NURSES' SOCIAL SOURCES OF REINFORCEMENT IN ACUTE AND CHRONIC CARE SETTINGS

by

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INTRODUCTION

Statement of the Problem

Research in the past two decades has documented the importance of the role of work in our society (Borow, 1964; Vroom, 1964). Work is described as a social act around which individuals organize many daily experiences. If satisfying, work helps to establish meaningful, rewarding life routines (Borow, 1964) and contributes to the individual's sense of well-being. Job satisfaction also may result in an increase in the individual's productivity, motivation, and quality of work and a decrease in the probability of absenteeism, job turnover, or resignation (Smith, Kendall, & Hulen, 1969). Job satisfaction, therefore, appears to be important both for the well-being of individuals and for the welfare of society as a whole.

Recognizing these functions of job satisfaction, many investigators have attempted to determine its causes and correlates. Among the factors identified as affecting job satisfaction are the personality traits of workers (Roe, 1956). Thus, studies of workers in various occupations have shown that job satisfaction is enhanced when the worker's personality traits are compatible with job requirements (Vroom, 1964). Matching the person to the job would seem to be equally salient for nursing, in view of the increasing specialization within the profession. This specialization has made it possible for nursing to meet the individual needs of

nurses with different personality characteristics (Benner & Krammer, 1972). At the same time, the chance for a mismatch between nurse and job has become greater because of the lack of knowledge which would permit adequate guidance and counseling into a congruent job placement.

Unfortunately, to date there have been few studies in nursing which might help to predict the optimal work areas for nurses with different personalities. The number of studies, however, is increasing, and it may soon be possible to counsel student nurses into areas congruent with their personalities (Lukens, 1965). This development would increase job satisfaction, and thereby contribute to both the successful recruitment and retention of nurses within the profession.

One specific personality characteristic which may affect job satisfaction is that of an individual's preference for social or non-social sources of reinforcement. A preference for social sources of reinforcement implies that the person receives positive reinforcement from activities which emphasize interpersonal relationships rather than technical activities. Conversely, a preference for non-social sources of reinforcement implies an interest in activities which emphasize the non-personal, technical activities and which de-emphasize the interpersonal relations with people.

The theories regarding the effects of social and non-social sources of rewards on job satisfaction are relevant for nursing since certain areas of nursing seem to require employees who prefer social sources of reinforcement whereas other areas seem more compatible with needs for non-social sources of reinforcement (Raskin, Boruchow, & Golob, 1965; Stauffacher & Navran, 1958). For example, the work in acute (short-term) and chronic (long-term) care units may require the skills of nurses with

different personality characteristics. In acute care areas, patient care tends to be short-term and intensive. The patient's condition in acute care units is generally more precarious, and the equipment in use is more varied and complex. There is less opportunity for social contact between patients and nurses and more demand for increased technical skills on the part of the nurses. The sources of reinforcement for the nurses in these units, then, would appear to be mostly non-social in nature because of the fewer opportunities for social contact between the nurses and patients (Benner & Krammer, 1972; DeMeyer, 1967; McKegnez, 1966).

Patients in chronic care (long-term) units, on the other hand, require care that is of longer duration and less intense than that in acute care units. Generally in these units, care is less dependent upon skills related to the operating of equipment and more dependent upon the nurses' interpersonal skills. Also, patients are generally less critically ill in these units and therefore more amenable to establishing interpersonal relationships with the nurses (see, for example, Paley, Paley, & Koschene, 1969). In this setting, reinforcement is more likely to be social in nature.

In summary, nursing has become differentiated into specialized areas of practice, each with its own particular activities, requirements, and environmental settings. This specialization allows for the successful incorporation into the profession of many individuals with diverse personality characteristics. Taking these features of nursing practice into consideration, it may be useful to study job satisfaction in nursing by relating the congruency between the personality traits of the nurse

with particular demands imposed by the nature of the work situation. The aim of this investigation was to study the influence upon job satisfaction of one personality characteristic, social vs. non-social orientation, as it may interact with work demands along the dimension of acute vs. chronic care nursing.

Review of the Literature

The review of the literature for the purposes of this study is presented in three sections. First, job satisfaction will be discussed, including a general review of the studies in nursing related to job satisfaction with special emphasis on the importance of an intrinsic factor such that the worker is contented in his chosen occupation. In addition, this section presents a variety of theories dealing with the presence of an intrinsic factor. Secondly, personality patterns and work preferences in nursing will be briefly described, presenting a number of studies which indicate that there is a relationship between personality patterns of nurses and their work preferences or interests. In this section, there will be an emphasis on the social and non-social orientation of the individual, indicating one personality factor which may influence work preference or interest and, thereby, job satisfaction. Thirdly, additional factors influencing job satisfaction will be presented. Lastly, acute and chronic care units will be discussed, designating two work areas of nursing which may attract nurses with different personality types.

Job Satisfaction

Selection of, or placement in, an area of nursing without sufficient information regarding the nature of work in that particular area may well

lead to unhappy, dissatisfied nurses and ultimately to the large personnel turnovers occurring in the profession today. Findings from current literature demonstrate that many nurses in general do not appear to be satisfied in their jobs (Krammer & Schmalenberg, 1977). In one study of turnover in staff nurses, 30-40% of those nurses who resigned did so due to job-related factors, i.e., they were dissatisfied with their jobs (Diamond & Fox, 1958; Saleh, 1965).

Job turnover among nurses is recognized as an important and costly problem for health care agencies. It is difficult to find replacements for resigning nurses because of the scarcity of nurses relative to the demands for their services (Levine, 1969; White & Maguire, 1973). Turnover is also costly in terms of time and money. For example, the cost of replacing one nurse was estimated to exceed $400 in 1966. By now, this amount must have risen considerably (Melbin & Taub, 1966; White & Maguire, 1973). Additionally, turnover is costly in its presumed deleterious effects upon patient care. Given these considerations, any knowledge which might lead to a decrease in turnover is desirable. To the extent that job dissatisfaction is a factor in turnover, ways of increasing nurses' satisfaction are of vital concern to hospitals and other health care agencies.

While there are many studies on job satisfaction, there are relatively few specifically related to nursing and, according to Everly and Falcione (1976):

> The majority of studies of job satisfaction for nurses indirectly approach the question of what elements of job satisfaction are most important. Most studies utilized an analysis of job turnover--which analyzes the major negative aspects of the work environment that are of low desirability--as a basic orientation. This approach does little to indicate job elements that have high desirability and may be used to enhance the nurse's satisfaction. (p. 346)

Many industrial psychology studies have looked at intrinsic (internal or self-given rewards or punishment) and extrinsic (external rewards or punishment) factors related to a worker's satisfaction with the job (Vroom, 1964). Since the present study is concerned with the intrinsic factor of preferences for social or non-social sources of rewards, the focus of this section will be on the support of an intrinsic factor in job satisfaction. Many authors have recognized the importance of an intrinsic factor in job satisfaction, among them being Maslow (1970) and Herzberg (1972).

Maslow's Hierarchy of Needs Theory. Maslow (1970) supports a theory of a hierarchy of need prepotency. This theory states that all individuals have several levels or orders of needs to be met within the person. For example, within everyone are basic or primary needs such as needs for food and water which must be satisfied before attention may be turned to other, so-called higher order needs such as needs for self-fulfillment. Maslow proposes five distinct need levels: physiological, safety, social, esteem, and self-actualization needs. Each of these levels represents an increasingly higher order need when compared to the need described below it. When lower order needs are met (e.g., physiological needs), energy toward meeting higher level needs (e.g., self-actualization needs) may be expended. In the literature, Maslow's lower order needs, specifically physiological and safety needs, have been classified as extrinsic in nature; social and esteem needs as both extrinsic and intrinsic; and self-actualizing needs as totally intrinsic (Everly & Falcione, 1976; Munson & Heda, 1974). This classification is useful to keep in mind as further studies are presented.

Maslow applies his theory to issues surrounding job satisfaction by further proposing that workers continually seek to satisfy their needs whether inside or outside of the work situation. He believes that while most of the lower order needs are met in our working society, the higher order needs are not met as often and that this leads to varying degrees of job dissatisfaction (Slocum et al., 1972).

Two studies have attempted particularly to apply Maslow's theory to job satisfaction in nursing. Slocum et al. (1972) found through a multitrait evaluation scale and a job satisfaction questionnaire administered to 39 professional and 41 paraprofessional hospital employees that professionals rated higher than paraprofessionals on met basic needs. They also found that satisfaction in self-actualization needs is related to job performance among professionals. This seems to indicate that nurses who specify that they are satisfied with their jobs are in effect saying that the jobs are meeting their needs.

A second study in nursing which was conducted by McCloskey (1974) evaluated a variety of rewards and incentives as to their importance to nurses' job satisfaction. One hundred staff nurses who had left jobs within a four-month period prior to the study were given a three-part questionnaire. The questionnaire gathered demographic information, an evaluation of 36 reward items that were oriented toward Maslow's theory, and information from a 10-item semantic differential index aimed at determining if the nurse experienced a rise in self-esteem after quitting the nursing job. They found that younger nurses (18 to 25 years of age) left jobs sooner than nurses over 25 and that single nurses stayed on the job the same length of time as married ones. Length of stay on the job

did not seem to be related to spouse's income, the nurse's specialty area, or pay on the last job. The four most highly rated rewards were psychological, the next four were safety rewards, with social rewards ranking lowest on this part of the questionnaire. It was also found that self-esteem was rated higher after leaving the job. The total study seemed to indicate that psychological rewards are of primary significance in job satisfaction for nurses.

Herzberg's Dual Factor Theory. Herzberg (1966) developed a dual factor theory of job satisfaction and motivation. He hypothesized that dissatisfaction and satisfaction were, in fact, not two opposites on a continuum, but rather, two unipolar traits. In his studies on job satisfaction, Herzberg identified satisfying factors named by workers which were inherent in the work alone. These factors he termed "motivators". Another group of factors associated with satisfaction identified by employees were those factors surrounding the job, or environmental in nature. These factors Herzberg labeled "hygiene factors". Utilizing Maslow's need hierarchy concept, Herzberg suggested that motivators could be equated with the intrinsic or psychological needs identified by Maslow and the hygiene factors equated with the extrinsic or physiologic and safety needs.

White and Maguire (1973) applied Herzberg's motivation-hygiene theory to job satisfaction in nursing supervisors. These authors believe that if the work environment and other job factors causing dissatisfaction could be diminished, thereby decreasing turnover and cost and increasing continuity of care, administration should be aware of these possibilities. Six hospitals were used in the study and from them a stratified random

sample of 34 nursing supervisors was selected. Two interviewers, after standardizing their techniques, interviewed the 34 supervisors. The supervisors were asked to describe a particularly satisfying experience and a particularly dissatisfying experience related to the job. The resulting 62 stories were divided into "thought units" for analysis and categorizing. Thirteen factors were finally extracted from the stories: six motivators and six hygiene factors with one category not classified either way. Further analysis of the stories determined that 57% of the factors were related to Maslow's higher level needs, whereas 43% were attributed to the lower level needs. The authors concluded from this study that job satisfaction among these supervisors apparently was promoted by such motivator factors as creativity, challenge, recognition, and advancement.

Munson and Heda (1974) referred to both Maslow's theory of need hierarchy and to Herzberg's use of the dual factor need theory. The focus of this study was on serving the interests of the organization rather than on the interests of the individual. While this is not of direct concern in the present study, Munson and Heda highlight the importance of recognizing and accounting for organizational factors as they affect job satisfaction. In this current study, hospitals are introduced as an additional independent variable in order to account for any organizational variations which may occur.

In the Munson and Heda (1974) study, a questionnaire modified from Porter and Lawler (1965) identifying a strong organizational orientation to job satisfaction was developed measuring job performance as an indicator of job satisfaction. Four factors were explored: intrinsic,

involvement, interpersonal, and extrinsic. The instrument contained 22 satisfaction items which were administered to 351 nurses working on day shifts. The questionnaire showed a positive but weak relationship between organizational attributes and individual satisfaction. Individuals were found to differ in types of satisfactions they derived from a given organizational attribute (i.e., intrinsic, involvement, interpersonal, or extrinsic satisfactions). It was concluded that the instrument did identify satisfaction as being influenced by an organizational variable.

Problems exist in both of the instruments presented in the above studies. In the study by White and Maguire (1973), there is no assurance that the information verbalized by the supervisors is accurate and honest. Further, it is difficult to compare results of studies when different techniques are used such as the open-ended, semi-structured interviews seen in the White and Maguire study vs. a more structured questionnaire as seen in the Munson and Heda study.

The instrument designed by Munson and Heda is relatively new and mostly geared to organizational attributes, thus limiting its scope and potential use. An instrument such as the one used by these authors is relatively more objective than an interview technique and is relatively simple to administer, but appears by its very nature to be much more difficult to evaluate and interpret. These factors, then, may have influenced the results of the study indicating a weak relationship between organizational attributes and job satisfaction.

Everly and Falcione (1976) also used a combination of Maslow's and Herzberg's views. Their study seemed to indicate that a simple intrinsic-extrinsic dichotomy is not sufficient as an explanation of job satisfaction.

These researchers attempted to determine underlying dimensions of perceived job satisfaction in staff registered nurses. One hundred forty-four nurses completed an 18-item Likert-type scale which presented various aspects of job satisfaction and the working environment. Factor analysis of the items was done and four statistically independent dimensions emerged in the following order according to their ability to account for the total variance: (1) interpersonal relations with other co-workers and immediate supervisors, (2) internal or intrinsic work rewards, e.g., development of new skills and abilities and good working conditions, (3) external or extrinsic work rewards, e.g., pay and benefits, and (4) administrative policies, including recognition for past service.

Vroom's Cognitive Model. Vroom (1964) also explored job satisfaction from a motivational point of view. He presented a behaviorally oriented cognitive model to explain motivation in empirical terms. Vroom examined 500 studies on job motivation and applied his theory to these studies. Included in the studies cited are investigations by Roe (1956) and Smith et al. (1969), both to be presented later in this present investigation. Through this work, Vroom determined that certain factors were identifiable as specific determinants of job satisfaction. Among these factors are:

1) Job Content (Work): Little research has been done on the motivational consequences of the job or task variables. Studies have shown that, at least partially, individuals are influenced toward a job depending upon the content of the work itself. As a part of the tasks to be done in a job is the expenditure of energy required to execute the tasks. While activity was once considered a negatively viewed factor, recent studies indicate that humans enjoy using energy constructively (e.g., toward a production of goods or services), and that it is inactivity that is aversive, especially if prolonged. Further, it appears that the like or dislike of expending energy may be learned and thus acquire properties of reward or punishment.

