WORK SATISFACTION OF NURSES IN AN ACUTE CARE PRIMARY NURSING SETTING

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BY

MONIKA B. DEWAR, B.S.

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Texas Woman's University

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We hereby recommend that the thesis prepared under our supervision by Monika B. Dewar entitled Work Satisfaction of Nurses in an Acute Care Primary Nursing Setting

be accepted as fulfilling this part of the requirements for the Degree of Master of Science.

Committee:

Lois Haugh
Chairman

Jane Damoran

Betty N. Wan

Anne M. Edmundson

Accepted:

Margaret J. Ferrell
Dean of The Graduate School

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CHAPTER I

INTRODUCTION

Since the 1940s, the demand for professional nurses in the United States has exceeded the supply. To alleviate this shortage, many new categories of health care workers came into being, and the role of the professional nurse changed from giving total care to a group of patients to predominantly training, directing, and supervising ancillary personnel.

At the same time nursing, evolving as a profession, placed ever increasing emphasis on the necessity for higher education, research based nursing practice, the importance of the nurse-patient relationship, the total patient care concept, and the accountability for practice. This evolution, coupled with the emergence of consumer assertiveness in the health care field demanding quality nursing care standards to justify the high cost of hospitalization, has led to the introduction of a new mode of nursing care delivery in the 1970s: "primary nursing." Under this concept, one professional nurse--the primary nurse--is accountable for the implementation of the nursing process for a given caseload of patients from

admission to discharge, giving as well as coordinating, planning, and supervising their nursing care. The overall goal is patient-focused, individualized, continuous care with optimal utilization of the professional nurse's knowledge and skills. Early research conducted during the development of the concept showed it to provide higher satisfaction for both providers and recipients of nursing care; and consequently, this mode of delivery began to spread rapidly across the United States.

The change-over to primary nursing in acute care settings is a complex process. It involves not only a different institutional philosophy, method of patient assignment, and allocation of responsibility, but also considerable educational preparation of nursing personnel, role changes among levels in the nursing administration hierarchy, restructuring of support services, and changes in the physical setting.

Individual hospitals tend to adapt primary nursing according to their resources. Although designed principally for use with an all professional nursing staff, primary nursing has been implemented with varying staff ratios of professional and vocational nurses.

Applied research is needed in the field to evaluate primary nursing in individual hospital settings. To date,

applicable job satisfaction studies have been conducted with professional nurses only--a comparison of both groups working in this setting was deemed useful and interesting to nursing administrators involved with primary nursing.

None of the studies reviewed--which were done with data collected three to six months after implementation of primary nursing--considered the possibility of the Hawthorne effect as an intervening variable. Longitudinal research is needed to confirm the validity of the initial findings. Lastly, individual hospitals tend to modify primary nursing according to their resources, and still expect the findings of the original research to be valid for them. Again, applied research can correct such possible post hoc errors.

This master's thesis is a report of such a study. It was conducted during the summer of 1979 at St. Joseph Hospital in Fort Worth, Texas, in order to ascertain the long-term and short-term overall levels of work satisfaction experienced by professional and vocational nurses in a primary nursing setting, as well as the degree of satisfaction provided by specific aspects of the system for these two groups.

Statement of the Problem

The problem of the research study was to determine whether or not there is a difference between the long-term and short-term effects of the implementation of a primary nursing system on selected indicators of work satisfaction of professional and vocational nurses.

Statement of Purposes

The purposes of the study were:

1. To identify the rates of absenteeism and staff turnover, and the individually perceived work satisfaction of nurses three months following the implementation of primary nursing on a 40-bed medical-surgical unit

2. To identify the rates of absenteeism and staff turnover, and the individually perceived work satisfaction of nurses on a matched 40-bed medical-surgical primary nursing unit which had been in operation two years longer than the newly established unit

3. To compare the data from the two units

4. To compare the data obtained from professional nurses with the corresponding data obtained from vocational nurses

Background and Significance

Although the variety of work settings for professional nurses is increasing in the United States, the overwhelming majority continue to be employed in hospitals (Lysaught 1970; McCloskey 1974). New modes of patient care delivery have emerged in the hospital setting since the beginning of the nurse shortage in the 1940s. Functional nursing, using the principles of classical management theory and industrial engineering, assigned nursing personnel to specialized tasks rather than patients. Although efficient, the resulting nursing care was fragmented and depersonalized, causing dissatisfaction to its providers as well as to its recipients. Team nursing was developed in the 1950s and 1960s to alleviate this dissatisfaction. Under this system, the professional nurse as "team leader" assigns a group of ancillary personnel to care for individual patients, matching competency of the care giver with the complexity of care required by the patient, and plans for and effects quality, individualized patient care through close communication within the "team." However, in the reality of actual practice, this concept deteriorated into fragmented care where the

professional nurse had little actual patient contact other than specialized tasks only she was licensed to perform.

There is ample documentation in the literature that professional nurses still experience the least amount of work satisfaction in the hospital acute care environment (Godfrey 1978). The National Commission Study (Lysaught 1970) found a 70 percent annual turnover of professional nurses employed in hospitals, probably indicative of great work dissatisfaction. Kramer (1974) in a study of 220 new baccalaureate nurses found that 28.9 percent had left nursing practice altogether within two years. This would indicate that the various modes of functional and team nursing developed in the 1950s and 1960s to increase utilization of scarce professional nursing personnel had resulted in decreased work satisfaction. Kron (1971) stated:

> . . . this conflict between what the professional nurse has been taught nursing to be and what she now finds herself doing is the major problem confronting nursing today (p. 3).

Beginning in the early 1970s, primary nursing was developed in an effort to combat the high social and financial cost of the failure of the preceding systems (Nichols 1971). Primary nursing has rapidly gained acceptance and is now being tested and/or implemented in ever

increasing numbers of hospitals (Iowa N.U.R.S.E. Project 1974; Collins 1975; Ackley 1977; Hegyvary 1977). Research has demonstrated initial increases in quality of patient care, patient satisfaction, cost effectiveness, and work satisfaction of professional nurses with this new mode of patient care. Among these variables, the finding of increased work satisfaction has been the least conclusive in the studies reviewed, and further research has been recommended in this area. Since the shortage of nurses begun in the 1940s continues until today and since the concept of primary nursing itself is dependent on adequate staffing with professional nurses, research in the area of work satisfaction of nursing personnel in acute care primary nursing settings is especially relevant.

Theoretical Framework

Lawler (1973) described satisfaction as affective reactions that people experience in association with or as a result of motivated behavior, and claims that no well-developed theory of satisfaction, i.e., one stating causal relationships, exists today. Research in the area of work satisfaction has been either based on psychological theories of motivation, or has remained atheoretical, simply establishing relationships between variables.

Among the earliest relationships established was the association of absenteeism and staff turnover with a lack of work satisfaction, and these variables are customarily used as indicators, since they influence organizational effectiveness and are very costly (Lawler 1973). In the hospital setting, they additionally reduce the possibility of providing optimal nursing care due to the constant influx of inexperienced personnel (Nichols 1971). Organizations can influence work satisfaction and prevent absenteeism and turnover, only if factors influencing these affective responses are known.

Theory-based research in the area of work satisfaction of nurses to date has used and confirmed the findings of Maslow (1954) and Herzberg (1959). Maslow (1954) established that it is dependent on the fulfillment of a hierarchy of common human needs, ranging from the lower level physiological and safety needs to the higher needs for affiliation, esteem, and self-actualization. Herzberg (1959) found that fulfillment of the lower level "hygiene" needs can only prevent dissatisfaction, while fulfillment of the higher level needs, or "motivators" alone provides satisfaction. Since work satisfaction and dissatisfaction, then, are not on a single continuum, it is possible for nurses to be satisfied and dissatisfied

with their particular work setting at the same time, according to Herzberg (1959).

This study tested to what extent these concepts apply to the St. Joseph primary nursing format. Primary nursing, generally, is based on autonomy of practice, accountability for independent client assessment, therapeutic decision making, and implementation of planned nursing care based on these decisions (Ciske 1974). If these concepts are to provide satisfaction, the individual nurse must be motivated to achieve them.

The behavioral scientist McClelland (1961) spoke to this in particular. His achievement motivation theory was used to provide the framework of this study. McClelland categorized Maslow's (1959) higher level motivators into the needs for power, affiliation, and achievement. In his research with business organizations, he has demonstrated that work which frustrates these three overall needs will not be perceived as satisfying, performance will decline, or another work environment will be sought. Among the three, n-Ach, the need to achieve, ranks highest. It provides self-reward (intrinsic reward) as long as the worker perceives probability of confirmation of expectations in the work situation. According to the theory, absenteeism is an indicator that the worker

satisfies minimal job survival requirements only, not n-Ach, while an increased staff turnover signifies that the work setting is inadequate for satisfaction of the power and affiliation needs as well (Sansotta 1977).

McClelland (1961) stated that the three need categories are culturally generated, and vary in intensity among individuals. For the purposes of this study, it was postulated that the lack of personnel satisfaction with team and functional nursing is related to incongruence between expectations generated by nursing education and the realities of nursing practice, confirmation of expectations did not occur.

