THE SIMPLE ANALYSIS OF THE VARIANCE FOR THE IMAGE OF NURSING QUESTIONNAIRE BETWEEN DIPLOMA FIRST AND DIPLOMA BEYOND, SUMMARY OF THE DATA FOR FEMALE NURSES

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>11</td>
<td>1</td>
<td>11.00</td>
<td>0.25</td>
<td>&gt; .05</td>
</tr>
<tr>
<td>Within Groups</td>
<td>18,026</td>
<td>411</td>
<td>43.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>18,037</td>
<td>412</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TABLE XIV

THE SIMPLE ANALYSIS OF THE VARIANCE FOR THE IMAGE OF NURSING QUESTIONNAIRE BETWEEN DIPLOMA FIRST AND COLLEGIATE FIRST, SUMMARY OF THE DATA FOR FEMALE NURSES

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>108</td>
<td>1</td>
<td>108.00</td>
<td>2.46</td>
<td>&gt; .05</td>
</tr>
<tr>
<td>Within Groups</td>
<td>7,081</td>
<td>161</td>
<td>43.98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>7,189</td>
<td>162</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. diploma graduates in the first two-year tour of duty and the collegiates serving beyond the first two-year tour of duty (Table XV),

4. diploma graduates and collegiate graduates serving beyond the first two-year tour of duty (Table XVI).

A simple analysis of the variance for the male nurse sample was not undertaken because of the small numbers in the various groups. The total return for the male nurse
### TABLE XV

**THE SIMPLE ANALYSIS OF THE VARIANCE FOR THE IMAGE OF NURSING QUESTIONNAIRE BETWEEN DIPLOMA FIRST AND COLLEGIATE BEYOND, SUMMARY OF THE DATA FOR FEMALE NURSES**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>112</td>
<td>1</td>
<td>112.00</td>
<td>2.26</td>
<td>&gt; .05</td>
</tr>
<tr>
<td>Within Groups</td>
<td>7,879</td>
<td>159</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>7,991</td>
<td>160</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### TABLE XVI

**THE SIMPLE ANALYSIS OF THE VARIANCE FOR THE IMAGE OF NURSING QUESTIONNAIRE BETWEEN DIPLOMA BEYOND AND COLLEGIATE BEYOND, SUMMARY OF THE DATA FOR FEMALE NURSES**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>88</td>
<td>1</td>
<td>88.00</td>
<td>1.89</td>
<td>&gt; .05</td>
</tr>
<tr>
<td>Within Groups</td>
<td>14,752</td>
<td>318</td>
<td>46.66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14,840</td>
<td>319</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sample was fifty-eight respondents, which consisted of (1) fourteen diploma graduates in the first two-year tour of duty, (2) thirty-four diploma graduates serving beyond the first two-year tour of duty, (3) two collegiate graduates in the first two-year tour of duty, and (4) eight collegiate graduates serving beyond the first two-year tour of duty.
Data Related to Questions I through VI for the Job Satisfaction Scale

The first six questions of the study were concerned with the image of nursing and job satisfaction of Air Force nurses as they related to the type of nursing education and the length of time in the Air Force. The data relevant to job satisfaction in the first six questions are presented in the following three tables.

In the two-by-two factorial analysis of the variance, the rows indicate the type of nursing education. Row I contains the diploma graduate nurse figures and Row II contains the collegiate graduate nurse figures. The column data represent the length of time in the Air Force Nurse Corps. Column I contains the first two-year tour of duty nurse figures and Column II contains the data relevant to the nurses serving beyond the first two-year tour of duty in the Air Force.

The data in Table XVII contain the figures of the four main groups in the study.

| TABLE XVII |
| THE NUMBERED OBSERVATIONS FOR THE BULLOCK JOB SATISFACTION SCALE |

<table>
<thead>
<tr>
<th>Row</th>
<th>Column I First Two Years</th>
<th>Column II Beyond Two Years</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Diploma</td>
<td>141</td>
<td>320</td>
<td>461</td>
</tr>
<tr>
<td>II Collegiate</td>
<td>38</td>
<td>42</td>
<td>80</td>
</tr>
<tr>
<td>Total</td>
<td>179</td>
<td>362</td>
<td>541</td>
</tr>
</tbody>
</table>
The data presented show the same figures for the Bullock Job Satisfaction Scale that were presented for the Image of Nursing Questionnaire in Table IV.

An examination of Table XVIII reveals the mean for all the nurses on the Job Satisfaction Scale was 38.14. The

<table>
<thead>
<tr>
<th>Row</th>
<th>Column I First Two Years</th>
<th>Column II Beyond Two Years</th>
<th>Row</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Diploma</td>
<td>35.33</td>
<td>39.40</td>
<td>38.12</td>
</tr>
<tr>
<td>II Collegiate</td>
<td>36.79</td>
<td>39.55</td>
<td>38.24</td>
</tr>
<tr>
<td>Total</td>
<td>35.64</td>
<td>39.37</td>
<td>38.14</td>
</tr>
</tbody>
</table>

mean for the diploma graduate nurses was 38.12, and the mean for the collegiate graduate nurses was 38.24. The diploma graduate nurses serving in the first two-year tour of duty had the lowest mean of 35.33, and the collegiate graduate nurses serving beyond the first two-year tour of duty had the highest job satisfaction with a mean of 39.55. Nurses serving in the first two-year tour of duty had a job satisfaction mean of 35.64, and the nurses serving beyond the first two-year tour of duty had a mean of 39.37.

The complete statistical data for the two-by-two factorial analysis of the variance for the Job Satisfaction Scale are reported in Table XIX.
TABLE XIX

TWO BY TWO FACTORIAL ANALYSIS OF THE VARIANCE FOR THE BULLOCK JOB SATISFACTION SCALE,
SUMMARY OF THE DATA

<table>
<thead>
<tr>
<th>Item</th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row, Education</td>
<td>45.3233</td>
<td>1</td>
<td>45.3233</td>
<td>0.8350</td>
<td>0.3613</td>
</tr>
<tr>
<td>Column, Tour</td>
<td>760.6260</td>
<td>1</td>
<td>760.6260</td>
<td>14.0128</td>
<td>0.0002</td>
</tr>
<tr>
<td>Interaction</td>
<td>26.2481</td>
<td>1</td>
<td>26.2481</td>
<td>0.4836</td>
<td>0.4872</td>
</tr>
<tr>
<td>Within</td>
<td>29,148.8939</td>
<td>537</td>
<td>54.2809</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The F-ratio for the row means was not significant, which indicated that there was no significant difference in job satisfaction between the diploma graduate nurses and the collegiate graduate nurses in the Air Force. The F-ratio of 14.01 for the columns was statistically significant at better than the .01 level, which indicated that the nurses serving beyond the first two-year tour of duty had a significantly higher degree of job satisfaction than the nurses serving in the first two-year tour of duty in the Air Force. The F-ratio for interaction was not significant, which indicated that the variables combined additively. Thus, job satisfaction increased as the length of time in the Air Force increased.

Data Related to Questions VII through XII

The last six questions of the study were concerned with the relationship between the image of nursing and job satisfaction for the following groups:
1. diploma graduate nurses and collegiate graduate nurses in the Air Force,
2. nursing specialties of nurses in the Air Force,
3. educational levels of nurses in the Air Force,
4. the rank levels of nurses in the Air Force,
5. years of graduate nursing experience of nurses in the Air Force.

