

RELATIONSHIP BETWEEN WORK SETTING
AND LEVEL OF JOB SATISFACTION

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CHAPTER 1

INTRODUCTION

Critical care units are comprised of numerous health care providers joined together in an effort to provide optimal health care for the critically ill. The individual who spends the most time in the critical care setting is the registered nurse. This individual provides the hands-on care exemplified by the careful monitoring of vital signs, meticulous attention to insidious changes in the patients' clinical status, and accurate intervention before a clinical crisis takes place. In conjunction with direct patient care, the registered nurse functions as a patient manager receiving physician orders and coordinating various tests, procedures, and treatments. Comforting and teaching families of patients are also responsibilities of the registered nurse.

In order to adequately care for critically ill patients, the registered nurse should have advanced technological skills and training. The registered nurse may acquire these skills through actual work experience and through advanced educational programs. Developing the nurse's skills involves an investment of time and money by hospitals and administrative staff.

When newly employed nurses are oriented to a critical care unit they are given material and instruction regarding nursing responsibilities and work expectations. At this time, nurses are evaluated for their level of knowledge in conjunction with proficiency in technological skills. Feedback based on the evaluation may identify areas of clinical weaknesses. Thus, the registered nurse may need additional orientation to overcome these deficiencies in order to function in the critical care unit.

As time passes, the registered nurse becomes familiar with the work environment and its various components. These components may include unit policies and procedures, co-workers, medical staff, and patients. Familiarity allows the registered nurse additional time and energy that may be directed in a creative approach to nursing practice. For example, the care of a critically ill patient involves total body needs and is reflected in an abundance of patient-related data. From this, the nurse may systematically compile pertinent information for a planned course of nursing care.

Nursing practice may be considered individualized for each client, yet uniform with administrative standards of care. Development of a well-trained and experienced nursing staff is needed to facilitate this level of nursing

practice. The nursing staff would be able to anticipate and communicate patient needs with timely interventions.

The establishment of a nursing staff comprised of the same employees is difficult to achieve as nurses frequently change their employment setting. Consequently, there is a continual process of orienting new registered nurses to fill vacant positions in critical care units. This cyclical phenomena of recruitment, hiring, and orientation in conjunction with terminations results in continual changes within the nursing staff. Therefore, it may become more difficult to provide optimal levels of patient care in the critical care unit.

Problem of Study

Recognizing the incidence of turnover rates among registered nurses working in critical care units to be both time consuming and costly, the following problem was addressed: What levels of job satisfaction do nurses who work in intensive care units achieve as compared with nurses employed in nonintensive care units?

Justification of Problem

Employed nurses have experienced high turnover rates for many years. According to Wolf (1981), national turnover rates varied from 32% to 65% among registered nurses.

Within the intensive care setting, Kilgour (1975) reported an average length of employment of 6 to 9 months. In an era of economic restraints there is growing concern by consumers (Swansburg, 1981) and public officials (Aiken, Blendon, & Rogers, 1981; Sebilian, 1984) regarding the allocation of funds toward the recruitment and orientation of nurses. Therefore, resolution of this issue is crucial for both the nursing profession's autonomy and the quality of patient care delivered within the health care system.

Seybolt, Pavett, and Walker (1978) stated the average cost to orient one registered nurse in 1978 was approximately \$2,000. This figure included orientation training and processing costs. However, it did not include costs incurred for recruitment, nonproductivity during orientation and training, overtime salaries paid to others, as well as departure processing costs. According to Everly and Falcione (1976), orientation costs to prepare a newly employed registered nurse for an intensive care unit have exceeded the general orientation process. Additional time is required to adequately prepare each nurse for a work environment saturated with responsibilities and advanced technology.

Compounding this issue is the redistribution of hospital beds from general care to the intensive care

setting (Dear, Weisman, Alexander, & Chase, 1982; Rose, 1982; White & Maguire, 1973). This expansion is in response to a trend in health care of improved patient survival rates from catastrophic illnesses and traumatic accidents. As the number of intensive care beds is increased to accommodate the patients' needs, there is a larger demand for registered nurses to work in the critical care units.

An additional factor to consider is the impact of federal regulatory measures for health care. According to Swansburg (1981), the advent of disease related groups (DRGs) in the critical care units has accelerated the recuperation period. Hence, there has developed a momentum within the work environment to deliver quality patient care in a cost effective manner.

Medical technology has become increasingly complex within the critical care setting. In order to stay abreast of technological changes, the registered nurses attend educational inservice programs and a variety of learning sessions. Due to the rapid work pace in the critical care units, there may be a lack of sufficient time to educate the registered nurses. Therefore, additional salaried time may be needed to establish a good understanding and subsequent proficiency of technological skills (Benner, 1984).

In summary, the registered nurse working in the critical care unit reflects a considerable investment by hospital administration. As nurses terminate their positions, the investment is no longer available to the institution. There may be a significant financial loss to health care institutions due to the incidence of high turnover rates among registered nurses. Thus, the investigation of job satisfaction may identify factors pertaining to the work situation that are perceived positively and negatively by the nursing staff. The nurse manager may use this information to initiate changes within the work environment. With appropriate changes in the work environment, job satisfaction among registered nurses in the intensive care units should improve, thereby reducing turnover.

Theoretical Framework

The theoretical framework for this study was the dual factor theory of motivation developed by Frederick Herzberg (1966). An historical overview will be initially addressed, followed by discussion of Herzberg's dual factor theory of motivation. Specific theoretical components in conjunction with their mechanisms of interaction will also be addressed.

According to Herzberg, Mausner, and Snyderman (1959), motivational theories evolved during the post industrial era

as alternative methods of management aimed to motivate workers and subsequently improve work productivity. One of the earliest developmental theories was produced by Abraham Maslow. According to Maslow (1954), self-development is an inherent need in all working individuals. There is a sequential progression through various developmental stages as workers satisfactorily resolve unmet needs. By understanding this process, managers could create a motivating environment and thus encourage self-development. A positive work situation should then be reflected in improved work output.

Maslow (1954), in his humanistic theory of motivation, defined the whole working man to be a composite of physical, social, and psychological needs. These needs or drives are divided into separate levels and arranged in a hierarchical structure. Maslow considered the foundation of the hierarchical structure to be a bi-directional continuum. Thus, the worker could potentially advance through a particular stage and then return at a later period of time. According to Maslow (1943), the worker has a "prepotency of needs of which the drive with the greatest prepotency would take precedence" (p. 371). The individual experiences growth and development as each need is satisfactorily met.

There are five levels of needs beginning with the basic biological needs (Maslow, 1954). Examples of biological needs include hunger, thirst, and shelter. The next two levels consist of the social needs: the need to be loved and the need to belong to a social group. Psychological needs comprise the two highest levels within the hierarchical structure. Maslow identified these needs as the need for self-esteem and self-actualization.

As an alternative managerial approach, Herzberg et al. (1959) proposed that job satisfaction evolves from a complex network of extrinsic and intrinsic factors. Extrinsic factors are work related items such as salary, interpersonal relations, supervision, company policy and administration, status, and job security. Herzberg (1966) considered these items to be hygiene factors "which maintain the worker in a neutral position" (p. 16). If the worker perceives a deficiency among the hygiene factors, there may be a shift from the neutral position to a dissatisfied work attitude. While satisfaction of the extrinsic factors is necessary to prevent job dissatisfaction, they do not motivate the worker to excel in job performance.

Intrinsic factors, as defined by Herzberg et al. (1959), are items related to work content and are perceived as motivators. Examples of intrinsic factors include recognition, achievement, advancement, responsibility, and work

itself. As motivators, Herzberg et al. considered these items as directly influencing the degree of job satisfaction. As the worker perceives these intrinsic factors in a positive fashion, there is stimulation from within the individual to grow. Thus, the worker becomes an anticipator versus a reactor to the work situation. However, a perceived lack of intrinsic factors may contribute to individual stagnation.

Extracting from Maslow's structural hierarchy, Herzberg et al. (1959) formed a dichotomy distinguishing physiological or hygiene factors from social/psychological or motivational factors. Herzberg et al. incorporated Maslow's biological and safety needs as hygiene or maintenance factors. The remaining needs, social, self-esteem, and self-actualization, comprised the motivational factors.

While Maslow (1954) based the hierarchical structure on a continuum, Herzberg (1966) separated the hygiene and motivating factors into two distinct planes. As a result of the unipolar characteristic, movement would be unidirectional. Thus satisfaction of the hygiene needs, one dimensional plane, would prevent job dissatisfaction. Whereas on a separate plane, encouraged motivators would perpetuate a positive job attitude.

The application of Herzberg's dual factor theory to research in nursing is relevant for several reasons. As a

theoretical framework, the dual factor theory distinguishes issues pertaining to work context from work content. With this information, managers would be able to prioritize problems recognizing the short term effects of resolving hygiene issues and long term effects of motivational factors (Beyers, Mullner, Byre, & Whitehead, 1983; Herzberg et al., 1959).