The research project was intended to test whether the St. Joseph primary nursing system offers nursing personnel high probability of satisfaction of the need for power through autonomous practice, the need for affiliation through close interaction with a small group of clients and colleagues, and the need for achievement through realization of goals engendered by education which are more congruous with this form of practice. Additionally, primary nursing provides a work environment with moderate risk of failure, where individual responsibility is assigned, and knowledge of the results of the worker's efforts (achievement feedback) is provided. McClelland

(1961) has identified these three variables as essential to n-Ach satisfaction.

Hypotheses

The following hypotheses were formulated for testing:

1. There is no difference in individually perceived work satisfaction of nursing personnel as determined by scores achieved on the Work Satisfaction Index, between a recently established primary nursing unit and a matched primary nursing unit which has been in operation two years longer

2. There is no difference in the rate of absenteeism of nursing personnel, as determined by cumulative frequency tabulations, between a recently established primary nursing unit and a matched primary nursing unit which has been in operation two years longer

3. There is no difference in the rate of turnover of nursing personnel, as determined by cumulative frequency tabulations, between a recently established primary nursing unit and a matched primary nursing unit which has been in operation two years longer

4. There is no difference in (a) individually perceived work satisfaction, as determined by scores

achieved on the Work Satisfaction Index; (b) rates of absenteeism; and (c) rates of turnover between professional nurses and vocational nurses working under the St. Joseph primary nursing system.

Definition of Terms

For the purposes of the study, the following definitions of terms were used:

1. Professional nurse--a person who has passed the state board of nurse examiners' licensing examination to practice professional nursing

2. Licensed vocational nurse--a person who has passed the state board of nurse examiners' licensing examination to practice vocational nursing

3. Nursing personnel--registered nurses and licensed vocational nurses

4. Primary nursing--a system of nursing care delivery where the professional nurse is held accountable for and is free to effect implementation of the nursing process with a given caseload of patients, 24 hours a day, from admission to discharge, and where the vocational nurse works in association with and under the direction of a specific professional nurse

5. Work satisfaction--a person's affective reactions to his total work role

6. Absenteeism--the absence from work on days when the worker is scheduled to work, without consideration of the reasons for absence

7. Turnover--the total number of workers who resign during a given period without consideration of the reasons for resignation

Limitations

There was no control of the following demographic variables which may or may not have had a bearing on the outcome of the study: age, race, sex, marital status, socioeconomic background, personality, and exact length and type of educational preparation of the subjects in the sample.

Delimitations

For the two groups tested, the following delimitations were identified:

1. The nursing personnel tested consisted only of professional and licensed vocational nurses

2. The nursing personnel tested consisted of all professional and licensed vocational nurses working on a newly established primary nursing unit, and of all professional and licensed vocational nurses working on a matched unit which had been in operation two years longer

Assumptions

The following underlying assumptions governed the design of the research:

1. Work satisfaction of nursing personnel is of concern to the nursing profession

2. Work satisfaction of nursing personnel contributes to the quality of patient care

3. Work satisfaction of nursing personnel varies with the work setting

4. Work satisfaction of nursing personnel can be measured

Summary

Summarized briefly, this introductory chapter has identified the long-standing nursing personnel shortage, the dichotomy between nursing education and acute care hospital nursing practice, and the fragmentation of patient care as factors relating to a lack of work satisfaction of nurses. The evolution of primary nursing was traced, and the need for an investigation of the work satisfaction of different categories of nurses working under this new system was explained. The problem, purposes, and appropriate hypotheses of the research study were stated. Terms used in the study were defined, and

the research domain was adumbrated by pertinent limitations and delimitations. Four underlying assumptions and the theoretical framework governing the design of the research project were given.

Subsequent chapters will address the investigation's execution and outcome. A thorough review of the relevant literature pertaining to work satisfaction of professional and licensed vocational nurses and to primary nursing is presented in chapter II. Chapter III describes the methodology utilized in the study; its setting and population, as well as the tool and procedure used for the collection and treatment of the data.

The results and interpretation of the data gathered and the statistics chosen are recorded in chapter IV. Finally, chapter V presents the conclusions drawn and gives direction for further study based on the findings from this study.

CHAPTER II

REVIEW OF LITERATURE

The evolution of nursing research has paralleled the evolution of nursing. The slow change from a task-oriented service to a science of health care has been accompanied by a change in research priorities (Schlotfeldt 1977).

Among the present research priorities designated by the Commission on Nursing Research of the American Nurses Association (Schlotfeldt 1977) are:

1. Studies to facilitate the successful application of new knowledge to patient care
2. Studies to evaluate the outcomes and/or effectiveness to consumers and providers of different patterns of delivery of nursing services
3. Studies of manpower for nursing practice

Several issues were raised in the background and significance, and in the theoretical framework of the study which qualify it for these priority requirements. The major topics identified were the lack of a universally accepted theory of work satisfaction, the need for work satisfaction research in nursing indicated by a longstanding high

turnover rate, and the development of new categories of nurses and new modes of nursing care delivery. This review of literature introduces and expands subcomponents of the major topics.

The Study of Work Satisfaction

Historical Background

The study of work satisfaction is a relatively new field of research. It is an offshoot of the study of worker productivity. Until the early part of this century, work was seen either as a means for survival, or as a moral duty dictated by the prevailing Protestant ethic in western society. The rapid growth of industrial organizations during the century's first three decades generated the study of organizational management. The emphasis was on maximizing the output of men and machines while minimizing investment and expenditures by the organization (Bendix 1956).

Taylor established his principles of scientific management in the 1920s, which tied task efficiency to monetary reward (Bendix 1956). One of his assumptions was that work satisfaction would increase as the worker's prosperity increased with increased productivity.

In the 1930s management research began to study the effects of environmental factors and working

conditions on work satisfaction. Again, the aim was to increase productivity. Mayo's famous experiments at General Electric's Hawthorne plant (Roethlisberger and Dickson 1939) led to the discovery that psychosocial factors also influenced work satisfaction. Since then, work satisfaction research has become an integral part of behavioral science research.

Behavioral Science Research

To date no well-developed theory of work satisfaction has been established. Research in the area has been either based on psychological theories, or atheoretical, simply designed to establish relationships between variables (Lawler 1973).

Although many empirical data have been collected in specific work satisfaction studies, they have failed to pinpoint needs applicable to all work situations (Slavitt et al. 1978). The descriptive research work done by Maslow (1970) during and after World War II found that all human behavior, including work behavior, is motivated by a hierarchy of common needs. Of these, the monetary rewards, environmental factors, and security factors identified by the management scientists ranked lowest. Upon their satisfaction, the needs for

affiliation, esteem, and self-actualization emerge. They must also be met if the work situation is to remain satisfying to the worker.

Through industrial management research, this human needs hierarchy has been linked to work performance (Sansotta 1977). The observed decline of output in static work situations has led to the development of enrichment programs and management techniques which take emerging motivational needs into account (Sansotta 1977).

Industrial research linking managerial attitudes and performance (Porter and Lawler 1968) has produced instruments for measuring applicants' suitability for specific jobs. Building upon Maslow's theory, Herzberg (1959) has identified specific intrinsic and extrinsic factors which provide motivation to work. He also distinguished between work satisfaction and dissatisfaction. Factors relating to the lower level needs, such as physical working conditions, supervision, and administrative policies produce only dissatisfaction if not met. Only factors relating to higher level needs produce lasting work satisfaction. Among these are achievement, recognition, challenging tasks, job security and status, and interpersonal relations. Interestingly, pay was found to

play a role in meeting both the lower level (survival) and higher level (job status) needs.

McClelland (1953, 1955, 1961) developed a theoretical framework which uses motivation as a predictor of both performance and work satisfaction. He postulated that an individual's motivation to work and satisfaction with his work situation were determined by his internal biological and external cultural environment. In his research he found that work performance could be biologically (survival) motivated, but that work satisfaction was always culturally motivated, a learned anticipatory goal reaction. Within this framework, the higher level human needs were categorized into the need to achieve, the need for power, and the need for affiliation. Although these vary depending on individual socialization, the need to achieve (N-Ach) is generally strongest in the American culture.

Work Satisfaction in Nursing

Work satisfaction of nurses has been called "a highly complex entity and one that is difficult to measure succinctly" (Collins 1975, p. 22). Nursing suffers from several concerns which set it apart from other professions, so that work satisfaction findings cannot be easily

generalized to nursing from other fields. Since preparation for practice spans six categories, from one year vocational training up to the doctoral level, the concept "nurse" itself is highly complex. Although nurses had been the subject of research by psychologists and sociologists earlier (Palola 1965), the profession did not begin to publish its own research journal until 1951. The first study of work satisfaction of nurses by a nurse was published in 1953 (Bullock 1953) so that the review of the subject in the literature encompassed a quarter century only. Several subtopics emerged which are discussed separately here.

Dichotomy between Nursing Education and Nursing Practice

As was delineated in chapter I, the last three decades in nursing have been marked by two fundamental changes: an ongoing acute shortage of professional nurses, and the changeover from technical to academic education. The staff shortage led to the creation of several new types of ancillary personnel, while the change in nursing education produced greater expectations of autonomy of practice, integrated, comprehensive nursing care, and individual accountability in the professional practitioner (Kron 1971; Marram, Schlegel, and Bevis 1974). Rather

than fulfilling these culturally generated (McClelland 1953, 1961) expectations, the professional nurse found herself supervising these ancillary personnel. The resultant lack of work satisfaction has been described as the greatest problem confronting nursing today (Kron 1971, Kramer 1974, Hodgman 1979). It was compounded by the implementation of functional and team nursing (Christman and Jelinek 1967; Marram, Schlegel, and Bevis 1974; Ackley 1977). Both modes are based on Taylor's scientific management principles which industry had begun to abandon two decades earlier because of diminished worker satisfaction and performance. The social and financial cost to nursing was very high (Lysaught 1970).

