

SELECTED FACTORS AFFECTING NURSE-PERCEIVED
RECIPROCITY IN NURSE-PATIENT RELATIONSHIPS

by

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Approved by
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This exploratory study examined factors affecting nurse-perceived reciprocity in nurse-patient relationships of practicing public health nurses. The hypothesis was that there is a positive relationship between selected demographic (age), professional (years as RN, years in public health nursing), personal (career satisfaction, satisfaction with nurse-patient relationships), and contextual variables [work satisfaction, years with current employer, type of nursing care delivery system (team, primary, case management, functional, other), and satisfaction with workload] and nurse-perceived reciprocity in nurse-patient relationships. A convenience sample of 69 public health nurses from three health departments in large urban areas in Texas provided surveys.

Data were analyzed using multiple regression. The smallest (two-factor) significant predictor model with reciprocity as the criterion

included two variables: career satisfaction and case management. This model accounted for 16.8% of variance (Adjusted R Square) ($p=.001$). Seven other variables were also significant (satisfaction with nurse-patient relationships, years with current employer, work satisfaction, "other" type of nursing care delivery, satisfaction with workload, "functional" nursing, and primary nursing), but contributed little additional predictiveness to the two-factor model. Results suggest that career satisfaction and case management are the most important predictors among factors included of nurse-perceived reciprocity.

The study supports the importance of reciprocity in nurse-patient relationships and links nurse-perceived reciprocity and work satisfaction, career satisfaction, satisfaction with nurse-patient relationships, and certain types of nursing care delivery systems. The Nurse-Perceived Reciprocity Scale measures reciprocity from a nursing perspective, using items identified by nurses as rewards in their interpersonal relationships with patients.

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CHAPTER ONE

Introduction to the Study

Introduction and Background

Nursing is generally presented as a discipline which helps people. The practice of nursing involves client-centered interpersonal activity, with the principal focus being "interpersonal interactions occurring between nurse and client" (Chinn & Jacobs, 1987, p. 41). It is within these interactions that "the work which the patient does, or must do to contribute toward the solution of the patient's health problems, is accomplished" (Peplau, 1992, p. 13). It is both appealing and logical to explore one aspect of interpersonal interaction, reciprocity, in nurse-patient relationships.

Application of the concept of reciprocity and Social Exchange Theory to nurse-patient relationships predicts that nurses perceiving relationships with patients as reciprocal are happier with those relationships. Similarly, nurses perceiving their relationships as non-reciprocal have low interpersonal satisfaction. Extension of this theory suggests that nurses with high interpersonal satisfaction are more likely to continue in nurse-patient relationships, and nurses with low interpersonal satisfaction are less likely to continue in nurse-patient relationships. Conceivably, nurses with low interpersonal satisfaction distance themselves, or even remove themselves completely, from patient relationships.

A review of the literature supports that work environment also influences nurses' satisfaction with their work. It follows logically that factors affecting work satisfaction may also affect nurses' interpersonal satisfaction. Studies that link nurse-patient relationships and work satisfaction (Ullrich, 1978; Lobb & Reid, 1987; Cohen-Mansfield, 1989; Seymour & Buscherhof, 1991) or job stress (Goeppinger, 1983) provide empirical support for this relationship. Further support is provided by authors who document the importance of the relationship between an ancillary nursing caregiver and the client (Browner, 1987; Caudill & Patrick, 1989; Cohen-Mansfield). Work satisfaction literature also links nurses' work satisfaction with quality patient care (Wandelt, Hales, Merwin, Olsson, Pierce, and Widdowson, 1980; Texas Nurses Foundation, 1988; Kramer, Schmalenberg, & Hafner, 1989; Seymour & Buscherhof, 1991).

Purpose

The purpose of this study was to examine self-reports of nurse-perceived reciprocity in the nurse-patient relationships of practicing public health nurses in selected public health settings in Texas. Selected personal demographic, professional, and contextual factors were examined for their relationship to nurse-perceived reciprocity.

Background and Significance of the Study

Background of the Study

Within the last few years, this country once again experienced a national shortage of nurses (Wandelt, Hales, Merwin, Olsson, Pierce, & Widdowson, 1980; Prescott, 1987; Kramer & Schmalenberg, 1988a; Mackey, 1988; Texas Nurses Foundation, 1988; Donley & Flaherty, 1989; Helmer & McKnight, 1989; Minnick, Roberts, Curran, & Ginzberg, 1989; Kramer, Schmalenberg, & Hafner, 1989; Grobe, Becker, Dobal, Jordan, & Brown, 1991; Seymour & Buscherhof, 1991). The shortage emphasized the need to increase numbers of nurses, develop and implement cogent recruitment and retention strategies, and utilize nurses effectively.

Even more recently, efforts at cost containment are dramatically changing health care in the United States. Both the future of health care in this country, and the final consequences of health care changes upon the roles of nurses, are currently unknown. However, historical review of health care in this country suggests that the need for nurses will grow as technology and knowledge grow (Donahue, 1985; Kalisch & Kalisch, 1986), though the ways in which nurses provide care may change enormously.

It is clear that having adequate numbers of nursing professionals is only one component of meeting institutions' and the public's needs for nursing care. Another critical component is providing a work environment that stimulates productivity, enhances work and career

satisfaction, promotes nursing stability (retention), and, ultimately, enhances the health and satisfaction of the public.

For many years, those studying nursing turnover have focused on work satisfaction as one important component of nursing retention (Everly & Falcione, 1976; Wandelt, Hales, Merwin, Olsson, Pierce, & Widdowson, 1980; Hall, VonEndt, & Parker, 1981; Lucas, McCreight, Watkins, & Long, 1985; Blegen & Mueller, 1987; Prestholdt, Lane, & Mathews, 1988; Roedel & Nystrom, 1988; Butler & Parsons, 1989; Parasuraman, 1989; Kramer, Schmalenberg, & Hafner, 1989; Mottaz, 1988; Grobe, Becker, Dobal, Jordan, & Brown, 1991; Koelbel, Fuller, & Misener, 1991; Seymour & Buscherhof, 1991; Juhl, Dunkin, Stratton, Geller, & Ludtke, 1993). Work satisfaction has been a topic of scholarly interest for more than 70 years (Slavitt, Stamps, Piedmonte, & Haase, 1978). Thousands of publications have focused on work satisfaction (Khaleque, 1984; Mottaz, 1985, 1987), and many studies have focused on the work satisfaction of nurses (Mottaz, 1985, 1988).

Since Frederick Taylor's 1911 publication, The Principles of Scientific Management (cited in Stamps & Piedmonte, 1986), and Hoppock's 1935 work satisfaction monograph (cited in Vroom, 1964 and Khaleque, 1984), various research studies have linked work satisfaction with a variety of organizational or individual variables (Stamps & Piedmonte). Although much of the initial research focused on workers in business or industry, more recently the research has broadened to include healthcare workers (Mottaz, 1988). Nurses have been a

frequently studied healthcare group (Slavitt, Stamps, Piedmont, & Haase; Stamps & Piedmont; Mottaz, 1985, 1988).

Despite much investigation, studies of nurses' work satisfaction have appeared inconclusive (Mottaz, 1985, 1988) or have been criticized for lack of agreement about work satisfaction definitions, consistent outcome measures, standardized measurement tools, and theoretical frameworks (Stamps & Piedmont, 1986). Studies have also been criticized for lack of predictive value and low explanation of variance (Kramer, Schmalenberg, & Hafner, 1989). Yet another criticism has revolved around the appropriateness of applying non-nursing theoretical frameworks to nurses (Hinshaw & Atwood, 1983).

Additionally, outcome measures for work satisfaction have also varied and have included concepts such as turnover, productivity, quality of patient care, absenteeism, and burnout. However, "despite the varying approaches, theories, and methodological criticisms, the studies have produced some fairly consistent results" (Kramer, Schmalenberg, & Hafner, 1989, p. 14) about factors affecting nurses' work satisfaction. Most studies contain references to quality care and nurse-patient interaction.

In particular, the "Magnet Hospitals" Study, conducted by the American Academy of Nursing's Task Force on Nursing Practice in Hospitals, deserves mention. The Magnet Hospitals are credited with having identified environmental factors "instrumental in producing staff nurse job satisfaction and quality nursing care, and hence nurse

attraction and retention" (Kramer, Schmalenberg, & Hafner, 1989).

These environmental factors include the following elements: maximal opportunities for the practice of professional nursing via primary nursing, availability of resource personnel and consultation, and autonomy; administrative support; decentralization; institutional support for participation in staff development or formal education activities; sufficient staffing; attractive benefits, including flexible scheduling and competitive salaries; and a positive image of nurses within or outside the employing institution (Kramer, Schmalenberg, & Hafner).

The Magnet Hospitals Study identified increased job satisfaction among nurses in organizations that created organizational conditions conducive to "excellence" (Kramer & Schmalenberg, 1988a; Kramer & Schmalenberg, 1988b; Kramer, Schmalenberg, & Hafner, 1989).

Interestingly, this concept of excellence has centered around the delivery of quality patient care. From these hospitals comes the presumption that job satisfaction and quality nursing care either followed each other or coexisted (Kramer, Schmalenberg, and Hafner). Importantly for nurses, quality of care implies opportunities to interact effectively with patients.

In a landmark study of Texas nurses, Wandelt, Hales, Merwin, Olsson, Pierce, & Widdowson (1980) described nurses' dissatisfaction with the quality of patient care as a major factor in nurses leaving nursing or being inactive in nursing. In this study, nurses' dissatisfaction was expressed as concerns for the following: patients' safety and adequacy of care; the nurses' own integrity and performance; and

nurses' opportunities to provide nursing care and interact or be with patients.

Another study suggesting a link between nurses' work satisfaction, quality of patient care, and the importance of nurse-patient interactions was conducted at the Center for Nursing Research at the University of Colorado. This study examined responses from 252 Registered Nurse members of the American Nurses' Association, who were asked to describe factors influencing their career course (Seymour & Buscherhof, 1991). Analysis of participants' responses revealed dominant themes of dissatisfaction and satisfaction with work (Seymour & Buscherhof). Negative working conditions contributed to perceived overload, burnout, exhaustion, and stress (Seymour & Buscherhof). Many participants reported feeling thwarted by the working conditions under which they were expected to perform -- "conditions which undermined their professional standards and objectives, as well as their work satisfaction and expectations for professional achievement" (Seymour & Buscherhof, p. 122). Almost ten percent of the respondents also were concerned that "nursing may be losing sight of the patient as its central focus" (Seymour & Buscherhof, p. 122), implying the lack of opportunities to interact with the patients in their care.

In this same study, Seymour and Buscherhof (1991) also describe the costs of nursing when they list sources of respondents' dissatisfaction. Some were severe enough that 19 respondents had left or were considering leaving nursing. The authors classified participants'

dissatisfaction, perceived as most likely resulting in nurses leaving nursing, into nine ranked categories: 1) structural problems with work; 2) dissatisfaction with benefits and pay; 3) issues of gender; 4) difficulties with nurse colleagues; 5) difficulties with nursing education; 6) lack of appreciation, recognition, respect; 7) family issues; 8) criticism of the profession of nursing; and 9) issues of autonomy, control, independence.

The same concern with quality patient care is reflected in the Fleishman-Hillard, Inc., study, commissioned by the American Nurses' Association in 1991. Ninety eight percent of nurse respondents ranked quality of patient care as their most important job issue (cited in Grobe, Becker, Dobal, Jordan, & Brown, 1991). Other concerns (ranked in order) included: treatment as a professional; a safe environment in which to work; being allowed to do what they had been taught to do; adequate staffing; choice regarding hours of work; desire for respect from hospital personnel; professional development; desire for respect from physicians; and take-home pay.

These studies have consistently recognized the importance of excellent or quality care for patients. Of importance is the fact that interpersonal interaction with the patient is a fundamental aspect of that quality of care. Reciprocity, it is proposed, is a core ingredient in that important interactional part of nursing. However, working conditions greatly affect nurses' opportunities to reap the rewards available from these reciprocal nurse-patient relationships.

Significance of the Study

Reciprocity is a very important concept in interpersonal relations (Van Baal, 1975) and has been documented as an important factor in the establishment and continuation of social relationships (Bruhn & Phillips, 1984; Tilden & Galyen, 1987). Reciprocity is an important concept in social support (Cobb, 1976; Mitchell & Trickett, 1980; Kahn & Antonucci, 1980; Bruhn & Phillips, 1984; Kane, 1988; Kahn, Wethington, & Ingersoll-Dayton, 1987; Tilden & Galyen, 1987). Reciprocity has been cited as a norm in the concept of nurturance (Greenberg-Edelstein, 1986), with studies examining its reciprocal flow between nurses and patients (Geissler, 1990A; 1990B). Reciprocity has been identified as an important concept in the literature on caring (Leininger, 1977; Marck, 1990; Diekelmann, 1991; Caine, 1991).

Because the practice of nursing involves interpersonal relationships that are central to care provision, it is appropriate to study reciprocity in nurse-patient relationships, especially since interactions with patients have been identified as important factors in nurses' work satisfaction and satisfaction with nursing as a career (Ulrich, 1978; Cohen-Mansfield, 1989; Seymour & Buscherhof, 1991). Studies of satisfaction with interpersonal relationships between nurses and patients may provide information leading to long-term solutions to nursing shortages, nurses' work or career satisfaction, improving quality of nursing care, increasing nurses' productivity, and even designing nurses' work environments. Such studies may also contribute to improving

patient outcomes, especially in areas related to quality of nursing care and client satisfaction.

This study of nurse-perceived reciprocity in nurse-patient relationships has theoretical, practical, and methodological significance. Theoretically, this study will apply the concept of reciprocity and Social Exchange Theory, developed in other fields, to nurses. Similarly, the study will examine nurses' satisfaction with their interpersonal relationships with patients from a nursing perspective, rather than from a management perspective. Findings that support the importance and applicability of reciprocity and Social Exchange Theory to nurses' satisfaction with their interpersonal relationships with patients may alter future work satisfaction studies.

The practical significance of this study involves recommendations to suggest ways to increase nurses' satisfaction with nurse-patient relationships. Such findings could influence how nurses manage and improve their interpersonal exchanges with patients. Additionally, findings may indicate environmental considerations that could have a positive impact on nursing retention, productivity, and quality of care, or even on improving patient outcomes.

Methodologically, findings may suggest new concepts and tools for inclusion in work satisfaction studies of nursing and other helping professions. This study will develop and test a reciprocity instrument for assessing nurse-patient relationships. No such tool currently exists, though Tildens's social support tool, the Interpersonal Relationship

Inventory, intended for study of social (versus professional-client) relationships, has a reciprocity sub-scale and uses Social Exchange Theory as a theoretical base (Tilden & Galyen, 1987).