The dual factor theory may also assist the nurse administrator to assess the climate of the nursing staff. Everly and Falcione (1976) found that a large teaching hospital may have a greater number of variables to be assessed than a rural hospital. Within the hospital, Everly and Falcione also found there to be different needs expressed by the various nursing units.

Research in job satisfaction among nursing personnel has been conducted in health care facilities across the nation of which Herzberg's dual factor theory served as the theoretical framework. By comparing research findings, the nursing profession may develop strategies that influence job satisfaction among the nursing personnel (Timmreck & Randall, 1981).

Assumptions

For the purpose of this study the following assumptions were made:

1. Registered nurses, as employees, experience periods of job satisfaction and job dissatisfaction (Herzberg et al., 1959).
2. Each registered nurse, as an individual, experiences the individual need for self-development (Maslow, 1954).

Research Questions

The research questions for this study were as follows:

1. What levels of job satisfaction do nurses who work in intensive care units achieve as compared with nurses employed in nonintensive care units?
2. What levels of job satisfaction in the subcategories of task requirements, pay, organizational requirements, interaction, autonomy, and job prestige/status do nurses who work in intensive care units achieve as compared with nurses employed in nonintensive care units?
3. What is the relationship of age to levels of job satisfaction in nurses who work in intensive care units as compared with nurses employed in nonintensive care units?

Definition of Terms

For the purpose of this study, the following terms were defined:

1. Job satisfaction--a registered nurse is satisfied with his or her job if there is a positive evaluation of the work situation, as measured by the Work Satisfaction Survey (Hall, VonEndt, & Parker, 1981).
2. Nurses working in intensive care units--staff registered nurses who are employed in a work setting for more than three months. These nurses care for adult patients that are clinically unstable and require constant observation and monitoring (Dear, Weisman, Alexander, & Chase, 1982; Maloney, 1982).
3. Nurses working in nonintensive care units--staff registered nurses who are employed in a work setting for more than three months. These nurses care for adult medical-surgical patients that are clinically stable and do not require close observation (Dear et al., 1982; Maloney, 1982).
4. Work situation--a summation of integral work items and surrounding work attributes which relate to the function of a registered nurse (Herzberg et al., 1959; Slavitt, Stamps, Piedmont, & Haase, 1978).

Limitations

This study was limited as follows: The sample was based on the accessible population, thus the findings may not be generalized beyond the specified sample.

Summary

The incidence of turnover rates among registered nurses working in critical care units has been recognized to be both time consuming and costly. Therefore, the problem of this study was: What levels of job satisfaction do nurses who work in intensive care units achieve as compared with nurses employed in nonintensive care units? The theoretical framework used in this study was Herzberg's (1966) dual factor theory of motivation.

Three research questions were proposed that were designed to ask what levels of job satisfaction were held by nurses employed in different work settings. Overall job satisfaction and subcategories, such as task requirements, interaction, pay, organizational requirements, autonomy, and job prestige, were included to compare levels of job satisfaction among the two groups of nurses. The effect of age as a variable in relation to levels of job satisfaction achieved by the two groups of staff nurses was included as the third research question.

CHAPTER 2

REVIEW OF LITERATURE

A review of literature was conducted regarding levels of job satisfaction among nurses in relation to work settings. An historical perspective of early studies of job satisfaction is presented. Theory development related to these studies is also presented.

Studies of job satisfaction in nursing are reviewed in the second section. These studies are discussed to present both the job related needs of nurses and the job factors that contribute to job satisfaction and job dissatisfaction. Studies in nursing with the predictive effect of individual differences on nurses' job satisfaction are also reviewed.

The effects on job satisfaction upon registered nurses employed in intensive care units are presented in the final section. Nursing studies of turnover among nurses in relation to job satisfaction are included in this section.

Research in Job Satisfaction

Much of the research in job satisfaction evolved during the post industrial era. To maintain effective employer-employee relationships, managers utilized various administrative strategies and techniques. Subsequently, there

arose certain issues questioning the effectiveness of management. Employee dissatisfaction was an example of an issue that not only confronted management efforts but also was costly to the employer.

One of the initial studies of job satisfaction, the Hawthorne study, was conducted by Elton Mayo (1945). Mayo (1945) proposed that workers achieve job satisfaction through psychological incentives as well as monetary incentives. To investigate this hypothesis, Mayo studied the effects of psychological incentives in relation to both job satisfaction and job performance. Mayo used a group of workers who experienced low morale and poor job performance as the subjects for this study. The study involved a mutual collaboration of managers and workers to explore sources within the work environment that perpetuated low morale and poor job performance. Both groups stated that better lighting would be an improvement. This option was implemented and although no statistical information was reported, the author stated that job performance was observed to have improved. At a later time, the two groups mutually agreed that the lighting should be reduced due to its glaring effect. Workers' morale and job performance continued to improve even with the reduction in lighting. Mayo concluded that the workers' improved morale was

secondary to the participative decision-making between managers and workers. The opportunity to initiate change within their environment served as a positive psychological incentive for the group of workers.

Herzberg, Mausner, and Snyderman (1959) considered job satisfaction to be influenced by a variety of work factors. In particular, Herzberg et al. proposed that certain work factors may lead to job satisfaction, whereas other work factors influence feelings of job dissatisfaction.

Using an interview technique, Herzberg et al. (1959) investigated work attitudes of two work groups, accountants and engineers. Each participant was asked to describe a work incident perceived positively by the individual. In addition, the participant was asked to describe the preceding events and any associated feelings regarding the work incident. Subsequently, each participant was asked to recall a negative work incident and describe the preceding thoughts and events.

From this interviewing technique, Herzberg et al. (1959) analyzed each participant's work experience into smaller subcomponents. These subcomponents reflected different aspects of the job and work environment. Classification of similar subcomponents introduced the following six subcategories: task requirements, pay, interaction, organizational requirements, job prestige, and autonomy.

Herzberg et al. (1959) also identified the variables of recognition, achievement, and advancement as influencing job satisfaction. These subcomponents were labelled motivators. Conversely, the authors labelled other subcomponents, such as salary, job security, and supervision/technical responsibility, as hygiene factors. The hygiene factors influence the degree of job dissatisfaction perceived by the worker.

Building upon Herzberg's dual factor theory, Smith, Kendall, and Hulin (1969) proposed that a worker's perception of job satisfaction is derived from a personal frame of reference such as individual traits, needs, and experiences. Furthermore, Smith et al. suggested that the worker's frame of reference would influence perception of job factors as either satisfiers or dissatisfiers. This hypothesis differed from Herzberg's in that Herzberg considered job factors to be absolutely satisfiers or dissatisfiers.

The lack of consideration of individual differences in the study by Herzberg et al. (1959) was identified as a validity issue by industrial researchers (Fournet, Distefano, & Pryer, 1966; House & Wigdor, 1967). These researchers thought that individual differences such as age, level of education, sex, and experience may influence the participant's perception of job satisfaction.

A second area of criticism involved the methodological approach used by Herzberg et al. (1959) in their study. Using a critical incident technique, the participants may report positive incidents to be reflective of their success (Vroom, 1964) or promotion (Ewen, 1964), whereas negative incidents were related to organizational deficiencies (Fournet et al., 1966; Vroom, 1964). In addition, Vroom stated that the use of an interview may result in misinterpretation or bias of information received by the interviewer.

Aside from the criticisms, Whitsett and Winslow (1967) suggested that the work done by Herzberg et al. (1959) provided an empirical basis for continued research and investigation of job satisfaction. Given the complexity of management, the study gives managers added direction in identifying personnel issues and initiating administrative strategies for effective resolution.

Job Satisfaction in Nursing

Studies of job satisfaction in nursing began with the identification of staff nurses' working needs. Based on Maslow's hierarchy of needs, Nahm (1940) suggested that nurses experienced social and psychological needs. The author interviewed graduate nurses about their adjustment from school to work and what work attributes influenced a satisfactory transition. The nurses in the study identified

interpersonal relations, work itself, and supervisor-technical interactions as factors influencing the degree of job satisfaction.

McCloskey (1974) found that psychological needs were perceived by the entire sample of 94 staff nurses to be of greater importance than safety or social needs. Examples of psychological needs expressed by the nurses included educational opportunities, job responsibilities, recognition of work, career advancement, and participation in research (McCloskey, 1974).

Professional growth was considered by graduate nurses to be related to a positive perception of the work situation (Kramer, 1969). In a survey of 17,000 respondents to Nursing '77, Godfrey (1978a, b) reported professional growth to be the highest ranked need of nurses.

On the East coast, Weisman, Alexander, and Chase (1980) conducted a longitudinal study investigating job satisfaction among nurses. The level of autonomy perceived by the nurses was reported to be the strongest predictor of overall job satisfaction.

Herzberg's dual factor theory has served as a theoretical foundation for nursing studies of job satisfaction. The focus of the nurse researchers involved the identification of work-related factors that were perceived by various groups of nurses to influence the degree of job

satisfaction. From this information, managers may institute strategies to enhance the positive aspects of the work situation.