Research of nurse utilization, using measurement studies of nursing activities, found that only 25-50 percent of the skills of professional nurses were used daily (Christman and Jelinek 1967). The Kramer (1974) survey of baccalaureate graduates of California schools of nursing found that 28 percent had left the nursing profession within two years, while many others gave dissatisfaction as the reason for leaving service and entering graduate school.

Among nurses educated on the master's level, a greater number remain in education than return to service practice. More and more nursing leaders have published

appeals to reverse this trend (Brown 1976, Hodgman 1979), so that "nurses no longer confuse excellence with scholarship, perpetuating the destructive dichotomy between education and service which has characterized our profession" (Hodgman 1979, p. 25)

Absenteeism and Staff Turnover

Management and business administration research has established staff turnover and its precursor, absenteeism, as reliable indicators of diminishing work satisfaction (Porter and Lawler 1968, Lawler 1973, Sansotta 1977). These problems are more acute in nursing than in any other service profession, and constitute a source as well as a symptom of dissatisfaction. In 1963 the annual nationwide turnover rate of professional nurses was 69 percent, as compared to 18 percent for teachers (U.S. Public Health Service 1963). In 1970 it was 70 percent (Lysaught 1970). McCloskey (1975) has noted that the high turnover of professional nurses has remained unchanged despite considerable improvement in the salary structure. Recent research conducted by the University of Iowa's School of Business found the high rate of hospital nurse turnover to be "the greatest cause of fiscal loss in personnel management" (Brief 1976, p. 55), and

suggested lack of financial incentive, lack of autonomy of practice, and lack of achievement feedback as causal factors. An earlier exit interview study of sixty-four of eighty-one psychiatric staff nurses who had resigned from a state hospital in one year found that 52 percent gave personal reasons, 19 percent professional reasons (advancement, changing fields), and 29 percent gave dissatisfaction with working conditions as the cause for resignation (Nash 1966).

Work Satisfaction of Professional and Vocational Nurses

Since the publication of the first study in nurses' work satisfaction in 1953 (Bullock 1953), research in this area has become increasingly differentiated and factor specific. Using a combination of interview and observation in a survey of 115 professional nurses in one hospital, Bullock (1953) found that both organizational and social factors were significantly related to work satisfaction. Twelve years later a team of sociologists (Palola and Larsen 1965) conducted the first comparison study between the work satisfaction of professional and vocational nurses. They found that professional nurses differ from vocational nurses in that they:

1. Demand more of the work environment

2. Want to receive recognition from others in addition to receiving internal rewards for having upheld the traditions of nursing

3. Want to be looked upon as professional colleagues rather than ancillary help to supervisors and physicians

4. Value independence in shaping their career

The researchers concluded that among all health care personnel, professional nurses "want the most from their job, get the least from it, and end up with the lowest job satisfaction scores" (Palola and Larsen 1965, p. 208).

Marlow (1966), a labor relations professor at Cornell University, gathered responses from 757 staff nurses and 211 supervisors to ascertain what professional nurses saw as their greatest job needs. In contrast to studies cited from industry, supervisors and staff rank ordered their needs similarly. Maslow's lower level needs were ranked first, with esteem needs second. An analysis by two professors of management of 565 professional nurses' reactions to sixteen factors on the Porter Scale yielded the same results, i.e., major overall dissatisfaction due to unmet lower level needs (Benton and White 1971).

Nichols (1971), in a thirty item questionnaire study of army nurses, found inverse correlation between turnover and total work satisfaction, but no significant correlation with the demographic factors age, marital status, and sex. Using Herzberg's dual factor theory, a professor of health administration (Longest 1974) compared 195 professional nurses from the fields of education and practice. His findings revealed major differences in the areas of personal interaction, immediate job satisfaction, and career goals. The study also correlated absenteeism, turnover, and decreased productivity, and suggested that nursing education may engender needs which are not met in practice.

McCloskey's staff nurse turnover research with professional nurses (1974, 1975), utilizing a thirty-six item questionnaire based on Maslow's hierarchy, found that psychological factors were rated one and a half times as important as safety factors, and twice as important as social factors. The major recommendation was to implement primary nursing as soon as possible. Another very important finding from her research was that the following demographic factors were not statistically significant: marital status, education, work specialty area, and

respondent's and spouse's salary. A similar survey of 144 female staff professional nurses (Everly and Falcione 1976) found that interpersonal relationships and intrinsic work rewards were ranked twice as high as extrinsic work rewards and administrative policies.

Finally, the largest sample ever surveyed were 17,000 nurse respondents from all areas of nursing to a journal questionnaire (Godfrey 1978). No differentiation was made between professional and vocational nurses. The vast majority stated that they were motivated by a desire to help others, and that they valued an opportunity for professional growth most. Increases in work satisfaction were also related to increased management responsibility, and to increased education. This was the first nursing research to show a difference in male and female responses to work satisfaction factors. Male nurses ranked salary and fringe benefits higher than female nurses. Female nurses ranked choice of hours/shift and opportunity for direct patient care higher than male nurses.

Primary Nursing

Historical Background

At the beginning of this decade, the National Commission for the Study of Nursing and Nursing Education

(Lysaught 1970) found that the existing shortage of nurses was not so much related to a lack of trained nurses, but rather to the unwillingness of many nurses to work in their profession. A 70 percent nationwide turnover rate was correlated with the widespread job dissatisfaction revealed by the pertinent research data discussed above. The study also stressed that the majority of nurses continue to be employed in hospitals, and that nurses experienced the least work satisfaction in the hospital setting. It urged the profession to develop a new mode of patient care delivery which would maximize the utilization of the professional nurse's specialized skills; and also to improve cost effectiveness, quality of patient care, and patient satisfaction.

Different hospital settings began to permit and encourage experimental research with innovative patient care systems. In the early 1970s, under the leadership of Hall and Alfano, Loeb Center in New York City opened as the first hospital exclusively staffed by professional nurses, each planning and giving rehabilitation care to a group of patients (Bowar-Ferres 1975). It was and remains a success in terms of the criteria listed above.

Through experimental research comparing different modes of patient care delivery, Marram (1974) established

that primary nursing was superior to the other systems in quality of patient care, staff and patient satisfaction, and cost effectiveness. Her book is generally accepted as the definitive reference on the subject, and primary nursing has been implemented in ever increasing numbers of hospitals across the country since its publication.

Work Satisfaction in Primary Nursing

Although there has been an abundance of journal articles about different aspects of primary nursing during the past few years, formal research in work satisfaction of nursing personnel under this system has not yet been published. Ciske (1974) found lower rates of absenteeism and turnover on four primary units after one year, in comparison with matched team nursing units.

A comprehensive study, conducted at six hospitals by the Iowa Hospital Association (N.U.R.S.E. 1975) to test new modes of care delivery designed to increase the role of nursing and enhance patient care, found that with primary nursing satisfaction increased "considerably" for professional nurses, and "significantly" for vocational nurses (p. 26). However, the report also stressed that the staff on the experimental primary unit had the benefit of constant remotivation by a dynamic, committed head

nurse, and that the reported increase in satisfaction was with intrinsic factors only.

A Utah study comparing matched primary and team nursing units (Collins 1975) found the findings for job satisfaction of professional nurses inconclusive. Although vocational nurses were also used in that particular primary system, their satisfaction with it was not measured.

Hegyvary (1976) included type of nursing care organization in her list of thirty-three variables studied to determine their relationship to the use of the nursing process by professional nurses at Rush-Presbyterian Hospital. She found that primary units showed a higher positive correlation with the use of the nursing process than team or functional units, and that the nurses' satisfaction increased with the increase in quality of care. She cautioned, however, that staff attitudes, leadership available, and the professional nurse component must be considered before primary nursing can be regarded as a panacea. A nursing administrator at Tufts-New England Hospital has sounded the same warning (Zander 1977).

A comprehensive evaluation of thirty-eight taped interviews with professional nurses working on a newly implemented primary care unit (Spoth 1977) found that the

majority of the responses were positive. Factors described as increasing work satisfaction were increased autonomy, involvement with patients, colleagueal relationships, and achievement feedback. It is noteworthy that work satisfaction also increased with the length of time the respondent had been in nursing generally.

A Canadian article (Bartels, Good, and Lampe 1977) reports that "improved morale among nurses" (p. 31) was the greatest benefit of instituting primary nursing. Again, it was pointed out that the administration's and head nurses' attitude towards the system are crucial factors. A recent report of a comparison study in Portland, Oregon (Dahlen 1978), found that a hospital using primary nursing and an all professional nursing staff was more cost effective and had higher morale than comparable hospitals using mixed staffs.

Other components identified as necessary for successful implementation of primary nursing are:

1. A director who believes in the autonomy of professional nurses and is willing to let go of former controls

2. Involvement of the head nurses in the selection of staff, with emphasis on assertiveness and self-motivation in the applicants

3. Continued staff motivation through positive reinforcement, frequent written performance appraisals, and peer review (Spitzer 1979)

To date there has been no research reported comparing the short-term and long-term effects of primary nursing on the work satisfaction of professional and vocational nurses. This research project was undertaken to fill the gap.