Statement of the Problem

A review of the literature supports that the interpersonal relationship between nurses and their patients is an integral part of quality nursing care and practice excellence. Because reciprocity is an important concept that may explain nurses' satisfaction, studies are needed that apply this body of knowledge to nursing. This study will assess the impact of selected personal, demographic, professional, and contextual variables upon nurse-perceived reciprocity.

Research Question

This study is guided by the following research question:
What are the relationships between selected personal, demographic, professional, and contextual variables and nurse-perceived reciprocity in nurse-patient relationships?

It is hypothesized that there is a positive relationship between selected personal, demographic, professional, and contextual variables and nurse-perceived reciprocity.

Theoretical Framework

This study utilizes the concept of reciprocity and Social Exchange Theory within a nursing paradigm as a theoretical framework. Based on Social Exchange Theory, relationships between nurses and patients are viewed as exchanges in which there are both costs and rewards. Reciprocity is the perceived balance or near-balance of costs and rewards in these relationships, a balance essential to satisfaction with those relationships (Van Baal, 1975; Homans, 1974).

Because nurses value relationships with patients (Meleis, 1985; Chinn & Jacobs, 1987; Beeber, Anderson, & Sills, 1990; Seymour & Buscherhof, 1991), and because people tend to participate in relationships that are rewarding to them (Befu, 1980; Nye, 1982; Stoller, 1985; Passuth & Bengtson, 1988), use of Social Exchange Theory within a nursing paradigm supports that perceived reciprocity in nurse-patient relationships increases nurses' satisfaction with those relationships. As nurses in reciprocal nurse-patient relationships would perceive more rewards in those relationships, it is logical that nurses in these reciprocal relationships would perceive their work as more satisfying.

In Social Exchange Theory, all individuals are involved in ongoing social transactions called exchanges (Blau, 1964; Homans, 1974; Passuth & Bengtson, 1988). Human interactions are directed by norms based on individual or group perceptions of rewards or costs (Blau; Homans; Nye, 1982; White & Green, 1989). Social exchanges are more or less

voluntary, and people tend to participate in exchanges that provide rewards and withdraw from those that result in costs (Blau; Nye, Stoller, 1985). Social exchanges continue because interactions are perceived as rewarding (Dowd, 1975). Nurse-patient relationships, while comprising more than merely social relationships, nevertheless build on these social relationships.

In Social Exchange Theory, rewards may be material or nonmaterial, intrinsic or extrinsic (Dowd, 1975, 1978). Rewards include "all things physical, social, and psychological that an individual would choose in the absence of added costs" (Nye, 1982, p. 14). Costs include punishments or rewards foregone (Homans, 1974; Nye). Social scientists Foa and Foa (1980) have suggested six categories of interpersonal behaviors that may be viewed as exchanges: love, status, information, money, goods, and services. Of these, status, information, and services are directly applicable to nurse-patient relationships. At times, love, in some form of liking or appreciation, and goods may also be applicable.

A basic underlying Social Exchange principle is that individuals who provide "rewarding services" (Blau, 1964, p. 89) to others incur obligations from those receiving those services; these obligations can be discharged only by the other(s) in turn providing some rewarding service. While this may be an inherent tendency in social exchange (Blau), it may also be based upon the cultural norm of reciprocity (Mauss, 1967; Homans, 1974; Nye, 1982). Reciprocity is defined as "doing something or rendering something in return for a good received, an act committed, or

an evil inflicted" (Van Baal, 1975, p. 11). This definition connotes an exchange of almost exact equality and equivalence (Van Baal).

Reciprocity has also been described as an obligation to give, receive, and repay (Mauss). Reciprocity is a very important concept in Social Exchange Theory (Homans; Ekeh, 1974; Chadwick-Jones, 1976; Nye), and in nursing care provision.

As caregivers, nurses frequently give (information, attention, physical care, emotional support, medications or treatments, and so forth) to their clients. These nursing services generally fit into Foa and Foa's (1980) categories of interpersonal exchange. Additionally, nurses' care or services, like some other professional services, are not specified in great detail in employment contracts, and the manner in which nurses provide care or services and the kinds and details of services provided are seldom specified beyond expectations of meeting generic outcome criteria or professional standards. Thus, although nurses are paid for their work, their services are closer to representing social exchanges, not economic exchanges. This is in keeping with Blau's (1964) statement that "Economic transactions that involve services generally are somewhat closer to social exchanges than the pure type of economic exchange of commodities or products services" (p. 93).

This study, applying Social Exchange Theory to interactions between nurses and patients, proposes that giving is reciprocal – that nurses and patients both give to and receive from each other. In the social exchange model, nurses would expect exchanges or rewards

equal to or greater than the rewarding services they are providing (or the costs nurses incur in providing rewarding services to others). Some rewards would come directly from patients and their families. Other rewards could come from the environment (i.e., from peers, superiors, the public, etc.).

In Social Exchange Theory, people feel satisfied if they receive what they perceive they deserve, angry if they receive less than they perceive they deserve, and guilty if they receive more than they perceive they deserve (Nye, 1982). Additionally, individuals who value what they are receiving from another are motivated to provide even more services, in order to get more from the other and avoid indebtedness to the other (Blau, 1964). This aspect of Social Exchange Theory, applied to nurses, would support that nurses would feel more satisfied with rewarding exchanges with patients than with non-rewarding exchanges. Therefore, nurses who receive rewards from patients would be motivated to continue providing services to that patient or other patients.

The concept of reciprocity is critical to nurse-patient relationships, not only for its effect upon nurses' willingness to engage in and continue relationships with patients, but also with patients' willingness to engage in and continue relationships with nurses. From the viewpoint of the "other" in Social Exchange Theory, the patient (in this case), in reciprocating rewards to the nurse, would discharge the obligations that reciprocity requires, would maintain self-esteem and autonomy, and would be more satisfied with the relationship (Lee, 1985). Thus, the

patient would also be more willing to remain engaged in the relationship and the interpersonal transactions in the nursing care situation.

Conceivably, nurses' satisfaction with reciprocal interpersonal relationships is impacted by factors affecting satisfaction with the work itself. For instance, the rewards or costs of interpersonal interactions may be affected by work environment factors. One such factor, workload, has been linked with work satisfaction (Blegen & Mueller, 1987; Dolan, 1987). A recent study linking physical and emotional exhaustion also suggests that heavy workloads diminish the personal satisfaction nurses derive from working with patients (Lobb & Reid, 1987). A heavy workload could prevent nurses from spending sufficient time interacting with patients and giving what nurses consider quality care, diminishing relationship satisfaction. From a Social Exchange perspective, nurses who value reciprocal relationships with patients would feel more work satisfaction in a work environment that supports development of rewarding, reciprocal relationships with patients.

Personal factors used in this study include nurse-rated degree of satisfaction with nursing as a career and nurse-rated degree of satisfaction with nurse-patient relationships. Dissatisfaction with nursing as a career has been linked with leaving nursing (Seymour & Buscherhof, 1991). The importance of satisfactory nurse-patient relationships has also been documented in work satisfaction literature (Seymour & Bushcherhof).

A demographic factor used in this study is age. This factor has been consistently examined as important in work satisfaction literature (Stamps & Piedmonte, 1986).

Professional factors used in this study include years of nursing experience (number of years worked as a nurse since completion of basic nursing program) and years of public health nursing experience. (These factors were selected because of the theoretical framework.)

In this study, selected work environment factors are viewed as contextual factors, influencing nurse-perceived reciprocity in nurse-patient relationships. These factors are based upon a review of the literature and include: work satisfaction (using the total score of a modified version of the Index of Work Satisfaction scale), tenure or number of years with current employer, satisfaction with workload, and type of nursing care delivery system (case management, primary nursing, team, functional, or other). Workload (Blegen & Mueller, 1987) has been shown to be significant in nurses' work satisfaction. Studies comparing types of nursing care delivery systems (typically, primary nursing versus team nursing) have been confounded by many theoretical and methodological problems, including absence of an operational definition of primary nursing, unclear theoretical base, and lack of adequate psychometric instrumentation (Giovanetti, 1986). However, some studies have noted a positive relationship between primary nursing and work satisfaction (Blenkarn, D'Amico, & Virtue, 1988; Reed, 1988).

Definitions

Patient or Client - "the recipient of nursing actions who may be an individual, a family, a community, or a particular group" (Fawcett, 1989, p. 6). The words patient or client are used interchangeably and refer to the individual recipient of nursing services.

Nurse - a Registered Nurse licensed to practice in Texas (or elsewhere in the United States) by an appropriate licensing authority.

Public Health Nurse - a Registered Nurse employed by an official public health agency. [While, ideally, the Public Health Nurse would hold a minimum of a Bachelor's degree in Nursing and would have received specific education in public health nursing (Anderson & McFarlane, 1988), this study recognizes that public health agencies may not require the Baccalaureate as a criterion for nurses employed as public health nurses. Therefore, the definition of public health nurse used in this study is based on current employment, and does not specify a Bachelor's degree nor formal academic public health nursing education.]

Nurse - Patient Relationship - the interpersonal relationship existing between a Registered Nurse and a patient/client; an interaction between nurse and patient in which "the work which the patient does, or must do to contribute toward the solution of the patient's health problems, is accomplished" (Peplau, 1992, p. 13).

Reciprocity - a norm that holds that "If a person gives something to another, the other is expected to return something of equal value [in exchange]" (Homans, 1974, p. 217); "doing or rendering something in return for a good received, an acted committed, or an evil inflicted . . . an exchange . . . which . . . has the connotation of approximate equivalence and equality" (Van Baal, 1975, p. 11). For the purposes of this study, reciprocity is defined as a nurse-perceived balance of internal or external costs and rewards in nurse-patient relationships: the nurse's perception that the nurse is getting as much from the nurse-patient relationship as the nurse is giving. Reciprocity will be operationalized by scores on the Nurse-Perceived Reciprocity Scale (N-PRS), a scaled instrument developed by the researcher. The N-PRS is a 30 item instrument, using a 7-point Likert scale, with lower numbers representing disagreement, the mid-point representing indecision, and higher numbers representing agreement. Psychometric information about this scale is found in Chapter Three.

Work Satisfaction - "a fluctuating attitudinal state of an individual . . . derived from subjective perceptions of situational factors" (Hall, VonEndt, & Parker, 1981, p. 30); "the balance between what one expects or wants and what one receives" (Hall et al., p. 30). For the purposes of this study, work satisfaction is operationalized by the total scores received on a modified version of the Index of

Work Satisfaction Scale (IWS), a scaled instrument developed by Stamps and Piedmonte. Further information about this scale is found in Chapter Three. The IWS contains six subscales, definitions of which are as follows:

1. Pay - fringe benefits and monetary compensation for work performed, operationalized by a composite score of six items on the IWS instrument (Stamps & Piedmonte, 1986);
2. Autonomy - Permissible or required work-related independence, freedom, and initiative used for daily work activities, operationalized by a composite score of eight items on the IWS instrument (Stamps & Piedmonte, 1986);
3. Task Requirements - activities or tasks required as usual part of work, operationalized by a composite score of six items on the IWS instrument (Stamps & Piedmonte, 1986);
4. Organizational Policies - work-related nursing/organizational policies or procedures, operationalized by a composite score of seven items on the IWS instrument (Stamps & Piedmonte, 1986);
5. Interaction - available opportunities for informal or formal, professional or social contacts with others during work hours, operationalized by ten items on the IWS instrument (Stamps & Piedmonte, 1986);
6. Professional Status - General significance or importance of one's work, as viewed by self or others, operationalized by

a composite score of seven items on the IWS instrument
(Stamps & Piedmonte, 1986).

Satisfaction - "a positive affect which is experienced when a state is anticipated, attained, or recalled; an emotion in a general sense" (Ullrich, 1972, p. 16).

Data Sheet - A tool designed by the researcher to collect selected personal, demographic, professional, and contextual data. These include Age, Gender, Race/Ethnicity, Marital Status, Initial Nursing Preparation, Highest Level of Education Achieved, Number of Years of Nursing Experience, Number of Years of Public Health Nursing Experience, Tenure, Type of Nursing Care Delivery System Used, Satisfaction with Interpersonal Relationships with Clients, Satisfaction with Choice of Nursing as a Career, and Satisfaction with Workload.

Age - chronological years; operationalized by one item on the Data Sheet.

Marital Status - whether participant is married or not married; operationalized by one item on the Data Sheet.

Initial Nursing Preparation - Type of educational program in which participant received initial nursing education; operationalized by one item on the Data Sheet.

Highest Level of Education - highest college or university degree completed; operationalized by one item on the Data Sheet.

Years of Nursing Experience - number of years worked as a nurse since completion of basic nursing program; operationalized by one item on the Data Sheet.

Years of Community Health Nursing Experience - number of years worked in community health nursing since completion of basic nursing program; operationalized by one item on the Data Sheet.

Tenure/Number of Years with Current Employer - length of employment with current employer; operationalized by one item on the Data Sheet.

Type of Nursing Care Delivery System - whether the nurse-participant functions primarily in a Case Management, Primary Care, Team, Functional, or Other type of nursing care delivery system; operationalized by one item on the Data Sheet.

Satisfaction with Nurse-Patient Relationship - a nurse-participant's self-rating of satisfaction with interpersonal relationships with patients; operationalized by one item on the Data Sheet. This item uses a 7-point Likert scale, with low numbers representing dissatisfaction, the midpoint indicating an undecided or neutral position, and high numbers indicating satisfaction.

Career Satisfaction - a nurse-participant's self-rating of satisfaction with the nurse's choice of nursing as a career; operationalized by one item on the Data Sheet. This item uses a 7-point Likert scale, with low numbers indicating dissatisfaction, the midpoint indicating

an undecided or neutral position, and high numbers indicating satisfaction.

Satisfaction with Work Load - nurse-participant's self-rating of satisfaction with usual work load; operationalized by one item on the Data Sheet. This item uses a 7-point Likert scale, with low numbers indicating dissatisfaction, the midpoint indicating an undecided or neutral position, and high numbers indicating satisfaction.

Assumptions

1. Social Exchange Theory applies to nurse-patient relationships, as it does to other human relationships.
2. Nurses expect reciprocal relationships with their patients: the expectation of reciprocity may apply to individual patient relationships or be a sum of relationships.
3. Development of reciprocal nurse-patient relationships is affected by contextual, demographic, personal, and professional factors.

Limitations

1. The study used a convenience sample. Therefore, the sample may not be truly representative of the total Registered Nurse

population, nor even of Public Health Nurses. Thus, findings may not be generalized.