2) Wages (Pay): Although not the only motivation to work as previously thought, pay is among the more influential factors upon motivation. For example, wages have been found to be the most frequently mentioned source of dissatisfaction, but the least frequently mentioned source of satisfaction. Many people in various studies have indicated that they would work regardless of whether they needed the money from their job or not. In general, the number of persons who indicated an interest in continued employment increased with the amount of training required by the occupation. However, even over half of the semi-skilled workers researched indicated that they would continue working whether they needed the wages or not. This would seem to indicate, then, that most people work for other reasons besides the pay received.

3) Social Status (Promotions): This factor considers that individuals may interact with a worker depending upon the definition of the worker's job (i.e., if the job held is considered prestigious, the worker will receive a social status in the community accordingly). Also, this factor is most likely to be the one subject to interaction effects with other satisfaction variables such as pay, supervision, and job content, and thus is difficult to single out for investigation.

4) Supervision: There is disagreement as to the importance of immediate supervision in job satisfaction. Some studies suggest that supervision is the one most important determinant of worker attitudes while others state that the importance of supervision has been over-estimated. Supervision has been mentioned in studies as a source of satisfaction more often than other variables such as security, job content, working conditions, promotions, and pay. In these same studies, only the co-worker variable may outrank supervision as a satisfier in the job.

5) Social Interactions (Co-workers): This factor considers the role of work as a social activity. Virtually all work roles require social interactions and most workers are a part of one or more work groups. While interactions with supervisors are certainly influential to satisfaction, most interactions on the job are with co-workers. Thus, this specific aspect of social interactions is often considered as a separate variable in job satisfaction studies. Findings indicate that many individuals who were not influenced by financial considerations with regard to remaining on their jobs were influenced to remain by the satisfaction gained through social relationships (Vroom, 1964, pp. 154-168).

To summarize, motivation to work does not appear to be solely a function of the attainment of money. It appears that use of skills, acceptance and respect of others, and the opportunity to be of service to others also must be considered as motivators for individuals to work. Also, many differences exist among work roles. Financial remuneration, energy expenditure, and social interactions all may differ in amount and kind from one work setting to another. These work role differences, then, are very important for a consideration of satisfaction and performance of workers.

Many researchers have studied job satisfaction by attempting to establish a causal relationship between satisfaction and some characteristic of work roles, usually environmental or extrinsic. According to Vroom (1964), studies of this nature result in pointing out negative attitudes toward the job as situational problems rather than considering personality or intrinsic factors which may be involved. Still other studies have focused attention upon job satisfaction and personality variables but have failed to consider possible environmental influences.

In an attempt to correct the deficits seen in the above two research methods, Vroom (1964) supports an interactional approach to investigations of job satisfaction. This model assumes that effective explanations of job satisfaction need simultaneous consideration of work roles and personality variables. The model presented by Vroom first assumes "that the choices made by a person among alternative courses of action are lawfully related to psychological events occurring contemporaneously with the behavior" (p. 14). A second assumption made is that an individual will have preferences among those alternative courses of action. These preferences

refer to a relationship between the strength of a person's attraction to two alternative courses of action and may be measured in terms of "valences". For example, a valence of 0 may be given when a person is indifferent to attaining or not attaining a particular outcome and a valence may be +1 if positive (approach) or -1 if negative (avoidance) toward attaining a particular outcome. Two propositions specify the functional relationships expected between valences of outcomes and the expected consequences of alternative courses of action:

"Proposition 1: The valence of an outcome to a person is a monotonically increasing function of the algebraic sum of the products of the valences of all other outcomes and his conceptions of its instrumentality for the attainment of these other outcomes" (p. 17). This states, in other words, that the motivation to perform a specific task is related to the value the individual places on the outcome of the task.

"Proposition 2: The force on a person to perform an act is a monotonically increasing function of the algebraic sum of the products of the valences of all outcomes and the strength of his expectancies that the act will be followed by the attainment of these outcomes" (p. 18). This states that the motivation to perform a specific task is related to the individual's belief that the outcome of the task will be realized.

The interactional theory presented by Vroom has been widely accepted by researchers in occupational psychology (Bass & Barrett, 1972; Roth, Hershenson, & Hillard, 1970). Some investigators have further supported and validated Vroom's work through studies which utilized his theory as a framework for research (LaMonica & Finch, 1977; McCloskey, 1974; Molde & Wiens, 1968; White & Maguire, 1973).

The current study attempts to use Vroom's model as support for an interactional hypothesis related to reasons nurses choose between chronic and acute care units. For example, if a nurse, free to choose from alternatives, values social sources of reinforcement and believes that working in a chronic care unit will result in receiving these types of reinforcers, this type of unit will be chosen. On the other hand, if this nurse prefers non-social sources of reinforcement, and believes acute care units will result in these reinforcers, this type of unit will be chosen.

Smith's Operationalization of Job Satisfaction. Smith et al. (1969), in attempting to study attitudes related to job satisfaction, found difficulties due to the incongruencies in defining satisfaction. These investigators, then, proposed to develop an operational definition of job satisfaction.

Smith et al. (1969) believed satisfaction to be feelings or affective responses to facets of the work situation. They hypothesized that these attitudes are related to perceived discrepancies between what is expected as a fair or reasonable outcome and what is experienced from the job. Thus, the theory supported by these researchers is compatible with that supported by Vroom (1964), whose theory is the framework presented for the current study. Smith et al. (1969), however, differ from previous researchers in that they chose to explore satisfaction from a more empirical point of view, deriving the components of job satisfaction through factor analysis. This operationalizing of job satisfaction through empirical research is considered the unique contribution of these investigators.

The research by Smith et al. is further set apart from previous job satisfaction studies in that it emphasizes a comprehensive set of

requirements for measuring job satisfaction rather than the use of only one or two elements. Smith et al. have created a tool for job satisfaction (the Job Descriptive Index) based on identifying needs within the individual. They have defined specific components of work that make up job satisfaction through a review of the literature and through their own investigations. These specific components were then measured for their degree of contribution to job satisfaction by using adjectives and adjective word phrases. The major factors which appeared to discriminate workers' satisfaction and dissatisfaction are similar to those outlined by Vroom (1964): Work, Pay, Promotion, Supervision, and Co-worker. From these areas, the Job Descriptive Index (JDI) was devised. The views of Smith et al. have been widely accepted in the area of occupational psychology (Bass & Barrett, 1972; Vroom, 1974). Specifically, studies have supported the use of the above five areas found to discriminate workers' satisfaction (Everly & Falcione, 1976; McCloskey, 1974; Munson & Heda, 1974; Porter, 1962; Porter, 1963; Slocum et al., 1972; White & Maguire, 1973).

The comprehensiveness of the JDI, the many applications of the tool to a wide variety of persons in the past, the resulting factor analyses computed from these applications, and the high reliability and validity determined for the JDI all contribute to the scientific merit of the JDI and make it possible for other researchers to confidently turn to the tool as a measure of job satisfaction. These positive aspects justify the use of the JDI in the present study as the means of defining job satisfaction among acute and chronic care nurses. This tool will be discussed later in the Methodology section of this investigation.

In summary, while there appears to be a variety of theories to explain job satisfaction, and while there also appears to be a variety of ways to determine the possibility of an intrinsic factor related to job satisfaction, many researchers support the presence and importance of an intrinsic factor in explaining aspects of job satisfaction. This section has discussed several theories of job satisfaction and some of the ways that the intrinsic factor has been researched through these theories. Most outstanding in the literature have been the needs hierarchy theory presented by Maslow and the motivation-hygiene theory by Herzberg. Also of direct value to the present study have been findings from research on job motivation by Vroom and job satisfaction by Smith, et al. as presented in this review.

Social and Non-Social Orientation as a Personality Factor

Having considered the possibility of an intrinsic factor related to job satisfaction, it is important for the purposes of the present study to consider one intrinsic factor, that of personality characteristics, which might influence a worker's choice of occupation. In both the specialty areas and in general practice, nurses are found to be in jobs which may attract a wide variety of personalities. A survey of recent literature discloses that a number of work areas in nursing have been studied and a number of personality tests have been utilized to determine possible existing relationships between work areas and personality characteristics of nurses. The following studies have investigated personality factors by considering the interaction of the environment and the personalities of the individuals as supported by Vroom.

Comparisons among these studies have been made difficult by several factors. First, varied instruments have been employed to study the psychological aspects of nursing. For example, tests have been designed and used to explore attitudes (Heidgerken, 1970; Miller, 1965), needs (Cohen, Trehub, & Morrison, 1965; George & Stephens, 1968; Stauffacher & Navran, 1958), and personality traits of nurses (Gilbert, 1975; Kelly, 1974; Lentz & Michaels, 1965; Lukens, 1965). Combinations of psychological tools have also been used in an attempt to identify personality characteristics that might differentiate between groups of nurses (Kelly, 1974; Lukens, 1965; Miller, 1965).

Second, the varied types of groups studied in nursing have further complicated the problem in comparing data results. Many areas of nursing have been researched including medical, surgical, public health, psychiatric, and maternal child health (Cohen et al., 1965; George & Stephens, 1968; Lentz & Michaels, 1965; Lukens, 1965; Miller, 1965). Still other researchers have chosen to group nurses into categories other than work area, for example: Leaders and non-leaders (Gilbert, 1975; Kelly, 1974), teachers and clinicians (Heidgerken, 1970), new and old graduates (Stauffacher & Navran, 1958), or quality of performance (Cohen et al., 1965; Lentz & Michaels, 1965). The representativeness of the samples also varied in the groups studied. The literature survey showed studies with samples of 40 nurses as well as studies with samples of over 600 nurses, depending upon the availability of subjects, criteria for inclusion into the particular study, and interests of the researcher. Again, all of these variations in groups have made comparisons among studies difficult.

Although comparisons of studies are difficult, the majority of studies

reviewed reported significant results allowing certain generalizations to be possible: intrinsic factors, e.g., needs, attitudes, or personality traits, do seem to vary between different types of nurses regardless of the method of grouping selected by the particular researcher. Further, these intrinsic factors appear to be identifiable through psychological tests presently in use. These significant findings give support to continuing efforts to define further the personality characteristics which may influence job choices made by nurses.

Of major importance in research on personality traits is the determination of whether a particular personality characteristic is inclusive in the personality (trait) or the situation (state). Mischel (1976) discusses the value of examining individual personality characteristics to determine if the characteristic is more appropriately categorized as a situational characteristic or as an enduring trait. State theorists believe that behavior may be specific to a situation, and studies have shown that people demonstrate great discrimination in their behavior as they deal with various environmental stimuli. Thus, it is difficult to find traits in the personality when behavior is studied objectively and in context with the situation since one personality factor may be interacting in one situation but not in another.

Trait theorists, on the other hand, believe that new methods and measurements of personality would support findings of consistent behaviors across situations, hence isolating personality traits within an individual. In the present study, the personality factor of social vs. non-social orientation within the hospital setting is tested through a tool designed by Lewinsohn & MacPhillamy (1971). This tool was presented as a method of

testing the social vs. non-social orientation of an individual toward activities outside of a work setting. (See description of Social-Non-Social Reinforcers Subscale in the Methodology section of this investigation.) Use of this tool is supported by past research in that studies have shown that the social-non-social orientation factor does generalize to different situations (Borow, 1964). This would assume, then, that this personality factor is trait in nature and that what a nurse prefers in terms of social or non-social activities will apply equally outside and inside of the work setting.

There are relatively few studies on personality traits in nursing dealing specifically with individuals indicating preferences for social and non-social sources of reinforcement, i.e., having a social or non-social orientation. Most of the nursing research related to this particular personality factor leads one to believe that there exists an interaction between personality and environment as was found in more general personality factor studies. It is these findings which support the present investigation of social-non-social sources of reinforcement in different work areas of nursing. Social-non-social sources of reinforcement have been measured in the past by using many different approaches as will be evident in the following section.

Some investigators have chosen to dichotomize social vs. non-social by virtue of area of work choice. Molde and Wiens (1968) compared the interaction behavior between nurses they defined as "task-oriented" (surgical nurses) and nurses defined as "person-oriented" (psychiatric nurses). These definitions were assumed based on the work chosen by the nurse. From their research of 20 psychiatric nurses and 20 surgical nurses, Molde and

Wiens found that when interviewed, these two groups of nurses showed differences in some personal-social variables. The investigators standardized their methods of interviewing so that this variable was controlled. The nurses, in a 15 to 20 minute interview, were initially asked to describe some of their duties and then were encouraged to continue talking through open-ended sentences and other communication skill techniques. A tape of these discussions, when replayed on an Interaction Recorder, showed psychiatric nurses to vary significantly in their communications from the surgical nurses. The authors concluded from this study that, at least in terms of their communications skills, psychiatric nurses were more person-oriented than surgical nurses.

A second study on social and non-social orientation was conducted by Raskin et al. (1965). Here, too, the psychiatric nurses were compared with surgical (operating room) nurses. One hundred sixty registered nurses received a battery of tests containing 24 variables including 15 true-false items from a sociability scale, a democratic attitude scale, and a subservience to M.D. scale. One control variable was introduced, a 33-item social desirability scale by Crowne and Marlow, to control for any tendency on the part of the nurses to give socially desirable responses in the battery of tests. Factor analysis showed several significant differences: psychiatric nurses were more equalitarian, had stronger beliefs in the efficacy of ward personnel, and rated themselves higher in leadership skills; surgical nurses seemed to indicate more intention to remain in present jobs, rated themselves as more self-effacing and dependent, favoring greater subservience to the M.D., i.e., a picture of more dependent behavior. The study concluded that a person orientation means

more than liking to be with people. It would appear from this study that a major component of a person orientation is that of leadership skills, the ability to assume responsibility and act independently; while a task orientation seems to express a general inability to get close to people and an attitude of dependency and low self-concept.

Benner and Krammer (1972) explored role deprivation in special care units. These researchers hypothesized that role deprivation seems to be a large factor in job dissatisfaction. Additionally, tension in a special care unit between expressive (person-oriented) and instrumental (task-oriented) role functions is a major contributor to this role deprivation. Interviews with 220 nurses indicated that nurses identify professional nursing as expressive and technical nursing as instrumental. In special care units, technical skills are considered more visible and more easily rewarded than expressive skills. The investigators thus speculated that there would be feelings of professional role deprivation found in special care unit nurses. Results from questionnaires given to nurses from 37 hospitals across the United States indicated that nurses in special care units do not differ from general duty nurses in their role concepts or in their feelings of role deprivation. The results did determine, however, that nurses who dropped out of nursing showed higher professional role scores than did those continuing in nursing. This study further found that special care unit nurses rated higher in integrative role behavior. In other words, satisfied special care unit nurses may need to expend more energy and effort in integrating roles of person and task orientations than their generalist counterparts.