Summary

In this chapter a review of the literature relating to work satisfaction in general, work satisfaction of nurses in particular, and to primary nursing was presented. Subtopics of special concern to nursing reviewed included the dichotomy between nursing education and nursing practice, chronic high staff turnover, differences in educational preparation of professional nurses, and administrative components necessary for successful implementation of primary nursing.

CHAPTER III

PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

As outlined in chapters I and II, primary nursing is a new mode of patient care delivery originally designed for an all professional nursing staff. Individual hospitals tend to adapt the system according to their resources and to implement it with varying ratios of professional and vocational nurses. Research has shown initial work satisfaction of professional nurses with this system, but there is a gap in the literature concerning the satisfaction of vocational nurses working under this mode. There is also a paucity of data relating to the long-term effects of primary nursing on the work satisfaction of nurses.

The applied research project in hand was undertaken to fill these gaps. A descriptive ex post facto study with a 2 x 2 factorial design was chosen.

Setting

All data were collected at St. Joseph Hospital in Fort Worth, Texas, an acute care 500 bed hospital. In 1976 and 1977 the nursing department established three

experimental demonstration units to determine the most satisfactory nursing care delivery system, using functional, team, and primary nursing, respectively. Six months later, the units were compared, using the criteria of cost effectiveness, quality of patient care, patient satisfaction, and staff satisfaction (Ackley 1977). On the basis of that comparison an administrative decision was made to extend primary nursing throughout the hospital. After extensive recruiting, inservice education, and administrative changes, St. Joseph began to convert additional units to the system in 1979. This study was integrated with the conversion process.

The research covered the three months period between April 15, and July 15, 1979, and was conducted on the 8th and 10th floors of the hospital. Both were identical in number of beds, weekly occupancy rates, staffing pattern, complexity of patient care, architectural layout, and supportive services. The units differed in that the 10th floor converted to primary nursing on April 15, 1979, while the 8th floor was the original primary care unit which had been in operation for two years longer.

Sample and Population

In accordance with the delimitations cited, the first sample consisted of all professional and vocational nurses working on the 10th floor of St. Joseph Hospital during the three months following implementation of primary nursing. The second sample consisted of all professional and vocational nurses working on the 8th floor during the same time period.

Although other units in the hospital operate in the primary nursing mode, they differ from the sample units in number of beds, weekly occupancy rate, complexity of patient care, architectural layout, and supportive services. Although it meant a reduction in sample size, these units were excluded from the research to avoid increasing the number of intervening variables. The ex post facto design precluded randomization, so that the samples comprised the populations.

As stated in the limitations, there was no control of the demographic variables age, sex, race, marital status, socioeconomic background, personality, and exact length and type of education of the subjects in the sample. However, an informal survey during the collection of data showed that all subjects were female; also, both

samples were grossly estimated to be alike in age, racial, and educational background composition. The rate of participation in the study was 79 percent for professional as well as vocational nurses in both samples. For the purposes of the study, the two groups were assumed to be equal in independent variables other than employment on the established or newly implemented primary nursing units.

A full and fair explanation of the research and its purpose, any associated risks or discomforts, and a description of the possible benefits of the study were given to each subject prior to the administration of the questionnaire (appendix F). The subjects were informed of their right to withdraw from the study at any time, and their written, witnessed consent was obtained (appendix G).

Tool

The "Index of Work Satisfaction" (Slavitt et al. 1978) was used to measure individually perceived work satisfaction. It is a standardized, forty-eight item, Likert-type instrument which was developed and tested by a team of researchers at the University of Massachusetts over a two-year period, specifically for the measurement of work satisfaction of different levels of health care workers in a variety of settings. Written permission of

the principal investigator was obtained (appendix A), and a copy of the instrument can be found in appendix B.

The scale measures the relative importance of six components of work satisfaction, as well as an overall summary score. All items are weighted equally. There are eight questions pertaining to each component scattered randomly throughout the questionnaire. The components of work satisfaction are defined by the authors of the tool as follows:

> Pay--Dollar remuneration and fringe benefits received for work done
>
> Autonomy--Amount of job-related independence, initiative, and freedom either permitted or required in daily work activities
>
> Task Requirements--Tasks that must be done as a regular part of the job
>
> Organizational Requirements--Constraints or limits imposed on job activities by the administrative organization
>
> Interaction--Opportunities and requirements presented for both formal and informal social contact during working hours
>
> Job Prestige/Status--Overall importance or significance felt about the job at the personal level and to the organization (Slavitt et al. 1978, p. 115)

A list of the questions assigned to each component can be found in appendix B.

The internal reliability coefficient of the instrument is .912. Its validity has been established through

factor analysis of the questionnaire, and through similarity of results between two hospitals where the tool was tested, and general findings of job satisfaction. In accordance with the authors' (Slavitt et al. 1978) suggestion to further test the instrument's validity by comparing the findings with another accepted standard of measuring work satisfaction, cumulative frequency tabulations of the absenteeism and turnover rates on the test units were made for the three-month period.

Data Collection

1. During the spring of 1979 the proposal for the study was accepted by a faculty thesis committee of Texas Woman's University (appendix C), and permissions to collect the data were obtained from the university's Human Research Committee (appendix D) and the sponsoring agency (appendix E).

2. On April 15, 1979 primary nursing was implemented on the 10th floor of St. Joseph Hospital.

3. During the three-month period following, a daily record of the rate of absenteeism on this unit, as well as on the 8th floor primary nursing unit established two years previously, was kept by the nursing service department.

4. During the same time period a record of nursing personnel turnover was kept by the head nurses of both units.

5. Cumulative frequency tabulations of the rates of absenteeism and turnover were assembled and triple checked at the end of the test period.

6. During the week following the test period, the Index of Work Satisfaction was administered to all nursing personnel on both units willing to participate in the study. The questionnaires were coded according to unit and type of personnel only, and then administered to groups of nurses working on both units during different shifts. Prior to participation, all subjects were given a detailed explanation of the research, and informed of their rights to refuse participation in and/or withdraw from the study (appendix F). Their written, witnessed consent was then obtained. At all times the permission slips were kept separate from the questionnaires to assure the anonymity of the participants.

Treatment of Data

All data obtained from the Work Satisfaction Index questionnaires were transcribed to raw data sheets and triple checked. Adjusted scores for each of the six work

satisfaction components were determined and entered into a computer for statistical analysis.

The Bartlett test was used to assure equality of variance between groups. The computer program chosen for the analysis of these data automatically determined the differences between means using the t-test.

Chi-square testing was used to determine if absenteeism and turnover rates were significantly different between the groups. Each chi-square score was evaluated at the .05 level for statistical significance.

The scores achieved by the subsamples on each unit (professional and vocational nurses) were tabulated separately. This made it possible to describe each group's rating of different aspects of work satisfaction separately. It was also possible to combine both subgroups' ratings to describe the total nursing personnel's work satisfaction on each unit. Finally, the modified Least Significant Difference test was used to make multiple comparisons between all groups.

Summary

This chapter has described two matched medical-surgical units at St. Joseph Hospital in Fort Worth, Texas, as the setting for the study. The rationale for the

selection of the population, samples, and subsamples was given. The Index of Work Satisfaction which was presented as the tool chosen for the collection of data was evaluated for reliability. The chapter concluded with a detailed description of the time sequence and methodology of data collection and data treatment.

CHAPTER IV

ANALYSIS OF THE DATA

In this chapter, the results and statistical interpretation of the data are presented, together with appropriate tables of data and correlations. Test findings are related to the research hypotheses in the order in which these were stated in the introductory chapter (pp. 11-12). All conclusions, inferences, and recommendations derived from the statistical analysis are deferred for thorough discussion in chapter V.

In order to increase the clarity of presentation, and to avoid tedious and distracting repetition of unnecessary phrases, the following defined terms are used throughout both chapters:

1. "New"--refers to all personnel on the 10th floor of St. Joseph Hospital, which is the newly implemented primary nursing unit

2. "Old"--refers to all personnel on the 8th floor of St. Joseph Hospital, which is the primary nursing unit established two years earlier

3. WSI--Work Satisfaction Index

4. RN--professional nurse

5. LVN--vocational nurse

Eleven professional nurses and eleven vocational nurses from the newly implemented primary nursing unit, and eleven professional and twelve vocational nurses from the unit established two years earlier volunteered for the study. This represented a 79 percent participation rate for each of the four subsamples.

Hypothesis 1 had postulated that there would be no difference in work satisfaction, reflected by WSI scores, between the nursing personnel on the old unit, and the nursing personnel on the new unit. Twenty-two nurses from the new unit answered the questionnaire and achieved a composite total mean score of 153.5 of a possible 288 points. The composite mean score for the twenty-three nurses participating from the old unit was 169.0. Table 1 presents these data and their statistical interpretation.

Although the new unit differed from the old in that it had a lower total score, the t-test resulted in a p value of $< .12$. The hypothesis was therefore supported: There is no difference in individually perceived work satisfaction of nursing personnel as determined by scores achieved on the Work Satisfaction

TABLE 1

UNIT WSI SCORES

	New Unit	Old Unit	Significance
Composite total mean WSI score	153.5	169.0	$p < .12$
Standard error of the mean	7.36	6.31	
Number in sample = N	22	23	

Index, between a recently established primary nursing unit and a matched primary nursing unit which has been in operation two years longer.