2. Nurse subjects who agree to participate in this study may have different characteristics than those choosing not to participate.
3. Assessment of nurse-perceived reciprocity will depend upon the nurse subjects' willingness to be truthful in their responses.
4. This study attempts to capture a composite "snapshot" of dynamic concepts: nurse-patient relationships, nurse-perceived reciprocity, nurse-perceived satisfaction with nurse-patient relationships, nurse-perceived work satisfaction, and nurse-perceived career satisfaction.

Summary

This chapter has provided an introduction, background, purpose, significance, statement of the problem, research question, hypothesis, theoretical framework, definitions, assumptions, and limitation of this study.

CHAPTER TWO

Review of the Literature

Introduction

This chapter examines theoretical and empirical literature related to key concepts in this study. Major concepts examined are in three sections: 1) reciprocity and Social Exchange Theory; 2) the nurse-patient relationship (including interpersonal relationships, caring, and evidence of reciprocity); and 3) work satisfaction.

If reciprocity is indeed integral to the establishment and continuation of human social relationships (Bruhn & Phillips, 1984; Tilden & Galyen, 1987), and is a basic principle of desired or prescribed behavior for interpersonal relationships (Van Baal, 1975), this study then presumes reciprocity to apply to relationships between nurses and patients and their families. Based upon a review of the literature and analysis of reciprocity's defining and critical attributes, reciprocity is defined in this study as a nurse-perceived balance of internal or external costs and rewards in nurse-patient relationships: the nurse's perception that the nurse is getting as much from nurse-patient relationships as the nurse is giving. Reciprocity is viewed as a dynamic process varying over time. Rewards and costs are perceived as occurring within individual patient/family transactions (restricted exchanges) or within more general and complex transactions (generalized exchanges).

Social exchange theory would predict that nurses who perceive low reciprocity in their relationships with patients would have low interpersonal satisfaction with those relationships; nurses who perceive high reciprocity in their relationships with patients would have high interpersonal relationships with patients. Extension of this prediction to nurses' work settings would suggest that nurses with high perceptions of reciprocity in nurse-patient relationships would be more satisfied with their work, and nurses with low perceptions of reciprocity would be less satisfied with their work.

Because work satisfaction studies have provided empirical evidence that nurses greatly value their relationships with patients, this study proposes that work satisfaction variables may be related to nurse-perceived reciprocity. Factors affecting work satisfaction/dissatisfaction appear conceptually similar to the balance of rewards and costs proposed by reciprocity or the costs, rewards, and profits concepts of Social Exchange Theory. From this theoretical perspective, work satisfaction may be viewed as a balance of rewards (satisfactions) and costs (dissatisfactions), or as the profit remaining when rewards exceed costs. Both theoretical and empirical support for these links are provided next.

Reciprocity and Social Exchange Theory

Background

Reciprocity is a norm (Gouldner, 1960; Blau, 1964; Mauss, 1967; Homans, 1974; Chadwick-Jones, 1976; Befu, 1980; Nye, 1982) of interpersonal behavior or relationships that implies a usually symmetrical or equivalent exchange (Van Baal, 1975; Chadwick-Jones). Reciprocity is predicated upon a generalized expectation of reciprocal action, regardless of what is given or repaid (Befu). Reciprocity, an important concept, has been studied and described at length in its own right and as an important concept in Social Exchange and other theories.

Social Exchange Theory is based on the premise that all individuals are involved in ongoing social transactions called exchanges (Blau, 1964; Homans, 1974; Passuth & Bengtson, 1988). Blau has described several basic principles underlying the concept of exchange: 1) a person who provides rewarding services to someone, obligates the recipient of those services to reciprocate; 2) reciprocation discharges the obligation; and 3) if both persons in the exchange value the services rendered by the other, each is more likely to increase services to the other, in order to get more services and to avoid being under obligation or indebted to the other. Essentially the theory proposes that people tend to participate in relationships that are rewarding -- that is, in which the rewards are equal to or greater than the costs (Blau; Homans). Exchange rules, though supported and reinforced by the norm of

reciprocity, "vary precisely on the basis of what is to be exchanged" (Befu, p. 203).

Reciprocity: An Overview

Reciprocity is a major factor in both establishment and continuation of human social relationships (Bruhn & Phillips, 1984; Tilden & Galyen, 1987). Reciprocity is "the basic principle of prescribed or desired behavior in interpersonal relationships" (Van Baal, 1975, p. 11) without which "social life would appear to be impossible" (Nye, 1982, p. 18). Perceived absence or imbalance of reciprocity is viewed as wrongdoing (Van Baal). Reciprocity appears to be a universal phenomenon (Gouldner, 1960; Van Baal), thought to occur in some form in every society (Befu, 1980), though no society exists in which "complete, balanced reciprocity prevails throughout" (Van Baal, p. 12). Reciprocity is so ingrained in daily life that "we generally assume its operations without stopping to think about it" (Befu, p. 197).

A review of the literature suggests that the concept of reciprocity has long been known. Writings (cited by Greenberg, 1980) of Democritus, in the fourth century B.C., and Seneca, in the eighth century B.C., suggest a cultural more of giving and receiving, with attendant expectations of equivalence or equality in the exchange, that is quite likely basic to the human condition.

The phenomenon of reciprocity is described in anthropological studies in the early 1900s by Westermarck and Rivers (Van Baal, 1975).

Many anthropologists contributed to the development of the concept of reciprocity, and some key contributors are discussed below.

Malinowski's Contributions to Reciprocity.

Malinowski's (1922) publication, Argonauts of the Western Pacific, is an account of his fieldwork with Trobriand Islanders. This work is a description of gifts, payments, and business transactions among Trobriand Islanders and details the importance of reciprocity and reciprocal relationships in this culture. Malinowski describes the "deep tendency to create social ties through exchange of gifts" (p. 175), and theorizes that "giving for the sake of giving" (p. 175) is universal to all primitive cultures. Malinowski also categorizes gifts, in terms of economic principles and sociologic relationships, describing explicitly what kind and value of gift is given to whom.

Mauss's Contributions to Reciprocity.

Mauss elevated reciprocity to a principal position in anthropology (Pryor & Graburn, 1980), publishing the first substantive theoretical work on this topic (Befu, 1980). In this publication, The Gift, Mauss (1925/1967) reviews his own and other anthropological studies of the phenomenon of gift exchange as practiced by archaic or primitive societies.

Mauss (1925/1967) gives numerous examples demonstrating the existence of rules for gift giving, receiving, and repayment in multiple

contemporary societies. Mauss describes "prestations" (p. 3) and "counterprestations" (p. 3), which are gifts given and repaid. Prestations are described as gifts which appear to be "voluntary, disinterested and spontaneous, but are in fact obligatory and interested" (Mauss, p. 1). While the form usually presented is that of a generously offered gift, Mauss asserts, "accompanying behavior is formal pretense and social deception, while the transaction itself is based on obligation and self-interest" (p. 1). Violations of this obligation are met with "private or open warfare (Mauss, p. 3).

Total prestation is considered so obligatory because the norm carries with it the belief that the giver is giving away a part of his substance and that the recipient is accepting a part of the giver's "spiritual essence" (Mauss, 1925/1967, p. 10). It is believed dangerous to keep the gift because it "comes morally, physically, and spiritually from a person" (Mauss, p. 10). The gift is viewed magically as alive, often personified, and the recipient actively seeks an equivalent gift to return to the giver (Mauss). Total prestations include three equally obligatory components: giving, receiving, and repaying gifts (Mauss).

Exchanged gifts are not always tangible -- that is, not always goods, property, or items of economic value (Mauss, 1925/1967). Obligatory gift exchange includes foods, feasts, dances, entertainment, courtesies, military assistance, cultural rituals, charms, women or children, services and labor, land, rank, religious office, and "fairs in

which the market is but one element and the circulation of wealth but one part of a wide and enduring contract" (Mauss, p. 3).

Gifts to gods, dead spirits, natural objects, and animals are part of many primitive cultures (Mauss, 1925/1967). Mauss believes this is due to a cultural belief that the spirits of the gods and of the dead are the "real owners of the world's wealth" (p. 13), from whom one has to buy and who must be paid. In a preliminary theory of alms-giving, Mauss proposes that alms are the result of the perceived need to sacrifice in order to avoid the vengeance of gods and spirits: "the portion reserved for them and destroyed in useless sacrifice should go to the poor and the children" (p. 16).

Levi-Strauss's Contributions to Reciprocity.

Van Baal (1975) cites Levi-Strauss as a major contributor to the study of reciprocity, with the 1949 publication of his Les Structures Elementaires de la Parente (The Elementary Structures of Kinship). Levi-Strauss expanded upon and improved Mauss's work (Van Baal). Levi-Strauss argued that the rationale for reciprocal gift-giving was more social than economic, thus distinguishing gift-giving and trade (Van Baal).

Gouldner's Contributions to Reciprocity.

Unlike Mauss, Gouldner (1960) specifies only two conditions of the norm of reciprocity: "people should help those who have helped

them" (p. 171), and "people should not injure those who have helped them" (p. 171). Gouldner's concept of reciprocity only addresses repayment, not giving and receiving (Befu, 1980).

Gouldner's work is significant for recognizing a causal imbalance in reciprocity (Van Baal, 1975). Gouldner (1960) asserts that reciprocity is a universal phenomenon, but notes reciprocity may be conditional, depending on, for instance, the status of exchange participants, and the "meaning of equivalence" (p. 171-172) in the exchange. He further writes that equivalence may be viewed in "at least two forms, the sociological and psychodynamic significance of which are apt to be quite distinct" (p. 172).

Definitions of Reciprocity

Multiple sociopsychological definitions of reciprocity exist in the literature. Generally, reciprocity is characterized as interpersonal exchanges, customarily expected to be equivalent. Exchange items have included "valued tangibles or commodities" (Tilden & Galyen, 1987, p. 13), "goods and services" (Pryor & Graburn, 1980, p. 233), "favors" (Nye, 1982, p. 17), shared "resources ... and...[ability] to ask for and receive help" (Kane, 1988, p. 22), "mutual returns which are expected in interpersonal relationships, generally in a positive sense" (Chadwick-Jones, 1976, p. 243), "something in return for a good received, an act committed, or an evil inflicted" (Van Baal, 1975, p. 11), or "something of equal value" (Homans, 1974, p. 217). Reciprocity has been succinctly

defined as an "individual's perception of an equitable, alternating, interchange with another person, object, group or environment that is accompanied by a sense of complementarity" (Hagerty, Lynch-Sauer, Patusky, & Bouwsema, 1993, p. 294).

Although reciprocity is a norm of social behavior, some conditions may modify the norm, so that reciprocal behavior is either not expected or is anticipated to be less than the initial generosity. Citing Sahlins, Van Baal (1975) has identified three types of reciprocity, based upon "social distance" (p. 37): generalized, balanced, and negative.

Generalized reciprocity refers to altruistic transactions, such as may occur in families (Van Baal, 1975; Pryor & Graburn, 1980). It is typified by generosity and payment of tributes and kinship gifts, and it frequently benefits the indigent or sick (Van Baal). These transactions carry only a weak expectation of symmetrical exchange (Van Baal). In families, the obligation to give, exists; however, the obligation to receive or repay is less pronounced, and sustained beneficence may appear to be one-way for a long time (Pryor & Graburn). However, Leach (cited in Pryor & Graburn) asserts that the beneficence is "balanced by the flows of intangibles in the opposite direction" (p. 218).

Balanced reciprocity is "intratribal" (Van Baal, 1975, p. 37), and is more like trading or formal gift-giving, usually implying commensurate exchanges. Balanced reciprocity has also been likened to restricted exchange (Gillmore, 1987). Sahlins (cited in Pryor & Graburn, 1980)

asserts that these exchanges may be unequal at times but tend to balance eventually.

Negative reciprocity is "intertribal" (Van Baal, 1975, p. 37). Sahlins (cited in Pryor & Graburn, 1980) asserts that negative reciprocity exchanges tend to occur among enemies or strangers and are malicious or evil. Negative reciprocity is typified by chicanery, theft, or other mean-intentioned activities (Van Baal; Pryor & Graburn).

From a different perspective, Greenberg (1980) has described three types of reciprocity, based upon motivation to reduce indebtedness: utilitarian reciprocity, "attraction-mediated" (p. 15) reciprocity, and normative reciprocity. In utilitarian reciprocity, the recipient is motivated by hope that a benefactor will give future (external) rewards, presuming that a benefactor can indeed provide other rewards (Greenberg). In attraction-mediated reciprocity, the recipient is motivated by attraction to the benefactor, increasing the recipient's positive regard or concern for the benefactor and enhancing the recipient's enjoyment of the exchange (Greenberg). In normative reciprocity, the recipient is motivated by an internal force to comply with the reciprocity norm, based upon a felt obligation rather than external rewards (Greenberg).

Social Exchange Theory: An Overview

Social Exchange Theory is based on the premise that all individuals are involved in ongoing social transactions called exchanges

(Blau, 1964; Homans, 1974; Passuth & Bengtson, 1988). Blau summarizes principles underlying exchange concepts: benefactors who provide "rewarding services" (p. 89) to others obligate service recipients; service recipients discharge the obligations only through providing some return rewarding service.

Social exchanges are voluntary (Blau, 1964; Roloff, 1981) and are generally motivated by anticipated rewards (Blau; White & Green, 1989). Exchange participants evaluate both costs and rewards in their relationship transactions and tend to participate in exchanges which provide rewards equal to or greater than the costs (Nye, 1982). Exchanges continue because the transaction is perceived as rewarding or profitable (Blau; Dowd, 1975 & 1978).

In a historical perspective, Ekeh (1974) traces the first introduction of social exchange behaviors to Spencer's 1896 publication, The Principles of Sociology. This book makes a distinction between bartering for assistance and bartering for commodities, and also speaks of exchanges (Ekeh).

Ekeh (1974) identifies Frazer as the first social exchange theorist, whose early theory is delineated in the 1919 publication, Folklore in the Old Testament, Volume II. According to Ekeh, Frazer's book contains the following social exchange propositions: 1) social exchange processes were developed to supply a population's economic needs; 2) social institutions have been developed to support the processes of social exchange; 3) resultant social institutions have been shaped to

comply with and support needs of primary institutions; and 4) after their establishment in society, the processes of social exchange may be exploited by individual members of society seeking increased power and status. These early propositions are generally quite similar to those developed by later theorists (Ekeh).

Ekeh (1974) identifies Malinowski as the first social scientist to distinguish between social and economic exchanges and cites Mauss's 1926 publication, Essai sur le Don, as important in theory development. Although Mauss's book does not deal with "a general theory of social exchange" (Ekeh, p. 31), Ekeh comments on Mauss's fascination with the "morality" (pp. 30-31) of Malinowski's concepts of social exchange, particularly with the concept of reciprocity.