While the above researchers determined social vs. non-social sources

of reinforcement by the area of work choice, other investigators have used psychological tests to attempt to categorize nurses with regard to social vs. non-social sources of reinforcement, and vocational tests to approach the same problem from a vocational interest point of view.

Through her research, Anne Roe (1956) made important contributions in the area of personality traits and occupations. She divided occupations into eight groups which she classified as (I) Service, (II) Business Contacts, (III) Organization, (IV) Technology, (V) Outdoor, (VI) Sciences, (VII) General Cultural, and (VIII) Arts and Entertainment.

There have been some problems in determining where to place nurses in Roe's eight groups in that nurses could fit into the Service as well as the Science classifications. In Roe's work, nurses were placed into Group VI, the Sciences. Roe placed the nurses into this group because she felt that although the nurses are social service-oriented, they are more science-oriented than welfare-oriented in nature due to their training and close association with physicians. Kuder Preference Records studies which have found nurses higher in the Social Services, Artistic, and Musical categories were documented by Roe in showing significiant differences in the specialized fields of nursing:

> Public Health nurses were significantly higher on the Persuasive and Social Service Scales (of the Kuder Preference Records) and significantly lower on the Computational and Clerical Scales than the others. Nurse educators were lower than all the others on Clerical; they were higher on Literary than all but the supervisors and the head nurses. On the whole these results make remarkably good sense when one considers just what the differences in the jobs of these different groups of nurses are. (Borow, 1964, p. 222)

Since past research has found it difficult to determine whether nurses are social- or science-oriented, it is reasonable to consider that nurses

may, in fact, represent both orientations. Some nurses may favor a more social orientation while others favor a scientific orientation. The current study attempts to use Roe's theory in identifying and labeling preferences for social and non-social sources of reinforcement in nurses as tested by the Social-Non-Social Reinforcers Subscale of the Pleasant Events Schedule by Lewinsohn and MacPhillamy (1971).

Anne Roe draws on Maslow's concepts of the hierarchy of prepotent drives and of self-actualization (a part of the hierarchy of needs concept) to apply her theory of interpreting occupational choice behavior, the motivation to work, and the personality traits of an individual. She further develops her theory (Borow, 1964, pp. 196-214) by presenting a theoretical framework for social and non-social orientations. Roe states that personality and occupation are not independent or dependent variables in relation to one another, but rather interdependent behaviors, each influenced by the other and by external factors. Further, Roe believes that occupational behavior is lifelong, such that choices made earlier in life may restrict but not fully determine choices made later in life. Roe's hypothesis relating to differences in personality traits found in various occupations suggests that personality differences begin and are established in childhood. One of the earliest developing differences in children seems to be a "person-directed" or "non-person-directed" orientation. It is with this framework in mind that the current study presents the question of person (social) and non-person (non-social) orientations in various areas of nursing. Several testings of Roe's theory led to the development of a further hypothesis; one stating that, "to the degree that early experience with personal relations have been extensive

and satisfying, adults tend to be primarily person-oriented" (Borow, 1964, p. 206) and to the degree that the relations are not extensive or satisfying, non-person-oriented. Several studies with children and adults seemed to support this hypothesis. Since most occupations vary in their degree of interpersonal relations, there is a wide variety of occupations which can successfully accommodate a population anywhere on the continuum between person and non-person orientations or social and non-social orientations.

Roe's theory of occupational choice has been widely accepted in the field of occupational psychology (Bass & Barrett, 1972; Johnson & Leonard, 1970; Vroom, 1964). Researchers have also turned to Roe's theory as a framework for their investigations and these investigations have been shown to support Roe's work (Brayfield, Wells, & Strate, 1957; Lukens, 1965; Miller, 1965).

Lewinsohn and MacPhillamy (1976) developed a measure of the social-non-social variable as a part of the Pleasant Events Schedule. These authors proposed to develop a tool to assess and measure positive reinforcers in adults. The work by Lewinsohn and MacPhillamy is set apart from other research in that the PES measures positive reinforcers in a person's natural environment. Thus, the tool may be valuable to behavioral researchers and therapists.

Lewinsohn and MacPhillamy hypothesized that a person's social or non-social orientation can be identified through the verbalizations of preferred activities by an individual and through the observations of actual activities performed by that individual. Therefore, this is a behaviorally oriented definition of the social-non-social variable which

is operationalized through activities that the person frequently performs and finds reinforcing. Individuals may then be categorized according to their person or non-person orientation. For example, an individual who indicates more participation in activities such as "going to parties" would probably be more socially oriented while a person who frequently engages in activities such as "listening to the radio" would probably be non-socially oriented.

Many studies of the PES attest to its high validity and reliability and contribute to the scientific merit of the tool. Further, these positive aspects of the PES justify the use of the tool as a means of defining social-non-social sources of reinforcement among acute and chronic care area nurses. This tool is discussed further in the Methodology section of this investigation.

In summary, there does appear to be evidence that social and non-social sources of reinforcement are factors in job satisfaction within various areas of nursing. Also, it appears that there is a variety of areas that may be studied in nursing with regard to the degree of demand for expressive or task skills and that there is a variety of tools that may be used in measuring these skills.

Additional Factors Influencing Job Satisfaction

Four additional factors were mentioned in the literature as relating to job satisfaction which have implications for the present study. First, the factor of age was explored by a number of researchers. Some studies (Smith et al., 1969) have found that the age variable did not affect their research results. However, other studies (Bass & Barrett, 1972; George &

Stephens, 1968; Lentz & Michaels, 1965) have found the age factor to be important. Investigations into the influence of age upon personality seem to indicate that specific aspects of the personality may alter with changing age. Further, it appears that this influence is most apparent when the study populations are dichotomized according to age groups of below or above 30 years of age. In the present study, age groups of below and above 30 years of age are considered to determine possible effects of age upon the other variables.

Second, job tenure is included in the present study to determine if there is a relationship between indicated length of time in the present work area and a nurse's level of job satisfaction. This is also included because tenure may be an indication of job satisfaction. Job turnover has been cited in many studies to be a result of dissatisfaction with the job (Bass & Barrett, 1972; McCloskey, 1974; Smith et al., 1969; Vroom, 1964; White & Maguire, 1973).

A third variable shown by studies to be valuable in indicating job satisfaction is that of educational level. Meleis and Farrell (1974), Slocum et al. (1972), and Smith et al. (1969) indicate a positive relationship between job satisfaction and educational level. Prestige, work benefits, and increased pay all seem to be influential in this relationship. Nurses currently have several levels of education from which they may practice in the profession. The current study includes the factor of educational level to ascertain if job satisfaction varies with the level of nursing education an individual has obtained.

The factor of hospitals is a fourth additional variable included in the current study. Studies indicate that findings relating to attitudes of

nurses in one hospital may not be generalizable to nurses in other hospitals due to differences in hospital policy, patient population, pay, etc. (Munson & Heda, 1974; White & Maguire, 1973). Two hospitals were used in the current study in order to assure an adequate sample size. Although efforts were made to choose hospitals that are as similar as possible, variations may still exist. Thus, the hospital variable is included in this present investigation to determine if there are any differences in degrees of expressed job satisfaction between the nurses of the two hospitals from which data were drawn.

Acute and Chronic Care Units as Work Environment Factor

Vroom's model indicates that neither the psychological nor the environmental factors in a work situation may be considered individually to completely account for satisfaction on the job. Rather, this model states that it is the interaction between psychological and environmental factors which determines the level of satisfaction expressed by a worker. Having specified one psychological factor which may influence job satisfaction, it is now of value to review the literature regarding one component of the environmental setting, that of acute or chronic care nursing areas.

Most research on acute (short-term) and chronic (long-term) care units has been aimed at the patient care given in the unit. It is only by inference that differences in the units may be determined. The following is a summary of the findings from such literature.

Acute care units such as ICU, CCU, and CVR are, by definition, units that generally do not care for a patient over 5 days. Patients in these units are often post-surgical or critically ill and much of their energy

resources are aimed at functioning on a physiological level, i.e., just maintaining life (DeMeyer, 1967; Twerski, 1971).

Acute care units have a higher ratio of nurses to patients than chronic care units; often as high as 1:1 or 1:2. While the care of patients in acute care units is often much more involved than in chronic care units, this high nurse-patient ratio allows nurses to have almost constant contact with their patients (DeMeyer, 1967; Jones, 1974). However, this contact with the patient does not seem to be socially oriented, i.e., interactions between patient and nurse primarily focus on performing tasks. There is more equipment in acute care units and there are many more orders or procedures to be carried out for critically ill patients such that the time nurses spend with these patients is often aimed at the monitoring of equipment or at executing specific tasks. These are all necessary functions of the acute care units; without these special techniques and without the constant patient monitoring, the patient might well expire (Cassem, 1970; McKegnez, 1966).

Still another factor which may limit the contact a patient has with the nurse is the critical nature of a patient's illness. Pain medications and lack of desire to talk because of a physically weakened condition may well keep the patient's communications at a minimum (Cassem, 1970; DeMeyer, 1967; McKegnez, 1966).

Additionally, research indicates that acute care areas seem to attract more baccalaureate degree nurses than do chronic care nursing areas. These acute care area nurses appear on the whole to be younger and to stay in one job for shorter periods of time than do their chronic care area counterparts (ANA Clinical Sessions 1974, 1975; Cassem, 1970;

DeMeyer, 1967).

From this review of the literature, it may be inferred that nurses in acute care units would not be likely to have opportunities to establish socially meaningful, extensive relationships with their patients due to the short time that the patients remain in the units, the number of tasks to occupy the nurses' time, and the severity of the patient's illness.

Chronic care units are, by definition, units where the patient will stay for several weeks or months. Oncology, orthopedics, and geriatrics are examples of such units (McGregor, 1960). These units appear to differ from acute care units in a variety of ways as the following discussion demonstrates.

Chronic care unit patients are usually not acutely or critically ill, but instead may be in a long-term recovery phase of a severe illness or in a maintenance phase of a terminal illness. Chronic care unit patients are often lonely or depressed. Visitors who came during the early parts of the patient's hospitalization no longer come as often. There is more time for the patient to think about what has been happening while in the hospital. These patients desire and request social interaction. The formation of group sessions, such as reminiscence groups in geriatric centers, are one indication that nurses are beginning to recognize this need (ANA Clinical Sessions 1974, 1975; Terry, Benz, Mereness, & Kleffner, 1961). In addition, the number of orders and procedures on a chronic care unit, while still plentiful, are generally not as great nor as critical to the life of the patient as in an acute care unit. With the available time, considerations of the patient's psychological needs may be given without compromising the efficiency of the patient's total care (Bouchard &

Owens, 1976; Storlie, 1969).

In summary, chronic care nurses have more opportunity to establish long-term and close interpersonal relationships with their patients due to the length of time that the patient is on the unit, the less critical nature of the illness, and the social needs of the patient at that time.

In noting these unique characteristics of both types of units, there may be implications for the type of nurse who would achieve satisfaction in a chosen work area. It would seem that less socially oriented nurses who are in acute care units, and more socially oriented nurses who are in chronic care units would be more satisfied with their jobs. On the other hand, greater dissatisfaction might be expected of nurses who are in jobs where their respective social and non-social needs are not being met.

Purpose of the Study

Research findings thus far indicate that situational differences in work roles are not sufficient to account totally for differences in job satisfaction among workers. Likewise, personality differences alone are not likely to increase markedly the understanding of the variance in job satisfaction (Vroom, 1964). Only through the study of the interactions between situational and personality variables can the complex nature of job satisfaction or dissatisfaction be investigated effectively.

Nursing research also indicates that indeed there may be a relationship between various personality characteristics and job choices within the occupation of nursing. This study is concerned with the relationship between one specific personality characteristic and one aspect of the

clinical work settings of practicing nurses as they may interact to affect job satisfaction.

Stated more specifically, the purpose of this study is to address the question: Is there a difference in job satisfaction when considered as a function of type of work area (acute vs. chronic) and of preference for social or non-social sources of reinforcement?

Hypothesis

Nurses whose personalities are congruent with the demands of their work areas (non-social preferences in acute care areas; social preferences in chronic care areas) will be more satisfied with their jobs than nurses whose personalities are not congruent with the demands of their work areas (social preferences in acute care areas; non-social preferences in chronic care areas).

CHAPTER II

METHODOLOGY

Subjects and Setting

The subjects of this study were registered nurses employed in acute and chronic care units of two Portland area hospitals, designated as Hospital A and Hospital B. Two hospitals were used in order to obtain a sufficient sample size in both the acute and chronic care areas for the purpose of data analysis. The two hospitals are similar in that they are both church-related community hospitals of approximately the same size and are serving comparable socioeconomic populations. These similarities were deemed adequate to permit pooling of the research data.

Female registered nurses were included in this study who met the following criteria: (1) employed on either acute care units (intensive care, coronary care, and cardiovascular recovery care units) or chronic care units (oncology, rehabilitation, orthopedic, and geriatric care units); (2) working full time on either day shift (7:00 a.m. to 3:30 p.m) or evening shift (3:00 p.m. to 11:30 p.m.); and (3) assigned to staff nursing duties. The latter two criteria ensured that nurses (such as night shift workers and nurse supervisors) whose work assignments limited close and frequent interpersonal contacts with patients were excluded. Additionally, due to the small numbers of male nurses available for study, the sample was restricted to female nurses only.

In the two hospitals, 58 acute care unit nurses and 35 chronic care

unit nurses met the criteria for inclusion in this study. The pool of potential candidates according to hospital, unit, and work shift who were asked to participate in this study is shown in Table 1. The numbers of nurses appear to be comparable between hospitals in regard to the type of unit and the shift of work. In both hospitals, there were more candidates on the day shift than the evening shift, and more candidates in the acute care settings than the chronic care settings.

Data Collecting Instruments

Data were collected through a questionnaire which included: (1) a Background Information Form, (2) the Job Descriptive Index (Smith et al., 1969), and (3) the Social-Non-Social Reinforcers Subscale of the Pleasant Events Schedule (Lewinsohn & MacPhillamy, 1971).

Background Information Form

This form was designed to gather selected demographic and work-related information on each subject, including: (1) unit (ICU, CCU, oncology, orthopedics, etc.); (2) hospital (Hospital A and Hospital B) of employment; (3) age at last birthdate; (4) educational level in nursing (associate degree, diploma, and baccalaureate degree graduates); and (5) number of years on the unit (under 1 year, 1 to 5 years, 6 to 10 years, etc.). (See Appendix A for a copy of the Background Information Form.)