The Pearson product-moment correlation coefficients between the raw scores of the Image of Nursing Questionnaire and the Bullock Job Satisfaction Scale were computed for the following female and male nurse groups:
1. diploma graduate nurses,
2. collegiate graduate nurses,
3. nurses serving in the first two-year tour of duty in the Air Force Nurse Corps,
4. nurses serving beyond the first two-year tour of duty in the Air Force Nurse Corps,
5. nurses with only a diploma in nursing,
6. nurses with a bachelor's degree,
7. nurses with a master's degree,
8. nurses with less than five years of nursing experience,
9. nurses with five years, but less than ten year, of nursing experience,
10. nurses with ten years, but less than twenty years,
11. nurses with over twenty years of nursing experience,

12. nurses with less than two years of nursing experience in the Air Force Nurse Corps,

13. nurses with two years, but less than five years, of nursing experience in the Air Force Nurse Corps,

14. nurses with five years, but less than ten year, of nursing experience in the Air Force Nurse Corps,

15. nurses with ten years, but less than twenty years, of nursing experience in the Air Force Nurse Corps,

16. nurses with over twenty years of nursing experience in the Air Force Nurse Corps,

17. lieutenants,

18. captains,

19. majors,

20. colonels,

21. administrators,

22. psychiatric nurses,

23. operating room nurses,

24. anesthetists,

25. general duty nurses,

26. flight nurses,

27. nurses not assigned to hospitals,

28. nurses working in hospitals with less than fifty beds,
29. nurses working in hospitals with 50, but less than
100, bed capacity,

30. nurses working in hospitals with 100, but less
than 300, bed capacity,

31. nurses working in hospitals with over 300-bed
capacity.

The Pearson product-moment correlation coefficients
between the raw scores of the two instruments were also com-
puted for (1) all the female nurses in the study, (2) all
the male nurses in the study, and (3) all the female and
male nurses in the study.

The decision on the level of significance for the $r$
value was arbitrarily set at the .05 level. When the $r$
value was significant at the .01 level, it was reported for
that level. The data relevant to the correlation coeffi-
cients for the last six questions are reported in the follow-
ing fourteen tables.

Question VII of the study was concerned with the rela-
tionship of the image of nursing and job satisfaction for
diploma graduate nurses and collegiate graduate nurses in
the Air Force. The data are reported in Tables XX and XXI.
There was a significant $r$ value for the female diploma
graduate nurses at the .01 level, but not for the female
collegiate graduate nurses at either the .01 level or the
.05 level. Neither of the male diploma graduate nurses or
TABLE XX

CORRELATION DATA FOR FEMALE NURSES: NURSING TRAINING

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Number Surveyed</th>
<th>%</th>
<th>Image of Nursing Mean</th>
<th>Job Scale Mean</th>
<th>r</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collegiate</td>
<td>70</td>
<td>14.49</td>
<td>70.14</td>
<td>38.20</td>
<td>.12</td>
<td>NS*</td>
</tr>
<tr>
<td>Diploma</td>
<td>413</td>
<td>85.51</td>
<td>69.88</td>
<td>37.99</td>
<td>.17</td>
<td>.01</td>
</tr>
<tr>
<td>Total</td>
<td>483</td>
<td>100.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

the male collegiate graduate nurses had a significant r value.

TABLE XXI

CORRELATION DATA FOR MALE NURSES: NURSING TRAINING

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Number Surveyed</th>
<th>%</th>
<th>Image of Nursing Mean</th>
<th>Job Scale Mean</th>
<th>r</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma</td>
<td>48</td>
<td>82.76</td>
<td>66.63</td>
<td>39.27</td>
<td>.00</td>
<td>NS*</td>
</tr>
<tr>
<td>Collegiate</td>
<td>10</td>
<td>17.24</td>
<td>65.80</td>
<td>38.50</td>
<td>.00</td>
<td>NS</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>100.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Not significant.

Question VIII of the study was concerned with the relationship of the image of nursing and job satisfaction for the nursing specialties of Air Force nurses. The six categories of nursing specialties considered were (1) administrators, (2) psychiatric nurses, (3) operating room nurses, (4) anesthetists, (5) general duty nurses, and (6) flight nurses. The data are reported in Tables XXII and XXIII.
### TABLE XXII

**CORRELATION DATA FOR FEMALE NURSES: NURSING SPECIALTY**

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Number Surveyed</th>
<th>%</th>
<th>Image of Nursing Mean</th>
<th>Job Scale Mean</th>
<th>r</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrators</td>
<td>41</td>
<td>8.49</td>
<td>68.44</td>
<td>42.63</td>
<td>.53</td>
<td>.01</td>
</tr>
<tr>
<td>Flight nurses</td>
<td>27</td>
<td>5.59</td>
<td>69.85</td>
<td>42.04</td>
<td>.01</td>
<td>NS*</td>
</tr>
<tr>
<td>Anesthetists</td>
<td>14</td>
<td>2.90</td>
<td>69.07</td>
<td>38.07</td>
<td>.24</td>
<td>NS</td>
</tr>
<tr>
<td>Psychiatric nurses</td>
<td>14</td>
<td>2.90</td>
<td>68.36</td>
<td>37.50</td>
<td>-.04</td>
<td>NS</td>
</tr>
<tr>
<td>General duty nurses</td>
<td>344</td>
<td>71.22</td>
<td>70.16</td>
<td>37.45</td>
<td>.19</td>
<td>.01</td>
</tr>
<tr>
<td>Operating room nurses</td>
<td>43</td>
<td>8.90</td>
<td>70.23</td>
<td>35.79</td>
<td>.02</td>
<td>NS</td>
</tr>
<tr>
<td>Total</td>
<td>483</td>
<td>100.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Not significant.*

The female nurse administrators had a significant r value at the .01 level, as did the general duty nurses. All of the other female nurse specialties had no significant r value at the .05 level.

There were no significant r values for any of the male nurse specialties, as indicated in Table XXIII.

Question IX of the study was concerned with the relationship of the image of nursing and job satisfaction for
TABLE XXIII
CORRELATION DATA FOR MALE NURSES: NURSING SPECIALTY

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Number Surveyed</th>
<th>%</th>
<th>Image of Nursing Mean</th>
<th>Job Scale Mean</th>
<th>r</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administators*</td>
<td>1</td>
<td>1.72</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flight nurses</td>
<td>5</td>
<td>8.62</td>
<td>70.20</td>
<td>35.40</td>
<td>-.35</td>
<td>NS**</td>
</tr>
<tr>
<td>Anesthetists</td>
<td>24</td>
<td>41.38</td>
<td>65.48</td>
<td>39.58</td>
<td>.25</td>
<td>NS</td>
</tr>
<tr>
<td>Psychiatric nurses</td>
<td>6</td>
<td>10.34</td>
<td>68.50</td>
<td>38.50</td>
<td>-.33</td>
<td>NS</td>
</tr>
<tr>
<td>General duty nurses</td>
<td>18</td>
<td>31.04</td>
<td>67.50</td>
<td>40.00</td>
<td>.04</td>
<td>NS</td>
</tr>
<tr>
<td>Operating room nurses</td>
<td>4</td>
<td>6.90</td>
<td>68.25</td>
<td>36.00</td>
<td>-.33</td>
<td>NS</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>100.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Only one male administrator, thus no correlation made.

**Not significant.

the ranks of Air Force nurses. The data are reported in Tables XXIV and XXV.

An examination of the data in Table XXIV reveals that the female majors and colonels had a significant r value.

An examination of the data in Table XXV reveals that there were no significant relationships for any of the rank categories for the male nurses.

Question X of the study was concerned with the relationship of the image of nursing and job satisfaction for
### Table XXIV

**Correlation Data for Female Nurses: Military Rank**

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Number Surveyed</th>
<th>%</th>
<th>Image of Nursing Mean</th>
<th>Job Scale Mean</th>
<th>r</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colonels</td>
<td>35</td>
<td>7.32</td>
<td>69.46</td>
<td>42.37</td>
<td>.40</td>
<td>.05</td>
</tr>
<tr>
<td>Majors</td>
<td>99</td>
<td>20.71</td>
<td>68.80</td>
<td>40.40</td>
<td>.33</td>
<td>.01</td>
</tr>
<tr>
<td>Captains</td>
<td>176</td>
<td>36.82</td>
<td>69.47</td>
<td>37.85</td>
<td>.19</td>
<td>NS*</td>
</tr>
<tr>
<td>Lieutenants</td>
<td>168</td>
<td>35.15</td>
<td>71.14</td>
<td>35.00</td>
<td>.11</td>
<td>NS</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>478</strong></td>
<td><strong>100.00</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Not significant.