Yet another French social scientist interested in social exchange theory is Levi-Strauss (Ekeh, 1974; Van Baal, 1975). Levi-Strauss (1969) proposes that social exchange provides a critical function of societal integration. Van Baal credits Levi-Strauss with improving the primary implications of reciprocity and gift exchange by his 1949 publication, Les Structures Elementaires de la Parente (The Elementary Structures of Kinship).

Most frequently credited with the development of social exchange theory are Thibaut and Kelly, Emerson, Blau, and Homans. Chadwick-Jones (1976) refers to the "major contributions of a theory of social exchange" (p. 2) made by Thibaut and Kelly (in their 1959 classic, The Social Psychology of Groups), Homans (in his 1961 publication, Social

Behavior: Its Elementary Forms), and Blau (in his 1964 publication, Exchange and Power in Social Life). Chadwick-Jones terms Thibaut and Kelly "de facto exchange theorists" (p. 1), cites Homans as coming closest to development of formal social exchange theory, and credits Blau with calling attention to social contexts of exchange theory. Nye (1982) credits Thibaut and Kelly as being the first to publish "the principal concepts and basic assumptions" (p. 13) of social exchange theory, but adds that Homans was "working along very similar but not identical lines, independently of Thibaut and Kelly" (p. 13). Molm (1987) credits Emerson's power-dependence relations theory as being a major contributor to social exchange theory.

Because Homans' theory is most likely both the most controversial and best well-known (Roloff, 1981), its major propositions will be presented below. Blau's Social Exchange Theory will also be examined below, because much of his work follows (Blau, 1964) or extends Homan's theory (Roloff, 1981).

Homans' Social Exchange Theory.

Homans' theory of social exchange is built upon Skinner's operant conditioning theory (Homans, 1974; Roloff, 1981): people duplicate behaviors which are rewarded and avoid those which are punished (Roloff). The best method of exchange involves giving a behavior more valued by the other than costly to the self and receiving behavior more valued by the self than costly to the other (Homans).

Homans' (1974) identified five basic propositions. These are: 1) the success proposition; 2) the stimulus proposition; 3) the value proposition: punishment and reward; 4) the deprivation-satiation proposition; and 5) the aggression-approval proposition.

Homan's first proposition, the success proposition, states, the more often a person is rewarded for a particular action, the more inclined that person is to do that action (1974). His second proposition, the stimulus proposition, states, the more similar present stimuli are to past stimuli which led to action that was rewarded, the more likely a person is to do that or a similar action again. Homan's third proposition, the value proposition, states, the more a person values the reward for an action, the more likely that person is to do the action. The fourth proposition, the deprivation-satiation proposition, states, the value of a reward diminishes if a person has received the reward often in the recent past. Finally, Homan's fifth proposition, the aggression-approval proposition, has two parts. The first part states, a person who does not receive an expected reward, or is punished when a reward is expected, will feel angry. This person is more inclined to become aggressive, and the results of the aggression will become more valuable to that person. The second part states, a person who receives a reward greater than expected, or who is not punished when punishment is expected, will feel pleased. This person is more inclined to behave pleasantly and the results of the pleasant behavior will become more valuable to that person.

Blau's Social Exchange Theory.

Blau (1964) does not develop propositions, but the following are excerpts from his 1964 publication, Exchange and Power in Social Life:

1. Receiving "rewarding services" (p. 89) obligates the recipient to the benefactor. To discharge an obligation, the recipient must provide similar rewards to the initial benefactor.
2. Both the recipient and the benefactor are more likely to continue giving services if they value what they receive from the other. They desire to provide incentives for each other to increase the commodity and avoid becoming indebted to each other. (Blau notes, however, that increasing services usually results in decreasing service needs.)
3. Social exchange describes individuals' voluntary actions; actions are motivated by returns anticipated (and usually forthcoming).
4. While conforming to internalized standards does not lie within Blau's exchange definition, social expectations tend to require indirect exchanges.
5. Advantages of exchange transactions motivate social interaction, and exchange processes serve to regulate social interaction.
6. Reciprocity only strengthens and stabilizes inherent social exchange processes: "the fundamental starting mechanism of patterned social intercourse is found in the existential conditions of exchange" (p. 92), rather than in reciprocity.

7. Social exchanges are different from economic exchanges, in that social exchanges entail "unspecified obligations" (p. 93).
8. Social exchanges require trust that others will reciprocate (discharge) exchange obligations. Since social exchanges involve trust in reciprocation, the first need is to establish credibility as being trustworthy. Proving trustworthiness results in yet greater trust.
9. "Social bonds are fortified by remaining obligated to others as well as by trusting them to discharge their obligations for considerable periods" (p. 99).
10. There are six types of rewards which can be delineated by crossing spontaneous evaluations and calculated actions by intrinsic, extrinsic, and unilateral types of rewards. (These would result in spontaneous intrinsic, extrinsic, and unilateral rewards; and calculated intrinsic, extrinsic, and unilateral rewards.)
11. "Only social exchange tends to engender feelings of personal obligation, gratitude, and trust" (p. 94).
12. Failing to reciprocate brings about loss of trust and credit, ultimately bringing about elimination from further exchange and, generally, a loss of social status.
13. Providing others with overwhelming benefaction results in achievement of superiority over them.

Social versus Economic Exchanges

Blau (1964) has identified, and other scholars have elaborated upon, important distinctions between exchanges that are social from those which are economic, just as there are important differences in gift-giving and trade (Malinowski, 1922; Van Baal, 1974). According to Blau, the most critical and fundamental difference is that social exchanges involve unspecified obligations, whereas economic exchanges involve specified obligations. This different underpinning results in marked distinctions between these two kinds of human interactions. First, economic exchanges rely upon trust in the law and legally-enforced obligations (Blau, 1964; Roloff, 1981). In contrast, social exchanges are based upon trust and obligation (Blau).

Second, economic exchanges use formal, often written, contracts that specify exactly what quantities are being exchanged (Blau, 1964). This entails explicit specification of quantifiable, measurable obligations prior to the transaction (Blau; Roloff, 1981), usually with a time frame for repayment to occur (Roloff). Bargaining is allowed (Blau; Roloff), perhaps even expected. However, social exchange obligations are not specified in advance (Blau, Roloff). No time frame is given for repayment (Blau; Roloff).

Further, unlike economic exchanges, social exchange benefits or rewards are not specified in a particular exchange medium (Blau, 1964), making it difficult to quantify or measure the value of what has been given and should be repaid. Moreover, the value of what is exchanged

in a social exchange may be primarily symbolic, with the true reward being the mutual support underlying the actual exchange (Blau). Indeed, the value of the reward to the recipient depends upon the identity of the benefactor (Blau; Roloff, 1981), role relations between participants (Blau), group standards (Blau), the social situation (Blau) -- and, undoubtedly, the values of the recipient.

Additionally, bartering usually is not done in social exchanges (Blau, 1964; Chadwick-Jones, 1976; Roloff, 1981). Rather, social exchange obligations are generally understood, and relationships could be damaged by too-open negotiation (Roloff). In particular, Blau notes that social rewards involving personal evaluation, such as respect, approval, and attraction, cannot be bartered, because their significance depends upon spontaneity versus calculation. However, Blau notes that rewarding actions, such as social acceptance, instrumental services, and compliance are rewarding to the recipient even if the recipient is aware that the rewards are offered in exchange for anticipated paybacks.

Third, economic exchanges tend to be business-like or impersonal (Blau, 1964; Roloff, 1981). However, social exchanges tend to be personal, resulting in feelings of gratitude, trust, and personal obligation (Blau; Roloff). Social exchanges are subjective and involve "past experiences and future anticipations" (Chadwick-Jones, 1976, p. 394). It is possible, according to Blau, for economic exchanges to be more like social exchanges (for instance, generating gratitude) only

when a "social exchange...is superimposed upon the strictly economic exchange" (p. 94).

Fourth, rewards of social and economic exchanges may be differently affected by an exchange. Roloff (1981), using as examples love (social exchange) and money (economic exchange), notes some differences in how these commodities are exchanged. One difference is in outcome (Roloff). As an example, people who give away money usually have less money after a transaction; however, people who give love have as much or perhaps more after the transaction (Gouldner, 1960; Foa, 1971; Foa & Foa, 1980; Roloff). Information is another resource which may be given away without depleting this resource (Foa). Another difference involves the understanding of how to use the commodity (Roloff). For instance, people usually begin to learn how to give love in infancy, but do not usually begin to understand how to use money until they get older (Roloff). Yet another difference may be environmental factors which inhibit or encourage the exchange (Roloff). For instance, love usually requires time and understanding of the other person before it is exchanged; however, money may be quickly and impersonally exchanged in an economic exchange (Roloff).

Types of Social Exchange

Two basic types of social exchange have been identified: restricted exchange and generalized exchange. Restricted exchanges are exchanges between two persons (Levi-Strauss, 1969; Ekeh, 1974;

Roloff, 1981; Gillmore, 1987). Generalized exchanges are complex and involve exchanges in a cycle or chain of persons (Levi-Strauss; Ekeh; Roloff; Gillmore). Restricted and generalized exchanges function under contrasting principles (Roloff). Restricted exchanges are directed by efforts to keep exchanges generally equivalent, with participants thereby avoiding the indebtedness brought on by unequal exchanges (Roloff). Generalized exchanges operate more in a mode of trust or faith, specifying that those who help others will in return be helped, although perhaps by different persons (Roloff).

Rewards, Costs, and Profits

Homans (1974) defines rewards as outcomes of personal action that have positive value for the individual. Outcomes that have negative values are termed punishments or costs (Homans). Profits in a social exchange transaction are derived from subtracting costs from rewards (Homans; Dowd, 1975).

Rewards may be intrinsic or may be avoidance of punishment; punishments/costs may be intrinsic or involve withholding of rewards (Homans, 1974). Perceptions of outcomes as rewards or punishment/costs depends upon the values held by each individual (Homans).

Neither the benefits nor the obligations in social exchanges can be precisely measured (Blau, 1964). Blau divides rewards into

spontaneous evaluations and calculated actions and notes that rewards may be further broken into intrinsic, extrinsic, and unilateral categories.

Altruism and Social Exchange

Citing Berkowitz, Chadwick-Jones (1976) describes altruistic behavior as a "norm of social responsibility that holds, under certain circumstances, values should be given without return or anticipation of return" (p. 248). After reviewing works by Berkowitz and colleagues, Chadwick-Jones concludes that altruism is "at least an indirect kind of reciprocity" (p. 51). Adhering to a norm of social responsibility neither disproves that there may be some kind of return connected with altruistic behavior, nor eliminates carrying out a reciprocal obligation (Chadwick-Jones). Homans (1974) also argues that altruistic persons help themselves as they help others, noting that people with successful actions tend to repeat those actions, whether out of altruistic or egotistical motivation.

Reciprocal Interactions in Professional-Patient/Client Relationships

Social Exchange Theory does describe the possibility of reciprocal interactions occurring between professionals and patients or clients. Blau (1964) relates an example of a "social exchange . . . superimposed upon the strictly economic transaction" (p. 94). Using a bank loan as an example, Blau notes that an individual borrowing money from a bank does not feel "debt of gratitude" (p. 94) to the bank

or banker in a normal loan transaction. However, if the borrower receives a loan without adequate collateral, then the borrower does feel personally obligated (Blau). In this example, the bank loan becomes a social exchange, because it goes beyond the criteria for economic exchanges. The loan in this example implies a voluntary interaction by the banker, requiring trust and compassion, that exceeds, bypasses, or disregards the usual rules or regulations which exist for business transactions. The client in this situation knows the banker has done more than required -- thus the sense of obligation. This example, using Blau's statement that only social exchanges, and not economic exchanges, "engender feelings of personal obligation, gratitude, and trust....", extends what legitimately may be termed social exchanges, even when occurring in "business" settings.

Blau (1964) also notes that professional services or employment contracts generally do not specify the exact service obligations of the professional or employee. Moreover, economic transactions involving service are generally closer to social exchanges than the "pure type of economic exchange of commodities or products of services" (Blau, p. 93).

Both examples may be applied to describe what happens within nurse-patient relationships as social exchanges. First, nursing services often engender feelings in the patient of gratitude, obligation, or trust. Second, since the nurse-patient contract does not specify exactly what is to be provided in the way of nursing care, there will be times when

patients perceive receiving care that is something "more than" than expected.

Chadwick-Jones (1976) explores social exchange transactions occurring in "professional services" (p. 321). Citing Blau, he notes, "normative standards may forbid reciprocal social exchanges between a professional and a client" (p. 321). However, he states, social exchanges may still be given and received. First, the social exchange reward may be given to the professional by colleagues, who grant him or her respect and social approval for adhering to professional-standards. Second, society may reward professions with status or influence bestowed upon all members of that particular professional group to reward and control group members. Lastly, Chadwick-Jones suggests that there may be a direct exchange in professional-client relationships, whether it be only a minor social gesture, or "degree of deviance from the normative impersonal standard -- and psychiatrists sometimes marry their clients" (p. 322).

Efforts to maintain reciprocity between professionals and patients/clients have also been examined. Sussman (1977), describing relationships between families and bureaucracies, notes an assumption of "reciprocity based on bargaining" (p. 10). If reciprocity cannot be maintained "because of involuntary relationships such as those between family and school or mental hospital, the responses may be noncompliance, confrontation, withdrawal, or harassment" (p. 10). Bargaining and negotiation are used by both family and bureaucratic

systems to reduce perceptions of imbalance between costs and rewards and to bring about agreement sufficient to maintain a relationship.

Dowd (1975, 1978) notes the problems in maintaining reciprocity by those with limited power resources, described as including such things as money, social position, persuasiveness, and knowledge. Citing the elderly as an example, Dowd notes that, in lieu of the above power resources, the elderly may have to give money, approval, respect, compliance, or esteem. Usually, compliance and esteem are offered as "social currency" (Dowd, 1975, p. 590) in the exchange relationships between the elderly and others. Initially, esteem is the first choice, but, eventually, esteem is no longer valued by the other in the relationship, and compliance is required (Dowd, 1975). This, Dowd (1975) asserts, is why some elderly persons prefer to disengage from exchange relationships.

Dowd's (1975) assertions raise considerable questions regarding participation in exchanges by persons with low social currency, including the poor, the illiterate, anyone lacking knowledge, and the physically or mentally ill or impaired. Certainly, many patients could be seen to be lacking many or all of the social currencies valued by others. Further, failure to comply or withdrawal from the health system could be interpreted as interpersonal disengagement. Certainly, some patients do withdraw from the healthcare system, and health literature contains many references to noncompliance. However, the many patients who

remain engaged in interpersonal relationships with health professionals do provide some support that patients do feel capable of reciprocation.