The first two items were included in the questionnaire to permit comparison of responses between nurses in acute vs. chronic care nursing areas, and in Hospital A vs. Hospital B. The latter three items were included in the questionnaire since the review of the literature indicated

Table 1

Number of Potential Subjects According to Hospital, Work Unit, and Shift

Unit	Number of Nurses According to Work Shift		
	Days	Evenings	Total
Hospital A			
Acute Care (Total)	17	11	28
CCU	4	4	8
ICU	13	7	20
Chronic Care (Total)	11	7	18
RIO (Rehabilitation)	3	2	5
6-E (Rehabilitation)	3	1	4
Orthopedics	5	4	9
Hospital B			
Acute Care (Total)	18	12	30
CCU	10	6	16
ICU	5	4	9
CVR	3	2	5
Chronic Care (Total)	9	8	17
Orthopedics	5	4	9
Extended Care	1	1	2
Oncology	3	3	6

that these factors may be related to job satisfaction (Bass & Barrett, 1972; Collins, 1976; George & Stephens, 1968; Krammer, 1969; Lentz & Michaels, 1965; McCloskey, 1974; McDonald, 1971; Meleis & Farrell, 1974; Munson & Heda, 1974; NLN Report, 1978; Vroom, 1964; White & Maguire, 1973).

Job Descriptive Index (JDI)

The Job Descriptive Index (Smith et al., 1969) is "a series of five scales, measuring satisfaction on the job within both an evaluative-general-long-term framework and a descriptive-short-term framework and covering important areas of satisfaction" (p. 10). (See Appendix A for a copy of the Job Descriptive Index and Appendix C for communications regarding permission to use this instrument.) Satisfaction is defined by the authors of the JDI as persistent attitudes toward discriminative factors of the job situation. These attitudes are associated with perceived differences between expected and experienced events that occur on the job. The individual's general adaptation level and perception of available alternatives in specific, job-related situations then become the major framework for attitudes of satisfaction or dissatisfaction. Subscales of the JDI contain items reflecting both intrinsically and extrinsically oriented factors.

The JDI consists of five job-related categories: (1) Work, (2) Pay, (3) Promotion, (4) Supervision, and (5) Co-worker. Under each of these categories are positive and negative descriptive words or phrases which were selected by the authors as indicators of job satisfaction for that portion of the Index. For each descriptive word or phrase, the respondents are asked to select one of the following options to indicate

their degree of satisfaction: Y (yes), N (no), or ? (not relevant). Positive and negative values have been assigned to each word or phrase by the authors such that scoring is in the direction of satisfaction; higher scores indicating greater satisfaction, lower scores indicating greater dissatisfaction. As the Index contains both positive and negative terms, scoring of the individual tool is conducted according to the following method for assigning weights:

Response	Weight
Yes to a positive item	3
No to a negative item	3
? to any item	1
No to a positive item	0
Yes to a negative item	0

Smith et al. have stated that a plotting of the distribution of scores on the overall JDI Scale has yielded a negatively skewed curve, indicating that workers generally are more satisfied than dissatisfied in their work. However, some subscales are positively skewed and others negatively skewed in their distributions. The type of distribution curve displayed by a specific JDI subscale would depend upon the stratification of the sample chosen by the researcher. Further, the distributions may not consistently be in the same direction. For example, the distribution of men's scores for the category of Co-worker was very positively skewed, while that for women's scores was negatively skewed. Therefore, findings indicate that a generalized statement cannot be made regarding the distribution curves of each JDI subscale.

In this study, an overall JDI score and five subscale scores were calculated. The scores for all items in the five categories were summed to obtain a measure of the individual's overall satisfaction. Total scores may vary in principle from 0 (least satisfied) to 270 (most satisfied).

Scores of the individual subscales vary in principle from 0 (least satisfied) to 54 (most satisfied).

A wide variety of experiments have been conducted by Smith et al. (1969) to ascertain the concurrent, convergent, and discriminant validity of the JDI as a measure of job satisfaction. The authors attempted to determine the validity of the choice of adjective words or phrases to be used in the final tool. A triadic scoring pilot tool requested subjects to respond three times to an adjective word or phrase: first, as the word or phrase related to the worker's "best job imagined"; secondly, as the word or phrase related to the worker's present job; and thirdly, as the word or phrase related to the worker's "worst job imagined". If a word or phrase was marked differently in the first and third cases, the word or phrase was considered to be a factor in determining job satisfaction. The worker's present satisfaction was then assessed by evaluating the scoring of words or phrases used in the present job in comparison with the scores found on the first and third lists (Smith et al.). In both of the above mentioned studies, as with all other validity studies reported by the authors, cluster analysis showed that the various components of the JDI were highly related to other measures of job satisfaction.

Internal consistency of the final tool was determined by the split-half method, yielding a reliability coefficient of .80. In a three-year test-retest reliability study, coefficients varied from .45 to .75 for different samples. Having obtained this degree of variability over time, Smith et al. concluded that the JDI measures situational satisfaction

rather than long-range satisfaction. Tests demonstrated that the JDI was not affected by scale order effects or by response set effects such as acquiescence.

Social-Non-Social Reinforcers Subscale of the Pleasant Events Schedule

The Social-Non-Social Reinforcers Subscale is composed of 128 items from the 320-item Pleasant Events Schedule (PES) designed by Lewinsohn and MacPhillamy in 1971. The total Schedule was originally developed for assisting depressed individuals in therapy. The Subscale was rationally derived as representing "social", "non-social", or "indeterminate" categories of reinforcement. (See Appendix A for a copy of the Social-Non-Social Reinforcers Subscale and Appendix C for communications regarding permission from the authors to use their scale.) Categorization of individual items appeared to be reliable (r = .77); of the items, 64 were judged indicative of social reinforcers and 64 of non-social reinforcers. The individual items are statements of activities which are ranked on a scale of 1 to 3, once in regard to the frequency with which the activity happened, and once in regard to the enjoyability of the activity. It is conceivable that people would rank these statements according to their person or non-person orientation. For example, an individual who endorses such items as "going to parties" would probably be more socially oriented and a person subscribing to items such as "listening to the radio" would probably be non-socially oriented.

On the basis of extensive research, Lewinsohn and MacPhillamy (1976) have justified combining the social and non-social sources of rewards into one bipolar and unidimensional scale, with high scores indicating

"social" subjects and low scores indicating "non-social" subjects. Three scores are possible: a frequency rating, an enjoyability rating, and a sum of the products of the frequency and enjoyability ratings. This third score, the sum of the products of the two ratings, was chosen for use in the present study since it is assumed to be an approximation of response-contingent positive reinforcement received from social vs. non-social types of activities. Scores may vary in principle from -2 (high degree of non-social reinforcement) to +2 (high degree of social reinforcement). (See Appendix B for social and non-social items as they appear on the PES, and the scoring formula and procedure suggested by Lewinsohn and MacPhillamy, 1971). In the present study, individuals obtaining negative scores were designated as "non-social" and individuals obtaining positive scores were designated as "social". Subjects receiving a score of 0 were considered "indeterminate" and were omitted from this study.

The Pleasant Events Schedule and Subscale appear to possess adequate reliability and validity. They were constructed on the assumption that individuals can accurately report their obtained pleasures. Two experiments tested the concurrent validity of this assumption. One experiment dealt with the correlation between subjects' and peer observers' independent ratings of frequency and enjoyability of the same events. The mean item validity correlation for the frequency ratings was .37 and for the enjoyability ratings was .29. The second experiment correlated subjects' and observers' (consisting of peers and two independent observers) ratings of frequency of the subjects' activities. Inter-observer reliability was sufficient (r = .61). The concurrent validity of the frequency item ratings (average "self" with "observer" correlations) was .63, statistically

significant beyond the .001 level (Lewinsohn & MacPhillamy, 1971).

Two experiments have been reported to test the predictive validity of the total PES. The first experiment was conducted to determine the predictive validity of the frequency ratings by having subjects monitor their own activities for 30 days and compare this with a previously taken PES. The mean frequency score of the Pleasant Events Schedule predicted the mean activity level with an $\underline{r}$ = .62. In a second experiment, the predictive validity of the enjoyability ratings was determined by comparing reported reinforcement potential on the PES with subjects' actual choices of prizes. The prizes were opportunities to engage, free of charge, in one of two events listed in the PES. The subjects' choices provided a direct measure of the relative strength of the reinforcement potentials of the two events when paired together. The median $\underline{r}$ for this experiment was .65, statistically significant at the .01 level (Lewinsohn & MacPhillamy, 1976). There has been no validity testing for the Social-Non-Social Reinforcers Subscale itself. The authors, however, believe that the validity of the subscale approximates that of the total PES.

Reliability findings of the Social-Non-Social Reinforcers Subscale have been limited to test-retest reliability. The reported coefficients are: .78 after 1 month, .73 after 2 months, and .72 after 3 months. (See Appendix C for communications with the principal author.)

Design and Procedure

The current study was exploratory and descriptive in nature and was correlational in design. The dependent variable was job satisfaction. The two main independent variables were the type of unit in which the nurse was working (acute vs. chronic care units) and the degree of social vs. non-social orientation of the nurse. A third independent variable (hospital) was introduced as a control variable to test for differences between hospitals and to determine if combining hospital populations was justified. Studies such as Munson and Heda (1974), demonstrating the importance of organizational variables in job satisfaction research, support the inclusion of the hospital variable in the present study.

Permission to conduct the study was obtained from the appropriate persons at both hospitals. Using a standard format, the study was introduced to groups of potential subjects on the selected units during the day and evening shifts or before and after shift changes. The standard format ensured consistency of the presentation to the potential subjects and minimized the possibility of experimenter bias. Persons volunteering to participate in the research were given packets containing the Consent form and the three questionnaires. (See Appendix A for a copy of the Subject Consent Form.) The questionnaires were completed at home and returned in sealed envelopes to the unit. The researcher collected the questionnaires at frequent and designated intervals.

Analysis of the Data

To test the major hypothesis of the present study, a three-variable factorial analysis of variance (ANOVA) for unequal Ns was conducted (Winer, 1962). This analysis was used to test for main effects and interaction effects of the independent variables upon the dependent variable. This 2 x 2 x 2 factorial design consisted of three independent variables (sources of reinforcement, unit of work, and hospital of employment) measured at two levels each. The total sum JDI score was used to measure the dependent variable in testing the hypothesis of the study. The five subscales of the JDI were also subjected to the ANOVA technique to separate the effects of the individual components of work satisfaction.

Additional data related to age, educational level in nursing, and tenure within the work unit were analyzed by means of ANOVA and chi-square techniques. Scores from JDI subscales were used to measure the dependent variable in these analyses. For purposes of statistical analysis, the level of significance for this study was $p < .05$.

CHAPTER III

RESULTS AND DISCUSSION

Introduction

To facilitate the exposition, the results and their interpretation will be presented together. The chapter is divided into five sections: (1) the background characteristics of the subjects, (2) an analysis of responses to the Job Descriptive Index, (3) an analysis of responses to the Social-Non-Social Reinforcers Subscale of the PES, (4) a presentation and discussion of the evidence for and against the major hypothesis, and (5) a discussion of the limitations of the study and implications for future research.

Description of Subjects

Ninety-one nurses from two hospitals were invited to participate in this study during a 3 month period, and 71 volunteered. This represents a response rate of 77%. As may be noted in Table 2, the response rate from Hospital B was lower, but the difference did not prove to be statistically significant, ($\underline{X}^2 = 1.45$, n.s.). On all units except one, the majority of nurses who worked full time on the day or evening shifts served as subjects in this study. Therefore, the sample population from both hospitals may be assumed to be representative of those nurses on the selected units chosen for this study.

In further descriptions of the sample, the degree of comparability

Table 2

Subject Characteristics

	Hospital A	Hospital B	Total Sample
Sample			
Number of nurses approached	43	48	91
Number participating	36	34	70
Response rate	84%	70%	77%
Placement on work unit			
Acute unit	18	19	37
Chronic unit	18	15	33
Number of years on unit			
Under 1 year	7	7	14
1 - 5 years	18	20	38
6 - 10 years	10	6	16
11 - 15 years	1	1	2
Educational preparation			
Diploma	24 (66%)	15 (44%)	39 (55%)
A.D.	6 (17%)	8 (21%)	14 (20%)
B.S.	6 (17%)	11 (32%)	17 (25%)
Age			
Number under 30	23	15	38
Number above 30	13	19	32
Mean age	32 (S.D.=9.17)	35 (S.D.=10.1)	33 (S.D.=9.7)

between the two hospitals may be noted (see Table 2). It is also evident that the sample was drawn equally from chronic and acute units, as well as from the two hospitals. In respect to the number of years the nurses had worked on their units, the subjects from Hospital A and Hospital B appear to be quite similar, with the modal category from 1 to 5 years. This latter finding is very similar to figures reported at the national level for modal length of employment on any unit (Krammer & Schmalenberg, 1977; White & Maguire, 1973).

In regard to the type of program from which the nurses graduated, the greatest proportion in both hospitals came from diploma schools of nursing. However, the differences between hospitals in the proportion of workers with different educational preparation did not achieve statistical significance ($\underline{X}^2 = 3.77$, n.s.). Further, nurses from the two hospitals also did not differ significantly in regard to age. Therefore, any differences in job satisfaction or personality characteristics of the two hospital staffs cannot be attributed to differences in educational level or to age.

Previous research (Bass & Barrett, 1972; George & Stephens, 1968; Lentz & Michaels, 1965) has suggested that important personality changes may emerge as persons approach the age of 30, and that these personality changes may systematically affect vocational choice, satisfactions, and other job-related factors. Therefore, the present sample was dichotomized into subjects over and subjects under 30 years of age, in order to explore the relationship of this age factor with other selected characteristics of the sample. Parenthetically, it may be noted that the two hospitals

did not differ in the proportion of nurses under or over 30 years of age ($\underline{X}^2 = 2.02$, n.s.). The results will be presented as appropriate in later sections of the chapter.

Descriptive Findings Regarding Job Satisfaction

Distributions of scores received by subjects on each subscale and on the total Index are presented in Tables 3 and 4. From Table 3, it may be seen that subjects of the present study rated satisfaction higher more often in the categories of Supervision and Co-worker, and lower in the category of Promotion. As may be noted from Table 4, the sample from the current study does not appear to be negatively skewed as was the sample reported by Smith et al. (1969). The lack of negative skewing is further indicated by the higher mean score found in this study. Actual scores for the total JDI varied between 119 and 267 points, with a mean of 176.6; while the potential range for total scores is 0-270, with a mean of 135 points. In short, the majority of subjects studied were generally more satisfied with their jobs. These findings regarding both the subscales and the total JDI are consistent with those reported by Smith et al.