The second parameter of work satisfaction assessed was absenteeism. Hypothesis 2 postulated that there would be no difference in absenteeism between the personnel on the old unit and the personnel on the new unit. Frequency tabulations of the rates of absenteeism occurring on both units during the three-month period from April 15, 1979 to July 15, 1979 were compared. There were twenty-three RN absences and forty-three LVN absences for the new unit, and fifteen RN absences and thirty-three LVN absences recorded for the old unit. Table 2 shows a summary of the data and their statistical analysis.

TABLE 2

ABSENTEEISM

	New Unit	Old Unit	Chi-square
RNs	23	15	$.20 > p > .10$
LVNs	43	33	$.30 > p > .20$
Total	66	48	

Comparing the frequency of absenteeism tabulations numerically, there is roughly a 30 percent higher rate of absenteeism in the "new" group. However, the chi-square test showed that the findings were not significant at the .05 level, and hypothesis 2 was also supported: There is no difference in the rate of absenteeism of nursing personnel, as determined by cumulative frequency tabulations, between a recently established primary nursing unit and a matched primary nursing unit which has been in operation two years longer.

The third parameter of work satisfaction assessed was turnover. Hypothesis 3 stated that there would be no difference in turnover between the personnel on the old unit and the personnel on the new unit. Frequency tabulations of the rates of turnover occurring on both units

during the same three-month period were compared. As depicted in table 3, there was a turnover of three RNs and two LVNs on the new unit, and a turnover of two RNs and two LVNs on the old unit.

TABLE 3

TURNOVER

	New Unit	Old Unit
RNs	3	2
LVNs	2	2
Total	5	4

As can be readily seen, these totals were too small to demonstrate either a numerical or a statistical difference. Again, the hypothesis was supported: There is no difference in the rate of turnover of nursing personnel, as determined by cumulative frequency tabulations, between a recently established primary nursing unit and a matched primary nursing unit which has been in operation two years longer.

Hypothesis 4 differed from the preceding three hypotheses in that the work satisfaction parameters cited were used to test differences between professional and

vocational nurses rather than differences between nursing personnel on two units. Hypothesis 4 postulated that there would be no difference in (a) WSI scores, (b) rates of absenteeism, and (c) rates of turnover between professional and vocational nurses working under the St. Joseph primary nursing system. A total of twenty-three LVNs participated in the study and achieved a composite total WSI mean score of 150.3 of a possible 288 points. The composite total WSI mean score for the twenty-two RNs who participated was 173 of the possible 288 points. Table 4 depicts these data and their statistical significance.

TABLE 4

NURSE CATEGORY WSI SCORES

	LVN	RN	Significance
Composite total WSI mean	150.3	173.0	$p < .02$
Standard error of the mean	6.85	6.31	
Number in sample = N	23	22	

Since the t-test yielded a p value of $< .02$, the numerical difference between the composite total WSI mean scores was also statistically significant, indicating that

the professional nurses derive greater work satisfaction from the primary mode of patient care delivery than the vocational nurses. Part (a) of hypothesis 4 was rejected and the alternate hypothesis accepted: There is a difference in individually perceived work satisfaction, as determined by scores achieved on the Work Satisfaction Index, between professional nurses and vocational nurses working under the St. Joseph primary nursing system.

To test part (b) of hypothesis 4 the combined rate of absenteeism for professional and vocational nurses on the two units were compared. There were thirty-eight RN days and 76 LVN days lost due to absenteeism during the three-month test period from April 15 to July 15, 1979. As depicted in table 5, the absenteeism rate for LVNs was double that of RNs. The chi-square test showed this numerical difference to be significant at the .001 level.

TABLE 5

ABSENTEEISM AND TURNOVER BY NURSE CATEGORY

	LVN	RN	Chi-square
Absenteeism	76	38	$p < .001$
Turnover	4	5	

Part (b) of hypothesis 4 was, therefore, also rejected and the alternate hypothesis accepted, i.e.: There is a difference in rates of absenteeism between professional nurses and vocational nurses working under the St. Joseph primary nursing system.

Part (c) of hypothesis 4 had postulated that there would be no difference in the turnover rate between professional and vocational nurses. During the three month test period there was a turnover of four LVN positions and five RN positions (table 5). Although this showed a very slight numerical covariance with the parameters tested in parts (a) and (b) of the hypothesis, the findings were not statistically significant and the null hypothesis was accepted, viz.: There is no difference in rates of turnover between professional and vocational nurses working under the St. Joseph primary nursing system.

As was pointed out in the description of the tool (WSI) in chapter III, the questionnaire made it possible to analyze and compare the degree of satisfaction with the different components of total work satisfaction experienced by the different categories of personnel. The breakdown of these data revealed differences which were considered important enough to be included in this report.

Adjusted raw scores for the work satisfaction components are depicted in appendix H.

Table 6 lists the composite mean scores achieved by the two subsamples (RNs and LVNs) on both units, as well as the p values resulting from statistical comparisons using the t-test. Starred items denote significant findings, and will be discussed. Although not significant at the .05 level, p values marked by a question mark in table 6 are considered marginally significant and will be discussed separately.

TABLE 6

COMPOSITE MEAN SCORES
OF THE SUBSAMPLES

	Means		Significance
Component	"New" LVNs	"Old" LVNs	
Pay	10.27 ± 2.01	17.42 ± 2.94	p < .062 ?
Task Requirements	21.00 ± 2.42	27.25 ± 2.21	p < .069 ?
Interaction	31.36 ± 2.09	34.75 ± 2.58	p < .325
Organizational Requirements	18.55 ± 1.85	29.08 ± 1.87	p < .001 *
Autonomy	21.91 ± 2.78	28.58 ± 2.20	p < .071 ?
Job Status	31.55 ± 1.36	27.67 ± 1.38	p < .059 ?
Total	134.60 ± 8.32	164.80 ± 9.09	p < .024 *

TABLE 6--Continued

	Means		Significance
Component	"New" RNs	"Old" RNs	
Pay	22.27 ± 2.36	17.73 ± 3.77	p < .319
Task Requirements	20.73 ± 2.20	26.73 ± 1.43	p < .033 *
Interaction	33.82 ± 2.26	39.18 ± 1.29	p < .053 ?
Organizational Requirements	30.09 ± 2.22	28.64 ± 1.94	p < .620
Autonomy	32.91 ± 2.11	32.18 ± 2.09	p < .809
Job Status	32.64 ± 1.80	29.09 ± 2.06	p < .210
Total	172.50 ± 9.32	173.50 ± 8.95	p < .934

The "old" LVNs experienced significantly greater total work satisfaction, and significantly greater satisfaction with the organizational structure than the "new" LVNs. In addition, their higher scores in the areas of pay, task requirements, autonomy, and job status were considered marginally significant.

In the RN category, the "old" group experienced significantly greater satisfaction with primary nursing's task requirements than the "new" group. They also rated marginally significantly higher in the "interaction" component. It is interesting to note that in contrast to

the LVN group there is no difference in total work satisfaction between the "old" and "new" RNs.

Finally, multiple comparisons of the means were computed using the modified Least Significant Difference test. These made it possible to rank the four subsamples from "least satisfied" to "most satisfied" for each component of the WSI (table 7). Solid underlining denotes instances where no significant differences could be found so that the groups were rated equal. Breaks in the underlining show where the differences were statistically significant.

As illustrated in table 7, there were no significant differences among the four groups in work satisfaction derived from the interaction and job status components. The new LVNs derived the least satisfaction from the pay, organizational requirements, and autonomy components. They also ranked lowest in total work satisfaction, which set them apart from the other three groups who did not demonstrate a significant difference in total work satisfaction

Although all four groups rated pay the lowest among all components, it is noteworthy that the new LVNs were the least satisfied and the new RNs the most satisfied in this area while there was no difference between

TABLE 7

MULTIPLE COMPARISONS OF WSI MEANS

Component	Satisfaction			
	Least			Most
Pay	New LVNs	Old LVNs	Old RNs	New RNs
$p < .044$	10.27	17.42	17.73	22.27
Task Requirements	New RNs	New LVNs	Old RNs	Old LVNs
$p < .049$	20.73	21.00	26.73	27.25
Interaction	New LVNs	New RNs	Old LVNs	Old RNs
$p < .093$	31.36	33.82	34.95	39.18
Organizational Requirements	New LVNs	Old RNs	Old LVNs	New RNs
$p < .001$	18.55	28.64	29.08	30.09
Autonomy	New LVNs	Old LVNs	Old RNs	New RNs
$p < .007$	21.91	28.58	32.18	32.91
Job Status	Old LVNs	Old RNs	New LVNs	New RNs
$p < .148$	27.67	29.09	31.55	32.64
Total	New LVNs	Old LVNs	New RNs	Old RNs
$p < .013$	134.6	164.8	172.5	173.5

old RNs and old LVNs in rating pay. There were significant differences in the task requirements rating by the four groups. The new RNs were the least satisfied, and

the old LVNs the most satisfied. Both "old" groups rated this component higher than the two "new" groups.