Using a semi-structured interview technique with nursing supervisors, White and Maguire (1973) investigated factors of job satisfaction. Three motivators, work itself, growth, and recognition, were identified as influencing job satisfaction thus consistent with Herzberg's dual factor theory. Of the hygiene factors, the nursing supervisors considered supervisor-technical relationships as a prime dissatisfier.

Studying job satisfaction among registered nurses, Longest (1974) asked participants to classify Herzberg's job factors as either positive or negative. Both motivational and hygiene factors were positively classified by the participants. These findings were inconsistent with Herzberg's distinction of motivational factors leading to a positive job attitude and hygiene factors preventing a negative job attitude. Herzberg identified interpersonal relations, hospital policies and administration as hygiene factors; the participants in the study by Longest classified these job factors to be contributory to a positive job attitude. The work itself and job related responsibilities were identified by the participants as motivators thus consistent with Herzberg's dual factor theory.

Everly and Falcione (1976) based their investigation of work incentives on Herzberg's dual factor theory. Factors identified by 144 registered nurses as contributing to a positive job attitude incorporated both hygiene and motivating variables. Examples included relationships with peers, supervisors, and management; internal work incentives such as advancement, and work itself; and external work incentives such as pay, benefits, and administrative policies.

In a study of job satisfaction among new graduate nurses, Cronin-Stubbs (1977) supported Herzberg's findings. Job factors identified by the participants to be related to a positive view of the work situation included achievement, patient care, and recognition. Herzberg et al. (1959) considered these job factors as motivators and contributing to job satisfaction. Factors considered by the graduate nurses as influencing job dissatisfaction included staffing, interpersonal relations, and working conditions. Herzberg et al. labelled these job factors as hygiene factors in that they are necessary to prevent job dissatisfaction but do not directly lead to job satisfaction.

Using the same methodological approach as Herzberg, Ullrich (1978) interviewed approximately 40 registered nurses to identify positive and negative factors in their

work situations. Results of his study indicated that achievement and recognition were positive attributes of job satisfaction. In comparison, technical-supervision, hospital policies and procedures, and responsibilities were considered negative work factors. Ullrich criticized the validity of Herzberg's dual factor theory based on his finding that responsibility was perceived by the subjects in his study to be a hygiene factor. Conversely, Herzberg et al. (1959) considered responsibility to be a motivational factor influencing job satisfaction. The inconsistency in research findings may be related to the methodological approach used by the investigators. According to Vroom (1964), the interviewing process requires some interpretation by the interviewer, thus the actual meaning of statements may be clouded.

In a study by Froebe, Deets, and Knox (1983) of 322 staff and 91 administrative nurses, there were hygiene and motivating factors identified as influencing nurses to retain their positions. Among the hygiene factors, money was considered the most important to all participants. The staff nurses reported shift assignment and supervisor-technical relations as positive hygiene factors. Examples of positive motivators reported by the staff nurses included accomplishment, recognition, work itself, and accountability.

Munro (1983) used a sample of 329 graduate nurses to correlate overall job satisfaction with job factors outlined by Herzberg. The findings were supportive of five of six motivators; achievement, work itself, responsibility, advancement, and growth. Recognition, the sixth motivator, was not supported by the research findings in the study by Munro. However, Munro found four hygiene factors, supervision, working conditions, status, and security, which participants perceived to influence job satisfaction. Although these findings were not consistent with Herzberg's dual factor theory, the participants classified salary and benefits as influencing job dissatisfaction which was supportive of Herzberg's findings.

Researchers of job satisfaction in nursing also included identification of work factors that influenced job dissatisfaction. One of the earliest studies to identify job factors that are positively and negatively perceived by registered nurses was conducted by Benton and White (1972). The nurses were asked to identify job factors that were perceived positively and those considered to be contributory to job dissatisfaction. In addition, the nurses were asked to identify aspects of their jobs that they perceived to be deficient in the work setting. According to the investigators, nurses that perceived certain job factors as having

a positive influence on job satisfaction and yet found deficient areas in the work setting may produce job dissatisfaction (Benton & White, 1972).

Benton and White (1972) indicated from their findings that safety and security needs were the most important area for the 564 participants. Second in importance were social needs such as congenial work associates and appreciation by patients, followed by the esteem needs which included work autonomy and recognition by management. Interestingly, the registered nurses stated that the most deficient area was safety and security needs. Examples of job factors in this area included adequate personnel per shift, job security, and physical working conditions (Benton & White, 1972).

In Texas, Wandelt, Pierce, and Widdowson (1981) interviewed 3,500 registered nurses to determine sources of job dissatisfaction and unemployment. Salaries were found to be the highest ranked source of job dissatisfaction followed by paper work and lack of administrative support.

Salaries and benefits were noted via questionnaires to be sources of job dissatisfaction among registered nurses in studies conducted in Florida (Ginzberg, Patray, Ostow, & Brann, 1982) and New York State (Castiglia, McCoustand, & Hunter, 1983). Additional job factors identified by registered nurses influencing job dissatisfaction included

quality of care (Castiglia et al., 1983; Ginzberg et al., 1982), staffing and scheduling (Castiglia et al., 1983; Ginzberg et al., 1982; Jones, Tholen, Feller, & Dunlap, 1981), and lack of physician and management collaborative support (Castiglia et al., 1983).

Individual Characteristics

Researchers studying job satisfaction among registered nurses have examined individual characteristics in relation to turnover and job satisfaction. According to Herzberg et al. (1959), age has a greater variability in relation to workers' perception of job satisfaction than other individual differences. For example, a young employee would report a higher level of job satisfaction than an employee with three to five years experience on the job. However, Herzberg et al. suggested that once the employee has five years experience on the job, and is approximately 30 years old, job satisfaction improves.

Weisman, Alexander, and Chase (1980) published their research findings of a longitudinal study investigating the predictive effect of independent variables in relation to job satisfaction among staff registered nurses. The investigators compiled data from two metropolitan hospitals located in Maryland. From their findings, Weisman et al. reported that age, autonomy, first position, and physician

task delegation were predictive of job satisfaction among staff registered nurses. There was a direct relationship between the independent variables and level of job satisfaction except for the variable, first position, which had an inverse relationship to job satisfaction.

In an earlier study, McCloskey (1974) found age was the best predictor of turnover among staff nurses. However, authors of other studies of job satisfaction among registered nurses reported that age did not have a significant effect on levels of job satisfaction (Froebe et al., 1983; Jones et al., 1981; McGillick, 1983).

Hall, VonEndt, and Parker (1981) investigated levels of job satisfaction among nursing service personnel. The sample included 285 respondents of which 135 were staff nurses, 47 administrative nurses, 55 licensed practical nurses, and 48 unlicensed nursing personnel. The instrument utilized for this study was the Staff Satisfaction Scale designed by Hall et al. From their research findings, the authors reported that more than 50% of employees with less than one year employment scored at or above the median for task requirements, autonomy, pay, and organizational requirements. Less than 50% of employees scored at or over the median in job prestige and interaction. The next category included those nursing employees with

1-5 years employment. Task requirements was the only category in which more than 50% of the respondents scored at or above the median. Although statistical analysis was not published, the authors considered this group to be less satisfied with their work situation. In the last group which included nursing employees with more than five years employment, the respondents scored at or above the median in four categories. These categories were pay, organizational requirements, job prestige, and interaction. Task requirements dropped for the first time below the median and autonomy scored below the median for a second time. Overall, the authors cited that job satisfaction among nursing personnel improved with years of employment.

Weisman, Dear, Alexander, and Chase (1981) reported a lack of significant difference in turnover and job satisfaction levels between graduate nurses employed for the first time and experienced registered nurses newly employed at the same hospital. This study was derived from a longitudinal study conducted by the investigators examining job satisfaction and turnover among staff nurses at two large hospitals. The investigators noted that level of education did not significantly influence overall job satisfaction or nurse retention. Other nurse researchers (Larson, Lee, Brown, & Shorr, 1984; McGillick, 1983) reported similar

findings indicating that level of education did not appreciably influence job satisfaction.

Larson et al. (1984) who investigated levels of job satisfaction among staff nurses found that primary shift did influence the degree of job satisfaction. Ball and Brubakken (1980) noted that nurses working permanent shifts were more satisfied with their work situation than nurses working rotating shifts. Additionally, Harrigan-Mosier (1983) studied varying shifts in relation to nurses' levels of job satisfaction and found that length of shift worked did have a significant influence on levels of job satisfaction. Nurses that worked 12 hour shifts reported greater satisfaction with patient care than nurses working 8 hour shifts.

Job Satisfaction in Critical Care Nursing Relationship to Turnover

Nurses have experienced high turnover rates for many years. Initially researchers focused on the reasons that nurses terminated their employment. Diamond and Fox (1958) interviewed nurses that had resigned their positions and found one third of these resignations were related to job dissatisfaction. Job factors consistently identified as influencing job dissatisfaction were: salary, work-load,

hours, personnel policies, job security, supervisory relations, and opportunity for advancement.