Mean scores and standard deviations for each of the five components of job satisfaction and the total JDI are presented in Table 5. In both hospitals, the rank order of the five scales from greater to lesser satisfaction was the same: Co-worker, Supervision, Work, Pay, and Promotion. These findings also parallel those of Smith et al. based on data from men and women in a variety of occupational settings and within various levels of work. Although Smith et al. provide extensive normative

Table 3

Frequency Distributions of

Individual JDI Scale Scores (N = 70)

	Individual JDI Scale				
Scores	Work	Pay	Promotion	Supervision	Co-worker
0 - 9	0	4	16	3	3
10 - 19	1	6	18	3	5
20 - 29	4	21	15	6	3
30 - 39	27	24	13	15	6
40 - 49	36	14	5	26	31
50 +	2	1	3	17	22

Table 4

Total JDI Score Distribution

Score	Subjects
0 - 99	0
100 - 129	3
130 - 159	20
160 - 189	20
190 - 219	22
220 - 249	3
250 - 270	2

Table 5

Mean Scores and Standard Deviations for

Scores on Individual JDI Scales and Total JDI

	Hospital A		Hospital B		Total Sample	
Scale	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Work scale	38.3	8.2	40.6	6.0	39.4	7.3
Pay scale	28.9	11.5	28.9	10.4	28.9	10.9
Promotion scale	16.8	12.6	26.5	14.5	21.5	14.3
Supervision scale	38.8	13.1	43.2	10.8	40.9	12.2
Co-worker scale	45.7	6.4	46.1	6.7	46.0	6.5
Total JDI	168.5	31.8	185.2	30.4	176.6	31.2

data with which to compare satisfaction values of the five scales, stratified data for women workers beyond nine years of schooling are lacking. When the present sample is compared with an equivalent educational level male group, there exists an identical rank order of these components of satisfaction. Further, on the Co-worker Scale, in which both groups rated most satisfaction, the numerical value is, in fact, identical. For the other scales, nurses in the present study are a little more satisfied with promotion and a little less satisfied in the areas of supervision, work, and pay than the male normative group of equivalent education.

The findings of greater satisfaction with work and co-workers than with pay, promotions or supervision are consistent with those of other researchers who have noted that job content (work) and social interactions (co-workers) are the two major influences upon a worker in feeling satisfied on the job (Herzberg, 1966; Maslow, 1970; McCloskey, 1974; Smith et al., 1969; Vroom, 1964).

Descriptive Findings Regarding Sources of Reinforcement

Forty-five subjects received positive scores on the Social-Non-Social Reinforcers Subscale, indicating a preference for social sources of reinforcement. Acute care areas contributed 24 of these subjects; chronic care areas contributed 21 subjects.

Twenty-five subjects, in comparison, received negative scores on the PES Subscale, indicating a preference for non-social sources of reinforcement. Acute care areas contributed 13 of these subjects, chronic care areas contributed 12. Approximately 66% of the nurses stated a

preference for social sources of rewards and 34% of the nurses, non-social. It may be recalled that Roe (1956) postulated that nurses are found in both groups, due to their dual social and science orientation.

The mean score for the PES Social-Non-Social Subscale calculated on the subjects of this study was 0.0467 with a standard deviation of 0.150. The mean score for this study population is comparable to the mean score derived by Lewinsohn and MacPhillamy (1976) for women of the same mean age group (33 years of age), $\overline{X} = 0.050$. The standard deviation for women, 33 years of age, was not reported by Lewinsohn and MacPhillamy. However, the standard deviation reported by the authors for their total population tested was 0.1784.

Two conditions were apparent when considering the social vs. non-social subjects. First, of the 38 subjects under 30 years of age, 29 showed preferences for social sources of reward and nine subjects showed preference for non-social sources of reward. In contrast, of those 32 subjects over 30 years of age, 16 indicated preferences for social sources of reward and 16 indicated preferences for non-social sources of reward. It would appear that there was a trend for more of the nurses under 30 years of age to be socially oriented (76% social vs. 24% non-social) and for this factor to be more evenly distributed with nurses over 30 years of age (50% social vs. 50% non-social). The significance of the association of age with sources of reinforcement (social vs. non-social) is confirmed by a chi-square value of 4.156 ($p < .05$). This agrees with the findings by George and Stephens (1968) that nurses over 30 years of age prioritize and express different aspects of the personality than do those under 30 years of age.

Some of these differences related to age may also be accounted for by considering the changes in nursing programs over the past 10 to 20 years. Conditions and rewards a nurse expected in a job in the past may well differ from what a nursing student is currently taught to expect. Nurses are currently taught and encouraged to expand their practice role to include more socially oriented duties. Also, more provisions are being made within the practice to allow for nurses to take into consideration the social needs of their patients (Krammer & Schmalenberg, 1977). This would create a higher expectation in younger nurses to be able to have social sources of reinforcement met within the job and individuals would be attracted into nursing if they believe social needs will be met on the job. However, it seems that the current findings indicate that there are no differences between acute and chronic care areas with regard to individuals' preferences for social or non-social sources of reinforcement. (See Table 6 for distribution of social and non-social subjects according to hospital and work area.)

Due to the dual social and science orientations of nurses (Roe, 1956), it was expected that nurses preferring social and nurses preferring non-social sources of reinforcement would demonstrate a more even distribution. The findings of the current study, then, do not appear to support the categorizing of nurses into either exclusively science or social service interests as outlined by Roe (1956). The predominance of the social group of nurses in the present study is not surprising, however, since literature has also shown the high social needs expressed by nurses (Benner & Krammer, 1972; McCloskey, 1974).

Table 6

Distribution of Subjects Preferring Social and Non-Social Reinforcement According to Hospital and Type of Work Area

Type of Area	Number of Subjects Preferring		
	Social Reinforcers	Non-Social Reinforcers	Total Sample
Acute Care Areas			
Hospital A	12	6	18
Hospital B	12	7	19
Total Acute	24	13	37
Chronic Care Areas			
Hospital A	10	8	18
Hospital B	11	4	15
Total Chronic	21	12	33

Evidence For and Against the Major Hypothesis

The major hypothesis of this study stated: Nurses whose personalities are congruent with the demands of their work areas (non-social preferences in acute care areas; social preferences in chronic care areas) will be more satisfied with their jobs than nurses whose personalities are not congruent with the demands of their work areas (social preferences in acute care areas; non-social preferences in chronic care areas).

In order to test the above hypothesis, six analyses of variance were conducted. Each analysis consisted of an overall 2 x 2 x 2 factorial with two levels of each of three independent variables (social vs. non-social; acute vs. chronic; and Hospital A vs. Hospital B) being measured and with a different measure of job satisfaction as the dependent variable. These measures of the dependent variable were: the total JDI score and scores on the five subscales of the JDI (Work, Pay, Promotion, Supervision, and Co-worker). The following presentation of each main and interaction effect of the independent variables on job satisfaction will include the findings from all six analyses.

Main Effects

Hospital A vs. Hospital B. From Table 7, it may be noted that the total JDI scores for individuals at Hospital A were statistically different from those at Hospital B. The data revealed that Hospital B nurses were more satisfied with their jobs than nurses from Hospital A. This finding confirms the importance of including hospital as an independent variable (Munson & Heda, 1974; White & Maguire, 1973).

Table 7

Analysis of Variance:

Total JDI Score

Source	SS	df	MS	F
Hospital A vs. Hospital B (A)	4881	1	4881	5.00*
Chronic vs. Acute (B)	283	1	283	.29
Social vs. Non-Social (C)	2248	1	2248	2.30
A x B	193	1	193	.20
A x C	417	1	417	.43
B x C	280	1	280	.29
A x B x C	3119	1	3119	.32
E	60,359	62	974	1

* p <.05

** p <.01

Table 8

Analysis of Variance:

JDI Work Scale Score

Source	SS	df	MS	F
Hospital A vs. Hospital B (A)	98	1	98	1.9
Chronic vs. Acute (B)	84	1	84	1.6
Social vs. Non-Social (C)	1	1	1	.02
A x B	134	1	134	2.6
A x C	31	1	31	.6
B x C	19	1	19	.36
A x B x C	41	1	41	.8
E	3,235	62	52	1

* p <.05

** p <.01

Results from analyses of variance for two of the five individual JDI scales showed significant differences: the JDI category of Promotion ($F = 8.73$, $p < .01$) and the category of Supervision ($F = 5.11$, $p < .05$), each indicating that Hospital B nurses were more satisfied in these areas than nurses from Hospital A. These two components probably account for the significant findings in the analysis of the total JDI scores. No significant differences in satisfaction between subjects in the two hospitals were found for the other three of the five individual JDI scales. (See Tables 8-12 for the results of ANOVA on individual scales.)

In that there were no significant differences between hospitals in age, length of time on unit, level of nursing education, and type of unit in which employed, these factors cannot explain differences in job satisfaction found between nurses in Hospital A and Hospital B (George & Stephens, 1968; McCloskey, 1974; Meleis & Farrell, 1974; Slocum et al., 1972; White & Maguire, 1973). It is possible, however, that these differences in job satisfaction may be a factor of hospital policies related to promotions and supervision.

Significant main effects were not anticipated for any of the variables investigated in the present study. Rather, it was hypothesized that the interaction of the independent variables would be the influencing factor on job satisfaction. It is of particular interest, then, that the variable of hospitals did demonstrate significant findings on several measures as shown above. Further investigations would need to be done to determine the reason for the higher satisfaction scores found with the nurses from Hospital B.

Acute vs. Chronic Care Areas. Total JDI scores for individuals in

Table 9

Analysis of Variance:

JDI Pay Scale Score

Source	SS	df	MS	F
Hospital A vs. Hospital B (A)	0	1	0	0
Chronic vs. Acute (B)	199	1	199	1.5
Social vs. Non-Social (C)	88	1	88	.7
A x B	97	1	97	.78
A x C	30	1	30	.24
B x C	10	1	10	.08
A x B x C	40	1	40	.32
E	7,750	62	125	1

* p <.05

** p <.01

Table 10

Analysis of Variance:

JDI Promotion Scale Score

Source	SS	df	MS	F
Hospital A vs. Hospital B (A)	1624	1	1624	8.73**
Chronic vs. Acute (B)	131	1	131	.7
Social vs. Non-Social (C)	269	1	269	1.45
A x B	48	1	48	.26
A x C	47	1	47	.25
B x C	0	1	0	0
A x B x C	640	1	640	3.4
E	11,514	62	186	1

* p <.05

** p <.01

Table 11

Analysis of Variance:

JDI Supervision Scale Score

Source	SS	df	MS	F
Hospital A vs. Hospital B (A)	710	1	710	5.11*
Chronic vs. Acute (B)	126	1	126	.91
Social vs. Non-Social (C)	71	1	71	.51
A x B	10	1	10	.07
A x C	70	1	70	.5
B x C	1	1	1	.007
A x B x C	241	1	241	1.73
E	8,641	62	139	1

* p <.05

** p <.01

Table 12

Analysis of Variance:

JDI Co-worker Scale Score

Source	SS	df	MS	F
Hospital A vs. Hospital B (A)	44	1	44	.8
Chronic vs. Acute (B)	0	1	0	0
Social vs. Non-Social (C)	195	1	195	3.5
A x B	76	1	76	1.4
A x C	48	1	48	.9
B x C	92	1	92	1.7
A x B x C	37	1	37	.7
E	3,433	62	55	1

* p <.05

** p <.01

acute care units did not differ significantly from those individuals in chronic care units according to ANOVA findings (see Table 7). Results of ANOVA for each of the five individual JDI categories also indicated no statistical significance (see Tables 8-12). These results were not surprising as it had not been anticipated that the nature of the unit (acute and chronic care units) alone would directly affect worker satisfaction.

Findings relating to age, number of years in the unit, and level of education in nursing did not appear to differ significantly between acute and chronic care area subjects. These factors, then, do not assist in determining variables which may influence job satisfaction among nurses.

Social vs. Non-Social Sources of Reinforcement. Total JDI scores for individuals indicating preferences for social sources of reinforcement did not differ significantly from those of individuals indicating preferences for non-social sources of reinforcement, as seen from ANOVA results (see Table 7). It was not anticipated that social vs. non-social sources of reinforcement would be significant as a main effect. However, the relationship indicated a slight effect ($F = 2.30$, $p < .25$).

Further, by chi-square analysis, the relationship between job satisfaction and sources of reinforcement did show significance. Of the 45 subjects indicating preferences for social sources of reinforcement, 17 (38%) received scores under 172 points (median JDI score) on the total JDI and 28 (62%) obtained scores above 172 points. Of the 25 subjects indicating preferences for non-social sources of reward, 18 (72%) scored below 172 points on the total JDI and 7 (28%) scored above 172 points ($X^2 = 7.56$, $p < .01$). This would seem to indicate that, in general,

most nurses who are satisfied in their jobs are socially oriented and that a non-social orientation may lead to dissatisfaction on the job. Differences between subjects above and below the median JDI score would not be apparent in results of ANOVA which assumes continuous data. In view of the disparate results, it would seem wise in further research to retain sources of reinforcement as a possible explanatory variable.

Subjects indicating a preference for social sources showed somewhat higher satisfaction with co-workers than those subjects preferring non-social sources of reinforcement. Analysis of variance findings on the JDI category of Co-worker approached, but did not achieve, statistical significance ($F = 3.50$, $p < .1$). All other ANOVA results relating the individual components of job satisfaction to social or non-social preferences indicated no significance (see Tables 8-12).

A direct effect of social vs. non-social sources of reinforcement on job satisfaction was not anticipated. Even with the Co-worker Subscale, items on the JDI dealt with skills as well as personality components. Thus, there was no reason to assume in the present investigation that the JDI was so constructed as to give an advantage to persons who obtained reinforcement from social rather than non-social sources.

Interaction Effects

The major hypothesis of this study was essentially tested through the findings of interaction effects between two independent variables (social vs. non-social and acute vs. chronic care units). Research has documented the importance of considering the interaction of personality and work area in investigating job satisfaction (Bass & Barrett, 1972;

Smith, et al., 1969; Vroom, 1964). The consideration of social vs. non-social preferences of reward (personality) and acute vs. chronic care units (work area) is in keeping with the interactional theory framework. Further studies have shown that the hospital variable may be a contributing factor and needs to be accounted for with regard to its effect on job satisfaction (Munson & Heda, 1974). Thus, this variable was also included in the interactional analyses of this study. A three-way ANOVA was performed with each variable taken at two levels in order to ascertain possible interactions of the variables considered.