It is also possible that some health professionals refuse, discourage, or impede reciprocal relationships with clients. Haug (1988) asserts that some health professionals do not allow egalitarian relationships with clients. Discussing professional relationships between older patients and health professionals, Haug notes that nurses, doctors, and dentists find it difficult to share information with their patients, because "it diminishes the power gained from their expert knowledge and, thus, their authority and influence" (p. 231).

One interpretation for this reluctance could be that health professionals consciously or unconsciously foster non-egalitarian relationships with patients, precisely in order to positively influence compliance. Yet another may be a conscious or unconscious desire to reap other "rewards," such as power, from the relationship.

Bruhn and Henderson (1991) note that medical researchers generally concur that patients with low status tend to receive lower quality care than do patients with high status. Possible rationale given for this inequity in care include perceptions that low status patients pay less attention to health symptoms, show less initiative in seeking healthcare, and are less inclined to defer immediate gratification in order to achieve future health benefits. However, inequitable care also can be interpreted from social exchange and reciprocity theory as being a provider-perceived imbalance of costs and rewards in the relationships

between healthcare givers and their clients. From this theoretical posture can be seen compelling reasons to allow, even actively encourage, reciprocity in relationships between healthcare providers and clients.

Nurse-Patient Relationships

Nursing's Paradigms and Theories: An Overview

Nursing is client-centered interpersonal activity, "a human service" (Curtin, 1990, p. 7), in which people, or more precisely, patients, constitute the "most pervasive phenomenon of concern" (Walker, cited in Watson, 1990). The core of nursing is the patient/client and his family (van Maanen, 1990). That this is true, is validated in the way nurses define their profession.

As a discipline, nursing "identifies itself as humanistic, and adheres to a basic philosophy that focuses on individuality...." (Munhall, 1982/1986, p. 581). Nurses emphasize the importance of human interpersonal relationships as a part of nursing care, providing care "in an interpersonal relationship process of nurse-with-a-patient, nurse-with-a-family, nurse-with-a-group" (American Nurses' Association, 1980).

In nursing theory, the four central concepts of nursing are now widely agreed to be person, health, environment, and nursing (Fawcett, 1989). These concepts are linked by what Fawcett has termed the "major proposition of nursing's metaparadigm" (p. 6). "From its

perspective, nursing studies the wholeness or health of humans, recognizing that humans are in continuous interaction with their environments" (Donaldson & Crowley, 1978/86, p. 250). "Person" is defined as an individual, family, community, group, or society receiving nursing care; health is the illness or wellness of the nursing care recipient; environment is the setting in which nursing care is given and also includes the care recipient's surroundings and significant others; and nursing is actions by nurses for or with the care recipient (Fawcett, 1989).

Kim's "four domains of nursing knowledge" (cited in Fawcett, 1989) are client, client-nurse, practice, and environment. The client domain is concerned with the client's development, problems, and health care experiences. The client-nurse domain focuses on encounters between client and nurse and the interactions between the two in the process of providing nursing care. The practice domain emphasizes the cognitive, behavioral, and social aspects of nurses' professional actions. The domain of environment is concerned with time, space, and quality variations of the client's environment.

Nursing theorists generally portray nursing as a helping discipline, primarily focused on interpersonal interactions between nurses and patients, adjunctly focused on medical or technical interventions (Chinn & Jacobs, 1987). Many nursing theorists have identified the relationship between the nurse and patient as an important component of nursing care. However, in the 1950s and early 1960s, beginning with Hildegard

Peplau's 1952 publication, Interpersonal Relations in Nursing, a group of theorists began to develop nursing models stressing the importance of interpersonal relationships between nurses and their patients (Belcher & Fish, 1985; Meleis, 1985; Beeber, Anderson, & Sills, 1990; Anderson, & Sills, 1990). King, Orlando, Paterson and Zderad, Travelbee, and Wiedenbach are some of the nurses considered to be interaction theorists (Meleis).

Meleis (1985) analyzes interaction theorists and finds some common assumptions: 1) individual integrity must be maintained; 2) individuals are self-aware and able to identify their own needs; 3) individuals strive for actualization; 4) life events are inevitable and are required to help move persons from one developmental stage to the next; and 5) "The nurse cannot separate herself as an individual from the act of care; the nurse is an integral part of care" (p. 178).

Moreover, it is important to note that many past and present nursing theorists, not identified as interaction theorists, also focus on the importance of the interpersonal relationship between nurse and client. For instance, the concepts of caring and nurturance in nursing generally emphasize interpersonal relationships between nurses and patients.

The Concept of Reciprocity in Nursing Theory

Several early and contemporary nursing theorists have referred to reciprocity. Peplau's concept of mutuality has been said to refer to "the reciprocal process that legitimizes growth in both nurse and patient

under specific conditions" (Beeber, Anderson, & Sills, 1990, p. 6). Peplau provides an illustration of a reciprocal exchange between a nurse and client: the nurse offers the patient information, and, in exchange, the patient tells the nurse his identity and needs (Greenberg-Edelstein, 1986). In Transcultural Nursing theory, Leininger (1977) refers to reciprocity when she writes that, "Human care-giving and care-receiving behaviors denote reciprocal behaviors which tend to satisfy people in an interaction caring process" (p. 3). In Human Caring Theory, Watson (1988) describes the practice of nursing as attending, "to the human center of both the one caring and the one being cared for" (p. 177). Watson also denotes reciprocity when she says, "What is learned from others is self-knowledge" (p. 180). Reciprocity is an important concept in Nurturance Theory (Greenberg-Edelstein, 1986), and is a principal concept in the theory of Human Relatedness (Hagerty, Lynch-Sauer, Patusky, & Bouwsema, 1993).

Two theories, caring and nurturance, appear especially significant in supporting the importance of reciprocity in nurse-patient relationships. These will be discussed next.

Reciprocity in Caring Theory.

Caring has become an important concept in nursing literature. One of the best-known caring theories may be Watson's Human Caring Theory. However, many nursing theorists have included caring as a major concept. For instance, within her Transcultural Nursing Theory,

Leininger (1980) describes caring as "the central, dominant, and unifying feature of nursing" (1988, p. 152). Morse, Solberg, Neander, Bottorff, and Johnson (1990), in a review of nursing literature, found definitions of caring in the work of 35 authors.

Many writers of caring literature have emphasized reciprocal relationships or exchanges between nurses and patients (Cooper, 1989; MacPherson, 1989; Marck, 1990). Benner and Wrubel (1988) assert that "expert caring" (p. 1075) facilitates and frees in a manner which enriches the caregiver as well. Acknowledging the difficulty involved in caring for persons with pain and suffering or disabilities or disfigurements, Benner and Wrubel maintain that such caring, "opens the nurse to the possibilities in the situation as well as the pain" (p. 1075), with nurses learning "the unimaginable courage and resilience of the human spirit" (p. 1075) of patients and families.

Gadow (1985) proposes, "the ideal of caring is an ideal of intersubjectivity" (pp. 38-39), involving both patient and nurses. She asserts, "The alternative to caring as intersubjectivity is not simply a reduction of the patient to an object, but reduction of the nurse to that level as well" (p. 39). Gadow maintains that, those who would say that "a relation of dialogue in health care . . . asks too much of the patient, who cannot be expected to give to the caregiver" (p. 42), overlook an important fact. In truth, patients are routinely asked to give health professionals a priceless gift: "the gift of trust" (p. 42). Both patients and caregivers, Gadow states, have valuable things to give to each other.

Rawnsley (1990) discusses the concept of "instrumental friendship" (pp. 46-47) as an appropriate metaphor of the special human bonding occurring in nursing. In her discussion, Rawnsley suggests that nurses' perceptions of patient as lovable encourage fulfillment of mutual goals or expectations for patients, which, in turn, fulfills nurses' goals of professional and personal growth.

Referring to Meyeroff's concept of caring, Kazan (1978) describes caring as being "a process or a way of relating to someone or something which involves development" (p. 6). Kazan points to reciprocal growth taking place in interactions which are caring: "...in caring for the other,...I myself grow" (p. 6). "As the other needs me to grow, so do I need the other to be myself" (Kazan, p. 6).

Connecting caring and reciprocity, Marck (1990) discusses "therapeutic reciprocity" (pp. 49-58), as one manifestation of caring in nurse-patient relationships. Marck provides an operational definition of therapeutic reciprocity as,

a mutual, collaborative, probabilistic, instructive, and empowering exchange of feelings, thoughts, and behaviors between nurse and client for the purpose of enhancing the human outcomes of the relationship for all parties concerned. (p. 57)

Caine (1991) discusses the importance of reciprocity in dealing with families of patients in critical care. In a model labeled the Humanistic CARE Model, Caine lists four concepts considered essential to its foundation: communication, advocacy, empathy, and reciprocity.

Reciprocity involves the development of a patient-family-nurse triad having the primary function of "the maintenance of a unified family system that supports mutual caring" (p.240).

Reciprocity in Nurturance Theory

Reciprocity is also an important concept in literature on nurturance. Greenberg-Edelstein (1986), describing nurturance as "the caring and helping that are fundamental to human relationships and groups." (p. 1) She goes on to say, "Nursing exemplifies par excellence professional nurturance" (p. 9). She suggests that the person who gives may also receive, citing as an example the teacher who gives knowledge to the student and receives gratification from the student in return.

Greenberg-Edelstein (1986) describes the "norm of reciprocity of nurturance" (p. 3) and describes five levels of both positive and negative reciprocity in nurturance. Greenberg-Edelstein's five levels of positive reciprocity in nurturance are as follows: 1) nonreciprocity - a "nonreciprocal relationship where one nurtures a mostly passive, receiving other" (p. 14); 2) elementary reciprocity - minimal response from the nurturance recipient; 3) social - socially acceptable give and take (includes listening, sharing, clarifying, and reflecting); 4) therapeutic reciprocity - "participants are equals, and exchange is personalized" (p. 15); and 5) "in-depth reciprocity" (p. 15), involving self transcendence.

Greenberg-Edelstein (1986) notes that nurturance in nursing practice is often at the elementary level (i.e., level 2), but can achieve various levels of reciprocity. Applying the principles of reciprocity and social exchange theory to the levels would suggest that the higher levels would carry more reward than the lower levels (which do not suggest symmetry or mutuality to this writer). Greenberg-Edelstein's levels appear to capture the variety of interactions nurses experience with their patients, and may explain, at least partially, why some nurse-patient relationships are more rewarding than others.

Thus, there is a close connection between nursing's focus on interpersonal relationships, caring, and nurturance -- all revolving around the concept of reciprocity. These concepts, in turn, relate closely to Social Exchange Theory in their operationalization.

Empirical Support for Reciprocity in Nurse-Patient Relationships

Many studies have supported the presence and importance of reciprocity in nurse-patient relationships. Some of these are summarized below.

In a study of patient and family satisfaction with inpatient care in a primary nursing setting, Rempusheski, Chamberlain, Picard, Ruzanski, and Collier (1988) examine perceptions of expected and received care. Using a grounded theory approach, Rempusheski et al. note a "surprising but consistent finding. . . . a desire to acknowledge or reciprocate the nurses' efforts on their behalf (p. 48). From this

research, Rempusheski et al. describe reciprocity as resulting from patients' or families' desires to equalize relationships with caregivers, through use of some kind of symbolic payback for care given or not given. They propose that this payback occurs as a result of patients' or families' needs to realign a perceived inequitable power balance. This study supports that patients and families do feel obligation to reciprocate beyond an economic exchange which will occur when patients pay their bill and nurse caregivers receive a paycheck.

Studying relationships between health professionals and chronically ill patients and families, Thorne and Robinson, (1988a, 1988b) describe methods used by patients and families to foster "reciprocal trust" (1988b, p. 786) and "humanize" (1988a, p. 298) relationships with health professionals. These methods include giving gifts, joking, acknowledging difficulties in working with the sick, inquiring about professionals' family lives or health or well-being, and rationalizing professionals' mistakes as human error (Thorne & Robinson, 1988a, 1988b). Reciprocal trust is reported to foster patient satisfaction with health care received and to maintain and foster patient competence through promoting self-esteem and self-confidence by affirmation or validation (Thorne & Robinson, 1988b). Decreasing emotional distance with health professionals is seen as a coping strategy which helps families "deal more effectively with the disappointment arising from unmet expectations" (Thorne & Robinson, 1988a, p. 298).

Geissler (1990A, 1990B) discusses the two-way flow of nurturance between nurses and patients in interviews with 14 and 22 nurses. Geissler (1990B) notes that reciprocal interaction between nurses and patients benefits the nurse as well as the patient.

Writing about the frequent occurrence of gift-giving, Morse (1991), notes that, despite a long professional prohibition and institutional policies against gift-giving, patients frequently do give gifts to individual nurses and the nursing staff as a group. Morse asserts that gift-giving is necessary for therapeutic process, enabling patients to reciprocate for care received, reducing patients' feelings of indebtedness. In a study of 44 Canadian nurses, Morse interviewed nurses willing to describe incidences of gift-giving. Morse reports that nurses considered patients' gifts as symbolic of the nurse-patient relationship. Gifts given to individual nurses were viewed as a personal acknowledgment of a particular nurse's contribution: a perception that a particular nurse had "made a difference . . . gone an extra mile" (Morse, p. 600). Morse reports five categories of gift-giving were identified by study participants: those given to reciprocate the nurse for care given; those given with the intent of manipulation, intended to alter future care or nurse-patient relationships; those given because of patients' perceptions of obligation; those given by serendipity or chance; and those given to an institution to acknowledge the excellence of care provided.

Morse (1991) further reports that nurses found it "most satisfying to receive reciprocal gifts of atonement and gratitude from patients with whom they had a profound and involved professional relationship" (p. 612). Morse asserts that, while gifts given with manipulative intent should not be accepted, gifts of obligation should be accepted as a "normative courtesy" (p. 613) and gifts of gratitude should be accepted as "an essential part of the patient's recovery process" (p. 613). Although the findings of this study are limited because the interviews are conducted only with nurses willing to discuss gift-giving, it is still of interest in terms of providing support for nurse- and patient-perceived reciprocal exchanges in the nurse-patient relationship.

Gilbert (1993) suggests a pattern of reciprocity in interactions between nurses' and clients' "involvement activities" (p. 674). She notes a pattern of reciprocity "in nurses' behavior during a specified interaction..." (p. 684).

Discussing the experience of both patients and nurses in a caring nurse-patient interaction, Miller, Haber, and Byrne (1992), note reciprocal positive outcomes for both patients and nurses. Patients experience enhanced trust and self-esteem and feel important, happy, good, comfortable, and relaxed. Nurses feel a "'magical' feeling of deep satisfaction that prompts them to love nursing...everything else falls right into place; indeed, both nurses and patients feel better" (Miller, Haber, & Byrne, p. 146).