### Table XXV

**Correlation Data for Male Nurses: Military Rank**

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Number Surveyed</th>
<th>%</th>
<th>Image of Nursing Mean</th>
<th>Job Scale Mean</th>
<th>r</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colonels**</td>
<td>1</td>
<td>1.72</td>
<td>64.54</td>
<td>40.17</td>
<td>-.04</td>
<td>NS*</td>
</tr>
<tr>
<td>Captains</td>
<td>24</td>
<td>41.38</td>
<td>65.50</td>
<td>39.07</td>
<td>.30</td>
<td>NS</td>
</tr>
<tr>
<td>Majors</td>
<td>14</td>
<td>24.14</td>
<td>65.95</td>
<td>37.63</td>
<td>-.08</td>
<td>NS</td>
</tr>
<tr>
<td>Lieutenants</td>
<td>19</td>
<td>32.76</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>58</strong></td>
<td><strong>100.00</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Not significant.

**Only one male colonel, thus no correlation made.

the educational levels of Air Force nurses. The data are reported in Tables XXVI and XXVII.

As revealed in Table XXVI, there was a significant r value for the female nurses with only a diploma in nursing at the .01 level and a significant r value for the female nurses with a bachelor's degree at the .05 level. There
TABLE XXVI

CORRELATION DATA FOR FEMALE NURSES: EDUCATION LEVELS

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Number Surveyed</th>
<th>%</th>
<th>Image of Nursing Mean</th>
<th>Job Scale Mean</th>
<th>r</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master's degree</td>
<td>28</td>
<td>5.80</td>
<td>68.18</td>
<td>41.79</td>
<td>.31</td>
<td>NS*</td>
</tr>
<tr>
<td>Bachelor's degree</td>
<td>112</td>
<td>23.19</td>
<td>69.58</td>
<td>38.96</td>
<td>.21</td>
<td>.05</td>
</tr>
<tr>
<td>Diploma</td>
<td>343</td>
<td>71.01</td>
<td>70.17</td>
<td>37.41</td>
<td>.16</td>
<td>.01</td>
</tr>
<tr>
<td>Total</td>
<td>483</td>
<td>100.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Not significant.

was no significant relationship for the female nurses with a master's degree.

A study of the data presented in Table XXVII shows there were no significant r values for the male nurse categories. The r value of -1.00 for the two male nurses with a

TABLE XXVII

CORRELATION DATA FOR MALE NURSES: EDUCATION LEVELS

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Number Surveyed</th>
<th>%</th>
<th>Image of Nursing Mean</th>
<th>Job Scale Mean</th>
<th>r</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master's degree</td>
<td>2</td>
<td>3.45</td>
<td>70.00</td>
<td>41.50</td>
<td>-1.00</td>
<td>NS*</td>
</tr>
<tr>
<td>Bachelor's degree</td>
<td>15</td>
<td>25.86</td>
<td>64.27</td>
<td>40.80</td>
<td>-0.18</td>
<td>NS</td>
</tr>
<tr>
<td>Diploma</td>
<td>41</td>
<td>70.69</td>
<td>67.12</td>
<td>38.41</td>
<td>0.07</td>
<td>NS</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>100.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Not significant.
master's degree resulted from the inverse relationship of the two sets of scores for the two individuals. One individual scored high on the Image of Nursing Questionnaire and low on the Job Satisfaction Scale. The scores of the two instruments for the second individual were just the opposite. The $r$ value was not statistically significant because more than two sets of scores are required for statistical significance.

Question XI of the study was concerned with the relationship of the image of nursing and job satisfaction for the number of years of nursing experience of Air Force nurses. This particular category was divided into two sections: (1) the number of years of nursing experience since graduation, and (2) the number of years of nursing experience in the Air Force Nurse Corps. The data relevant to the number of years of nursing experience since graduation are shown in Tables XXVIII and XXIX.

The female nurses with ten, but less than twenty, years of nursing experience and the female nurses with over twenty years of nursing experience had a significant relationship at the .01 level. None of the female nurse groups with less than ten years of nursing experience had a significant $r$ value. There were no significant $r$ values for the male nurse groups.
TABLE XXVIII
CORRELATION DATA FOR FEMALE NURSES: NUMBER OF YEARS OF NURSING EXPERIENCE

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Number Surveyed</th>
<th>%</th>
<th>Image of Nursing Mean</th>
<th>Job Scale Mean</th>
<th>r</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 20 years</td>
<td>78</td>
<td>16.15</td>
<td>68.32</td>
<td>41.28</td>
<td>.38</td>
<td>.01</td>
</tr>
<tr>
<td>10 to 19 years</td>
<td>152</td>
<td>31.47</td>
<td>69.95</td>
<td>39.77</td>
<td>.26</td>
<td>.01</td>
</tr>
<tr>
<td>5 to 9 years</td>
<td>113</td>
<td>23.40</td>
<td>69.80</td>
<td>36.92</td>
<td>.11</td>
<td>NS*</td>
</tr>
<tr>
<td>Less than 5 years</td>
<td>140</td>
<td>28.98</td>
<td>70.89</td>
<td>35.16</td>
<td>.13</td>
<td>NS</td>
</tr>
<tr>
<td>Total</td>
<td>483</td>
<td>100.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Not significant.

TABLE XXIX
CORRELATION DATA FOR FEMALE NURSES: NUMBER OF YEARS OF NURSING EXPERIENCE

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Number Surveyed</th>
<th>%</th>
<th>Image of Nursing Mean</th>
<th>Job Scale Mean</th>
<th>r</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 20 years</td>
<td>4</td>
<td>6.90</td>
<td>62.00</td>
<td>42.25</td>
<td>-.66</td>
<td>NS*</td>
</tr>
<tr>
<td>10 to 19 years</td>
<td>22</td>
<td>37.93</td>
<td>63.09</td>
<td>38.68</td>
<td>.31</td>
<td>NS</td>
</tr>
<tr>
<td>5 to 9 years</td>
<td>11</td>
<td>18.97</td>
<td>69.18</td>
<td>41.91</td>
<td>-.46</td>
<td>NS</td>
</tr>
<tr>
<td>Less than 5 years</td>
<td>21</td>
<td>36.20</td>
<td>69.48</td>
<td>37.57</td>
<td>-.07</td>
<td>NS</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>100.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Not significant.
The data relevant to the number of years of nursing experience in the Air Force Nurse Corps is reported in Tables XXX and XXXI.

**TABLE XXX**

**CORRELATION DATA FOR FEMALE NURSES: NUMBER OF YEARS IN THE AIR FORCE**

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Number Surveyed</th>
<th>%</th>
<th>Image of Nursing Mean</th>
<th>Job Scale Mean</th>
<th>r</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 20 years</td>
<td>9</td>
<td>1.86</td>
<td>70.56</td>
<td>42.78</td>
<td>.63</td>
<td>NS*</td>
</tr>
<tr>
<td>10 to 19 years</td>
<td>138</td>
<td>28.57</td>
<td>69.07</td>
<td>40.51</td>
<td>.32</td>
<td>.01</td>
</tr>
<tr>
<td>5 to 9 years</td>
<td>80</td>
<td>16.56</td>
<td>69.16</td>
<td>38.59</td>
<td>.17</td>
<td>NS</td>
</tr>
<tr>
<td>2 to 4 years</td>
<td>93</td>
<td>19.25</td>
<td>70.70</td>
<td>37.69</td>
<td>.19</td>
<td>NS</td>
</tr>
<tr>
<td>Less than 2 years</td>
<td>163</td>
<td>33.76</td>
<td>70.53</td>
<td>35.56</td>
<td>.06</td>
<td>NS</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>483</strong></td>
<td><strong>100.00</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Not significant.