No significance was found with any interactional combination of the ANOVA (hospital x unit, hospital x social-non-social, unit x social-non-social, or hospital x social-non-social x unit) on any of the JDI scale scores (total JDI or subscales: Work, Pay, Promotion, Supervision, or Co-worker). From the above ANOVA results, it is concluded that the hypothesis of this study was not upheld and therefore must be rejected.

It is of some interest for further investigations to note that one trend toward significance was found. In the interaction of hospital x unit x social-non-social on the JDI Promotion Subscale, scores ($F = 3.4$, $p < .1$) indicated that nurses in Hospital B who are social and in acute care areas tend to be more satisfied in regard to aspects of promotion than were all other subjects regardless of unit, hospital, or social vs. non-social preferences.

Limitations of Research and Implications for Future Research

There are several possible factors which may account for the results of this study failing to uphold the interactional hypothesis relating

to intrinsic and extrinsic influences on job satisfaction. Nevertheless, the viability of an interactional hypothesis may still exist and should not be rejected without further testing.

The social vs. non-social sources of reinforcement variable has several factors which may account for failure to find significant differences as predicted by the interactional hypotheses. First, the social-non-social tool used for this study investigates this variable as a trait characteristic of the personality and is not specifically work-related. This is congruent with Roe's findings (1956) of adults demonstrating social or non-social preferences based on childhood experiences. However, as pointed out by Mischel (1976), many personality characteristics, when investigated carefully, are not trait in nature but situational. It is possible that the activities nurses prefer among those represented in the Social-Non-Social Reinforcers Subscale of the PES are specific to purely social settings and do not reflect the social dimension in the work situation. The hypothesis of this study would be put to a better test if items on a social vs. non-social reinforcement instrument referred to work-related activities and situations. It would also be interesting in further study to test both state and trait factors with regard to social or non-social preferences.

The current study, then, would appear not to support Anne Roe's (1956) theory of a person-non-person orientation learned in childhood which is viewed as a trait generalizable across situations including that of work. However, whether or not social vs. non-social is a trait or state variable, it is more likely that nurses are generally more socially oriented than non-socially oriented.

Further, it is possible that the social-non-social variable may not be the characteristic of the person which may interact with the environment to predict job satisfaction. Research in this area may disclose other personality variables which, when interacting with the environment, are able to better predict job satisfaction.

Classifying subjects according to acute vs. chronic care areas may have also resulted in the rejection of the interactional hypothesis of this study. It is possible that the subjects of the present investigation entered their current area of work from a variety of previous work and non-work environments which may have been influential in determining these nurses' sources of reinforcement. In the present study, subjects' previous areas of work were not explored. Thus a category of preferred area of work might have been more meaningful than the category of current area of work, utilized in the present study, as many nurses may not be working in their most preferred area. Also, even though literature indicates that the activities of chronic care areas are generally more social than the activities of acute care areas (Bouchard & Owens, 1976; Cassem, 1970; DeMeyer, 1967; Storlie, 1969), the current emphasis of schools of nursing toward a holistic approach to patient care may have resulted in similar responses on the social-non-social reinforcement tool by nurses from acute and chronic units. The current emphasis on caring for the "whole" patient has placed demands on nurses to integrate their social and non-social skills into their nursing activities regardless of individual preferences (e.g., acute care nurses may have to strive harder to incorporate the social aspects of nursing care into their daily work activities). This holistic emphasis in patient

care has been documented in nursing literature (Benner & Krammer, 1972).

Still another aspect of the influence of classifying subjects into acute vs. chronic care areas is that it may be that individuals working in chronic care nursing areas have more opportunities to express socially oriented behaviors. Similarly, individuals in acute care nursing areas have more opportunities to express non-socially oriented behaviors. Future research on job satisfaction may be able to retain the interactional model as presented in this study but adopt a different conceptualization of the extrinsic factor, which may more adequately reflect the important determinants of the environment that interact with the individual worker to produce job satisfaction.

It would also appear from the present study that, at least in the JDI categories of Promotion and Supervision, the two hospitals were not similar. This factor also may have influenced the results of this investigation and it would be beneficial to research further the differences which may exist between hospitals in these areas. Again, the need to consider the organization factors in job satisfaction is apparent (Munson & Heda, 1974).

While it would be useful to draw subjects from only one institution for investigation, thus eliminating the hospital variable from consideration, the need for finding large enough populations to study appears to take priority. In future studies of this nature, either using one large institution or pre-testing subjects to determine comparability of several hospitals may be necessary in considering potential subject populations.

In summary, ANOVA findings on total JDI scores showed that only one main effect, the hospital variable, was significant ($F = 5.00$, $p < .05$).

This indicates that the two hospitals were not similar as earlier supposed. Results of chi-square analyses indicated significance when subjects were categorized into social and non-social, above and below 30 years of age ($\underline{X}^2 = 4.156$, $\underline{p} < .05$) and social and non-social, above and below 172 points scored on the JDI ($\underline{X}^2 = 7.56$, $\underline{p} < .01$). These findings indicate that socially oriented nurses tend to be more satisfied with their job than non-socially oriented nurses.

Analyses of the five individual JDI categories showed significant differences between the two hospitals in the categories of Promotion ($\underline{F} = 8.73$, $\underline{p} < .01$) and Supervision ($\underline{F} = 5.11$, $\underline{p} < .05$). Interaction effects of hospital and unit, hospital and social vs. non-social, unit and social vs. non-social, or all three variables were not significant. Thus, from these analyses, the major hypothesis of this study was rejected due to a lack of significant findings in the interaction directions proposed.

CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The profession of nursing is concerned with the current rapid job turnover of nursing personnel. Research has demonstrated that job turnover in nursing is, in part, a function of the nurses' satisfaction with their jobs. One consideration in job satisfaction may be that of matching personality traits of the individual workers to the requirements of the job.

The present study has examined the interaction effect of intrinsic (personality) and extrinsic (environment) factors upon job satisfaction. Nurses in two work areas of nursing, acute and chronic care units, were studied with regard to preferences for social or non-social sources of reinforcement of the nurses when satisfied on the job. Specifically, the hypothesis of the present study stated that, acute care unit nurses indicating preferences for non-social sources of reinforcement would be more satisfied with their jobs, and chronic care unit nurses indicating preferences for social sources of reinforcement would be more satisfied with their jobs.

Seventy nurses from two similar hospitals participated in the study: 37 acute care area nurses and 33 chronic care area nurses. A three-part questionnaire was administered to all the nurses: (1) a General Information Form which was designed to collect information on variables such as age,

educational level in nursing, and number of years employed in the current unit; (2) the Job Descriptive Index, measuring the level of job satisfaction reported by a worker; and (3) the Social-Non-Social Reinforcers Subscale from the Pleasant Events Schedule, measuring subjects' preferences for social vs. non-social sources of rewards.

Subjects were categorized by preferences for social or non-social sources of reinforcement, unit of work (acute vs. chronic care areas), and hospital (Hospital A vs. Hospital B). Scores from the total Job Descriptive Index comprised the dependent variable of this study. A 2 x 2 x 2 factorial analysis of variance for unequal Ns was utilized to test the hypothesis. Results of the analysis of variance were not significant with regard to the interactional relationships of the independent variables. Additional analyses of variance were conducted using scores from the five subscales of the Job Descriptive Index as the dependent variables. Results of these analyses of variance also were not significant with regard to the interactional relationships of the independent variables. The interactional hypothesis of this study, then, was not upheld.

Certain findings of the present study are of interest. First, orderings of the Job Descriptive Index subscale scores in this study duplicated the rank orderings of the subscales as described by Smith, et al. for their normative group. Second, the findings of this study indicating that there were more subjects who preferred social sources of reinforcement over non-social sources are similar to findings reported by Lewinsohn and MacPhillamy.

Several main effects proved to be significant through analyses of

variance, although not hypothesized. Statistical significance was found in job satisfaction between the two hospitals of the study. When analyses of variance were conducted using individual job satisfaction scores, this significance was accounted for within the categories of Supervision and Promotion. These findings indicate that the two hospitals were not comparable, at least in these two categories of job satisfaction. These main effect findings are evidence for continued consideration of an organizational factor influencing job satisfaction. Further analysis indicated that a majority of nurses scoring above the median score on the JDI (greater satisfaction) indicated a preference for social sources of reinforcement. Nurses scoring below the median score on the JDI (lesser satisfaction), however, were evenly divided in the preference for non-social or social sources of reinforcement. This finding proved statistically significant when the data were subjected to a chi-square. Acute care area nurses and chronic care area nurses did not appear to differ in their job satisfaction scores or in their preferences for social or non-social sources of rewards by results of analysis of variance.

The influence of age was also considered in this study but was not a part of the main hypothesis. Chi-square findings showed age to be significant in affecting the variable of social vs. non-social sources of reinforcement. All other considerations regarding age did not prove significant when nurses were dichotomized into age groups of above and below 30 years.

Conclusions

The results of this study attest to the complexity of the problem of job satisfaction. It appears that even an interactional design may not be adequate to predict job satisfaction sufficiently.

Further, it would appear from this study that acute care area nurses and chronic care area nurses are very similar in the personality factor of preferences for social vs. non-social sources of reinforcement and that nurses, regardless of work area, are generally satisfied in their work if they prefer social sources of reinforcement. More nurses over than under 30 years of age indicated preferences for non-social sources of reinforcement, and thus older nurses may be less concerned with the social aspects of their work. From these findings, it may be concluded that job satisfaction is not influenced by the chronic/acute distribution of nurses except in relation to the hospital in which a nurse may be working. Also, it may be concluded that the age variable investigated in this study is viable and should be retained in future investigations.

Hospitals in this study did differ in job satisfaction with relation to supervision and promotion, indicating that Hospital B subjects were better satisfied than Hospital A subjects with regard to these two variables. With all factors considered, it must be concluded that this study did not demonstrate a difference in job satisfaction between nurses in acute care areas and chronic care areas when they indicated preferences for social sources of reinforcement over non-social sources of reinforcement as had been previously supposed. Therefore, this study indicates that the appropriateness of categorizing units as acute or chronic in future

investigations may be in question.

The above findings were not predicted by the interactional hypothesis of the study. However, the tools utilized did have weaknesses which may have influenced the results of the investigation. Different tools might prove to be more sensitive in measuring these independent variables in future research. With other tools to test these same variables, the above variables may still prove to be of viable influence upon nursing. Further, the type of design utilized in the present study has several innate weaknesses, including a poor ability to take into account the multitude of variables which could influence the results of the study. A multi-variate research design may be more appropriate for the complexity of the problem being studied.

Recommendations

It is recommended for future research that:

(1) a replication of this study be made using a larger sample population preferably from one institution.

(2) a replication of this study be made using a social-non-social sources of reinforcement tool designed more specifically to nursing activities in the hospital.

(3) future research investigate the influence of different areas of nursing upon job satisfaction.

(4) future research investigate the influence of other intrinsic factors upon job satisfaction.

(5) differences in age groups continue to be a consideration in studies related to personality factors in nursing.

(6) future research investigate preferred areas of work rather than present areas of work.

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APPENDIX A

CONSENT FORM AND QUESTIONNAIRE

INFORMED CONSENT FORM

I,_____, herewith agree to
(first name) (middle name) (last name)
participate in the study titled "Nurses' Social Sources of Reinforcement in Short-Term and Long-Term Care Settings" by Helen Catherine Nichols, R.N. under the supervision of May Rawlinson, PhD. The study aims to determine the degree to which a nurse's satisfaction in the job, specifically in acute (short-term) and chronic (long-term) care settings, is affected by this nurse's preference for social or non-social sources of rewards.

My participation in the study entails answering a questionnaire which takes approximately 60 minutes to complete. I may not personally benefit from this study, but the study may aid in the general guidance and counseling of nurses into areas of nursing in which they may be most satisfied according to their personality. Participation in this study will not involve any known risks to me or to my employment.

Information obtained from this study will be confidential. My name will not appear on any records and anonymity will be insured by the use of code numbers. Aggregate findings will be presented to both institutions involved at the completion of the study.

Helen Catherine Nichols has offered to answer any questions that I might have about my participation in this study. I understand that I am free to refuse to participate or to withdraw from participation in the study at any time without effect on my relationship with and employment at

_____.
(name of institution)

_____
(Subject's Signature)

I have read the foregoing.

_____ _____
(Date) (Witness' Signature)

GENERAL INFORMATION FORM

Please check one answer for each question as it is appropriate to you.

1. My birthdate is:____/____/_____

2. The highest degree in nursing I hold is:

_____2 year graduate (associate)

_____3 year graduate (diploma)

_____4 year graduate (degree)

_____other (M.N., M.S., P.N.P., etc.) Specify_____

3. My place of employment is:

_____Good Samaritan Hospital and Medical Center

_____Providence Hospital

4. The unit I work on is:

_____ICU

_____CCU

_____CVR

_____RIO (Rehabilitation)

_____6-E (Rehabilitation)

_____Orthopedics

_____Extended Care

_____Geriatric Medical

_____Oncology

5. I have been on this unit:

_____under 1 year

_____1-5 years

_____6-10 years

_____11-15 years

_____16 years or over

THE JOB DESCRIPTIVE INDEX*

Code Number_____

Company_____

City_____

Think of your present work. What is it like most of the time? In the blank beside each word given below, write

__y__ for "Yes" if it describes your work

__N__ for "No" if it does NOT describe it

__?__ if you cannot decide

. . . . . .

WORK ON PRESENT JOB

_____Fascinating	_____Respected	_____Challenging
_____Routine	_____Hot	_____On your feet
_____Satisfying	_____Pleasant	_____Frustrating
_____Boring	_____Useful	_____Simple
_____Good	_____Tiresome	_____Endless
_____Creative	_____Healthful	_____Gives sense of accomplishment

---

*copied for printing from Smith, et al., 1969.

Think of the pay you get now. How well does each of the following words describe your present pay? In the blank beside each word, put

__y__ if it describes your pay

__N__ if it does NOT describe it

__?__ if you cannot decide

. . . . . .

PRESENT PAY

_____Income adequate for normal expenses
_____Satisfactory profit sharing
_____Barely live on income
_____Bad
_____Income provides luxuries
_____Insecure
_____Less than I deserve
_____Highly paid
_____Underpaid

Think of the opportunities for promotion that you have now. How well does each of the following words describe these? In the blank beside each word put

__y__ for "Yes" if it describes your opportunities for promotion

__N__ for "No" if it does NOT describe them

__?__ if you cannot decide

. . . . . .