Schroder and Maeve (1992), discussing "nursing care partnerships," (p. 25) include narratives from patients and nurses involved in these partnerships, that clearly show benefits received. One clinical nurse specialist, describing her work with AIDS patients and their families, is reported to note, "the rewards for all of us are worth it" (p. 37). Another nurse states, "I like the name 'care partnership'; it means we both struggle through what happens in the course of the disease" (p. 36).

Wood (1991) studied reciprocity between preterm infants and nurses in intensive care nurseries, noting that reciprocal interactions resulted in continued motivation for infants and nurses to communicate with each other. Interestingly, she found that increasing nurses' workloads decreased nurse-infant reciprocity.

Nolan and Grant (1993) studied a concept they termed "rust out" (which they compare to burn-out, but state is different because burn-out occurs in high-stress situations, and rust-out occurs with tedium resulting from lack of stimulation) and "therapeutic reciprocity" (p. 1306) of professional and non-professional staff providing care to elderly clients in long-term settings in North Wales. Participants indicated that caring was the most important aspect of their work, with most staff indicating interactions with clients as the most interesting part of their work. Staff reported increased opportunity to develop "meaningful interpersonal relationships" (p. 1308) when client mix was varied through short-term admissions and respite-care patients. This was seen as occurring

because clients admitted for short-term or respite care were less mentally frail or more capable of interaction. Nolan and Grant concluded that nurses' opportunities to establish interpersonal relationships with clients appeared related to nurses' work satisfaction.

Anecdotal Support for Reciprocity in Nurse-patient Relationships.

The literature is also replete with instances of nurses feeling nurtured or rewarded by patients. Sherlin (1990) describes being nurtured "during a time when I most needed it" (p. 18) by the gift of a plant and a note of thanks from a female patient injured in an auto accident in which the patient's husband died. Mallinson (1990), writing about "how long nurturance from certain patients sustains us" (p. 7), describes three incidents of patients nurturing nurses: one describes a letter thanking a nurse for her care, written by a dying prisoner; another describes a Vietnamese refugee who used "his precious bucket of clean water to wash the nurse's feet and sandals" (p. 7) as a way of demonstrating the refugee's appreciation; the third describes how patients "nurture us by being our teachers" (p. 7).

Hall (1990) describes a gift of flowers received by Intensive Care nurses as a thank you from the father of a baby who had died. The father is reported as saying, "It's the least we can do to say 'thank you'" (p. 86).

Frank (1993) describes the importance of receiving Christmas cards from HIV/AIDS patients in a nursing home:

In 20 years of nursing, I have delivered a baby in a parking lot, cried with men and women for dead children, parents, lovers, and literally brought the dead to life again, but I never received a Christmas card. I cried in the medicine closet. (p. 2)

White (1993) describes caring for AIDS patients on each admission as the most rewarding but most difficult part of her job: rewarding, because of the "strong sense of trust" (p. 2) that develops between White and her patients; difficult, because each admission indicates patients' further debilitation and illness. She writes,

There is usually a magnificent sense of relief at the time of death that I am rewarded because I have been able to help a patient die with dignity...The family involvement in patient care and death helps to ease the sense of failure with the number of deaths that I do see. A simple "thank you" from a patient, family member or lover is enough to make the day a success. (p. 2)

Mitch (1991), a freelance writer and psychiatric aide, writes of nurses who talk about "throwing in the towel, none of them ever did" (p. 108). She posits that perhaps "it's because the satisfaction of their successes outweighs the moments of despair" (p. 198). Or, she speculates, "It has something to do with a sense of devotion and responsibility...Or maybe they're just plain crazy for taking on a job like this" (p. 108).

Paternostro (1994) writes of her work as a nurse: "...even though the hard work and limited resources can be discouraging, the impact nursing has on the lives of others keeps me holding on" (p. 12). She adds, "Every now and then, though, it's nice to have someone notice...'You make a difference--you're a nurse'" (pp. 12-13).

Brady (1994) writes of friends with a family member admitted to critical care. As she explains and interprets the care being given, the patient and family members are relieved. "Suddenly I felt wonderful. I was the American Embassy in a foreign land, Superman swooping down to save Lois Lane from the balcony of a burning building" (p. 54). They thanked her for all the explanations and help, "but mostly they thanked me for just being there" (p. 54). She realizes how good being able to help them makes her feel.

In a slightly different but interesting twist, the desire to reciprocate the nurses with whom one has had experience has even influenced people to become nurses. Stockton (1994) writes that the "genuine care and professional attitude" (p. 4) of nurses providing care for her terminally ill father motivated her to enter nursing. Upon graduation, Stockton notes, "I am finally able to give back the gift given to me" (p. 4). Somewhat similarly, Phillips (1994) writes that, in becoming a nurse, she "will have accomplished my goal in life--to do for others what I could not do for my mother" (p. 5), who was dying of cancer.

Work Satisfaction

Theories and Models Underlying Work Satisfaction

Work satisfaction has been studied for more than seventy years, and nurses have been the most studied group in the health field (Slavitt, Stamps, Piedmonte, & Haase, 1978). Satisfaction with work has been linked to turnover, job performance, absenteeism, and mental and physical health of employees (Mottaz, 1985). Multiple theoretical models have conceptualized and tested relationships between employee stress, work satisfaction, turnover, and other factors (Hinshaw & Atwood, 1983).

Three theoretical orientations have been identified as being most frequently used and important in work satisfaction studies: 1) Need Fulfillment Theory; 2) Herzberg's Two-Factor Theory; and 3) Social Reference Group Theory, sometimes referred to as Equity Theory (Stamps & Piedmonte, 1986). Two theoretical frameworks are referenced in most hospital-based research about nurses' work satisfaction: Maslow and Herzberg (Stamps & Piedmonte). However, the Herzberg theory draws heavily upon Maslow's theory (Herzberg, Mausner, & Snyderman, 1959).

Because of their importance in work satisfaction studies, the next section will provide a brief overview of the following theories or models: Maslow's Theory; Need Fulfillment Theory; The Herzberg, Mausner, and Snyderman Theory/Herzberg's Two-Factor Theory; Social Reference Group Theory; and Stamps' and Piedmonte's model.

Maslow's Theory.

Maslow's theory proposes that human needs are hierarchical, arranged in five tiers, beginning with physiological needs at the base, then, in ascending order, safety needs, belongingness/love needs, esteem needs, and self-actualization needs (Stamps & Piedmonte, 1986; Buck, 1988). Workers continuously strive to satisfy their basic needs, but higher-order needs are rarely satisfied in this society (Slocum, Susman, & Sheridan, 1972). Lower level needs are much more frequently satisfied (Slocum et al.).

Needs Fulfillment Theory.

Several work satisfaction models meet a need fulfillment perspective. From Need Fulfillment Theory, work satisfaction has been defined as "the difference between what an individual needs and the extent to which the work environment fulfills these needs" (Stamps & Piedmonte, 1986, p. 2), or "a product of the relative importance or weightings of various work-related and personal needs" (Stamps & Piedmonte, p. 2). One subtype is the Discrepancy Model, denoting work satisfaction as subtractive; that is, work satisfaction is the difference between individual needs and work environment fulfillment of those needs (Stamps & Piedmonte). Another subtype is the Multiplicative Model, based on Vroom's work, which views work satisfaction as resulting from the degree that work fulfills personal or work-related needs (Stamps & Piedmonte).

The Herzberg, Mausner, and Snyderman Theory/Herzberg's Two-Factor Theory.

The work satisfaction theory developed by Herzberg, Mausner, and Snyderman (1959) proposes two different sets of factors: hygiene and motivation. Hygiene factors lead to job dissatisfaction but not to work satisfaction, and motivation factors lead to work satisfaction but less often result in job dissatisfaction (Herzberg et al). Hygiene factors define job context and include physical work characteristics, interpersonal relationships, supervision, benefits, administrative practices, company policies, job security, and salary (Herzberg et al.). Motivation factors are things involved in doing work and include recognition, advancement, achievement, the work itself, and responsibility (Herzberg et al.).

Herzberg's Two-Factor Theory proposes that satisfaction is not an antonym for dissatisfaction; rather, satisfaction and dissatisfaction are two separate sets of factors (Stamps & Piedmonte, 1986). One set of factors will affect satisfaction, the other will affect dissatisfaction, and a worker might be both satisfied and dissatisfied with a job at the same time, if factors from both sets are present simultaneously (Stamps & Piedmonte).

Social Reference Group Theory.

Social Reference Theory proposes that work satisfaction is positively related to job characteristics "that meet the desires of those

groups to which a worker looks for guidance in evaluating his or her own reality" (Stamps & Piedmonte, 1986, p. 3). Work satisfaction is "a function of the magnitude of the discrepancy between the real and expected outcome" (Stamps & Piedmonte, p. 3), with two important additional components. First, individuals compare their own work and work rewards to those of others in similar positions. Second, both under- and over-rewarding may lead to dissatisfaction, based upon perceived unfairness of treatment or guilt (Stamps & Piedmonte).

Stamps' and Piedmonte's Model.

Stamps and Piedmonte (1986) describe work satisfaction as a multi-faceted concept. They propose six components: pay, autonomy, task requirements, organizational requirements, job status, and interaction.

Social Exchange Theory and Work Satisfaction

Homans (1974) clearly believes that social exchange is a suitable framework to study work satisfaction, devoting an entire chapter to that effect in Social Behavior: Its Elementary Forms. In this chapter, Homans first asks what determines personal satisfaction with rewards incurred by one's actions. He distinguishes between values and satisfactions, stating that "a man may find the result of an action rewarding, and so continue to perform it, without liking the result in the least" (p. 226). He also speculates that two persons may perceive the

same reward differently, so that one person may be satisfied with a reward that does not satisfy another worker. He suggests that working persons may feel more satisfaction with some job rewards than they do with others.

Theoretical and Empirical Support for Linking Social Exchange Theory, Reciprocity, and Work Satisfaction

Studies in the literature provide some support for application of social exchange theory and the concept of reciprocity in studying work satisfaction. Ullrich (1978) used Herzberg's Two-Factor Theory to study nursing turnover to study 40 nurses perceptions about work-related factors which result in participant's feelings extraordinarily bad or good about their work. Interview analysis revealed the presence of Herzberg's intrinsic and extrinsic factors, as well as two unique others: nurse-patient/family relationships and incurable illness (Ullrich). Ullrich noted that nurses may describe their relationships with patients/families as positively or negatively influencing feelings about their work. He concluded that nurses describe satisfaction when they achieve aspirations and dissatisfaction when aspirations are unrealized.

In a study of 312 nurses, Mottaz (1988) analyzed responses to determine effects of intrinsic or extrinsic rewards on nurses' overall work satisfaction. He proposed that work satisfaction results from an analysis of one's work situation, based upon "assessing the balance between perceived work rewards and work values" (p. 65). Mottaz asserted that

nurses appear first concerned with rewards in this order: intrinsic task rewards, extrinsic social rewards, and extrinsic organizational rewards. Mottaz cited recent studies which suggest that workers with higher education levels assign more importance to intrinsic rewards than extrinsic rewards and surmised that nurses' education encourages them to view task autonomy as very important. He suggested that nurses' frustration results from organizational structure which limits autonomy, lack of adequate supervision, and the need to spend excessive time performing non-nursing tasks.

Goeppinger (1983) reported a study of work stress in 36 practicing community health nurses. She categorized identified stresses as follows: 1) personal; 2) practice-related (involving patients and communities); and 3) practice environment (including physical environment, professional relationships, bureaucratic structure, and salaries, work schedule, and benefits). In a table summarizing the reasons why nurses had left other community health nursing jobs, 8.9 percent of the nurses had left because of stresses with patients and communities; 28.8 percent had left because of personal stresses; and 54.3 percent had left because of practice environment stresses.

Dolan (1987) has studied the relationship between work satisfaction and burnout in 120 nurses. She found a positive correlation between work satisfaction and burnout, statistically significant only in a subgroup of general nurses. Rapid turnover of the general nurses' patient population was thought to increase the general nurses' workload

and prevent the nurses' from meeting professional standards or fully meeting patients psychological, as well as physical, needs.

Cohen-Mansfield (1989) studied long-term nursing care staff perceptions regarding best and worst events in each work day and most liked and disliked aspects of work. Reviewing employee burnout literature, Cohen-Mansfield described four levels of occupational stress: 1) institutional level - pertaining to institutional functioning as a whole and all workers; 2) unit level - pertaining to interaction between individual employees and co-workers on a work unit; 3) patient level - pertaining to interactions between employees and individual patients or families; and 4) personal level - pertaining to individual employee personality factors, self-image, and factors outside the work environment. Participants included Registered Nurses (RNs), Licensed Vocational Nurses (LVNs), and ancillary personnel. Analyzing results, Cohen-Mansfield found that positive attitudes toward work were mostly linked with patient care: "they liked working with the patients and being in a helping role" (p. 385). Patient care, especially positive interpersonal relationships with patients, was also correlated with the highest scores indicating positive feelings about daily events.

Caudill and Patrick (1989) used Maslow's Hierarchy of Needs to study turnover and need satisfaction in nursing assistants working in nursing homes. Analyzing the response of 996 participants, Caudill and Patrick concluded, "It is possible that the entire patient-nurse relationship is the most important event in extending employment" (p. 28).

Browner (1987) studied work stress in 26 psychiatric technicians working with profoundly retarded patients in a state institution. Browner found that the psychiatric technicians "consistently indicated that their most important and valued source of work satisfaction was the residents" (p. 96).

Seymour and Buscherhof (1991) studied sources of dissatisfaction and satisfaction with nursing in a national sample of 252 Registered Nurse respondents. They found altruism to be the strongest motivator for both entering and remaining in nursing, and intrinsic enjoyment of the work the most highly valued work aspect. More than a quarter (27%) of the respondents perceived "hands-on work with patients" (p. 111) to be the best aspect of nursing, and almost another quarter (22.7 %) reported deriving rewards from nursing, which included personal growth, self-confidence, learning, and on-going challenge (Seymour & Buscherhof). In terms of dissatisfaction factors, Seymour and Buscherhof noted 567 mentions of dissatisfiers, which were placed into nine categories: 1) structural work difficulties; 2) dissatisfaction with pay and benefits; 3) issues/problems related to gender; 4) issues with nursing colleagues; 5) issues with nursing education; 6) lack of appreciation, respect, recognition; 7) family issues; 8) criticism of the professional of nurses; and 9) issues related to autonomy, control, independence.