There was only one significant r value for the female nurses, which was for the group with ten years, but less than twenty years, of nursing experience in the Air Force Nurse Corps.

An examination of the data in Table XXXI reveals there were no significant relationships for any of the male nurse categories.

Question XII of the study was concerned with the relationship of the image of nursing and job satisfaction of
TABLE XXXI

CORRELATION DATA FOR MALE NURSES: NUMBER OF YEARS IN THE AIR FORCE

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Number Surveyed</th>
<th>%</th>
<th>Image of Nursing Mean</th>
<th>Job Scale Mean</th>
<th>r</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 20 years</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 to 19 years</td>
<td>22</td>
<td>37.93</td>
<td>63.73</td>
<td>39.32</td>
<td>.24</td>
<td>NS*</td>
</tr>
<tr>
<td>5 to 9 years</td>
<td>9</td>
<td>15.52</td>
<td>66.89</td>
<td>42.78</td>
<td>.20</td>
<td>NS</td>
</tr>
<tr>
<td>2 to 4 years</td>
<td>11</td>
<td>18.97</td>
<td>66.64</td>
<td>39.64</td>
<td>-.32</td>
<td>NS</td>
</tr>
<tr>
<td>Less than 2 years</td>
<td>16</td>
<td>27.58</td>
<td>69.94</td>
<td>36.50</td>
<td>-.04</td>
<td>NS</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>100.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Not significant.

of Air Force nurses in various size hospitals. The data are reported in Tables XXXII and XXXIII.

A study of the data reported in Table XXXII shows the only group of female nurses that had a significant relationship were those nurses working in hospitals of over 300-bed capacity. That group had an r value of .28, which was significant at the .01 level. The lowest r value was -.06 for the group of nurses not assigned to Air Force hospitals. That particular group included (1) nurses in various administrative positions of the Air Force, (2) instructors at various schools not attached to Air Force hospitals, and (3) flight nurses, who are generally assigned to Medical
TABLE XXXII
CORRELATION DATA FOR FEMALE NURSES: HOSPITAL SIZE

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Number Surveyed</th>
<th>%</th>
<th>Image of Nursing Mean</th>
<th>Job Scale Mean</th>
<th>( r )</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 300 beds</td>
<td>130</td>
<td>26.92</td>
<td>68.91</td>
<td>39.28</td>
<td>.28</td>
<td>.01</td>
</tr>
<tr>
<td>100 to 300 beds</td>
<td>100</td>
<td>20.70</td>
<td>69.82</td>
<td>37.38</td>
<td>.18</td>
<td>NS*</td>
</tr>
<tr>
<td>50 to 99 beds</td>
<td>109</td>
<td>22.58</td>
<td>70.92</td>
<td>37.25</td>
<td>.17</td>
<td>NS</td>
</tr>
<tr>
<td>Under 50 beds</td>
<td>110</td>
<td>22.77</td>
<td>70.39</td>
<td>36.27</td>
<td>.16</td>
<td>NS</td>
</tr>
<tr>
<td>Nurses not in hospitals</td>
<td>34</td>
<td>7.03</td>
<td>69.32</td>
<td>43.15</td>
<td>-.06</td>
<td>NS</td>
</tr>
<tr>
<td>Total</td>
<td>483</td>
<td>100.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Not significant.

Detachments. Also, that particular group had the highest job satisfaction mean of 43.15, while the nurses assigned to hospitals of less than fifty beds had a job satisfaction mean of 36.27.

As revealed in Table XXXIII, there were no significant \( r \) values for any of the male nurse groups. A comparison of the data between Tables XXXII and XXXIII indicates that the male nurse groups had higher \( r \) values in three of the five categories. The \( r \) values were not significant due to the insufficient number within the various categories.
### TABLE XXXIII
CORRELATION DATA FOR MALE NURSES: HOSPITAL SIZE-

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Number Surveyed</th>
<th>%</th>
<th>Image of Nursing Mean</th>
<th>Job Scale Mean</th>
<th>r</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 300 beds</td>
<td>21</td>
<td>36.21</td>
<td>67.81</td>
<td>41.57</td>
<td>.34</td>
<td>NS*</td>
</tr>
<tr>
<td>100 to 300 beds</td>
<td>15</td>
<td>25.36</td>
<td>67.80</td>
<td>38.13</td>
<td>.02</td>
<td>NS</td>
</tr>
<tr>
<td>50 to 99 beds</td>
<td>5</td>
<td>8.62</td>
<td>59.60</td>
<td>39.00</td>
<td>.43</td>
<td>NS</td>
</tr>
<tr>
<td>Under 50 beds</td>
<td>10</td>
<td>17.24</td>
<td>64.20</td>
<td>36.70</td>
<td>-.62</td>
<td>NS</td>
</tr>
<tr>
<td>Nurses not in hospitals</td>
<td>7</td>
<td>12.07</td>
<td>67.86</td>
<td>37.57</td>
<td>-.18</td>
<td>NS</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>100.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Not significant.

Several other \( r \) values are presented, although not in relation to specific questions presented in the study. These data are presented in the next three tables.

An examination of the data in Table XXXIV reveals no significant \( r \) value between the image of nursing and job satisfaction for all of the female nurses serving in the first two-year tour of duty in the Air Force. There was a significant relationship between the image of nursing and job satisfaction for all of the female nurses serving beyond the first two-year tour of duty in the Air Force. The \( r \) value was significant at the .01 level.
### TABLE XXXIV

CORRELATION DATA FOR FEMALE NURSES: LENGTH OF TOUR

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Number Surveyed</th>
<th>%</th>
<th>Image of Nursing Mean</th>
<th>Job Scale Mean</th>
<th>r</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beyond two years</td>
<td>320</td>
<td>66.25</td>
<td>69.61</td>
<td>39.27</td>
<td>.24</td>
<td>.01</td>
</tr>
<tr>
<td>Less than two years</td>
<td>163</td>
<td>33.75</td>
<td>70.53</td>
<td>35.56</td>
<td>.06</td>
<td>NS*</td>
</tr>
<tr>
<td>Total</td>
<td>483</td>
<td>100.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Not significant.

As reported in Table XXXV, there was no significant relationship for the male nurses serving in the first two-year tour of duty or for the male nurses serving beyond the first two-year tour of duty in the Air Force. Although the

### TABLE XXXV

CORRELATION DATA FOR MALE NURSES: LENGTH OF TOUR

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Number Surveyed</th>
<th>%</th>
<th>Image of Nursing Mean</th>
<th>Job Scale Mean</th>
<th>r</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beyond two years</td>
<td>42</td>
<td>72.41</td>
<td>65.17</td>
<td>40.14</td>
<td>.08</td>
<td>NS*</td>
</tr>
<tr>
<td>Less than two years</td>
<td>16</td>
<td>27.59</td>
<td>69.94</td>
<td>36.50</td>
<td>-.04</td>
<td>NS</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>100.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Not significant.
\( r \) values for both male nurse groups were not significant, the male nurses serving in the first two-year tour of duty had a negative correlation, while the male nurses serving beyond the first two-year tour of duty had a positive \( r \) value.

An examination of the data in Table XXXVI reveals a significant \( r \) value for all the female nurses at the .01 level, but no significant \( r \) value for all of the male nurses.