Similarly, Seybolt, Pavett, and Walker (1978) found in their investigation of turnover among registered nurses a distinction between voluntary and involuntary resignations. Voluntary resignations by nurses were secondary to dissatisfaction with the work situation. However, involuntary resignations by nurses were related to issues extraneous to the work situation such as relocation and family commitments. Seybolt et al. reported that 75% of the resignations were considered voluntary and 25% of the resignations by nurses were involuntary.

More recently, nurse researchers have suggested that as nurses experience negative feelings about their work situation, visible manifestations begin to occur (Aiken, Blendon, & Rogers, 1981). Examples of overt indicators of job dissatisfaction among nurses include increased absenteeism, tardiness, lack of commitment, and physical and mental illness (Cronin-Stubbs, 1977; Price & Mueller, 1981).

Turnover among nurses in critical care units is associated with job dissatisfaction (Aiken et al., 1981; Jones et al., 1981). Beyers, Mullner, Byre, and Whitehead (1983) investigated turnover among staff nurses from a randomized sample of 1,222 hospitals. Data compiled from

this investigation demonstrated a greater vacancy ratio (full time 22.1%; part time 24.7%) in the critical care areas as compared with general inpatient units (full time 15.5%; part time 16.4%).

In 1980, the American Association of Critical Care Nurses (AACN) initiated an extensive investigation of clinical issues affecting the care of critically ill patients. Their study was based on the Delphi model which includes an anonymous panel of experts in conjunction with statistical monitoring of the panel's responses. Results from this study included a composite of patient-centered issues and nurse-related problems. Highly prioritized were issues concerned with nurses as a professional group such as nurse burnout, orientation programs, incentives, nurse retention, stress, and staffing patterns (Lewandowski & Kositsky, 1983).

Relationship to Work Setting

This section includes a review of studies about job satisfaction among nurses working in intensive care units. The advent of intensive care units nearly 20 years ago resulted in a new role for the registered nurse. This role includes increased responsibility of the nurse for providing safe care of clinically unstable patients. In order to function at this level, the registered nurse

develops additional skills such as technological expertise, critical judgment and decision-making in a multitude of patient care situations (Benner, 1984).

Nurses were frequently described as combat soldiers in their ongoing efforts of dealing with death and dying, medical emergencies, and emotional crises (Bilodeau, 1973; Hay & Oken, 1972). The effect of increased responsibility and advanced technology in an environment of increased work momentum was considered by many authors to be contributory to high stress levels in nurses working in intensive care units (Gentry & Parkes, 1982; Grout, Steffen, & Bailey, 1981) and may lead to job dissatisfaction (Bilodeau, 1973; Hay & Oken, 1972). At that time, there was a general lack of empirical research substantiating the relationship of identified stressors and job dissatisfaction among nurses working in intensive care units.

In a study which compared stress levels of nurses from intensive care units with stress levels of nurses working in nonintensive care units, Gentry, Foster, and Froehing (1972) found inconclusive results. Their sample included nurses from an intensive care unit in a large teaching hospital, a general care unit from a large teaching hospital, and an intensive care unit from a veterans hospital. The participating nurses completed a questionnaire regarding psychosomatic incidents of depression, illness, and absence from

work. Results indicated that the nurses from the intensive care unit in a teaching hospital had higher levels of depression, irritability, and verbal expression than the other groups of nurses. In addition, there was more evidence of intrashift tension, anxiety, and dislike of working conditions among the nurses from the medical center intensive care unit. The investigators considered stress to be a result of environment rather than individual personality differences (Gentry et al., 1972).

In a study of 220 graduate baccalaureate nurses, Benner and Kramer (1972) examined nurses' personality structure in relation to adaptation to health care facilities. The investigators did not find any differences in personality between nurses working in intensive care units and nonintensive care units.

In recent years, nurse researchers have conducted numerous studies regarding the nurse's role within an intensive care unit. Grout, Steffen, and Bailey (1981) investigated sources of stress which are considered dissatisfiers, and satisfiers as perceived by nurses working in intensive care units. The investigators used a questionnaire with both closed choice and open-response questions. Demographically, 50% of the nurses were under 30 years of age and all participants were female. The initial portion

of the questionnaire included factors that attracted nurses to seek employment in intensive care units. These factors identified by the nurses included opportunities to learn, intellectual challenges, and increased proficiency of technical skills. The next section of the questionnaire contained areas perceived by the nurses as influencing a positive work attitude and factors considered to influence a negative work attitude. Factors identified by the nurses that contributed to a positive work environment included patient care, knowledge of skills, opportunities to learn, and intellectual challenges. Factors noted by the respondents as stressful and leading to job dissatisfaction included management of the unit, staffing both quality and quantity, interpersonal relations, and emergencies. Specifically, interpersonal relations involved staff, physicians, administrators, and residents with nurses which was reflected both as a satisfier and a dissatisfier. Although the nurses identified sources of stress, the respondents did not indicate that stress would entice them to leave the intensive care unit.

In Michigan, Ball and Brubakken (1980) surveyed job satisfaction among nurses working in intensive care units. The investigators incorporated the same format devised by Slavitt, Stamps, Piedmont, and Haase (1978) with selected

work schedule items developed by Schnell and Yourchock (1979). Ball and Brubakken used this instrument to collect data concerning individual differences in relation to job satisfaction utilizing both subcategories and total scores. A delineation of subcategories included in the questionnaire included: administration, professional status, work schedule, task requirements, physician to nurse relationships, peer interaction, pay, patient care, family interaction, and technical skills (Ball & Brubakken, 1980).

The sample consisted of 118 respondents which indicated a 58% return. Research findings indicated years of experience as the single demographic variable that influenced overall job satisfaction scores. Nurses with more years of experience had higher overall job satisfaction scores than nurses with fewer years of experience. In this study, the investigators found shift work only became an issue in terms of rotating or permanent, thus there was not an appreciable difference in scores based on primary shift. Interestingly, nurses working permanent shifts reported greater overall job satisfaction scores than nurses working on rotating shifts.

From their research findings, the authors noted that the nurses perceived professional status, family interaction, technical skills, patient care, and task requirements as

satisfiers. Dissatisfiers were considered by the nurses to be pay and administration. These findings were supportive of Herzberg's dual factor theory.

In 1981, Bayley reported a five year study conducted in a burn unit investigating job satisfaction and turnover among staff nurses. Initial research findings indicated that nurses reported staffing, assignments, and scheduling as dissatisfiers. As a result, the nursing administration changed staff nurse to patient ratios from the current 1:3 to a lower ratio of 1:2 or 1:1 for patients with higher acuity. The investigator noted in his findings an improved level of job satisfaction and a significant reduction in turnover among staff nurses.

In examining levels of job satisfaction among nurses working in intensive care units, nurse researchers have conducted comparative studies with nurses working in non-intensive care settings. By comparing work settings, the investigators may identify significant aspects of the nurses and/or work setting which influence job satisfaction. Lewandowski and Kramer (1980) investigated personality characteristics in relation to role transformation, that is, adaptation to the health care system, of nurses working in intensive care units and nonintensive care units. The

authors noted a lack of any appreciable difference in psychological measurements between the two groups.

Dear, Weisman, Alexander, and Chase (1982) investigated intensive care and nonintensive care work settings to determine their effects on job satisfaction among nurses. Nurses who worked in the intensive care unit tended to be younger and had obtained a higher level of education than nurses working in nonintensive care settings. Although overall job satisfaction scores were slightly higher among nurses working in intensive care units than nurses working in non-intensive care units, the difference was not statistically significant. Variables that had a predictive effect of overall job satisfaction scores were autonomy, internal control, and having more than one work experience.

In a military hospital, Maloney (1982) reported similar findings when comparing two work settings. The investigator did not find an appreciable difference in levels of job satisfaction between nurses working in intensive care and nonintensive care units. However, higher stress levels were reported by nurses working in nonintensive care settings.

Summary

Studies of nurses have been conducted to investigate the influential effect of job related factors in relation to levels of job satisfaction among registered nurses.

Professional growth, recognition, patient care, accountability, and autonomy (Godfrey, 1978a, b; Nahm, 1940; Weisman et al., 1980) have been identified by many authors as influencing a positive work attitude among staff nurses. Salary and fringe benefits were consistently found (Benton & White, 1972; Castiglia et al., 1983; Ginzberg et al., 1982; Wandelt et al., 1981) to be contributory to job dissatisfaction by staff nurses. However, organizational requirements such as shift assignment, staffing, and scheduling in conjunction with interpersonal relationships were identified by some authors (Cronin-Stubbs, 1977; Everly & Falcione, 1976; Longest, 1974; Munro, 1983) as a satisfier and in other studies as a dissatisfier.