Additionally, Seymour and Buscherhof (1991) reported an apparent ambivalence in many respondents, with belief in the intrinsic

worth of nursing and positive feelings about the nature of the work of nursing struggling with expressions of frustration and anger. "Many nurses felt thwarted by the conditions under which they were obligated to operate --conditions which undermined their professional standards and objectives, as well as their job satisfaction and expectations for professional achievement" (Seymour & Buscherhof, p. 122).

The so-called "Magnet Studies" have identified higher job satisfaction among nurses working in organizations that have created an organizational structure believed to be conducive to "excellence" (Kramer & Schmalenberg, 1988a; Kramer & Schmalenberg, 1988b; Kramer, Schmalenberg, & Hafner, 1989). In these studies, the delivery of high-quality patient care was considered to be the center of the concept of excellence. Certainly, these studies provided support for the presumption that job satisfaction and the ability to provide high-quality care to patients are related, either co-existent or following each other.

In a landmark study of Texas nurses, Wandelt, Hales, Merwin, Olsson, Pierce, and Widdowson (1980) linked nurse turnover with nurses' dissatisfaction with quality of patient care. In this study, nurses expressed concern for patient safety and care adequacy. Nurses who felt little opportunity to spend time with and interact with patients were concerned about their own integrity and performance.

A Fleishman-Hillard study, commissioned by the American Nurses Association in 1991, also found that nurses are profoundly concerned with the quality of patient care, with 98 percent of nurse respondents

reporting quality of patient care as their most important job concern (cited in Grobe, Becker, Dobal, Jordan, & Brown, 1991). The study also found that nurses were concerned about being treated as professionals, working in a safe environment, being permitted to perform functions they had been educated to perform, working with sufficient staff, working hours of choice, having opportunities for professional development, earning an adequate salary, and being treated with respect by physicians and other hospital personnel.

For nurses, opportunity to interact effectively with patients is integral to quality care, and quality of patient care is integral to work satisfaction.

Summary

This chapter has provided a review of pertinent, supporting literature related to the concept of reciprocity, Social Exchange Theory, nurse-patient relationships, and work satisfaction. In addition, this chapter has provided strong theoretical, subjective, and empirical support for linking social exchange, reciprocity, and nurses' work satisfaction.

CHAPTER THREE

Research Design and Methodology

Introduction

The purpose of this study was to examine the presence of nurse-perceived reciprocity in nurse-patient relationships of practicing public health nurses in selected public/community health settings in Texas. Selected personal, demographic, professional, and contextual variables were examined for their relationship to nurse-perceived reciprocity. This chapter describes the pilot study and the design, population and sample, instrument design, and data collection procedures. The chapter also describes the instruments used and controls in the study procedure. Human subjects' protection is also described.

Research Design

This study used a non-experimental descriptive correlational design to examine the relationship between selected personal, demographic, professional, and contextual variables, and nurse-perceived reciprocity. Because descriptive correlational studies do not infer causality, the aim of this study was to describe relationships among these selected variables (Polit & Hungler, 1987).

Nurse-perceived reciprocity was the dependent variable in this study. Selected personal, demographic, professional, and contextual variables were the independent variables in this study. Personal variables in this study were satisfaction with nursing as a career and satisfaction with nurse-patient relationships. Age was the only demographic variable included. Professional variables were years of nursing experience and years of public/community health nursing experience. Contextual variables were job satisfaction, tenure, type of nursing care delivery system, and satisfaction with work load.

To strengthen research quality and enhance interpretability of data, research must maximize research control through controlling extrinsic or intrinsic extraneous variables (Polit & Hungler, 1987). Because this study utilized a non-experimental design, it is recognized that the researcher had no means of maintaining constancy in research conditions (i.e., extrinsic extraneous variables) (Polit & Hungler). This is recognized as a limitation. To control intrinsic factors (Polit & Hungler), and because randomization of participants was not feasible, this study sought as much homogeneity of participants as possible. Criteria for inclusion in the sample are listed below.

As soon as human subjects protection requirements had been met, the researcher began to test the validity and reliability of the N-PRS tool (see sections, N-PRS Validity and Reliability). Following this, a pilot study (see section, Pilot) was initiated to test study procedures and

conduct preliminary analysis. Finally, data collection for this study occurred over a three month period.

Pilot

A pilot study, for instrumentation purposes [to assess the Nurse-Perceived Reciprocity Scale (N-PRS)], was conducted prior to the implementation of the planned full study. Eighteen Registered Nurses, who are experienced public health nurses working for the state public health system (Texas Department of Public Health) as nurse consultants or administrators, were asked to complete and return to the researcher all study instruments (a modified version of the Index of Work Satisfaction, the N-PRS, and the Data Sheet). They were then asked to repeat the N-PRS four weeks after initial completion, as a preliminary measure of stability. These nurses are considered to be expert public health nurses and met all study criteria, except that their current work setting did not necessarily include direct patient care.

The purpose of the pilot was to provide feedback on overall feasibility of the proposed research procedures and to determine adequacy of the N-PRS. Results of the pilot were analyzed to determine if modifications were needed prior to implementing the planned full study.

Sample

This study utilized a convenience sample of 69 public health nurses at three health departments in large suburban areas in Texas: City of Austin Health and Human Services Department/Travis County Health Department, City of Houston Health and Human Services, and Harris County Health Department. The selected agencies provide a number of public health and primary care services in which the nurse is often the primary care provider. Participants were Registered Nurses with at least one year of public health nursing experience (and who otherwise met study criteria) who volunteered to participate in the study. (A copy of the consent form is found in Appendix A.) The sample size was determined through use of Statistical Power Analysis, based on an alpha of .05, a medium effect size of .22, and a power of .81 for a hierarchical multiple regression (Borenstein & Cohen, 1988).

Specific criteria for inclusion in this study were:

1. Registered Nurse licensed to practice in the state of Texas.
2. Able to read and write English (as the instruments are not available in other languages).
3. Currently working in a public/community health setting in Texas.
4. Currently providing direct patient/client care.
5. Possess at least one year of public/community health nursing experience.
6. Consent to participate in the study.

Data Collection Procedures

Data collection utilized self-report tools. Tools included a Data Sheet and two scales, a modified version of the Stamps and Piedmonte Index of Work Satisfaction (IWS) and the Nurse-Perceived Reciprocity Scale (N-PRS), an instrument developed for this study. (Copies of these instruments are available in Appendices B, C, and D.)

Prior to data collection, the researcher met with as many as possible of the RN staff at the three selected health departments to explain the study. Packets of instruments were made available at these meetings so that interested potential study participants could pick them up. Study participants were asked to complete the data sheet and two scales in a private setting, then return them to the researcher in a stamped, addressed envelope provided by the researcher. Participants were assured that all responses would be confidential; confidentiality and anonymity were assured.

Participants were made aware that, as suggested by Stamps and Piedmonte (1986), no administrative or supervisory personnel from participating public health departments would be allowed to view the completed questionnaires, although summary data would be provided to all participating agencies. In addition, participants were made aware that an abstract summarizing study results would be made available to participants who requested summary data.

As an incentive for participating, a foil-wrapped teabag and two pencils were included in the packet given to potential study participants. However, any person who picked up a questionnaire packet was requested to accept the teabag and pencils in this packet, whether or not they completed the packet. No other incentive was provided.

A total of 204 study questionnaires were distributed to potential participants. Seventy-one questionnaires were returned (for a 35% return rate). It is proposed that the participation rate was not higher because potential participants were asked to complete the study in privacy and mail back completed study forms in an envelope provided by the investigator. This was done to meet confidentiality standards, but it is recognized that better participation might have occurred had potential subjects been allowed to complete the forms during the meeting at which the study was explained, and immediately hand them to the investigator.

Of the 71 study forms returned, 70 met participant criteria. Of eligible study participants, one participant's questionnaire was received too late to be included in data analysis, and one had too much missing data on one data collection tool to be included in all planned statistical analysis. Therefore, demographic and bivariate correlation results include 69 participants, but multiple regression results include only 68 participants.

Characteristics of Study Participants

Study participants ranged in age from 29 to 64, with a mean of 45 years of age. Approximately 25 percent (n=18) were less than 40 years old, and approximately three-fourths (n=51) were age 40 or above. All participants were female. Forty-five (65.2%) were married, and 24 (34.8%) were unmarried. Participants were ethnically/racially diverse. Slightly more than half (n=36) were non-Hispanic white, and the remainder were a minority (see Table 3.1).

National norms for public health nurses indicate that fewer than 40 percent have a bachelor's degree in nursing (Havens & Stevens, 1990). However, almost 60 percent (n=40) of study participants reported having a bachelor's degree (n=36) or a master's degree (n=4) as their initial nursing preparation (see Table 3.2).

Moreover, considering highest level of education completed, participants are even more educated, with nearly 80 percent (n=55) reporting having achieved a bachelor's or higher degree in nursing or in a non-nursing field (see Table 3.2).

Table 3.1

Age, Marital Status, & Ethnicity/Race of Participants

	Frequency	%	Cumulative %
Age			
<30	3	4.3%	4.3%
30-39	15	21.7%	26.0%
40-49	33	47.8%	73.9%
50-59	15	21.7%	95.7%
>60	3	4.3%	100.0%
<hr/>			
Total	69	99.8%	
Marital Status			
Married	45	65.2%	65.2%
Not Married	24	34.8%	100.0%
Total	69	100.0%	
Ethnicity/Race			
White (Non-Hispanic)	36	52.2%	52.2%
Hispanic	7	10.1%	62.3%
African-American	23	33.3%	95.7%
Asian-American	1	1.4%	97.1%
Other	2	2.9%	100.0%
<hr/>			
Total	69	99.9%	

Table 3.2

Participants' Initial Nursing Education & Highest Education

Initial Nursing Education			
	Frequency	%	Cumulative %
Associate Degree	13	18.8%	18.8%
Diploma	16	23.2%	42.0%
Bachelor's in Nursing	36	52.2%	94.2%
Master's in Nursing	4	5.8%	100.0%
	<hr/>	<hr/>	
Total	69	100.0%	

Highest Level of Education			
	Frequency	%	Cumulative %
Associate Degree	7	10.1%	10.1%
Diploma	7	10.1%	20.3%
Bachelor's in Nursing	33	47.8%	68.1%
Bachelor's in Other Field	7	10.1%	78.3%
Master's in Nursing	7	10.1%	88.4%
Master's in Other Field	7	10.1%	98.6%
Doctorate in Nursing	0	0.0%	98.6%
Doctorate in Other Field	1	1.4%	100.0%
	<hr/>	<hr/>	
Total	69	99.7%	

Most study participants were highly experienced nurses. Fewer than 20 percent (n=13) reported less than ten years of nursing experience. Almost 40 percent (n=26) reported ten to nineteen years of nursing experience, and 43.5 percent (n=30) reported 20 or more years of nursing experience. Participants ranged from 1 to 40 years of nursing experience, with a mean of 18.4 years (see Table 3.3).

Table 3.3

Participants' Years of Nursing Experience Since Completion of Basic Nursing Program

	Frequency	%	Cumulative %
<5 yrs.	6	8.7%	8.7%
5-9 yrs.	7	10.1%	18.8%
10-14 yrs.	15	21.7%	40.6%
15-19 yrs.	11	15.9%	56.5%
20-24 yrs.	10	14.5%	71.0%
25-29 yrs.	10	14.5%	85.5%
30-34 yrs.	5	7.2%	92.8%
35-39 yrs.	4	5.8%	98.6%
>40 yrs.	1	1.4%	100.0%
Total	69	99.8%	

However, participants were less experienced in public health. They ranged from 1 to 30 years of public health nursing experience, with a mean of 8.1 years. About 65 percent (n=45) reported having fewer than ten years, approximately a fourth (n=18) reported having ten to nineteen years, and fewer than 10 percent (n=6) reported having greater than 20 years of public health nursing experience (see Table 3.4).

Table 3.4

Participants' Years of Public Health Nursing Experience

	Frequency	%	Cumulative %
<5 yrs.	30	43.5%	43.5%
5-9 yrs.	15	21.7%	65.2%
10-14 yrs.	11	15.9%	81.2%
15-19 yrs.	7	10.1%	91.3%
20-24 yrs.	4	5.8%	97.1%
25-29 yrs.	1	1.4%	98.6%
>30 yrs.	1	1.4%	100.0%
Total	69	99.8%	

In terms of numbers of years with current employer, participants varied from 0.25 to 24 years, with a mean of 5.8 years. About 60

percent (n=42) had worked for their current employer less than five years; nearly 20 percent (n=13) had been with their current employer five to nine years; and only approximately 20 percent (n=14) had been with their current employer ten or more years (see Table 3.5).

Table 3.5

Participants' Years with Current Employer

	Frequency	%	Cumulative %
<5 yrs.	42	60.9%	60.9%
5-9 yrs.	13	18.8%	79.7%
10-14 yrs.	7	10.1%	89.9%
15-19 yrs.	3	4.3%	94.2%
20-24 yrs.	4	5.8%	100.0%
Total	69	99.9%	

Regarding type of nursing care delivery system used, 24 (34.8%) reported using a team system, 10 (14.5%) used a primary nursing approach, 19 (27.5%) used case management, 5 (7.2%) used a functional approach, and 11 (15.9%) reported using "other." (The "other" category included persons marking this category, as well as persons

reporting using more than one approach.) Table 3.6 shows nursing care delivery system used.

Table 3.6

Type of Nursing Care Delivery System Reported Used by Participants

	Frequency	%	Cumulative %
Team	24	34.8%	34.8%
Primary Nursing	10	14.5%	49.3%
Case Management	19	27.5%	76.8%
Functional	5	7.2%	84.1%
Other	11	15.9%	100.0%
Total	69	99.9%	

Instrumentation

The instruments used in this study included a Data Sheet, a modified version of the Index of Work Satisfaction (IWS) scale, and the Nurse-Perceived Reciprocity Scale (N-PRS). Each instrument is described below.

Data Sheet

The Data Sheet requested each respondent's age, gender, race/ethnicity, marital status, initial nursing degree, highest level of education completed, number of years worked as a nurse since completing initial nursing program, number of years of public health nursing experience, tenure/number of years with current employer, and type of nursing care delivery system currently used. The Data Sheet also contained an item requesting participants' self-rating of perceived generalized satisfaction with interpersonal relationships with clients, perceived satisfaction with nursing as a career, and perceived satisfaction with work load. These three self-rated items used a Likert scale of one to seven, with lower numbers representing degree of dissatisfaction, the mid-point representing a neutral or undecided view, and higher numbers representing degree of satisfaction. A copy of the Data Sheet is included in Appendix B.