There was no difference in satisfaction with the autonomy component between the two RN subsamples. The two LVN subsamples rated this component significantly lower, with the new LVNs being the least satisfied. Organizational requirements ratings showed the new LVNs differing from the other three groups at the .01 level of significance. Overall, all four subsamples ranked the interaction component the highest, and there was no difference among the groups.

This chapter has presented the findings of the study. Data obtained from scores achieved on the Work Satisfaction Index and from cumulative frequency tabulations of absenteeism and turnover rates were analyzed statistically. The results were depicted in comparison and continuity tables, interpreted, and applied to the testing of the research hypotheses. Multiple comparisons between the relative satisfaction with components of work satisfaction demonstrated by the four subsamples of the research population were included for clarification.

CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

This master's thesis is a report of an investigation of the long-term and short-term effects of the implementation of a primary nursing system on the work satisfaction of vocational and professional nurses. It was conducted during the summer of 1979 at St. Joseph Hospital in Fort Worth, Texas.

Summary

Since the end of World War II nursing has experienced two major changes which have affected it profoundly. The first was nursing's rapid evolution as a profession. Preparation for nursing moved from hospital based training schools into the university setting, its focus changed from the execution of delegated tasks to independent decision making based on principles from the natural and behavioral sciences, and the body of nursing knowledge grew as more and more master's and doctorally prepared nurses conducted research. Two unfortunate results of this development were dissention within the profession

during the transition, and a still persistent dichotomy between nursing education and nursing practice. Work satisfaction declined.

The second change was the rapid proliferation of ancillary nursing personnel categories in response to a chronic shortage of nurses. The shortage had been generated both by a phenomenal increase in consumer demand for health care services, and by exceedingly high turnover and dropout rates related to low work satisfaction. With team and functional nursing, two modes of patient care delivery were devised which forced the professional nurse into the role of supervisor and coordinator of ancillary personnel. Research has shown that work satisfaction as well as quality of patient care declined rapidly with these two modes.

In response to these concerns, primary nursing was developed during the early 1970s. It is a mode of patient care delivery designed to maximize utilization of the professional nurse's knowledge and skills through accountability and autonomy of practice. Since early surveys found increased quality of patient care, cost effectiveness, patient satisfaction, and staff satisfaction under this system, it is now being instituted in a rapidly increasing number of hospitals. However, conclusive research has not yet been done.

Due to limited financial and personnel resources, many institutions have implemented primary nursing with varying ratios of vocational and professional nurses, although the system was originally designed for an all professional staff. This study was conducted to test whether there is a difference in work satisfaction between these two categories of workers and whether the level of work satisfaction with the system changes over time.

Two matched primary nursing units at one hospital were chosen as the setting for the study. One had functioned under primary nursing for three months, the other two years longer. The units were identical in all other aspects. The setting was confined to these two identical units only in order to eliminate possible intervening variables although this resulted in a smaller sample size.

Absenteeism and turnover rates during the three month observation period, and scores achieved by the nursing personnel on the Work Satisfaction Index were the indices used to measure overall work satisfaction, as well as the satisfaction provided by different aspects of the work situation. The instrument was selected because of its high validity and reliability in the measurement of work satisfaction of different categories of nurses, and

because it measures components of, as well as total work satisfaction.

The samples tested were the nursing personnel on the two units. Each sample consisted of two subsamples, i.e., vocational and professional nurses in equal numbers. There was no randomization and the samples comprised the population. Twenty-two professional nurses, and twenty-three vocational nurses answered the questionnaire. Participation rate was 79 percent for each of the four subsamples.

There was no control of demographic variables, but an informal survey taken during testing showed the samples to be approximately alike in racial, sex, age, and educational background composition. The data collected were tabulated and analyzed statistically by computer.

Conclusions

The following conclusions were arrived at from the analysis of the data:

1. There was no difference in overall work satisfaction, as determined by cumulative scores on the Work Satisfaction Index, between the total nursing personnel on the newly implemented unit and the total nursing personnel on the unit established two years longer. However,

the established unit had higher numerical scores which approached significance at the .12 level. This suggests a tendency for work satisfaction to increase over time under primary nursing. Significant differences in the work satisfaction component ratings by the four subsamples support this statement.

2. There was a roughly 30 percent higher rate of absenteeism on the newly implemented unit during the three month test period. Although not significant statistically, this, too, might suggest a trend. Certainly, the absenteeism data back up the questionnaire findings of higher work satisfaction on the established unit.

3. The observed turnover rates were too small to be statistically or numerically significant.

4. Although the purposes of the study were to compare the short-term and long-term effects of this particular primary mode on work satisfaction, and to compare work satisfaction differences between professional and vocational nurses, rather than to evaluate the system itself, the very low scores achieved by all four subsamples were a striking incidental finding (table 1). The adjusted total scores of 153.5 and 169 of 288 possible total points suggest a generally low level of work satisfaction with the St. Joseph model of primary nursing.

5. The professional nurses achieved statistically and numerically much higher scores on the Work Satisfaction Index, establishing that primary nursing, which was designed to meet the educationally generated work needs of professional nurses, is less satisfying to vocational nurses.

6. Twice as many LVN work days as RN work days were lost due to absenteeism during the test period. This finding was also statistically significant enough to back up the preceding conclusion.

Research cited (Christman and Jelinek 1967, Hegyvary 1976, Dahlen 1978) has already established the greater cost effectiveness of professional staff, and a strong link between work satisfaction, performance, and cost effectiveness (Porter and Lawler 1968, Sansotta 1977). A correlation between work satisfaction and quality of patient care has also previously been established (Marram, Schlegel, and Bevis 1974; N.U.R.S.E. 1975).

7. On all tests, absenteeism and turnover rates covaried consistently with the findings from the Work Satisfaction Index confirming the instrument's previously established reliability for measuring work satisfaction of different categories of nurses in the primary nursing setting.

Implications

The findings of the study have useful implications for nursing practice. The much greater work satisfaction demonstrated by the professional nurse group suggests that the use of vocational nurses in a patient care delivery system designed for professional nurses may not be wise. Considering the link between work satisfaction and personnel cost effectiveness, it may be advisable for nursing service administrators to revise their budgets towards increased expenditures for professional nurse staff.

In view of the established correlation between work satisfaction and quality of care, the findings from this study also suggest that primary nursing systems using mixed vocational and professional staffs may be delivering less than optimal care. On both accounts vigilance and careful, continuous evaluation is needed if primary nursing is to achieve the goals for which it was designed.

The findings of greater work satisfaction among the nursing personnel on the established unit and of the changes in relative importance of work satisfaction components should be comforting to hospital nursing

administrators who have recently implemented primary nursing. Apparently the process of implementation constitutes a stress factor which abates over time as staff becomes more comfortable with the changed task requirements and begins to enjoy the increased autonomy and interaction.

Finally, the study's confirmation of the reliability of the Work Satisfaction Index increases its value for the measurement of nurses' work satisfaction. It appears to meet the profession's long-standing need for a specific tool.

Recommendations

If implementation of primary nursing continues at the present rate, it should be possible to overcome the limitations of this study. It is, therefore, recommended that the research be repeated with larger, demographically matched, randomized samples, and with a longer observation period. This could be done in hospitals which have implemented primary nursing on all units.

Secondly, it is recommended that cost effectiveness studies be conducted to calculate and correlate the cost of turnover and absenteeism of professional and vocational nurses, with and without primary nursing.

APPENDIX A

DARTMOUTH MEDICAL SCHOOL
Department of Community Medicine

Hanover, New Hampshire 03755
603 - 646 - 3481

February 15, 1979

Ms. Monika Dewar
3129 Chaparral Lane
Fort Worth, Texas 76109

Dear Monika:

This is in response to your February 9, 1979 letter requesting permission to utilize our scale for measuring levels of nurse satisfaction. You certainly have my permission to use this scale. Your research setting sounds interesting and also appropriate for the further testing of this scale. As I told you on the telephone, I am hopeful to obtain funding so that I can continue this work. In any case, your study design of using before and after measurements sounds very interesting to me, as we have not done any before and after measurements yet.

I would like you to keep in touch with me during the progress of your research and I would like to have a copy of the findings. I will be in contact with you when I hear about the success of my funding activities.

I am enclosing a copy of the scale as it was used in one hsopital and a copy of the scoring instructions. Please let me know if you need any further information.