Nurse researchers have also examined individual characteristics in relation to levels of job satisfaction among registered nurses. Specifically, age, degree of autonomy, years of experience, first position, years of employment, level of education, and primary shift have been investigated for their predictive effect on job satisfaction. From the research findings, the authors reported differing results regarding the predictive effect (Ball & Brubakken, 1980; Hall et al., 1981; McCloskey, 1974; Weisman et al., 1980) and nonpredictive effect (Froebe et al., 1983; Jones et al., 1981; Larson et al., 1984; McGillick, 1983;

Weisman et al., 1981) of individual characteristics in relation to levels of job satisfaction among staff nurses.

As evident from several studies of nurses, there is a direct relationship between job dissatisfaction and turnover among staff nurses in the critical care setting (Aiken et al., 1981; Beyers et al., 1983; Jones et al., 1981). Nurse researchers (Benner & Kramer, 1972; Gentry et al., 1972; Grout et al., 1981) have investigated job dissatisfaction among nurses working in intensive care units in relation to stress, personality factors, and work setting. While high stress levels had commonly been felt by authors (Bilodeau, 1973; Hay & Oken, 1972) to be related to job dissatisfaction and turnover among staff nurses, current empirical research does not substantiate this relationship. From studies that compared nurses from intensive care with nurses working in nonintensive care units, the authors (Dear et al., 1982; Lewandowski & Kramer, 1980; Maloney, 1982) noted a lack of significant difference in personalities or levels of job satisfaction between the two groups of nurses.

CHAPTER 3

PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

This study was nonexperimental and descriptive. Categories in the work situation described as leading to job satisfaction were studied in a survey method by gathering data from volunteer participants. The data were collected over a two week period of time.

Setting

The study was conducted in a large teaching hospital located in a metropolitan area containing more than one million persons in the southwestern United States. Within the facility, there is one surgical intensive care unit (SICU), one medical intensive care unit (MICU), and one coronary care unit (CCU) designed to care for clinically unstable adult patients. The three units, SICU, MICU, and CCU have together a 50-bed capacity staffed only with registered nurses.

Adult surgical patients that are considered clinically stable are placed on one of five general surgical units. Each unit has a 25- to 30-bed capacity with a staff of predominantly registered nurses. Within each nursing unit there is a conference room designated for staff nurses.

Privacy was ensured by closing the outer door. The completion of the questionnaire was done within the conference room on each nursing unit.

Population and Sample

The population for this study included registered nurses working either in adult intensive care units or adult general surgical units. These nurses were employed as full time staff personnel.

Participants for this study were registered nurses employed at the selected health care facility. Total sampling technique was used to obtain the sample. These individuals had been at their present position for over three months. In accordance with the focus of this study, only responses by registered nurses working in adult intensive care units and registered nurses working in adult surgical units were included in the data collection.

The sample consisted of those registered nurses that met the criteria and had completed the questionnaire. Thirty-five registered nurses from intensive care units and 46 registered nurses from nonintensive care units participated; therefore a total sample size of 81 registered nurses was obtained.

Protection of Human Subjects

The use of human subjects for this study was based on voluntary participation. A questionnaire provided the necessary data. The following measures were taken:

1. Policies of the Texas Woman's University Human Subjects Review Committee were observed.
2. Permission was obtained from the selected health care institution (Appendix A).
3. There were no names associated with the questionnaires.
4. The questionnaires were numerically coded only in respect to the type of unit, such as intensive care or nonintensive care.
5. Envelopes were provided with the questionnaire to ensure privacy.

Instrument

The instrument used in this study included the Cheeseman Demographic Data Sheet and the Nurse Satisfaction Scale. From research studies (Dear, Weisman, Alexander, & Chase, 1982; Price & Mueller, 1981; Rose, 1982; Wandelt, Pierce, & Widdowson, 1981), this investigator formulated the demographic portion of the instrument. Demographic variables included age, highest level of education, years in nursing practice, years in current specialty area, and the primary

shift worked. These variables were used to describe the sample (Appendix B).

The Nurse Satisfaction Scale was developed by Hall, VonEndt, and Parker (1981) at Providence Medical Center in Seattle, Washington. Information derived from the questionnaire included 41 items concerning perceptual attitudes about job satisfaction (Appendix B). Permission to use the questionnaire was obtained from the authors (Appendix C).

The Nurse Satisfaction Scale is an instrument designed to investigate job satisfaction among health care personnel. Hall et al. (1981) derived 24 items from the Index of Work Satisfaction developed by Slavitt, Stamps, Piedmont, and Haase (1978). Slavitt et al. utilized Herzberg's dual factor theory as a theoretical framework in their research of job satisfaction. The authors identified six major categories that influence job satisfaction among health care personnel and subsequently constructed their instrument. These categories are as follows:

1. Task requirements--job-related, regular tasks
2. Pay--salary and benefits
3. Organizational requirements--constraints imposed on the job by the organization
4. Interaction--formal and informal social contact during work time
5. Autonomy--expected job-related independence, initiative, and freedom

6. Job prestige/status--perception of overall importance of one's position.
(Slavitt et al., 1978, p. 116)

Further development of the Nurse Satisfaction Scale by Hall et al. (1981) included 6 items from the Science Research Associates' Survey of Job Satisfaction and 11 items from a panel of experts. The SRA Survey of Job Satisfaction is a published instrument used in industrial studies investigating job satisfaction among the workers.

Hall et al. (1981) established internal reliability of the instrument. A Cronbach coefficient alpha of .9133 was obtained. Within each subcategory, half of the items are positively phrased and half are negatively phrased. The items are randomly dispersed throughout the questionnaire. Possible responses are arranged in a Likert-type format ranging from strongly agree to strongly disagree.

Scoring was achieved by assigning a numerical weight to each response. The positively phrased items ranged from +5, strongly agree, to +1, strongly disagree. Those items that are negatively phrased had reversed scoring, thereby maintaining continuity throughout the scoring process (Appendix D).

A total individual score provided an indication of overall job satisfaction. Thus the highest score for the 41 item questionnaire multiplied by 5 equals 205 and the

lowest score possible was 41. Within each subcategory a numerical score was achieved. These scores represent specific aspects of job satisfaction.

Data Collection

The investigator obtained approval from Texas Woman's University and the selected health care institution prior to data collection. The investigator consulted with each head nurse to arrange optimal time periods for distributing the questionnaire. To ensure privacy, the participants completed the self-administered questionnaire in the closed conference room located on each nursing unit. Each participant placed the completed questionnaire in a designated envelope. After all participants had placed their questionnaires in the envelope, it was sealed. The sealed envelope was returned to the investigator. Time allotted for the completion of the questionnaire was no longer than 40 minutes.

Treatment of Data

The treatment of data was as follows. Demographic variables were individually examined using measures of central tendency. All demographic data are considered nominal level data. Hence frequencies and percentages were calculated for these variables.

An overall job satisfaction score was tabulated for each individual. This score was achieved by adding all positively phrased responses. Negatively phrased items were reversed scored which thus maintained continuity. The two groups of overall job satisfaction scores were compared to determine a correlation of work setting to job satisfaction. As the scores are ordinal data, the Mann-Whitney U test for differences between the two groups was used. The Kruskal-Wallis test of variance was used to determine the effect of the demographic variable age on overall job satisfaction scores for the intensive care group of nurses and for the nonintensive care group of nurses.

CHAPTER 4

ANALYSIS OF DATA

A nonexperimental, descriptive study was conducted to ascertain levels of job satisfaction of nurses working in intensive care units and nonintensive care units. In this chapter, a descriptive and inferential statistical analysis is included as well as a summary of the findings.

Description of Sample

The Nurse Satisfaction Scale was distributed to 90 registered nurses working in the coronary, medical, and surgical intensive care units and 90 registered nurses working in adult surgical units at a voluntary hospital located in the southwestern United States. This distribution of the questionnaires was facilitated by a collaborative effort of the head nurses, hospital based research analysts, and this investigator. Prior to distribution, each head nurse explained the purpose of the questionnaire to the staff nurses at unit staff meetings. The head nurses then distributed the questionnaires to all volunteers with instructions to place the completed questionnaires in designated envelopes. Thirty-five nurses (38%) from the intensive care settings returned the questionnaires.

Forty-six (51%) nurses from the general care units submitted completed questionnaires. This response rate of at least 30 responses per group was considered to be sufficient for the completion of this study.

Demographic information included highest level of education, age, primary shift, years of experience, and years of experience in specialty area. In Table 1, the frequency distribution of demographic variables for the two groups, intensive care and nonintensive care, are illustrated.

The age of the nurses varied from under 25 years to 46 years and older. Interestingly to note, 26 (75%) nurses who worked in intensive care units were between the ages of 26 to 35; 5 (14%) nurses were in the category of 25 years and below; and 4 (11%) nurses were between the ages of 36 to 45 years. In comparison, 20 (43%) nurses working in nonintensive care units were between the ages of 26 to 35. The next highest group included 15 (33%) nurses which were between the ages of 36 to 45, followed by 5 (11%) nurses over 45 years and 5 (11%) nurses 25 years and below. One (2%) respondent from this group did not answer this question.