**TABLE XXXVI**

**CORRELATION DATA FOR ALL NURSES**

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Number Surveyed</th>
<th>%</th>
<th>Image of Nursing Mean</th>
<th>Job Scale Mean</th>
<th>( r )</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>483</td>
<td>89.28</td>
<td>69.91</td>
<td>38.01</td>
<td>.16</td>
<td>.01</td>
</tr>
<tr>
<td>Males</td>
<td>58</td>
<td>10.72</td>
<td>66.48</td>
<td>39.14</td>
<td>.00</td>
<td>NS*</td>
</tr>
<tr>
<td>All nurses</td>
<td>541</td>
<td>100.00</td>
<td>69.55</td>
<td>38.13</td>
<td>.13</td>
<td>.01</td>
</tr>
</tbody>
</table>

*Not significant.

When all of the nurses in the study were considered, the relationship between the image of nursing and job satisfaction was significant at the .01 level.
CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The primary purpose of this study was to determine the image of nursing and the status of job satisfaction of female nurses and male nurses in the United States Air Force. A second purpose of this study was to determine the effects of the type of nursing training and the length of time in the Air Force on the image of nursing and job satisfaction of Air Force nurses. Finally, a third purpose was to investigate the relationship between the image of nursing and job satisfaction for the various nursing specialties, the rank levels, and the hospital sizes of Air Force nurses.

Two instruments were used in the study in order to ascertain the image of nursing and job satisfaction of nurses in the United States Air Force. A "Personal Data Questionnaire" was used for the specific purpose of gathering pertinent information about each respondent in the sample. The data were used to analyze the relationship of variables that could affect an individual's current image of nursing and the level of job satisfaction.
The two instruments used for obtaining the data were the Image of Nursing Questionnaire and the Bullock Job Satisfaction Scale. The Image of Nursing Questionnaire consists of thirty-six items, of which twenty-one are significant in their intent to elicit the degree to which nursing is seen as a desirable and rewarding occupation. The Bullock Job Satisfaction Scale is a criterion measure used for the separation of extreme groups in which mean scores may be derived to determine if a significant difference exists, indicating job satisfaction vis-à-vis dissatisfaction.

The statistical analysis of the respondents' raw scores for the two instruments was accomplished by the use of a two-by-two factorial analysis of the variance based on educational training and the length of time in the Air Force. Educational training consisted of two groups: (1) diploma graduate nurses and (2) collegiate graduate nurses. Length of time in the Air Force included two groups: (1) first two-year tour of duty nurses and (2) nurses serving beyond the initial two-year tour of duty in the Air Force. Pearson product-moment correlation coefficients were computed between the raw scores of the two instruments for the variables of (1) type of nursing training, (2) length of time in the Air Force Nurse Corps, (3) educational level of Air Force nurses, (4) years of nursing experience, (5) years of nursing experience in the Air Force Nurse Corps, (6) rank status of Air
Force nurses, (7) nursing specialty, and (8) the size of Air Force hospitals.

Question I was concerned with the difference in the image of nursing and job satisfaction between the diploma graduate nurses in the first two-year tour of duty and diploma graduate nurses serving beyond the first two-year tour of duty in the Air Force. The F-ratio of the test of simple effects for the image of nursing was not significant. The F-ratio of the two-by-two factorial analysis for job satisfaction was significant at better than the .01 level, which indicated a significantly higher job satisfaction mean for the diploma graduate nurses serving beyond the first two-year tour of duty. Therefore, no significant difference existed in the image of nursing between the two groups, but the diploma graduate nurses serving beyond the first two-year tour of duty had a significantly higher level of job satisfaction than the diploma graduate nurses serving in the first two-year tour of duty in the Air Force.

Question II was concerned with the difference in the image of nursing and job satisfaction between diploma graduate nurses and collegiate graduate nurses serving in the first two-year tour of duty in the Air Force. The F-ratio of the two-by-two factorial analysis of the variance for the image of nursing and job satisfaction was not significant. Therefore, there was no significant difference in the image of nursing and job satisfaction between the two groups.
Question III was concerned with the difference in the image of nursing and job satisfaction between diploma graduate nurses and collegiate graduate nurses serving beyond the first two-year tour of duty in the Air Force. The F-ratio of the two-by-two factorial analysis of the variance for the image of nursing and job satisfaction was not significant. Therefore, there was no significant difference in the image of nursing and job satisfaction between the two groups.

Question IV was concerned with the difference in the image of nursing and job satisfaction between collegiate graduate nurses serving in the first two-year tour of duty and collegiate graduate nurses serving beyond the first two-year tour of duty in the Air Force. The F-ratio for the test of simple effects for the image of nursing was significant at the .05 level, which indicated a significantly higher image of nursing mean for the collegiate graduate nurses serving in the first two-year tour of duty. The F-ratio of the two-by-two factorial analysis of the variance for job satisfaction was significant at better than the .01 level, which indicated a significantly higher job satisfaction mean for the collegiate graduate nurses serving beyond the first two-year tour of duty in the Air Force. Therefore, the collegiate graduate nurses serving in the first two-year tour of duty had a significantly higher image of nursing, but the collegiate graduate nurses serving beyond the first
Question V was concerned with the difference in the image of nursing and job satisfaction between diploma graduate nurses and collegiate graduate nurses in the Air Force. The F-ratio of the two-by-two factorial analysis of the variance for the image of nursing and job satisfaction was not significant. Therefore, there was no significant difference in the image of nursing and job satisfaction between the two groups.

Question VI was concerned with the difference in the image of nursing and job satisfaction between the nurses serving in the first two-year tour of duty and the nurses serving beyond the first two-year tour of duty in the Air Force. The F-ratio of the two-by-two factorial analysis of the variance for the image of nursing was significant at the .01 level, which indicated a significantly higher image of nursing mean for the nurses serving in the first two-year tour of duty. The F-ratio of the two-by-two factorial analysis of the variance for job satisfaction was significant at better than the .01 level, which indicated a significantly higher job satisfaction mean for nurses serving beyond the first two-year tour of duty in the Air Force. Therefore, nurses serving in the first two-year tour of duty had a significantly higher image of nursing, but the nurses
serving beyond the first two-year tour of duty had a significantly higher level of job satisfaction.

Question VII was concerned with the relationship between the image of nursing and job satisfaction for diploma graduate nurses and collegiate graduate nurses in the Air Force. The \( r \) value for the collegiate female nurses was .12, and was not significant. The \( r \) value for female diploma graduate nurses was .17, which was significant at the .01 level. The \( r \) values for the two male nurse groups was .00, and were not significant. Therefore, there was a significant relationship for the female diploma graduate nurses.

Question VIII was concerned with the relationship between the image of nursing and job satisfaction for nursing specialties of Air Force nurses. There were no significant \( r \) values for the male nurse categories. The female nurse administrators had an \( r \) value of .53, which was significant at the .01 level. The female general duty nurses had an \( r \) value of .19, which was significant at the .01 level. There were no significant \( r \) values for the flight nurses, nurse anesthetists, psychiatric nurses, or operating room nurses. Therefore, there was a significant relationship for the female nurse administrators and the female general duty nurses.

Question IX was concerned with the relationship between the image of nursing and job satisfaction for the rank levels of Air Force nurses. There were no significant \( r \) values for
the male nurse rank levels. The female colonels had an \( r \) value of .40, which was significant at the .05 level. The female majors had an \( r \) value of .33, which was significant at the .01 level. There were no significant \( r \) values for the female captains and lieutenants. Therefore, there was a significant relationship for the female colonels and majors.

Question X was concerned with the relationship between the image of nursing and job satisfaction for the educational levels of Air Force nurses. There were no significant \( r \) values for the male nurse groups. The female nurses with a diploma in nursing had an \( r \) value of .16, which was significant at the .01 level. The female nurses with a bachelor's degree had an \( r \) value of .21, which was significant at the .05 level. The \( r \) value for the female nurses with a master's degree was .31, which was not significant. Therefore, there was a significant relationship for the female nurses with a diploma in nursing and the female nurses with a bachelor's degree.