Sincerely yours,

Paula L. Stamps, Ph.D.
Visiting Associate Professor
Department of Community Medicine
Dartmouth Medical School

PLS:sb
Enc. (2)

APPENDIX B

WORK SATISFACTION INDEX

		DISAGREE				AGREE			
		Strong	Moderate	Weak		Weak	Moderate	Strong	
1.	My present salary is satisfactory.	0	1	2	3	4	5	6	____
2.	When I'm at work in this hospital, the time generally goes by quickly.	0	1	2	3	4	5	6	____
3.	The nursing personnel on my service don't hesitate to pitch in and help one another out when things get in a rush.	0	1	2	3	4	5	6	____
4.	There is too much clerical and "paper work" required of nursing personnel in this hospital.	0	1	2	3	4	5	6	____
5.	It's my general impression that most of the nursing staff at this hospital really like the way work is organized and done.	0	1	2	3	4	5	6	____
6.	Physicians in general don't co-operate with the nursing staff on my unit.	0	1	2	3	4	5	6	____
7.	I feel that I am supervised more closely than I need to be, and more closely than I want to be.	0	1	2	3	4	5	6	____
8.	Excluding myself, it is my impression that a lot of nursing service personnel at this hospital are dissatisfied with their pay.	0	1	2	3	4	5	6	____
9.	Even if I could make more money in another hospital nursing situation, I am more satisfied								

		DISAGREE				AGREE			
		Strong	Moderate	Weak		Weak	Moderate	Strong	
	here because of the working conditions.	0	1	2	3	4	5	6	____
10.	New employees are not quickly made to "feel at home" on my unit.	0	1	2	3	4	5	6	____
11.	I think I could do a better job if I didn't have so much to do all the time.	0	1	2	3	4	5	6	____
12.	There is a great gap between the administration of this hospital and the daily problems of the nursing service.	0	1	2	3	4	5	6	____
13.	I sometimes feel that I have too many bosses who tell me conflicting things.	0	1	2	3	4	5	6	____
14.	Considering what is expected of nursing service personnel at this hospital, the pay we get is reasonable.	0	1	2	3	4	5	6	____
15.	There is no doubt whatever in my mind that what I do on my job is really important.	0	1	2	3	4	5	6	____
16.	There is a good deal of teamwork and cooperation between various levels of nursing personnel on my service.	0	1	2	3	4	5	6	____
17.	The amount of time I must spend on administration ("paper") work on my service is reasonable and I'm sure that patients don't suffer because of it.	0	1	2	3	4	5	6	____

		DISAGREE				AGREE			
		Strong	Moderate	Weak		Weak	Moderate	Strong	
18.	There are plenty of opportunities for advancement of nursing personnel at this hospital	0	1	2	3	4	5	6	____
19.	There is a lot of teamwork between nurses and doctors on my unit.	0	1	2	3	4	5	6	____
20.	On my service, my supervisors make all the decisions, I have little direct control over my own work.	0	1	2	3	4	5	6	____
21.	The present rate of increase in pay for nursing service personnel at this hospital is not satisfactory.	0	1	2	3	4	5	6	____
22.	I am satisfied with the types of activities that I do on my job.	0	1	2	3	4	5	6	____
23.	The nursing personnel on my service are not as friendly and outgoing as I would like.	0	1	2	3	4	5	6	____
24.	I have plenty of time and opportunity to discuss patient care problems with other nursing service personnel.	0	1	2	3	4	5	6	____
25.	There is ample opportunity for nursing staff to participate in the administrative decision making process.	0	1	2	3	4	5	6	____

		DISAGREE			AGREE			
		Strong	Moderate	Weak	Weak	Moderate	Strong	
26.	It is possible, at this hospital, for some nursing service personnel to get better pay because of "favoritism" or "knowing somebody in the right place."	0	1	2	3	4	5	6 ____
27.	What I do on my job doesn't add up to anything really significant.	0	1	2	3	4	5	6 ____
28.	There is a lot of "rank consciousness" on my unit, nursing personnel seldom mingle with others of lower ranks.	0	1	2	3	4	5	6 ____
29.	I don't spend as much time as I'd like to taking care of patients directly.	0	1	2	3	4	5	6 ____
30.	There is no doubt that this hospital cares a good deal about the welfare of its employees, nursing personnel included.	0	1	2	3	4	5	6 ____
31.	I am sometimes required to do things on my job that are against my better professional nursing judgment.	0	1	2	3	4	5	6 ____
32.	From what I hear from and about nursing service personnel at other hospitals, we at this hospital are being fairly paid.	0	1	2	3	4	5	6 ____
33.	Administrative decisions at this hospital interfere too much with patient care.	0	1	2	3	4	5	6 ____

		DISAGREE				AGREE			
		Strong	Moderate	Weak		Weak	Moderate	Strong	
34.	It makes me proud to talk to other people about what I do on my job.	0	1	2	3	4	5	6	____
35.	I have the feeling that this hospital in general--and my service too--is not organized with the needs of patients given top priority.	0	1	2	3	4	5	6	____
36.	The nursing personnel on my service don't often act like "one big happy family."	0	1	2	3	4	5	6	____
37.	I could deliver much better care if I had more time with each patient.	0	1	2	3	4	5	6	____
38.	I'm generally satisfied with the way nursing work is organized and gets done in this hospital.	0	1	2	3	4	5	6	____
39.	Physicians at this hospital generally understand and appreciate what the nursing staff does.	0	1	2	3	4	5	6	____
40.	The only way that nursing personnel at this hospital will ever get a decent pay schedule will be to organize and, if necessary, strike.	0	1	2	3	4	5	6	____
41.	If I had the decision to make all over again, I would still go into nursing.	0	1	2	3	4	5	6	____
42.	Nursing personnel at this hospital do a lot of bickering and backbiting.	0	1	2	3	4	5	6	____

		DISAGREE				AGREE			
		Strong	Moderate	Weak		Weak	Moderate	Strong	
43.	I have all the voice in planning policies and procedures for this hospital and my unit that I want.	0	1	2	3	4	5	6	____
44.	Considering the high cost of hospital care, every effort should be made to hold nursing personnel salaries about where they are, or at least not to increase them substantially.	0	1	2	3	4	5	6	____
45.	My particular job really doesn't require much skill or "know-how."	0	1	2	3	4	5	6	____
46.	The nursing administrators generally consult with the staff on daily problems and procedures.	0	1	2	3	4	5	6	____
47.	I have the freedom in my work to make important decision as I see fit, and count on my supervisors to back me up.	0	1	2	3	4	5	6	____
48.	An up-grading of pay schedules for nursing personnel is needed at this hospital.	0	1	2	3	4	5	6	____

WORK SATISFACTION INDEX

COMPONENT QUESTIONS

Component	Question Numbers
Pay	1, 8, 9, 14, 21, 32, 40, 48
Task Requirements	2, 4, 11, 17, 22, 24, 29, 37
Interaction	3, 10, 16, 19, 23, 28, 36, 42
Organization Requirements	5, 13, 25, 30, 33, 35, 38, 43
Autonomy	6, 7, 12, 20, 26, 31, 46, 47
Job Status	15, 18, 27, 34, 39, 41, 44, 45

APPENDIX C

TEXAS WOMAN'S UNIVERSITY

DENTON, TEXAS 76204

THE GRADUATE SCHOOL

June 27, 1979

Mrs. Monika B. Dewar
3129 Chaparral Lane
Fort Worth, Texas 76109

Dear Mrs. Dewar:

I have received and approved the Prospectus for your research project. Best wishes to you in the research and writing of your project.

Sincerely yours,

Phyllis Bridges

Phyllis Bridges
Dean of the Graduate School

PB:cn

cc Mrs. Lois Hough
Dr. Anne Gudmundsen
Graduate Office

APPENDIX D

TEXAS WOMAN'S UNIVERSITY

Human Research Committee

Name of Investigator: Monika Dewar Center: Dallas

Address: 3129 Chaparral Lane Date: 5/17/79

Fort Worth, Texas 76109

Dear Ms. Dewar:

Your study entitled Work Satisfaction of Nurses In An Acute Care Primary Nursing Setting has been reviewed by a committee of the Human Research Review Committee and it appears to meet our requirements in regard to protection of the individual's rights.

Please be reminded that both the University and the Department of Health, Education and Welfare regulations require that written consents must be obtained from all human subjects in your studies. These forms must be kept on file by you.

Furthermore, should your project change, another review by the Committee is required, according to DHEW regulations.

Sincerely,

Estelle D. Kurtz

Chairman, Human Research
Review Committee

at Dallas.

APPENDIX E

TEXAS WOMAN'S UNIVERSITY
COLLEGE OF NURSING
DENTON, TEXAS

DALLAS CENTER
1810 Inwood Road
Dallas, Texas 75235

HOUSTON CENTER
1130 M.S. Anderson Blvd.
Houston, Texas 77025

AGENCY PERMISSION FOR CONDUCTING STUDY*

THE ST. JOSEPH HOSPITAL, FT. WORTH, TEXAS

GRANTS TO MONIKA B. DEWAR

a student enrolled in a program of nursing leading to a Master's Degree at Texas Woman's University, the privilege of its facilities in order to study the following problem:

IS THERE A DIFFERENCE BETWEEN THE LONG-TERM AND SHORT-TERM EFFECTS OF THE IMPLEMENTATION OF A PRIMARY NURSING SYSTEM ON SELECTED INDICATORS OF WORK SATISFACTION?

The conditions mutually agreed upon are as follows:

1. The agency (may) ~~(may not)~~ be identified in the final report.
2. The names of consultative or administrative personnel in the agency ~~(may)~~ (may not) be identified in the final report.
3. The agency (wants) ~~(does not want)~~ a conference with the student when the report is completed.
4. The agency is (willing) ~~(unwilling)~~ to allow the completed report to be circulated through interlibrary loan.
5. Other: _____

Date May 23, 1979

James L. Murphy
Signature of Agency Personnel

Monika B. Dewar
Signature of Student

Lois Haight
Signature of Faculty Advisor

*Fill out and sign three copies to be distributed as follows: Original - Student; first copy - agency; second copy - T.W.U. College of Nursing.

APPENDIX F

EXPLANATION TO THE SUBJECTS

ABOUT THE RESEARCH

(To be given orally by the researcher)

My name is Monika B. Dewar. I am a registered nurse, and I am currently working on a Master's Degree at Texas Woman's University. A research project is part of the degree requirement.