The majority of registered nurses from the intensive care group, 22 (63%), were graduates from baccalaureate programs. The next group included seven (20%) nurses with

Table 1

Frequency and Percentage of Registered Nurses by Age,
Level of Education, Years of Experience, Years in
Specialty, and Shift Worked

Variable	ICU		Non ICU	
	#	%	#	%
<u>Age</u>				
25 years and below	5	14	5	11
26-35	26	75	20	43
36-45	4	11	15	33
Over 45	0	0	5	11
No response	0	0	1	2
Total	35	100	46	100
<u>Level of Education</u>				
Diploma	5	14	16	35
Associate	7	20	8	17
Baccalaureate	22	63	22	48
Master's	1	3	0	0
Total	35	100	46	100
<u>Years of Experience</u>				
Less than 2 years	1	3	5	11
2-5	16	45	8	17
6-10	15	43	11	24
Over 10	3	9	22	48
Total	35	100	46	100
<u>Years in Specialty</u>				
Less than 2	7	20	9	19
2-5	13	37	13	28
6-10	6	17	10	22
Over 10	1	3	4	9
No response	8	23	10	22
Total	35	100	46	100

Table 1 (Continued)

Variable	ICU		Non ICU	
	#	%	#	%
<u>Shift Worked</u>				
Days	18	51	20	43
Evenings	3	9	15	33
Nights	13	37	10	22
No response	<u>1</u>	<u>3</u>	<u>1</u>	<u>2</u>
Total	35	100	46	100

associate degrees followed by five (14%) nurses from diploma programs; one (3%) nurse was a graduate of a Master's of Science in Nursing degree program. Of the nurses working in nonintensive care units, 22 (48%) had attained a baccalaureate degree, 16 (35%) nurses were graduates from hospital diploma programs, and 8 (17%) nurses had an associate degree.

Another demographic variable reviewed was years of practice in nursing achieved by the participants. For the intensive care group of nurses, 16 (45%) nurses had between 2 and 5 years of experience. The next highest group included 15 (43%) nurses with 6 to 10 years of experience, followed by 3 (9%) nurses with over 10 years of practice in nursing. The least number, one (3%) nurse, had less than

two years of practice. Interestingly to note, the majority of nurses employed in nonintensive care units, 22 (48%), had over 10 years of practice in nursing. Eleven (24%) nurses were the next group with 6 to 10 years of experience, followed by 8 (17%) nurses with 2 to 5 years of experience; 5 (11%) nurses had less than two years of practice in nursing.

Demographic information also included years in current specialty area. The largest group of nurses from the intensive care units, 13 (37%), had between 2 to 5 years attained in their current specialty area. Seven (20%) nurses had less than two years experience in their current specialty area. The third category included 6 (17%) nurses with 6 to 10 years; the least number of nurses, 1 (3%) had over 10 years experience in the current specialty area. Eight (23%) respondents did not answer this question. From the nonintensive care units, 13 (28%) nurses had between 2 to 5 years experience in their current specialty area. The second group of nurses, 10 (22%), had between 6 to 10 years followed by 9 (19%) nurses with less than two years of experience in their current specialty area. The least number of nurses, 4 (9%), had over 10 years of experience in their current specialty area. Ten (22%) respondents did not answer this question.

The time of day which nurses worked was also reviewed. During the day shift, 18 (51%) nurses were employed in the intensive care unit, followed by 13 (37%) nurses and 3 (9%) nurses employed in the intensive care unit on the night and evening shifts, respectively. One (3%) nurses did not answer the question. From the nonintensive care units, there were 20 (43%) nurses employed on the day shift, while 15 (33%) nurses and 10 (22%) nurses were employed on evening and nights, respectively. One (2%) respondent from the nonintensive care group did not answer the question.

Findings

Overall job satisfaction scores were calculated for the 81 participating nurses. A score was achieved by adding all positively phrased responses to obtain a total raw score for each individual. Negatively phrased items were reverse scored thus maintaining continuity throughout the statistical process. Possible raw scores for overall job satisfaction are from a low of 41 to a high of 205. Total raw scores for the intensive care group were from a low of 85 to a high of 164. In comparison, total raw scores for the non-intensive care group varied from 103 to 168. Ranges, median scores, and percentage of respondents scoring at or above the median for the two groups, intensive care and

nonintensive care, of overall job satisfaction scores are shown in Table 2.

Table 2
Overall Job Satisfaction Scores by Group

Group	Scores		# at or Above Median	% at or Above Median
	Low	High		
<u>Possible Raw Scores</u>	41	205		
Median Score for Sample	140.833			
<u>Actual Raw Scores</u>				
ICU Nurses (<u>n</u> =35)	85	164	19	53.4
Non-ICU Nurses (<u>n</u> =46)	103	168	23	48.9

To determine levels of job satisfaction of the 81 respondents, individual mean scores were tabulated for each of the six categories: task requirements, interaction, pay, autonomy, job prestige, and organizational requirements. While the categories each had a different number of items, individual mean scores provided a comparative value for the two groups of nurses, intensive care and nonintensive care. For the two groups of mean scores, a median score was calculated for each of the six categories. According to Hall, VonEndt, and Parker (1981), those individuals that score at or above the median were considered to have a positive

attitude about the work situation. In Table 3, sample median scores, number and percentage of respondents scoring at or above the median for the two groups of nurses in each of the six categories of the Nurse Satisfaction Scale are shown.

Table 3

Sample Median Scores, Frequency and Percentage of Respondents Scoring At or Above Median by Group

Category	Sample Median Score (N=81)	ICU Nurses		Non-ICU Nurses	
		# at or Above Median (n=35)	% at or Above Median	# at or Above Median (n=46)	% at or Above Median
Task Requirement	3.138	21	60.0	37	78.7
Interaction	4.049	27	77.0	37	78.7
Pay	3.058	27	77.0	33	70.2
Autonomy	4.111	28	80.0	34	72.3
Job Prestige	4.200	25	71.4	39	83.0
Organizational Requirements	3.674	24	68.6	33	70.2

In the first section, task requirement, the sample median score was 3.138. Twenty-one (60%) nurses of the intensive care group scored at or above the median. For the nonintensive care group, 37 (78.7%) nurses had scores

at or above the median indicating positive attitudes toward the area of task requirements.

The second section, interaction, had a median score of 4.049 for the total sample. Twenty-seven (77%) nurses working in intensive care scored at or above the median score. Thirty-seven (78.7%) working in nonintensive care units scored at or above the median, indicating positive attitudes toward the area of interaction.

In the third section, pay, the median score for the two groups of nurses was 3.058. Twenty-seven (77%) nurses from the intensive care group scored at or above the median score, while 33 (70.2%) nurses from the nonintensive care group scored at or above the median. These respondents are considered to have a positive attitude towards the area of pay.

The fourth section, autonomy, had a median score of 4.111 for the combined groups of nurses. Twenty-eight (80%) nurses working in intensive care units scored at or above the median. Thirty-four (72.3%) nurses working in nonintensive care scored at or above the median, indicating positive attitudes toward the area of autonomy.

In the fifth section, job prestige, the median score for the two groups was 4.200. Twenty-five (71.4%) nurses from the intensive care group and 39 (83.0%) nurses from the

nonintensive care group scored at or above the median. This response reflects those individuals having positive attitudes towards the area of job prestige.

The sixth section, organizational requirements, had a median score of 3.674 for the two groups of nurses. From the intensive care group, 24 (68.6%) nurses scored at or above the median. Thirty-three (70.2%) nurses from the non-intensive care group scored at or above the median, indicating positive attitudes towards the area of organizational requirements.

The research questions for this study were:

1. What levels of job satisfaction do nurses who work in intensive care units achieve as compared with nurses employed in nonintensive care units?

To answer the first research question, total job satisfaction scores for the intensive care and nonintensive care groups were analyzed with the Mann-Whitney U test. The level of significance was set at the $p \leq .05$ level for this test. Therefore, the computed score of $U=787.0$ was found not to be significant. Thus, there was not a significant difference in overall job satisfaction scores between nurses working in intensive care as compared with nurses working in nonintensive care settings.

2. What levels of job satisfaction in the subcategories of task requirements, pay, organizational requirements, interaction, autonomy, and job prestige do nurses who work in intensive care units achieve as compared with nurses employed in nonintensive care units?