Question XI was concerned with the relationship between the image of nursing and job satisfaction for the number of years of graduate nursing experience of Air Force nurses. There were no significant \( r \) values for the male nurse groups. The female nurses with ten to nineteen years of nursing experience had an \( r \) value of .26, which was significant at the .01 level. The female nurses with over twenty years of nursing experience had an \( r \) value of .38, which was significant at the .01 level. Only the female nurses with ten to
nineteen years of nursing experience in the Air Force Nurse Corps had a significant $r$ value of .32 at the .01 level. Therefore, there was a significant relationship for the female nurses with over ten years of nursing experience, and also a significant relationship for the female nurses with ten to nineteen years of nursing experience in the Air Force Nurse Corps.

Question XII was concerned with the relationship between the image of nursing and job satisfaction for nurses in various size Air Force hospitals. There were no significant $r$ values for any of the male nurse categories. The only significant $r$ value for the female nurses was for the nurses assigned to hospitals of over 300-bed capacity. The $r$ value for that group was .28, which was significant at the .01 level. Therefore, there was a significant relationship for the female nurses assigned to hospitals of over a 300-bed capacity.

Several other $r$ values were computed although not in relation to specific questions presented in the study. The $r$ value for all the female nurses serving in the first two-year tour of duty was .06 and was not significant. However, the female nurses serving beyond the first two-year tour of duty had an $r$ value of .24, which was significant at the .01 level. When the Pearson product-moment correlation coefficient was computed for all of the nurses in the study, a significant $r$ value was obtained at the .01 level. The
female nurses had an $r$ value of .16, which was significant at the .01 level. Therefore, there was a significant relationship for the female nurses serving beyond the first two-year tour of duty in the Air Force. There was no significant relationship between the image of nursing and job satisfaction for the male nurses.

Conclusions

The following conclusions are drawn from an analysis of the findings of the study:

1. Diploma graduate nurses share a common image of nursing.

2. Collegiate graduate nurses begin their nursing careers with a significantly high image of nursing, which undergoes a progressive change with experience that results in a somewhat less positive image of nursing. This is in accord with the evidence of Vaughan, as reported in the review of the literature.

3. The image of nursing for male nurses is not the same as the image of nursing for female nurses.

4. Nurses serving beyond the first two-year tour of duty are significantly more satisfied with their job when compared to nurses serving in the first two-year tour of duty in the Air Force.

5. The type of nursing education does not affect nor determine the degree of job satisfaction of Air Force nurses.
This is contrary to the report of Davis, Olesen, and Whittaker, as well as the report of the National Commission on Nursing, as reported in Chapter II.

6. The higher Air Force nurses advance in rank, the more satisfied they become in their jobs. This is somewhat in agreement with the report of Taves, Corwin, and Haas, as reported in Chapter I.

7. There is an increase in the level of job satisfaction as the number of years of graduate nursing experience increases.

8. The level of job satisfaction of Air Force nurses tends to increase as they are assigned to larger hospitals, in the Air Force.

Recommendations

The following recommendations for further research are made on the basis of the findings and conclusions of the study:

1. Additional investigation is needed to determine probable causes that bring about changes in the image of nursing for collegiate graduate female nurses as well as the change in the image of nursing for female nurses that takes place as the length of nursing experience increases.

2. The collegiate graduate female nurses in the first two-year tour of duty had the highest image of nursing mean, while the collegiate graduate female nurses serving beyond
the first two-year tour of duty had the lowest image of nursing mean, but had the highest job satisfaction mean. Therefore, it is recommended that further research be conducted to determine the percentage of retention for the collegiate graduate nurses in the Air Force as compared to the percentage of retention for the diploma graduate nurses. This is an important consideration worthy of attention in view of the increasing number of graduate nurses currently receiving their nursing education in institutions of higher education.

3. A study should be conducted to determine the basis of job satisfaction for the nurses not assigned to hospitals primarily because that group of nurses demonstrated the highest level of job satisfaction.

4. It is recommended that a large-scale study of registered nurses be conducted to determine the image of nursing in view of the multiple roles currently undertaken and the various functions performed by them as a result of modern technology and scientific advancement.

5. It is recommended that a study be conducted to determine why there were no significant relationships between the image of nursing and job satisfaction for male nurses.

6. Further research is necessary to modernize and clearly define what constitutes modern nursing.

Also, the following suggestions are made for the purpose of improving job satisfaction as a result of the interpretation of the data in the study:
1. There exists a need for a meaningful and effective guidance and counseling program directed specifically to the first two-year tour of duty nurses in the Air Force Nurse Corps for the purpose of increasing personal job satisfaction.

2. The lowest level of job satisfaction for both female and male nurses occurs in the smaller Air Force hospitals. Plans should be developed, implemented, and evaluated that would minimize the time served in the smaller Air Force hospitals.
APPENDIX A

SAMPLE OF COVER LETTER

Reply to: Major Joseph H. Goff
Attn of: Wilford Hall USAF Medical Center
SGHSAA
San Antonio, Texas 78236

Subject: Survey (USAF SCN 72-77)

To: Selected Air Force Nurses

1. Your assistance is requested in this special study concerning Air Force nurses.

2. This survey is being distributed to a selected group of active duty nurses of every rank. The study seeks to gain knowledge and understanding of the image of nursing and job satisfaction as they relate to: nursing education, graduate nursing experience, Air Force experience, nursing specialty, hospital size, and the military rank status of nurses in the Air Force. The information gained from this study will be used in an overall endeavor to improve the quality of patient care rendered to the Air Force population.

3. Please complete the personal data sheet and the two surveys and return them in the enclosed stamped envelope within twenty-one (21) days. Your social security number is requested on the personal data sheet for the purpose of proper categorization and your identity will be known only to the researcher conducting this study. Please be assured that your identity will not be revealed to any other Air Force personnel.

4. Thank you for your kind assistance and contribution to this study.

Joseph H. Goff
Major, USAF NC
Wilford Hall USAF Medical Center
San Antonio, Texas 78236
APPENDIX 5

PERSONAL DATA SHEET

Listed below are items considered important for the purpose of this study. Place your response to each statement in the space provided to the left of each item.

1) ___________________________ Social Security Number.

2) _______ Year of graduation from nursing school.

3) ___________________________ In the space provided, state whether you are a graduate of a diploma nursing program or a collegiate nursing program.

4) ___________________________ Your highest level of education, i.e.
   a) Diploma from nursing school
   b) Bachelor degree
   c) Master's degree
   d) Other ___________________________
      (specify)

5) _______ Number of years of graduate nursing experience prior to joining the Air Force.

6) _______ Number of years in the Air Force Nurse Corps.

7) _______ Air Force Specialty Code (AFSC).

8) _______ From the list below, state the area of work you are presently assigned to.

<table>
<thead>
<tr>
<th>Medical Ward</th>
<th>EENT</th>
<th>Neurosurgical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgical Ward</td>
<td>Pediatrics</td>
<td>Intensive Care</td>
</tr>
<tr>
<td>Obstetrics</td>
<td>Psychiatry</td>
<td>Operating Room</td>
</tr>
<tr>
<td>Gynecology</td>
<td>Orthopedics</td>
<td>Anesthesia</td>
</tr>
<tr>
<td>Urology</td>
<td>Recovery</td>
<td>Administrative</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other (specify)</td>
</tr>
</tbody>
</table>

9) _______ Number of bed hospital.
APPENDIX C

IMAGE OF NURSING QUESTIONNAIRE

NURSING AS A VOCATION

FE MALE NURSES

DIRECTIONS: Following is a list of statements about nursing. You will probably agree with some of the statements and disagree with others. There are no right answers. Just indicate how you feel about each statement by underscoring as in the example.