My research involves interviewing nurses working in a primary nursing setting to determine their satisfaction with this new system. In order to get the information I need, I would like to ask you 48 questions.

Your name will not appear on the questionnaire, nor will it be used in any way in the study. The questionnaire will be coded according to unit and type of nursing personnel only. It is necessary for you to sign a form giving me permission to ask you questions, but I will be sure to keep the permission slips separate from the questionnaires so that your anonymity will be protected. Also, you may end your participation in the study at any time.

The results of the study may be helpful in providing information about nurses' satisfaction with different aspects of working under primary nursing, so that adjustments and/or improvements can be planned in the system.

I will come back in the fall to discuss the results of the study with you, if you wish.

Thank you very much for your help.

APPENDIX G

Consent Form
TEXAS WOMAN'S UNIVERSITY
HUMAN RESEARCH REVIEW COMMITTEE

(Form B)

Title of Project: WORK SATISFACTION OF NURSES IN AN ACUTE CARE PRIMARY NURSING SETTING

Consent to Act as a Subject for Research and Investigation:

I have received an oral description of this study, including a fair explanation of the procedures and their purpose, any associated discomforts or risks, and a description of the possible benefits. An offer has been made to me to answer all questions about the study. I understand that my name will not be used in any release of the data and that I am free to withdraw at any time.

Signature _____ Date _____

Witness _____ Date _____

Certification by Person Explaining the Study:

This is to certify that I have fully informed and explained to the above name person a description of the listed elements of informed consent.

Signature _____ Date _____

Position _____

Witness _____ Date _____

APPENDIX H

TABLE 8

ADJUSTED WSI RAW SCORES

Pay	Task Req.	Interaction	Organization Requirements	Autonomy	Job Status
			New LVNs		
11	29	32	20	29	33
10	5	29	19	11	23
7	16	33	19	12	27
14	11	24	15	28	39
28	22	38	27	38	32
12	20	41	27	30	38
3	21	16	10	18	30
7	21	38	24	24	32
9	25	32	20	20	32
5	30	32	9	23	32
7	31	30	14	8	29
			Old LVNs		
19	32	39	22	23	29
22	24	25	37	37	27
8	18	16	26	20	29
21	19	34	29	36	29
36	40	47	43	34	39
20	27	34	26	28	31
32	25	37	30	38	27
22	31	37	33	28	25
11	18	45	20	26	21
6	40	43	32	30	21
6	30	26	26	12	29
6	23	34	25	31	25

TABLE 8--Continued

Pay	Task Req.	Interaction	Organization Requirements	Autonomy	Job Status
			New RNs		
8	6	32	26	24	22
24	13	25	41	35	39
32	27	44	37	42	40
30	22	30	25	36	33
28	29	40	31	36	38
24	17	23	17	37	33
19	20	32	31	30	32
12	16	30	38	38	30
22	24	30	25	27	23
16	24	41	24	19	32
30	30	45	36	38	37
			Old RNs		
5	28	47	38	29	35
15	25	34	28	17	21
11	25	34	22	30	30
36	25	38	34	39	29
35	35	37	35	36	40
16	26	36	33	28	21
11	23	42	31	39	32
12	17	39	19	32	28
38	32	44	31	40	36
12	29	43	21	37	30
4	29	37	23	27	18

REFERENCES CITED

Ackley, N. L. 1977. "The nursing project. A comparison of the primary nursing and decentralized team nursing care systems." Department of Patient Care Report. St. Joseph Hospital, Ft. Worth, Texas.

Bartels, D.; Good, V.; and Lampe, S. 1977. The role of the head nurse in primary nursing. The Canadian Nurse. 73(3):26-30.

Bendix, R. 1956. Work and authority in industry. New York: John Wiley and Sons.

Benton, A. and White, H. C. 1971. Satisfaction of job factors for registered nurses. Journal of Nursing Administration. 2(6):55-63.

Bowar-Ferres, S. 1975. Loeb Center and its philosophy of nursing. American Journal of Nursing. 75(5): 810-815.

Brief, A. P. 1976. Turnover among hospital nurses . . . a suggested model. Journal of Nursing Administration. 6(10):55-58.

Brown, B. 1976. The role of the nurse administrator in patient care delivery systems. Nursing Administration Quarterly. 1(1):1-6.

Bullock, R. P. 1953. Position, function, and job satisfaction of nurses in the social system of a modern hospital. Nursing Research. 2(1):4-14.

Ciske, K. L. 1974. Primary nursing: an organization that promotes professional practice. Journal of Nursing Administration. 4(4):29-34.

_____. 1974. Primary nursing evaluation. American Journal of Nursing. 74(8):1436-38.

Collins, V. B. 1975. The primary nursing role as a model for evaluating quality of patient care, patient satisfaction, job satisfaction, and cost

effectiveness in an acute care setting. Unpublished doctoral disseration, University of Utah.

Christman, L. P. and Jelinek, R. C. 1967. Old patterns waste half the nursing hours. Modern Hospital. 108 (January 1967):78-81.

Dahlen, A. L. 1978. With primary nursing we have it all together. American Journal of Nursing. 78(3): 426-28.

Everly, G. S. and Folcione, R. L. 1976. Perceived dimensions of job satisfaction for staff registered nurses. Nursing Research. 25(5):346-48.

Godfrey, M. A. 1978a. Job satisfaction--or should that be dissatisfaction? How nurses feel about nursing, Part I. Nursing 78. 8(4):89-104.

_____. 1978b. Job satisfaction--or should that be dissatisfaction? How nurses feel about nursing, Part II. Nursing 78. 8(5):105-120.

_____. 1978c. Job satisfaction--or should that be dissatisfaction? How nurses feel about nursing, Part III. Nursing 78. 8(6):81-95.

Hegyvary, S. T. and Haussman, B. K. 1976. Nursing profession review. Journal of Nursing Administration. 6(11):12-16.

Herzberg, F. 1959. The motivation to work, 2nd ed. New York: John Wiley and Sons.

Hodgman, E. C. 1979. Excellence in nursing. Image. 11(1):22-27.

Kramer, M. 1974. Reality shock--why nurses leave nursing. St. Louis: C. V. Mosby Co.

Kron, T. 1971. The management of patient care, 3rd ed. Philadelphia: W. B. Saunders Co.

Lawler, E. E. 1973. Motivation in work organizations. Monterrey: Brooks/Cole Publishing Co.

Longest, B. B. 1974. Job satisfaction for RN's in the hospital setting. Journal of Nursing Administration. 4(3):46-52.

Lysaught, J. P. 1970. An abstract for action. Report of the National Commission for the Study of Nursing and Nursing Education. New York: McGraw-Hill Book Co.

Marlow, H. L. 1966. The registered nurse and employee needs. Nursing Outlook. 14(11):62-63.

Marram, G., Schlegel, M. and Bevis, E. 1974. Primary nursing. St. Louis: C. V. Mosby Co.

Maslow, A. H. 1970. Motivation and personality, 2nd ed. New York: Harper Bros.

McClelland, D. C. 1953. The achievement motive. New York: Appleton-Century-Crofts, Inc.

_____. 1955. Notes for a revised theory of motivation. From Studies in motivation, D. C. McClelland, ed. New York: Appleton-Century-Crofts.

_____. 1961. The achieving society. Princeton: Van Nostrand Co.

McCloskey, J. 1974. Influence of rewards and incentives on staff nurse turnover rate. Nursing Research. 23(3):239-47.

_____. 1975. What rewards will keep nurses on the job? American Journal of Nursing. 75(4):600-602.

Nash, M. K. 1966. Turnover of psychiatric staff nurses. Nursing Outlook. 14(8):29-30.

Nichols, G. 1971. Job satisfaction and nurses' intentions to remain with or leave an organization. Nursing Research. 20(3):218-228.

N.U.R.S.E. 1975. (Nurse utilization research study and evaluation) project, report to the Kellogg Foundation from the Iowa Hospital Association, Des Moines.

Palola, E. G. and Larson, W. R. 1965. Some dimensions of job satisfaction among hospital personnel. Sociology and Social Research. 49(3):201-209.

Porter, L. W. and Lawler, E. 1968. Managerial attitudes and performance. Homewood, Ill.: Richard D. Irwin, Inc.

Roethlisberger, F. J. and Dickson, W. J. 1939. Management and the worker. Cambridge, Mass.: Harvard University Press.

Sansotta, D. 1977. Motivational theories and applications for managers. New York: Amacom, a division of the American Management Association.

Schlotfeldt, R. M. 1977. Nursing research: reflection of values. Nursing Research. 26(1):4-8.

Slavitt, D.; Stamps, P.; Riedmont, E.; and Haase, A. 1978. Nurses' satisfaction with their work situation. Nursing Research. 27(2):114-120.

Spitzer, R. 1979. Making primary nursing work. Supervisor Nurse. 10(8):12-14.

Spoth, J. 1977. Primary nursing: the agony and the ecstasy. Nursing Clinics of North America. 12(2):221-234.

U.S. Public Health Service. 1963. Toward quality in nursing. Report of the Surgeon General's consultant group on nursing. Washington, D.C.: U.S. Government Printing Office.

Zander, K. 1977. Primary nursing won't work . . . unless the head nurse lets it. Journal of Nursing Administration. 7(10):19-23.