In the second research question, job satisfaction levels for each category of the Nurse Satisfaction Scale were included to determine what levels of job satisfaction nurses who work in intensive care achieved as compared with nurses employed in nonintensive care units. The Mann-Whitney U test was used with the level of significance set at $p \leq .05$. In Table 4, computed scores derived from the Mann-Whitney U test in conjunction with levels of significance in each of the categories and overall job satisfaction are illustrated for the two groups of nurses. In the area of task requirement, the intensive care group scores and the nonintensive care group were analyzed resulting in a computed value of $\underline{U}=627.5$ which was not significant. The next category, interaction, also was not significant with a computed score of $\underline{U}=671.5$. Pay was the next category in which the computed score of $\underline{U}=607.5$ was considered significant at the $p \leq .05$ level. In the area of autonomy, there was a computed score of $\underline{U}=811.0$ which was not significant. The following two areas, job prestige and organizational requirements, also were not

significant with computed scores of $\underline{U}=711.0$ and $\underline{U}=688.0$, respectively. The only significant difference in job satisfaction between the two groups of nurses was in the area of pay. Mean rank scores for the intensive care group of nurses and nonintensive care group of nurses were 35.37 and 46.29, respectively. Thus, nurses working in intensive care units had lowered levels of job satisfaction in the area of pay than nurses working in nonintensive care settings.

Table 4

Computed Values of Job Satisfaction Scores Derived
from Mann-Whitney \underline{U} Test

Category	\underline{U}	p
Task Requirements	627.5	.0597
Interaction	671.5	.5327
Pay	607.5	.0381*
Autonomy	811.0	.8718
Job Prestige	711.0	.2728
Organizational Requirements	688.0	.1901
Total Job Satisfaction	787.0	.7016

* $p \leq .05$

3. What is the relationship of age to levels of job satisfaction of nurses who work in intensive care units as compared with nurses employed in nonintensive care units?

In the third research question, the effect of age was examined as a variable in relation to levels of job satisfaction in nurses who work in intensive care as compared with nurses employed in nonintensive care units. Ages of each group of nurses were analyzed with the Kruskal-Wallis test. The intensive care group had a computed score of $\chi^2=1.733$ which was not significant at $p \leq .05$. From the nonintensive care group, a computed score of $\chi^2=1.755$ was achieved which was also not significant at $p \leq .05$. These results demonstrated a nonsignificant relationship of age to levels of job satisfaction for either group of nurses. Computed scores calculated from the Kruskal-Wallis test examining age in relation to the two groups are depicted in Table 5.

Summary of Findings

In this chapter, a descriptive and inferential analysis of the data obtained for this study was presented. The sample included 81 registered nurses of which 35 (43%) worked in intensive care units and 46 (57%) worked in nonintensive care settings. The majority (22; 63%) of the nurses from the intensive care group and 22 (48%) nurses

Table 5
Kruskal-Wallis Test of Age in Relation to Job
Satisfaction Scores

Group	Chi Square	p
Intensive Care Nurses	1.733	.421
Nonintensive Care Nurses	1.755	.625

from the nonintensive care group had a baccalaureate degree. Nurses working in the intensive care units tended to be younger than nonintensive care nurses. Eighty-nine percent of the intensive care group were 35 years old or younger, while 54% of the nonintensive care group were 35 years old or younger.

The intensive care and nonintensive care groups both had over 50% of respondents that scored at or above the median for each of the six categories of the Nurse Satisfaction Scale. In examining total job satisfaction scores for the two groups of nurses, 54.3% of the nurses working in the intensive care units scored at or above the median, while 48.9% of the nurses employed in nonintensive care units scored at that level. According to Hall et al. (1981), the incidence of 50% or greater of employees that score at or above the median score reflects general satisfaction with the work situation among the specified group.

The relationship of work setting to levels of job satisfaction among two groups of registered nurses was examined in the first research question. Results of this study indicated a nonsignificant relationship of overall job satisfaction scores between nurses who work in intensive care and nurses employed in nonintensive care settings.

In the second research question, levels of job satisfaction in the six categories of task requirement, interaction, pay, autonomy, organizational requirements, and job prestige of nurses working in intensive care were compared with nurses working in nonintensive care units. In the data analysis of the five categories of task requirement, interaction, autonomy, organizational requirements, and job prestige, computed scores were not statistically significant between the two groups. However, in the category of pay, a computed score of $U=607.5$ was achieved which was significant at $p \leq .05$. Mean rank scores calculated for the intensive care group nurses and nonintensive care group nurses were 35.37 and 46.29, respectively. Therefore, in response to the second research question, nurses in the intensive care units had significantly lower levels of job satisfaction in the area of pay than nurses working in nonintensive care settings.

The effect of age as a variable on levels of job satisfaction for the two groups of nurses, intensive care

and nonintensive care, was included in the third research question. Research findings from this study indicated that age had no significant effect on levels of job satisfaction among nurses working in intensive care units as compared with nurses working in nonintensive care units.

CHAPTER 5

SUMMARY OF THE STUDY

The problem of this study was to investigate what levels of job satisfaction nurses who work in intensive care units achieve as compared with nurses employed in nonintensive care units. In order to investigate levels of job satisfaction among two groups of registered nurses, data were collected by a survey method to ascertain perceptual attitudes regarding the work situation. The instrument for this study was the Nurse Satisfaction Scale, a Likert-type questionnaire. The effect of age in relation to levels of job satisfaction among the two groups of registered nurses was also investigated.

Summary

In this descriptive study, a nonexperimental design was used. The sample included 81 registered nurses employed in intensive care and nonintensive care units at one large teaching hospital located in the southwestern United States. The study sample included 35 (43%) registered nurses from intensive care units and 46 (57%) registered nurses from nonintensive care units. All of the registered nurses had been employed at their present position for more than

three months and were employed as full time staff personnel.

Analysis of the data included the following findings:

1. At least 50% of the registered nurses scored at or above the median for the six categories of the Nurse Satisfaction Scale, which reflected satisfaction with the work situation. The examination of total raw scores of job satisfaction found 54.3% of the nurses working in intensive care units scored at or above the median, while 48.9% of the nurses employed in nonintensive care units scored at that level.
2. There was a nonsignificant relationship of work setting to levels of job satisfaction achieved by nurses working in intensive care and nonintensive care units.
3. Registered nurses working in intensive care units had significantly lower levels of job satisfaction in the area of pay than registered nurses employed in nonintensive care units. The computed mean rank score for nurses working in intensive care units was 35.37 as compared with a mean rank score of 46.29 for nurses employed in nonintensive care units.
4. The other five categories of task requirements, interaction, autonomy, job prestige, and organizational requirements were computed and the scores were found to be nonsignificant between the two groups.

5. There was a nonsignificant relationship of age to levels of job satisfaction for nurses working in intensive care and nurses working in nonintensive care units.

Discussion of Findings

For each group of registered nurses, the favorable responses in all of the six categories--task requirements, organizational requirements, autonomy, job prestige, interaction, and pay--revealed an overall positive job attitude. This finding was congruent with total job satisfaction scores computed for each group of registered nurses whose scores reflected a favorable attitude towards the work situation. These findings were consistent with the results of studies of nurses in which professional growth, recognition, and degree of autonomy were found to be related to job satisfaction among registered nurses (Godfrey, 1978a, b; Kramer, 1969; McCloskey, 1974; Munro, 1983; Weisman, Alexander, & Chase, 1980).

According to Herzberg, interaction functions as a hygiene factor necessary to prevent job dissatisfaction (Herzberg, Mausner, & Snyderman, 1959). Of particular interest to note, interaction was perceived as a satisfier by the two groups which is consistent with research findings by Nahm (1940), Longest (1974), and Everly and Falcione (1976).

Although both groups indicated positive job attitudes in the area of pay, there was a significant difference ($p \leq .05$) found between the two groups. Mean rank scores calculated for the intensive care group of nurses and nonintensive care group of nurses were 35.37 and 46.29, respectively. Registered nurses working in intensive care units had lower levels of job satisfaction in the area of salary than nurses working in nonintensive care settings. Recognizing that the response rate of nurses working in intensive care was 38%, it was not known if the nurses participating were more or less satisfied in the area of pay than the nurses that did not participate. However, the significantly lowered scores by the registered nurses working in intensive care is congruent with current nursing research whose authors have identified pay as an area in which nurses have lower levels of job satisfaction (Castiglia, McCaustand, & Hunter, 1983; Diamond & Fox, 1958; Froebe, Deets, & Knox, 1983; Ginzberg, Patray, Ostow, & Brann, 1982; Wandelt, Pierce, & Widdowson, 1981).

There was no significant difference in overall job satisfaction scores for the intensive care and nonintensive care groups. The findings of this study are consistent with studies conducted by Gentry and Parkes (1982), Grout, Steffen, and Bailey (1981), Dear, Weisman, Alexander, and Chase (1982), and Maloney (1982).

In this study, the relationship of age to levels of job satisfaction for each of the two groups was also found to be nonsignificant. It was of particular interest to note that while the computed score was nonsignificant, the actual ages differed greatly between the two groups. The intensive care group were younger than the nonintensive care group of registered nurses. As an individual characteristic, age was not significant and thus is consistent with prior research findings (Froebe et al., 1983; Jones, Tholeu, Feller, & Dunlap, 1981; McGillick, 1983).