Code:

SA = Strongly Agree
A = Agree
U = Undecided
D = Disagree
SD = Strongly Disagree

Example: A nurse's uniform should be clean. SA A U D SD

1. The subjects a nurse is required to study are fairly easy. SA A U D SD

2. The social standing of nurses is no higher than office girls. SA A U D SD

*3. Nursing gives one a chance to take an ideal amount of responsibility. SA A U D SD

4. In general, nurses are required to do many unpleasant tasks. SA A U D SD

*5. Because of the unusual working hours and other restrictions, nurses have relatively few chances to meet new and interesting people. SA A U D SD

*6. Nurses, on the average, are more intelligent than women in most other professions. SA A U D SD
7. Many nurses tend to be more concerned with getting paid than with the care of their patients.

8. There are many other occupations for women which provide greater financial independence than nursing.

9. The nursing profession is respected more than most professions open to women.

10. The total cost to the student for nurse's training is quite high.

11. More than any other occupation for women, nursing provides opportunities for worthwhile service to humanity.

12. Nurses are more highly educated than women in other professions.

13. A girl who goes into nursing has a good opportunity to find a highly desirable husband.

14. Generally speaking, nursing is an occupation chosen mostly by girls who wouldn't be able to make satisfactory grades in college.

15. The income received by nurses is above the average for employed women.

16. Nursing provides an excellent opportunity to put one's religious beliefs into practice.

17. The period of time required for graduation from a school of nursing is quite reasonable.

18. Nursing provides an excellent preparation for marriage and family life.

19. The work ordinarily required of a nurse is no more exhausting than that in most other occupations for women.

20. Most nurses can have financial independence because there are always opportunities for full or part-time work.
21. Most of the tasks which a nurse performs are pleasant and interesting.

22. Most of the knowledge and skills which a nurse has are so technical that they are of little use to her in her home.

23. The work in nursing is often physically exhausting.

24. In their work, nurses are more independent and self-directing than women in most other professions.

25. Nurses aren't really so very important in relieving suffering and helping the sick to regain health.

26. Many schools of nursing supervise and restrict the social life of their girls too much.

27. Many nurses are required to take too much responsibility on the job.

28. The pay received by most nurses is reasonable and satisfactory.

29. Nursing gives one a chance to meet and associate with many interesting people.

30. Actually, many of the tasks which a nurse does could be done by someone else with much less education and skill.

31. The education required to become a nurse costs less than that for most other women's occupations.

32. Nurses must take and follow orders more than other employed women.

33. Nursing is a real challenge because of the great amount of skill required.

34. Nursing offers a few opportunities to take responsibility.

35. The time spent in receiving an education for nursing is no longer than it would need to be.
36. The subject matter nurses are required to learn is more difficult than it would need to be for the work they do. . . . . . . SA A U D SD

*These items are the twenty-one used for the Image of Nursing Scale.
APPENDIX D

BULLOCK JOB SATISFACTION SCALE

IS IT A GOOD JOB?

The following statements show some of the ways people feel about the work they do. In each item, please put a check mark in front of the statement which most accurately and honestly tells how you feel about your job.

1. Place a check mark in front of the statement which best tells how good a job you have.

_____ A. The job is an excellent one, very much above the average.
_____ B. The job is a fairly good one.
_____ C. The job is only average.
_____ D. The job is not as good as average in this kind of work.
_____ E. The job is a very poor one, very much below the average in this kind of work.

2. Place a check mark in front of the statement which best describes the feelings about your job.

_____ A. I am very happy and satisfied on this job.
_____ B. I am fairly well satisfied on this job.
_____ C. I am neither satisfied nor dissatisfied—it is just an average job.
_____ D. I am a little dissatisfied on this job.
_____ E. I am very dissatisfied and unhappy on this job.

3. Check one of the following which best describes any general conditions which affect your work or comfort on this job.

_____ A. General working conditions are very bad.
_____ B. General working conditions are poor—not so good as the average for this kind of job.
_____ C. General working conditions are about average—neither good or bad.
_____ D. In general, working conditions are good—better than average.
_____ E. General working conditions are very good—much better than the average for this kind of job.
4. Place a check mark in front of the statement which best tells how good an organization it is to work for.

_____ A. It is an excellent organization to work for--one of the best organizations I know of.
_____ B. It is a good organization to work for but not one of the best.
_____ C. It is only an average organization to work for. Many others are just as good.
_____ D. It is below average as an organization to work for. Many others are better.
_____ E. It is probably one of the poorest organizations to work for I know of.

5. Place a check mark in front of the statement which best tells how your feelings compare with those of other people you know.

_____ A. I dislike my job much more than most people dislike theirs.
_____ B. I dislike my job more than most people dislike theirs.
_____ C. I like my job about as well as most people like theirs.
_____ D. I like my job better than most people like theirs.
_____ E. I like my job much better than most people like theirs.

6. Place a check mark in front of the statement which best tells how you feel about the work you do on your job.

_____ A. The work I do is very unpleasant. I dislike it.
_____ B. The work I do is not pleasant.
_____ C. The work is "just about average." I don't have any particular feeling about whether it is pleasant or not.
_____ D. The work is pleasant and enjoyable.
_____ E. The work is very enjoyable. I very much like to do the work called for on this job.

7. Check one of the following statements to show how much of the time you are satisfied with your job.

_____ A. Most of the time.
_____ B. A good deal of the time.
_____ C. About half of the time.
_____ D. Occasionally.
_____ E. Seldom.
8. Check one of the following statements which best tells how you feel about changing your job.

   _____ A. I would quit this job if I had anything else to do.
   _____ B. I would take almost any other job in which I could earn as much as I am earning here.
   _____ C. This job is as good as the average and I would just as soon have it as any other for the same money.
   _____ D. I am not eager to change jobs but would do so if I could make more money.
   _____ E. I do not want to change jobs even for more money because this is a good one.

9. Suppose you had a very good friend who is looking for a job in your line of work and you know of a vacancy in this organization which your friend is well qualified for. Would you:

   _____ A. Recommend this job as a good one to apply for.
   _____ B. Recommend this job but caution your friend about its shortcomings.
   _____ C. Tell your friend about the vacancy but not anything else, then let her decide whether to apply or not.
   _____ D. Tell your friend about the vacancy but suggest that she look for other vacancies elsewhere before applying.
   _____ E. Try to discourage your friend from applying by telling the bad things about the job.

10. Place a check mark to show how well satisfied you are with this job.

    _____ A. Completely dissatisfied.
    _____ B. More dissatisfied than satisfied.
    _____ C. About half and half.
    _____ D. More satisfied than not.
    _____ E. Completely satisfied.
APPENDIX E

IMAGE OF NURSING QUESTIONNAIRE

MALE NURSES

DIRECTIONS: Following is a list of statements about nursing. You will probably agree with some of the statements and disagree with others. There are no right answers. Just indicate how you feel about each statement by underscoring as in the example.

Code:

SA = Strongly Agree
A = Agree
U = Undecided
D = Disagree
SD = Strongly Disagree

Example: A nurse's uniform should be clean...SA A U D SD

1. The subjects a nurse is required to study are fairly easy...SA A U D SD

2. The social standing of nurses is no higher than office workers...SA A U D SD

*3. Nursing gives one a chance to take an ideal amount of responsibility...SA A U D SD

4. In general, nurses are required to do many unpleasant tasks...SA A U D SD

*5. Because of the unusual working hours and other restrictions, nurses have relatively few chances to meet new and interesting people...SA A U D SD

*6. Nurses, on the average, are more intelligent than individuals in most other professions...SA A U D SD

7. Many nurses tend to be more concerned with getting paid than with the care of their patients...SA A U D SD
*8. There are many other occupations which provide greater financial independence than nursing.

*9. The nursing profession is respected more than most professions open to men and women.