OPPORTUNITIES FOR PROMOTION

_____Good opportunities for promotion
_____Opportunity somewhat limited
_____Promotion on ability
_____Dead-end job
_____Good chance for promotion
_____Unfair promotion policy
_____Infrequent promotions
_____Regular promotions
_____Fairly good chance for promotion

Think of the kind of supervision that you get on your job. How well does each of the following words describe this supervision? In the blank beside each word below, put

__y__ if it describes the supervision you get on your job

__N__ if it does NOT describe it

__?__ if you cannot decide

. . . . . .

SUPERVISION ON PRESENT JOB

_____Asks my advice	_____Up-to-date	_____Knows job well
_____Hard to please	_____Doesn't supervise enough	_____Bad
_____Impolite	_____Quick tempered	_____Intelligent
_____Praises good work	_____Tells me where I stand	_____Leaves me on my own
_____Tactful	_____Annoying	
_____Influential	_____Stubborn	_____Around when needed
		_____Lazy

Think of the majority of the people that you work with now or the people you meet in connection with your work. How well does each of the following words describe these people? In the blank beside each word below, put

__y__ if it describes the people you work with

__N__ if it does NOT describe them

__?__ if you cannot decide

. . . . . .

PEOPLE ON YOUR PRESENT JOB

_____Stimulating	_____Fast	_____Unpleasant
_____Boring	_____Intelligent	_____No privacy
_____Slow	_____Easy to make enemies	_____Active
_____Ambitious	_____Talk too much	_____Narrow interests
_____Stupid	_____Smart	_____Loyal
_____Responsible	_____Lazy	_____Hard to meet

PLEASANT EVENTS SUBSCALE*

This schedule is designed to find out about the things you have enjoyed during the past month. The schedule contains a list of events or activities which people sometimes enjoy. You will be asked to go over the list twice, the first time rating each event on how many times it has happened in the past month and the second time rating each event on how pleasant it has been for you. There are no right or wrong answers.

Please rate every event. Work quickly; there are many items and you will not be asked to make fine distinctions on your ratings. The schedule should take about one-half hour to complete. Please make your ratings on the answer columns provided. Use the left column labeled "A" to answer Question A; use the right hand column labeled "B" to answer Question B. When you make the answers, use a soft pencil and erase completely any answers you have changed.

DIRECTIONS: QUESTION A

On the following pages you will find a list of activities, events, and experiences. HOW OFTEN HAVE THESE EVENTS HAPPENED IN YOUR LIFE IN THE PAST MONTH? Please answer this question by rating each item on the following scale:

1. This has not happened in the past 30 days.
2. This has happened a few times (1 to 6) in the past 30 days.
3. This has happened often (7 or more) in the past 30 days.

Place your rating for each item in the left hand column opposite the item you are answering. Here is an example:

> Item number 1 is "Talking about sports". Suppose you have talked about sports three times during the past 30 days. Then you would mark (√) or (X) in the space opposite that question under column "A". Your answer would look like this:

1	2	3	
( )	(X)	( )	1. Talking about sports

Important: Some items will list more than one event: for these items, mark how often you have done any of the listed events. For example, item

---

*Reproduced by permission: Lewinsohn, P.M. and MacPhillamy, D.J., 1971.

number 10 is: "Working on machines (cars, bikes, motorcycles, tractors, etc.)". You should rate item number 10 on how often you have done any form of working on machines in the past month.

Since this list contains events that might happen to a wide variety of people, you may find that many of the events have not happened to you in the past 30 days. It is not expected that anyone will have done all of these things in one month.

Now go to the next page and begin.

Question A					Question B		
1	2	3			1	2	3
( )	( )	( )	1.	Talking about sports	( )	( )	( )
( )	( )	( )	2.	Meeting someone new of the same sex	( )	( )	( )
( )	( )	( )	3.	Reading the Scriptures or other sacred works	( )	( )	( )
( )	( )	( )	4.	Going to lectures or hearing speakers	( )	( )	( )
( )	( )	( )	5.	Driving skillfully	( )	( )	( )
( )	( )	( )	6.	Breathing clean air	( )	( )	( )
( )	( )	( )	7.	Thinking up or arranging songs or music	( )	( )	( )
( )	( )	( )	8.	Saying something clearly	( )	( )	( )
( )	( )	( )	9.	Watching TV	( )	( )	( )
( )	( )	( )	10.	Working on machines (cars, bikes, motorcycles, tractors, etc.)	( )	( )	( )
( )	( )	( )	11.	Solving a problem, puzzle, crossword, etc.	( )	( )	( )
( )	( )	( )	12.	Criticizing someone	( )	( )	( )
( )	( )	( )	13.	Having lunch with friends or associates	( )	( )	( )
( )	( )	( )	14.	Woodworking, carpentry	( )	( )	( )
( )	( )	( )	15.	Being with animals	( )	( )	( )
( )	( )	( )	16.	Having a frank and open conversation	( )	( )	( )
( )	( )	( )	17.	Thinking about myself or my problems	( )	( )	( )
( )	( )	( )	18.	Going to a party	( )	( )	( )
( )	( )	( )	19.	Making snacks	( )	( )	( )
( )	( )	( )	20.	Being helped	( )	( )	( )
( )	( )	( )	21.	Wearing informal clothes	( )	( )	( )
( )	( )	( )	22.	Combing or brushing my hair	( )	( )	( )
( )	( )	( )	23.	Taking a nap	( )	( )	( )
( )	( )	( )	24.	Being with friends	( )	( )	( )
( )	( )	( )	25.	Taking a bath	( )	( )	( )
( )	( )	( )	26.	Singing to myself	( )	( )	( )

Question A					Question B		
1	2	3			1	2	3
( )	( )	( )	27.	Weighing myself	( )	( )	( )
( )	( )	( )	28.	Scratching myself	( )	( )	( )
( )	( )	( )	29.	Designing or drafting	( )	( )	( )
( )	( )	( )	30.	Being popular at a gathering	( )	( )	( )
( )	( )	( )	31.	Watching wild animals	( )	( )	( )
( )	( )	( )	32.	Gardening, landscaping, or doing yard work	( )	( )	( )
( )	( )	( )	33.	Reading essays or technical, academic or professional literature	( )	( )	( )
( )	( )	( )	34.	Sitting in the sun	( )	( )	( )
( )	( )	( )	35.	Riding a motorcycle	( )	( )	( )
( )	( )	( )	36.	Just sitting and thinking	( )	( )	( )
( )	( )	( )	37.	Social drinking	( )	( )	( )
( )	( )	( )	38.	Talking about philosophy or religion	( )	( )	( )
( )	( )	( )	39.	Listening to the sounds of nature	( )	( )	( )
( )	( )	( )	40.	Dating, courting, etc.	( )	( )	( )
( )	( )	( )	41.	Listening to the radio	( )	( )	( )
( )	( )	( )	42.	Having friends come to visit	( )	( )	( )
( )	( )	( )	43.	Getting massages or backrubs	( )	( )	( )
( )	( )	( )	44.	Getting letters, cards or notes	( )	( )	( )
( )	( )	( )	45.	Watching the sky, clouds, or a storm	( )	( )	( )
( )	( )	( )	46.	Reading maps	( )	( )	( )
( )	( )	( )	47.	Working on my finances	( )	( )	( )
( )	( )	( )	48.	Helping someone	( )	( )	( )
( )	( )	( )	49.	Meeting someone new of the opposite sex	( )	( )	( )
( )	( )	( )	50.	Seeing beautiful scenery	( )	( )	( )
( )	( )	( )	51.	Eating good meals	( )	( )	( )
( )	( )	( )	52.	Writing papers, essays, articles, reports memos, etc.	( )	( )	( )

Question A					Question B		
1	2	3			1	2	3
( )	( )	( )	53.	Loaning something	( )	( )	( )
( )	( )	( )	54.	Being noticed as sexually attractive	( )	( )	( )
( )	( )	( )	55.	Counseling someone	( )	( )	( )
( )	( )	( )	56.	Complimenting or praising someone	( )	( )	( )
( )	( )	( )	57.	Talking on the telephone	( )	( )	( )
( )	( )	( )	58.	Having daydreams	( )	( )	( )
( )	( )	( )	59.	Kicking leaves, sand, pebbles, etc.	( )	( )	( )
( )	( )	( )	60.	Kissing	( )	( )	( )
( )	( )	( )	61.	Being alone	( )	( )	( )
( )	( )	( )	62.	Budgeting my time	( )	( )	( )
( )	( )	( )	63.	Being praised by people I admire	( )	( )	( )
( )	( )	( )	64.	Doing "odd jobs" around the house	( )	( )	( )
( )	( )	( )	65.	Being told I am needed	( )	( )	( )
( )	( )	( )	66.	Giving a party or get-together	( )	( )	( )
( )	( )	( )	67.	Washing my hair	( )	( )	( )
( )	( )	( )	68.	Coaching someone	( )	( )	( )
( )	( )	( )	69.	Seeing or smelling a flower or plant	( )	( )	( )
( )	( )	( )	70.	Being invited out	( )	( )	( )
( )	( )	( )	71.	Having someone agree with me	( )	( )	( )
( )	( )	( )	72.	Getting up early in the morning	( )	( )	( )
( )	( )	( )	73.	Having peace and quiet	( )	( )	( )
( )	( )	( )	74.	Visiting friends	( )	( )	( )
( )	( )	( )	75.	Being counseled	( )	( )	( )
( )	( )	( )	76.	Saying prayers	( )	( )	( )
( )	( )	( )	77.	Giving massages or backrubs	( )	( )	( )
( )	( )	( )	78.	Meditating or doing yoga	( )	( )	( )

Question A					Question B		
1	2	3			1	2	3
( )	( )	( )	79.	Doing favors for people	( )	( )	( )
( )	( )	( )	80.	Talking with people on the job or in class	( )	( )	( )
( )	( )	( )	81.	Being asked for my help or advice	( )	( )	( )
( )	( )	( )	82.	Thinking about other people's problems	( )	( )	( )
( )	( )	( )	83.	Dreaming at night	( )	( )	( )
( )	( )	( )	84.	Being in a body-awareness, sensitivity, encounter, therapy or "rap" group	( )	( )	( )
( )	( )	( )	85.	Brushing my teeth	( )	( )	( )
( )	( )	( )	86.	Walking barefoot	( )	( )	( )
( )	( )	( )	87.	Being with my roommate	( )	( )	( )
( )	( )	( )	88.	Listening to music	( )	( )	( )
( )	( )	( )	89.	Arguing	( )	( )	( )
( )	( )	( )	90.	Petting, necking	( )	( )	( )
( )	( )	( )	91.	Amusing people	( )	( )	( )
( )	( )	( )	92.	Talking about sex	( )	( )	( )
( )	( )	( )	93.	Being with someone I love	( )	( )	( )
( )	( )	( )	94.	Sleeping late	( )	( )	( )
( )	( )	( )	95.	Being stubborn	( )	( )	( )
( )	( )	( )	96.	Going to the library	( )	( )	( )
( )	( )	( )	97.	Having other sexual satisfactions other than sexual relations with a partner of the opposite sex	( )	( )	( )
( )	( )	( )	98.	Watching people	( )	( )	( )
( )	( )	( )	99.	Building or watching a fire	( )	( )	( )
( )	( )	( )	100.	Confessing or apologizing	( )	( )	( )
( )	( )	( )	101.	Repairing things	( )	( )	( )
( )	( )	( )	102.	Working with others as a team	( )	( )	( )
( )	( )	( )	103.	Telling people what to do	( )	( )	( )
( )	( )	( )	104.	Playing party games	( )	( )	( )

Question A					Question B		
1	2	3			1	2	3
( )	( )	( )	105.	Writing letters, cards or notes	( )	( )	( )
( )	( )	( )	106.	Talking about politics or public affairs	( )	( )	( )
( )	( )	( )	107.	Asking for help or advice	( )	( )	( )
( )	( )	( )	108.	Talking about my hobby or special interest	( )	( )	( )
( )	( )	( )	109.	Watching attractive women or men	( )	( )	( )
( )	( )	( )	110.	Talking about other people	( )	( )	( )
( )	( )	( )	111.	Having people show interest in what I have said	( )	( )	( )
( )	( )	( )	112.	Expressing my love to someone	( )	( )	( )
( )	( )	( )	113.	Smoking tobacco	( )	( )	( )
( )	( )	( )	114.	Having coffee, tea, coke, etc. with friends	( )	( )	( )
( )	( )	( )	115.	Taking a walk	( )	( )	( )
( )	( )	( )	116.	Sewing	( )	( )	( )
( )	( )	( )	117.	Being complimented or told I have done well	( )	( )	( )
( )	( )	( )	118.	Being told I am loved	( )	( )	( )
( )	( )	( )	119.	Eating snacks	( )	( )	( )
( )	( )	( )	120.	Thinking about an interesting question	( )	( )	( )
( )	( )	( )	121.	Making a new friend	( )	( )	( )
( )	( )	( )	122.	Talking about my job or school	( )	( )	( )
( )	( )	( )	123.	Borrowing something	( )	( )	( )
( )	( )	( )	124.	Seeing old friends	( )	( )	( )
( )	( )	( )	125.	Teaching someone	( )	( )	( )
( )	( )	( )	126.	Playing with pets	( )	( )	( )
( )	( )	( )	127.	Looking at the stars or moon	( )	( )	( )
( )	( )	( )	128.	Being coached	( )	( )	( )

STOP

If you have gone through the list for the first time, go to the next page and follow the directions for Question B. If you have finished Question B, you have completed the test.

DIRECTIONS: QUESTION B

Now please go over the list once again. This time the question is: HOW PLEASANT, ENJOYABLE, OR REWARDING WAS EACH EVENT DURING THE PAST MONTH? Please answer this question by rating each event on the following scale:

1. This was not pleasant. (Use this rating for events which were either neutral or unpleasant.)
2. This was somewhat pleasant. (Use this rating for events which were mildly or moderately pleasant.)
3. This was very pleasant. (Use this rating for events which were strongly or extremely pleasant.)

Important: If an event has happened to you more than once in the past month, try to rate roughly how pleasant it was on the average. If an event has not happened to you during the past month, then rate it according to how much fun you think it would have been. When an item lists more than one event, rate it on the events you have actually done. (If you haven't done any of the events in such an item, give it the average rating of the events in that item which you would like to have done.)

Place your rating for each event in the right-hand column, labeled "B", opposite the item you are answering. Here is an example:

> Event number 1 is "Talking about sports". Suppose that each time you talked about sports in the past 30 days you enjoyed it a great deal. Then you would rate this event "3", since it was "very pleasant". In column "B" to the right of that item your mark would look like this:
>
> 1. Talking about sports (1) (2) (3x)

The list of items may have some events which you would not enjoy. The list was made for a wide variety of people, and it is not expected that one person would enjoy all of them.