Conclusions and Implications

Following are the conclusions which are based on the findings of this study:

1. Registered nurses working in intensive care units and nonintensive care settings are generally satisfied with their work situations.
2. Nurses in the intensive care units are less satisfied with their salaries than nurses who work in nonintensive care settings.
3. Overall job satisfaction levels are similar between nurses in intensive care units versus nurses who work in nonintensive care settings.

4. Age is not a significant factor for nurses in intensive care settings and nonintensive care settings in relationship to job satisfaction.

From the research findings of this study, registered nurses working in intensive care units had lowered job satisfaction scores in the area of pay than the other five subcategories. Hospital management may need to assess the employees' expectations and perhaps provide sufficient monetary compensation.

Recommendations for Further Study

The recommendations are as follows:

1. This study should be replicated using a larger sample at different hospital settings.
2. Since a significant difference was found in the area of pay, an investigation should be initiated to examine employee benefits and opportunities offered by the hospital and their impact on perceptual attitudes among staff nurses working in the intensive care units.
3. A further study should be performed which would relate years of nursing practice to levels of job satisfaction among intensive care and nonintensive care nurses.

APPENDIX A
AGENCY PERMISSION

OFFICIAL NOTIFICATION OF APPROVAL
TO
INITIATE RESEARCH

RE: Relationship Between Work Setting and Level of
Job Satisfaction

P.I.: Suzanne M. Cheeseman, MSN student

Date of C.P.H.S. Approval November 16, 1984

Approval granted by Administration.

Authorized signature:

Date: 11/26/84

Associate Executive Director/
Chief Operating Officer

Approval is hereby granted for the Principal Investigator to initiate the above referenced research project utilizing Hospital facilities and/or patients. By engaging in this research, the P.I. acknowledges agreement to the following:

Changes - Changes, including those required by the sponsor, which would affect human subjects, including changes in methods or procedures, numbers or kinds of human subjects, or revisions to the informed consent document or process, will not be initiated prior to approval by the Hospital Administration.

Education - The P.I. will instruct all personnel in the care of a human subject regarding possible adverse reactions that may result from the treatment modality and the appropriate corrective measures to be taken.

Records - All in-patients on any research protocol will have in their medical record a signed original and/or a copy of the informed consent document with appropriate address-o-graph stamping the upper right hand corner of said document.

Subsequent Review - The Administration will, on an on-going basis review all research protocols to ensure that is fulfilling it's commitments to your research efforts.

Miscellaneous:

cc: Committee for the Protection of Human Subjects
Office of Chairman/Director
Principal Investigator
File

APPENDIX B
QUESTIONNAIRE PACKET

Dear Participant:

I am a graduate nursing student at Texas Woman's University in Houston, Texas. Presently I am conducting a study to investigate some of the feelings among registered nurses working in intensive care and nonintensive care units. Although you as an individual may not personally benefit from this study, the results of the study hopefully will benefit the nursing profession.

You are invited to participate in this research study by completing the attached questionnaire. All information from the questionnaire will be kept confidential. There will not be a way of identifying you in this study.

If you decide to participate, please complete the questionnaire at this time. After completing the questionnaire (approximately 20-30 minutes), place the questionnaire in the designated envelope. The envelope will be sealed by the investigator to ensure your privacy.

COMPLETION AND RETURN OF THE QUESTIONNAIRE CONSTITUTES INFORMED CONSENT TO PARTICIPATE IN THIS RESEARCH STUDY.

I UNDERSTAND THAT NO MEDICAL SERVICE OR COMPENSATION IS PROVIDED TO SUBJECTS BY THE UNIVERSITY AS A RESULT OF INJURY FROM PARTICIPATING IN THIS RESEARCH.

If you have any questions, or if you would like a copy of the findings, please call me at home at (713) 681-4418. Thank you for your time and consideration in this project.

Sincerely,

Suzanne Cheeseman

SC/sc

CHEESEMAN DEMOGRAPHIC DATA SHEET

Please answer the following questions by placing a ✓ in the appropriate space or filling in the blank.

1. Highest level of education

- ☐ a. Diploma
- ☐ b. Associate
- ☐ c. Bachelor's
- ☐ d. Master's
- ☐ e. Doctorate

2. Age _____

3. Years of practice in nursing _____

4. Years in current specialty area _____

5. Primary shift

- ☐ a. Days
- ☐ b. Evenings
- ☐ c. Nights

THE NURSE SATISFACTION SCALE

Part 2: Please check one of the following categories according to how well your job expectations are presently being met.

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
1. The people I work with are friendly.					
2. My nursing unit provides an atmosphere of independence in daily work activities.					
3. There is no doubt that this hospital cares a great deal about the welfare of the nursing personnel.					
4. I could deliver much better care if I had more time with each patient.					
5. My supervisor (H.N., T.L.) gives praise, credit, and recognition by letting me know about work I do well.					
6. I perceive my occupational status as high in the Nursing Department.					
7. I am not satisfied with the way nursing work is organized and gets done.					
8. I have the freedom in my work to make important decisions.					
9. I am really doing something worthwhile in my job.					
10. I feel I am supervised more closely than I need to be.					
11. The Nursing Department does its best to provide good benefits and working conditions.					
12. My particular job doesn't require much skill or know-how.					
13. There is ample opportunity for nursing staff to participate in policy and procedure planning.					
14. I feel I have too many people who give me directions.					
15. A lot of what I do each day could just as well be done by someone with less skill and training.					
16. The present rate in pay for Nursing Service personnel at this hospital is satisfactory.					
17. What I do in my job doesn't add up to anything significant.					
18. There are not many opportunities for advancement of nursing personnel at this hospital.					
19. My job doesn't provide satisfying opportunities to develop formal and informal social contact.					
20. The amount of time I spend on clerical and paperwork required of nursing personnel here is reasonable.					
21. My supervisor does not plan activities to get maximum utilization out of our facilities, equipment, and people.					

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
22. I have little opportunity to use my abilities on my job.					
23. The nursing personnel on my unit do not help one another when things get in a rush.					
24. Even if I could make more money in another nursing situation, I am more satisfied here because of the working conditions.					
25. My present salary is not satisfactory.					
26. I spend as much time as I'd like taking care of patients directly.					
27. There is a good deal of teamwork and cooperation between various levels of nursing personnel on my service.					
28. I have little control over my own work—other people decide things for me in my job.					
29. They expect too much work from us around here.					
30. The nursing personnel on my service are not as outgoing and friendly as I would like.					
31. It makes me proud to talk to other people about what I do on my job.					
32. From what I hear from and about Nursing Service personnel at other hospitals, we at this hospital are not being satisfactorily paid.					
33. Nursing management effectively communicates goals and priorities.					
34. It is my general impression that most of the nursing staff like the way work is organized and done here.					
35. I can't help but feel that others don't really appreciate my job and what I have to do.					
36. In my opinion, this nursing department is not organized with the needs of the patients given top priority.					
37. My supervisor gets employees to work together as a team.					
38. I feel free to discuss complaints and issues with those I report to.					
39. I can't think of many other jobs I'm capable of doing that are more important to people than being a patient care provider.					
40. This type of questionnaire will help nursing management to evaluate job satisfaction.					
41. Quality patient, care and treatment are important to the Department of Nursing.					
42. This hospital supports a philosophy of promoting "quality patient care."					

APPENDIX C

PERMISSION TO USE JOB
SATISFACTION SURVEY

PROVIDENCE MEDICAL CENTER
500 - 17th AVENUE
P.O. BOX C-34008
SEATTLE, WASHINGTON 98124
PHONE: (206) 326-5555

Dear Suzanne,

I am in receipt of your letter requesting a copy of the "Staff Satisfaction Scale" as described in the December 1981 Nursing Leadership.

Enclosed is a copy of the questionnaire that has been updated for department utilization in January, 1984. Also enclosed is a list of items by category with reverse scoring indicated. It is recommended that the demographic face sheet and cover letter be adopted to fit your particular organization and needs.

Suggestions for utilization of the tool are outlined in the article. Due to our continued interest in this area, we would request that you provide to us summarized results of your research.

We extend best wishes to you in your research endeavors.

Sincerely,

Lorelei Von Endt
Lorelei Von Endt, R.N., M.N., C.S.
Psychiatric Clinical Specialist

LV:vw
enclosure

[illegible]

APPENDIX D
SCORING FOR JOB SATISFACTION SURVEY

ITEMS BY CATEGORY

<u>Subscale</u>	<u>Questionnaire Item Number</u>
Task Requirements:	4(-), 15(-), 20, 25, 28(-)
Interaction:	1, 5, 19(-), 23(-), 26, 29(-), 32
Pay:	16, 24(-), 31(-)
Autonomy:	2, 8, 10(-), 14(-), 27(-), 37
Job Prestige:	6, 9, 12(-), 17(-), 22(-), 30, 34(-), 38
Organizational Requirements:	3, 7(-), 11, 13, 18(-), 21(-), 33, 35(-), 36, 39, 40, 41

(-) equals reverse score

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