*10. The total cost to the student for nurse's training is quite high.

*11. More than any other occupation for men or women, nursing provides opportunities for worthwhile service to humanity.

*12. Nurses are more highly educated than individuals in other professions.

13. An individual who goes into nursing has a good opportunity to find a highly desirable marriage partner.

*14. Generally speaking, nursing is an occupation chosen by individuals who wouldn't be able to make satisfactory grades in college.

15. The income received by nurses is above the average for employed men or women.

*16. Nursing provides an excellent opportunity to put one's religious beliefs into practice.

*17. The period of time required for graduation from a school of nursing is quite reasonable.

*18. Nursing provides an excellent preparation for marriage and family life.

19. The work ordinarily required of a nurse is no more exhausting than that in most other occupations for men and women.

*20. Most nurses can have financial independence because there are always opportunities for full or part-time work.

*21. Most tasks which a nurse performs are pleasant and interesting.
22. Most of the knowledge and skills which a nurse has are so technical that they are of little use in the home.

23. The work in nursing is often physically exhausting.

24. In their work, nurses are more independent and self-directing than individuals in most other professions.

25. Nurses aren't really so very important in relieving suffering and helping the sick to regain health.

26. Many schools of nursing supervise and restrict the social life of their students too much.

27. Many nurses are required to take too much responsibility on the job.

28. The pay received by most nurses is reasonable and satisfactory.

29. Nursing gives one a chance to meet and associate with many interesting people.

30. Actually, many of the tasks which a nurse does could be done by someone else with much less education and skill.

31. The education required to become a nurse costs less than that for most other occupations.

32. Nurses must take and follow orders more than other employed individuals.

33. Nursing is a real challenge because of the great amount of skill required.

34. Nursing offers a few opportunities to take responsibility.

35. The time spent in receiving an education for nursing is no longer than it would need to be.
36. The subject matter nurses are required to learn is more difficult than it would need to be for the work they do. ...

*These items are the twenty-one used for the Image of Nursing Scale.*
SAMPLE LETTER TO REQUEST PERMISSION TO USE INSTRUMENTS

Dear Sir,

I am a nurse anesthetist in the United States Air Force and presently enrolled in the doctoral program, College of Education, North Texas State University in Denton, Texas. Currently I am preparing my dissertation proposal to study job satisfaction of nurses in the United States Air Force.

Two instruments that I would like to use in my study are: (1) The Bullock Job Satisfaction Scale and (2) The Image of Nursing Questionnaire used and/or developed by Taves, Corwin, and Haas. The Bullock Job Satisfaction Scale was used in "Social Factors Related to Job Satisfaction" by Robert P. Bullock and also in "Role Conception and Vocational Success and Satisfaction" by Marvin Taves, Ronald G. Corwin, and J. Eugene Haas. The Image of Nursing Questionnaire was used in the text stated above by Taves et al. Both texts were published by The Ohio State University.

I would be most grateful to receive your permission to use these two instruments in my dissertation study. If this permission is not within your domain could you kindly furnish me with the necessary information as to where I may write for such permission. Also, could you furnish me any data regarding the reliability and validity statistics pertaining to "The Image of Nursing Questionnaire," as I have been unable to locate any of these facts.

I will be most grateful and appreciative for your kindness and attention given to me in this request. Thank you very much.

Sincerely,

Joseph H. Goff
Major USAF (NC)
Dear Major Goff:

The publishers and the authors (Dr. Robert Bullock and Dr. Ronald G. Corwin) are glad to give you permission to use the Bullock "Job Satisfaction Scale" as published in Social Factors Related to Job Satisfaction (Ohio State University Bureau of Business Research Monograph No. 70), and the Taves-Corwin-Haas "Image of Nursing Questionnaire" as published in Role Conception and Vocational Success and Satisfaction (Ohio State University Bureau of Business Research Monograph No. 117) in your doctoral dissertation.

It is understood, of course, that you will give proper acknowledgment by citation of author, title and publisher in your manuscript.

Dr. Corwin states that he doubts that he has a record of the statistics on checks of internal consistency made when he and co-authors were developing the "Image of Nursing Questionnaire" but that he will search his files and in any case will send you statistics on tests made on another scale used in that study. I am forwarding your letter for his attention.

Sincerely,

James C. Yocum
Professor of Business Research

JCY:cmd
APPENDIX H

SAMPLE LETTER REQUESTING AIR FORCE PERMISSION TO CONDUCT STUDY

TO: Program Manager CIM
Air Force Institute of Technology
Wright-Patterson Air Force Base
Dayton, Ohio 45433

FROM: Major Joseph H. Goff
USAF (NC)

SUBJECT: Air Force Headquarters Approval for Dissertation Survey

1. Title--Image of Nursing and Job Satisfaction of United States Air Force nurses.

2. The problem of this study is to ascertain the image of nursing and job satisfaction of nurses in the United States Air Force.

3. The purposes of the study will be to determine the image of nursing and the status of job satisfaction of: (1) diploma graduate and collegiate graduate nurses; (2) first duty tour nurses and those serving beyond the initial two-year tour; and, (3) the various nursing specialties, and the rank levels of Air Force nurses.

4. The population to be surveyed is active duty Air Force nurses. The selection of female nurses will be done by the stratified random selection technique to consist of a minimum of 800 nurses based on nursing training and the criterion of time in the service as stated above. A random sample of 75 male nurses will also be selected for the same purposes of the study.

5. Statistical analysis of the data will include the use of the F-ratio employing a two by two factorial analysis of the variance. The Pearson product-moment correlation coefficient will be computed for the two instrument raw scores of the various categories under consideration.
6. Estimated cost of the survey is unknown at this time.

7. The two instruments used are under copyright and permission for the use of the instruments has been obtained. (See attached letters.)

8. Respondents in this survey will possibly be located in all Air Force Commands.

9. Correction to the enclosed copy of the dissertation abstract proposal is in the limitation. The study will no longer be limited to female nurses since a randomly selected sample of male nurses will also be included. However, the study will be limited to nurses serving within the continental limits of the United States.

10. All respondents will be on a voluntary basis. Social Security Numbers will be asked for, so that non-respondents to the initial mailing can be contacted again for the purpose of increasing the returns. The identification will be known only to the researcher and the doctoral committee members of North Texas State University.

11. The proposal for this dissertation study has been accepted by this student's doctoral committee at North Texas State University.

Joseph H. Goff
Major, USAF (NC)

2 Attachments:
- Job Satisfaction Scale
- Image of Nursing Questionnaire
- Personal Data Sheet
- Proposal Abstract
- Dissertation Proposal Letter to AFIT-CIM
- AFIT-CIM Letter of Approval
- Letter to Ohio State University
- Permission Letter for Use of Instruments

1 Attachment:
- Dissertation Proposal
APPENDIX I

SAMPLE LETTER OF AIR FORCE APPROVAL TO CONDUCT SURVEY

Reply to
Attn of: ACMR

Subject: Request for Survey Control Number
(Major Joseph H. Goff)
(Your Ltr, 29 Mar 72)

To: AU/EDV

The survey, "Job Satisfaction and Image of Nursing of United States Air Force Nurses," is approved for administration under USAF SCN 72-77.

FOR THE CHIEF OF STAFF

ROBERT B. BLACK, Lt Colonel, USAF
Chief, Research and Analysis Division
Directorate of Management Analysis
APPENDIX J

SAMPLE OF FOLLOW-UP LETTER TO
NON-RESPONDENTS TO SURVEY

Several weeks ago you received a questionnaire concerning the image of nursing and job satisfaction of Air Force nurses. As of this date, I have not received your completed questionnaire. May I request your assistance in this study and ask that you please respond to this survey by completing the enclosed questionnaire and return it to me in the enclosed stamped envelope.

Thank you for your cooperation and assistance in this study.
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**Articles**


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Reports