Now go back to the list of events, start with item 1, and go through the entire list rating each event roughly how pleasant it was (or would have been) during the past 30 days. Please be sure that you rate each item.

APPENDIX B

PES SUBSCALE SCORING INFORMATION

PES SOCIAL-NON-SOCIAL SUBSCALE SCORING

Each item on the schedule is scored twice by the subject: once in relation to how often the subject performs the activity (frequency rating) and once in relation to how much the subject enjoys doing the activity (enjoyability rating). There are three social-non-social scores that may be derived. One score is the Sum of the Frequency Ratings and is assumed to be a measure of the subject's actual performance in social and non-social types of activities. To arrive at this score, each item is rated by the subjects on the basis of occurrence in the past 30 days:

1 point if the activity has not occurred
2 points if the activity has occurred one to six times
3 points if the activity has occurred seven or more times.

The second score is the Sum of the Enjoyability Ratings and is assumed to measure the reinforcement potential of the social and non-social activities. To arrive at this score, the subjects rate each item as follows:

1 point if the activity is either neutral or unpleasant to the subject
2 points if the activity is mildly or moderately pleasant
3 points if the activity is very pleasant to the subject.

The third score, chosen for use in the present study, is the Sum of the Products of Frequency and Enjoyability Ratings. It is assumed to be an approximation of response-contingent positive reinforcement received with social vs. non-social types of activities. For simplicity in data analysis, Lewinsohn has further suggested that the points assigned to various activities by the subjects be transformed according to the following method:

3 points becomes 2 points
2 points becomes 1 point
1 point becomes 0 points.

Total scores using these transformed points then range in principle on the subscale from -2 (high degree of non-social reinforcement) to +2 (high degree of social reinforcement).

The formula proposed for calculating Social-Non-Social Reinforcers Subscale scores is as follows:

$$\text{score} = \frac{\sum_{1}^{64} (\text{each pos. item rating}) - \sum_{1}^{64} (\text{each neg. item rating})}{128}$$

This scale was constructed on rational grounds as a measure of the degree to which the individual's activities and pleasures are of a social vs. non-social nature. One hundred twenty-eight items compose the scale.

The following 64 items from the total PES are keyed positively (social):

4	5	29	44	56	60	69	74	93	104
107	113	117	122	123	135	141	157	158	160
165	172	179	183	189	191	193	196	199	204
207	209	213	214	216	222	234	236	238	239
240	243	247	248	260	262	264	265	267	268
269	271	275	277	279	282	291	292	306	307
309	311	312	320						

The following 64 items from the total PES are keyed negatively (non-social):

14	24	25	26	27	33	37	42	45	51
53	58	67	70	71	73	79	80	86	87
89	94	96	98	101	102	103	112	116	124
130	132	144	145	153	173	174	180	181	187
192	195	201	202	208	211	217	225	227	231
235	245	250	255	256	261	272	280	284	286
293	298	317	319						

APPENDIX C

CORRESPONDENCE

7582 SW Hunziker Rd. #48
Tigard, Oregon 97223

August 17, 1977

Miss Marge Hanley, R.N.
Director of Nursing Service
Good Samaritan Hospital and
Medical Center
1015 N.W. 22nd Avenue
Portland, Oregon 97210

Dear Miss Hanley:

Thank you so much for seeing me August 15, 1977. I appreciated talking with you and was grateful for receiving your permission to conduct my study at Good Samaritan. This letter is in confirmation of our conversation.

As we discussed, I am a graduate student in psychiatric/mental health nursing at the University of Oregon School of Nursing. I wish to do a part of my research for my clinical investigation with some of the nursing staff at Good Samaritan.

I would like to contact the day and evening shift staff registered nurses in the ICU, CCU, RIO, 6-E, and Orthopedic units to get volunteers for my study. The study, after the volunteers have signed permission slips agreeing to be in the study, consists of a brief demographic questionnaire, a job satisfaction questionnaire, and a 128-item personality trait questionnaire. The questionnaires may be filled out at the nurses' convenience and either handed to me directly or mailed to me in a stamped, self-addressed envelope that I will provide. In any case, anonymity of the nurses will be protected.

I will be sending copies of the three questionnaires to you prior to beginning my research and will be in contact with you again in October or November when I am ready to meet with the nurses.

Thank you again for your cooperation and kind consideration.

Sincerely yours,

Helen Catherine Nichols, R.N.
Graduate Student

Mrs. Nichols is a graduate student in the Graduate Department of our School. Your assistance in her research study is greatly appreciated.

May Rawlinson, R.N., Ph.D.
Research Advisor

7582 SW Hunziker Rd. #48
Tigard, Oregon 97223

August 17, 1977

Sr. Mary Gregory, R.N.
Director of Nursing Service
Providence Hospital
700 N.E. 47th Avenue
Portland, Oregon 97213

Dear Sr. Mary Gregory:

Thank you so much for seeing me August 16, 1977. I appreciated talking with you and was grateful for receiving your permission to conduct my study at Providence. This letter is in confirmation of our conversation.

As we discussed, I am a graduate student in psychiatric-mental health nursing at the University of Oregon School of Nursing. I wish to do a part of my research for my clinical investigation with some of the nursing staff at Providence.

I would like to contact the day and evening shift staff registered nurses in the CVR, ICU, CCU, Extended Care, Oncology and Geriatric Medical units to get volunteers for my study. The study, after the volunteers have signed permission slips agreeing to be in the study, consists of a brief demographic questionnaire, a job satisfaction questionnaire, and a 128-item personality trait questionnaire. The questionnaires may be filled out at the nurses' convenience and either handed to me directly or mailed to me in a stamped, self-addressed envelope that I will provide. In any case, anonymity of the nurses will be protected.

I will be sending copies of the three questionnaires to you prior to beginning my research and will be in contact with you again in October or November when I am ready to meet with the nurses.

Thank you again for your cooperation and kind consideration.

Sincerely yours,

Helen Catherine Nichols, R.N.
Graduate Student

Mrs. Nichols is a graduate student in the Graduate Department of our School. Your assistance in her research study is greatly appreciated.

May Rawlinson, R.N., Ph.D.
Research Advisor

7582 S. W. Hunziker Rd.
Apt. 48
Tigard, Oregon 97223
August 5, 1977

Patricia Cain Smith, Ph.D.
Bowling Green State University
Bowling Green, Ohio 43403

Dear Dr. Smith:

I am a graudate student in psychiatric nursing. The research I am planning to do for my master's degree will require determining the job satisfaction level of my subjects. Your Job Descriptive Index seems appropriate for this purpose and I would like to use it.

Any information you can give me about obtaining copies of the Job Descriptive Index regarding copyright costs, ordering procedures, etc. would be greatly appreciated. I am anticipating having around sixty subjects and would need that many tests.

Thank you for your kind consideration and cooperation.

Sincerely,

Helen Catherine Nichols, R.N.
Graduate Student in Nursing

May Rawlinson, Ph.D.
Research Advisor
Faculty, University of Oregon
School of Nursing

September 20, 1976
7582 S.W. Hunziker Rd.
Apt. 48
Tigard, Oregon 97223

Peter M. Lewinsohn, Ph.D.
Department of Psychology
University of Oregon
Eugene, Oregon

Dear Dr. Lewinsohn:

I am a master's degree student in psychiatric/mental health nursing. My research project centers around personality traits and job choices within nursing: specifically the degree of person orientation in acute versus chronic care nursing.

Various studies have looked for personality characteristics unique to several nursing assignments, e.g., public health, psychiatric, medical and surgical nursing. A number of these studies purport to deal with task-person orientation. However, operational definitions for this dimension have been invariably weak and usually tied to quasi-demographic facts such as psychiatric versus surgical assignments per se.

I am considering employing your Pleasant Events Schedule in my research as a measure of the person orientation-task orientation dimension, and would appreciate answers to several questions in this connection:

1. Does your instrument appear to you a face valid measure of the person-task orientation dimension?

2. Have you completed any factor analyses which suggest such an interpretation of the Pleasant Events Schedule?

3. Have you done other research which might suggest a relationship between person-task orientation and your scale?

4. Should I decide to use the Pleasant Events Schedule as my instrument of choice, may I have your permission to reproduce it?

Thank you for your cooperation and consideration. I will be awaiting an early reply to this letter.

Sincerely,

Helen Catherine (Mrs. David) Nichols, RN

UNIVERSITY OF OREGON
Human Neuropsychology Laboratory
Department of Psychology Psychology Clinic
Straub Hall
Eugene, Oregon 97403
(503) 686-4966

COPY

September 24, 1976

Mrs. David Nichols, R.N.
7582 S. W. Hunziker Rd.
Apt. 48
Tigard, Oregon 97223

Dear Mrs. Nichols:

Thank you for your letter of September 20.

In regard to your questions -

1. I feel that our studies have shown considerable validity and excellent reliability for the Pleasant Events Schedule.

2. We have completed several factor analyses of the Pleasant Events Schedule items. They have generally not been terribly helpful because the factors tend to be relatively weak - people's preferences apparently are relatively idiosyncratic. Nevertheless, on the basis of factor and cluster analyses and on rational grounds we have defined a number of different scales for the Pleasant Events Schedule which are described in the Manual, which I assume you have. If you do not have the Manual, please let me know and I will be happy to send you a copy.

3. The study that you seem to be considering sounds interesting and I would hope that the Pleasant Events Schedule could make a contribution to such a study.

4. We are in the process of trying to find a commercial publisher for the Pleasant Events Schedule and I don't want to jeopardize our rights. For the time being, we are selling the Pleasant Events Schedule for $.25 per copy (which is what it costs us to reproduce it). The test booklet can be used repeatedly. We would be happy to sell them to you. If there is a large number involved, we would be willing to negotiate the cost.

Sincerely yours,

/s/ Peter M. Lewinsohn,
Peter M. Lewinsohn, PhD
Professor of Psychology

PML/jn

October 4, 1976
7582 S.W. Hunziker
#48
Tigard, Oregon 97223

Peter M. Lewinsohn, Ph.D.
Department of Psychology
Uniersity of Oregon
Eugene, Oregon 97403

Dear Dr. Lewinsohn:

Thank you for your letter of September 24th. I appreciated the information you included in the letter and found it most encouraging.

Unfortunately, I do not have the Manual for the Pleasant Events Schedule and would be interested in investigating the various scales you describe in it.

I would be most appreciative if you would send me a copy of the manual. I will be happy to reimburse you for any costs involved.

Once I have the manual, I will present my tool to my major professor for approval and will contact you again about test booklets should everything work out satisfactorily.

Again, thank you for your consideration and cooperation.

Sincerely,

Helen Catherine (Mrs. David) Nichols, R.N.

7582 S.W. Hunziker Rd.
Apt. 48
Tigard, Oregon 97223
August 15, 1977

Peter M. Lewinsohn, PhD
Professor of Psychology
University of Oregon Department of Psychology
Straub Hall
Eugene, Oregon 97402

Dear Dr. Lewinsohn:

Thank you for the information related to me in our telephone conversation on August 12, 1977.

In confirmation of the conversation, it is my understanding that I have your permission to extract the social/non-social reinforcer scale from the Pleasant Events Schedule and to administer it to the subjects of my research. I very much appreciate this permission and plan to entitle the resulting form "Pleasant Events Subscale" unless you do not agree or have another suggestion for me.

It is also my understanding that you believe the social/non-social reinforcer subscale to have a mean validity score for both the frequency and enjoyability scales similar to the total PES; i.e., $r=.62$ for the frequency scale and .63 for the enjoyability scale, $p<.01$. Test-retest reliability for the social/non-social subscale as related by you in our conversation is .78 after one month, .73 after two months, and .72 after three months.

Finally, you mentioned a newer manual that I do not have. I would appreciate it if I could have the newer edition sent to me.

Thank you again for your consideration, cooperation, and assistance.

Sincerely,

Helen Catherine Nichols, R.N.
Graduate Student

ABSTRACT

AN ABSTRACT OF THE CLINICAL INVESTIGATION OF

HELEN CATHERINE NICHOLS

FOR THE MASTERS OF NURSING

DATE OF RECEIVING THIS DEGREE: JUNE 8, 1979

TITLE: NURSES' SOCIAL SOURCES OF REINFORCEMENT IN ACUTE AND CHRONIC CARE SETTINGS

APPROVED: _____
(Professor in Charge of Clinical Investigation)

The profession of nursing is concerned with the current rapid job turnover of nursing personnel. Research has demonstrated that job turnover in nursing is, in part, a function of the nurses' satisfaction with their jobs. One consideration in job satisfaction may be that of matching personality traits of the individual workers to the requirements of the job.

This study has examined the interaction effect of intrinsic (personality) and extrinsic (environment) factors upon job satisfaction. Nurses in two work areas of nursing, acute and chronic care units, were studied with regard to preferences for social or non-social sources of reinforcement of the nurses when satisfied on the job. Specifically, the hypothesis of the study stated that, acute care unit nurses indicating preferences for non-social sources of reinforcement would be more satisfied with their jobs, and chronic care unit nurses indicating preferences for social sources of reinforcement would be more satisfied with their jobs.

Seventy nurses from two similar hospitals participated in the study: 37 acute care area nurses and 33 chronic care area nurses. A three-part questionnaire was administered to all the nurses: (1) a General Information Form which was designed to collect information on variables such as age,

educational level in nursing, and number of years employed in the current unit; (2) the Job Descriptive Index, measuring the level of job satisfaction reported by a worker; and (3) the Social-Non-Social Reinforcers Subscale from the Pleasant Events Schedule, measuring subjects' preferences for social vs. non-social sources of rewards.

Subjects were categorized by preferences for social or non-social sources of reinforcement, unit of work, and hospital. Scores from the total Job Descriptive Index comprised the dependent variable of this study. A 2 x 2 x 2 factorial analysis of variance for unequal Ns was utilized to test the hypothesis. Results of the analysis of variance were not significant with regard to the interactional relationships of the independent variables. With the five subscales of the Job Descriptive Index as the dependent variables, additional analyses of variance were conducted. Results of these analyses of variance also were not significant. The interactional hypothesis of this study, then, was not upheld.

Certain findings of the study are of interest. Results of the Job Descriptive Index in this study duplicated the rank orderings of individual subscales as described for normative groups of other investigations. Also, the findings of this study indicating that there were more subjects who preferred social sources of reinforcement over non-social sources are similar to findings in past investigations.

While interactional findings were non-significant, several main effects proved significant. Statistical significance was found in relation to job satisfaction between the two hospitals studied. This significance was accounted for within the categories of supervision and promotion satisfaction. This would indicate that the two hospitals were not comparable, at least in these two areas of job satisfaction. Conclusions and recommendations were made based on the findings as presented above.