The Index of Work Satisfaction Scale (Adapted)

A modified version of the Index of Work Satisfaction (IWS) scale was used to measure nurse work satisfaction. (Scale modification, done with permission of author/publisher consisted of minor wording changes to make the scale more consistent with a public health setting. For example, the word "hospital" was changed to "agency.") This scale is based upon a multidimensional concept of work satisfaction that views satisfaction as including how employees adapt to the employing

organization, what work means to the employee, and how organizations might adapt to employees (Stamps & Piedmonte, 1986). Building upon both Herzberg's and Maslow's work satisfaction theory and based upon the literature, conversations with nurses and occupational psychologists, and their own research studies, Stamps and Piedmonte separate work satisfaction into six components: Pay, Autonomy, Task Requirements, Organizational Requirements, Job Status, and Interaction. The total score of the modified version of the IWS was used as the measure of work satisfaction in this study.

The IWS scale was first developed in 1972 and has been revised many times to its present form (Stamps & Piedmonte, 1986). Consistent with the theoretical framework being used, the IWS scale was designed with the aim of providing a valid and reliable measurement of work satisfaction and includes data about workers' expectations and current satisfaction levels (Stamps and Piedmonte). According to Stamps and Piedmonte, the IWS scale's broader purpose was to facilitate communication, thereby enabling formulation of strategies for job enrichment.

Initial IWS scale development occurred primarily with hospital-based nurses (Stamps & Piedmonte, 1986). Stamps and Piedmonte report that this group of participants has yielded the most comparable findings. However, Stamps and Piedmonte also report scale usage with other healthworker categories, including ambulatory care-based nurses, physicians, and other direct care professionals; long-term care-based

aides; paramedics; and community-based mental health workers.

Further, Stamps and Piedmonte indicate that the scale has potential for use with any direct health care provider, "especially those working in bureaucratic organizations in which communication is a problem" (p. x).

The IWS scale is a two-part scale, a paired comparison of six work satisfaction components and a 44-item, 7-point Likert scale. A copy of the modified IWS scale is included in Appendix C.

Part A of the IWS scale utilizes a paired comparisons format and asks each respondent to compare, and rank in order of importance, for work satisfaction, fifteen combinations of the six identified work satisfaction components (Pay, Autonomy, Task Requirements, Organizational Policies, Interaction, and Professional Status) (Stamps & Piedmonte, 1986). Use of the paired comparisons approach in Part A provides a measure of the relative value of each component to each participant (Stamps & Piedmonte).

Part B of the IWS scale utilizes a seven-point Likert scale to measure each respondent's attitudes about 44 items (Stamps & Piedmonte, 1986). The 44 items comprise 6 subscales, each representing the 6 identified work satisfaction components (Pay, Autonomy, Task Requirements, Organizational Policies, Interaction, and Professional Status). Each subscale represents a measure of the respondent's present satisfaction level with that work satisfaction component (Stamps & Piedmonte). Higher scores represent strength of agreement with each item, lower scores represent strength of

disagreement with each item, and the mid-score, or center, represents indecision (Stamps & Piedmonte).

A final measure, somewhat confusingly also termed the Index of Work Satisfaction (IWS), may be calculated from Part A and Part B of the IWS scale (Stamps & Piedmonte, 1986). This score indicates actual present satisfaction and level of importance (Stamps & Piedmonte). It is calculated by multiplying the mean component score in Part B by its appropriate Part A weighting coefficient (Stamps & Piedmonte). The weighted scores are summed to produce a single number termed the IWS, a total index representing current level of work satisfaction and relative importance of components (Stamps & Piedmonte). It is this IWS score which was used as a measure of work satisfaction in this study.

IWS Validity.

Validity of the IWS scale was established through use of factor analytic techniques (Principal Components Analysis, with varimax rotation) (Stamps & Piedmonte, 1986). Validity is the degree to which an instrument or test actually measures the phenomenon it is supposed to measure (Polit and Hungler, 1987; Woods & Catanzaro, 1988). Validity may be assessed in different ways. Common classifications of validity assessment include content validity, face/consensual validity, criterion validity, construct validity, multitrait-multimethod approach, known groups approach, factor analysis, and sensitivity and specificity (Woods & Catanzaro).

Stamps and Piedmonte (1986) report using factor analytic techniques (Principal Components Analysis, with varimax rotation) to measure scale item validity and properly sort scale items into one of the six work satisfaction components. Principal Components Analysis (PCA) is a multivariate statistical procedure that examines relationships among quantitative variables for the purpose of summarizing data and identifying linear relationships (SAS Institute, 1985), resulting in new composite variables called factors (Woods & Catanzaro, 1988; Tabachnick & Fidell, 1989). PCA is perhaps the most widely used factor extraction method (Polit & Hungler, 1987), especially valuable for exploratory data analysis (SAS Institute).

Factor extraction involves identifying and clustering together highly correlated variables (Woods & Catanzaro, 1988) based upon a correlation matrix (Tabachnick & Fidell, 1989). Each principal component is "a linear combination of the original variables, with coefficients equal to the eigenvectors of the correlation or matrix" (SAS Institute, 1985). Each factor is relatively independent of other factors derived (Woods & Catanzaro; Tabachnick & Fidell, 1989). Descending order of eigenvalues are used to sort principal components (SAS Institute). Factors also are usually rotated to increase interpretability, by maximizing high correlations and minimizing low correlations (Tabachnick & Fidell). A varimax rotation is the most commonly used rotation and is a procedure which maximizes variance (Tabachnick & Fidell).

It is recognized that even minor revision of a scale may affect its validity. However, wording changes for the modified version of this scale are minimal, made only to reflect more closely the setting of public health nurses (for instance, substituting the word "hospital" with clinic).

IWS Reliability.

The IWS scale has been evaluated for reliability using two measures: Cronbach's Alpha and Kendall's Tau (Stamps & Piedmonte, 1986).

Reliability is defined as the degree of dependability or consistency with which an attribute is measured by questions or an instrument designed to measure it (Polit & Hungler, 1987; Woods & Catanzaro, 1988) or "the absence of errors of measurement" (Woods & Catanzaro, p. 246). The method of measurement of reliability depends upon "the nature of the instrument ... [and] the aspect of the reliability concept that is of greatest interest" (Polit & Hungler, p. 317). Three aspects of reliability that have received major attention are equivalence, stability, and internal consistency (Polit & Hungler).

The Cronbach Alpha coefficient is a commonly used measure of internal consistency (Stamps & Piedmonte, 1986; Polit & Hungler, 1987; Woods & Catanzaro, 1988). Cronbach's Alpha is based upon an examination of covariance or intercorrelation of all scale items simultaneously (Woods & Catanzaro). The Cronbach Alpha coefficient theoretically ranges from zero to one, with zero indicating no internal

consistency and one indicating complete internal consistency (Woods & Catanzaro). Stamps and Piedmonte report Cronbach's Alpha coefficients ranging from .696 to .900 in their early use and revisions of the IWS scale, with an overall value between .8 and .9.

Kendall's Tau is a non-parametric statistical test designed to test that a relationship or correlation exists among ordinal data (Polit & Hungler, 1987; Woods & Catanzaro, 1988). Kendall's Tau was used to measure the correlation between weighted and unweighted scores of the IWS scale (Stamps & Piedmonte, 1986). These coefficients were reported to have been between .8 and .9 in the first seven studies using the IWS scale (Stamps & Piedmonte).

To test reliability of early versions of the IWS scale, Stamps and Piedmonte (1986) performed four factor analyses, using data from four prior studies. Though some differences were apparent, Stamps and Piedmonte report finding many similarities and a total scale reliability of .929 to .912.

IWS Scale Refinement.

As another method of refining the IWS scale, Stamps and Piedmonte (1986) also report results of a more-recent comparative analysis survey, requesting responses from the 132 persons who had requested scale information from them between 1972 and 1982. From the 51 studies submitted by persons responding to Stamps and Piedmonte's survey, 16 studies were selected as being most comparable in

methodology to their own studies. Based on their comparative analysis of 21 studies (the 16 comparable and 5 of their own), Stamps and Piedmonte then revised the IWS scale and tested it again. This final study was done using (type unspecified) employees at an acute care 262-bed community hospital with this result: out of 463 questionnaires distributed, 246 (53 percent) completed questionnaires were returned (Stamps & Piedmonte). Data from this final validation study were then reviewed for reliability and validity, using the same two measures of internal reliability (Kendall's Tau and Cronbach's alpha) and validity (factor analysis with varimax rotation) used on previous versions (Stamps & Piedmonte). For this revised scale, Stamps and Piedmonte report a Kendall's Tau of .9213 and a Cronbach's Alpha ranging from .52 to .81 on each component, with a total alpha of .82003. The varimax rotation resulted in 12 factors accounting for 62 percent of the variance (Stamps and Piedmonte).

In their publication, Nurses and Work Satisfaction: An Index for Measurement, Stamps and Piedmonte (1986) provide a copy of their final validated IWS scale and guidelines for its use, analysis, and interpretation. They also give scoring procedures for hand calculations, mainframe computers, and personal computers. (The modified version of the IWS used in this study is found in Appendix C.)

Nurse-Perceived Reciprocity Scale (N-PRS)

The N-PRS was used to measure nurse-perceived reciprocity in the nurse-patient relationship. This scale, developed by the investigator, utilizes social exchange theory and reciprocity as a theoretical framework. Reciprocity is defined as a nurse-perceived balance of internal or external costs and rewards in nurse-patient relationships; the nurse's perception that the nurse is getting as much from nurse-patient interpersonal relationships as the nurse is giving. Although reciprocity is an important concept in its own right and in other theories, no scale currently exists to measure it in professional-client/patient relationships. The N-PRS has been designed to meet this perceived need. A copy of the N-PRS may be found in Appendix D.

The purpose of the N-PRS is to measure reciprocity in nurse-patient relationships, as perceived by nurses. The N-PRS was designed for use by Registered Nurses, although it is possible that the instrument eventually may be suitable for use with other healthcare providers.

In its current state of development, the N-PRS is unidimensional. It contains 30 items in a 7-point Likert scale format, with lower numbers indicating strength of disagreement, the mid-point representing indecision, and higher numbers indicating strength of agreement.

N-PRS Validity.

Ascertaining validity is critical for all instruments; it is well-known that a valid instrument is reliable, although a reliable instrument may not

be valid (Polit & Hungler, 1987). The N-PRS was assessed for content and construct validity. (Criterion validity was not tested, as no other established measure of nurse-perceived reciprocity currently exists to be administered concurrently.)

Content validity involves an assessment of sampling adequacy of the domain under study (Martuza, 1977; Polit & Hungler, 1987; Woods & Catanzaro, 1988). Determining content validity of a research tool involves a judgment as to whether the tool and its items truly represent the domain under study (Martuza; Polit & Hungler). In 1986 Green and Lewis (cited in Woods & Catanzaro, 1988) described five steps which establish content validity: 1) review of the literature, 2) individual reflection; 3) concept analysis; 4) item identification; and 5) empirical analysis of identified items.

Assessment of the content validity of the N-PRS, in keeping with Green and Lewis (cited in Woods & Catanzaro, 1988), first involved a careful literature review in multiple areas related to reciprocity and social exchange theory. In addition, the researcher interviewed three nurses in depth, and engaged many other nurses in more informal discussion, to establish what items might be appropriate for inclusion in the domain of reciprocity. Also, the researcher conducted a thorough concept analysis (Walker & Avant, 1983) of the concept of reciprocity. The literature review, interviews and discussions, and concept analysis, followed by careful personal reflection by the researcher generated over 100 items representing the domain of reciprocity. The items, a definition of

reciprocity, and tool structure were then reviewed by five experts (three with doctorates and two doctoral candidates) and reduced to 37 items.

Content validity may also be established in two other ways: through face validity, which consists of an expert judging tool validity; or through consensual validity, which consists of an expert panel of judges who assess validity (Woods & Catanzaro, 1988). In both of these methods, the expert or experts are requested to indicate agreement with item scope and representation of domain (Woods & Catanzaro). This study utilized consensual validity.

To evaluate consensual validity of the N-PRS, the first draft of the N-PRS tool was sent to eleven expert nurses. The expert nurses were provided with a definition of reciprocity, then asked to critique each item's statement and assess whether items were a reflection of the domain of reciprocity. The expert nurses were also asked to suggest further items and to comment on item format and construction. The first draft was then revised, based upon an analysis of the experts' responses, to include 59 items. This second draft was then reviewed by the same eleven expert nurses, again with instructions to evaluate items and the instrument's scope and domain. The second draft was then revised based upon the responses of the eleven expert nurses, resulting in a third draft with 30 items. Of this final draft, two items had 82 percent expert nurse agreement of appropriateness for inclusion and 28 items had 91 percent expert nurse agreement for appropriateness of inclusion. The two items with 82 percent expert nurse agreement for

appropriateness were included because the researcher considered them important to the concept being defined.

Construct validity attempts to assess the validity of theory underlying the instrument and test hypotheses derived from the theory base (Martuza, 1977; Polit & Hungler, 1987; Woods & Catanzaro, 1988). Construct validity is assessed by determining to what degree certain constructs or concepts account for test performance (Martuza). Construct validity is commonly achieved through assessment of the degree of discriminance or convergence among measures (Woods & Catanzaro). Assessing construct validity is complex and usually requires more than one study to achieve. Martuza indicates that it is possible to assess construct validity through an "experimental manipulation approach" (p. 152), in which the researcher uses construct theory to predict test performance of a specified group.

To test construct validity, the investigator used Social Support Theory and the concept of reciprocity to predict that public health nurses identified as having excellent interpersonal relationships with patients would score high on the N-PRS. To test this prediction, the N-PRS was administered to five public health nurses identified by their Director of Nurses as having outstanding interpersonal relations with their clients. Data analysis of their N-PRS results appears to support this theoretical prediction. Analysis revealed item means ranging from 3.8 to 6.8 and standard deviations ranging from .45 to 2. Of the 30 items on the N-PRS, 28 items had positive mean scores (above the neutral point), 1

item had a mean score at the neutral point, and 1 item had a negative mean score (below the neutral point).

N-PRS Reliability.

Preliminary stability of the N-PRS was assessed via a test-retest procedure (Martuza, 1977; Polit & Hungler, 1987; Woods & Catanzaro, 1988). Eighteen public health nurses, nurse consultants at the Texas Department of Public Health, were asked to complete the N-PRS twice, with a one-month interval between administrations. Of the eighteen nurses asked to participate, twelve nurses returned the first completed N-PRS for a return rate of sixty-seven percent; nine nurses (fifty percent) returned the second completed N-PRS. However, because of missing data, data analysis consisted of eleven initial (test one) responses and eight follow-up (test two) responses. A correlation coefficient of .86 was obtained, indicating adequate stability.

Internal consistency of the N-PRS was assessed through several methods. Internal consistency is based upon an assumption that a research tool measures only the concept of interest (Woods & Catanzaro, 1988) and that test items measure "the same thing" (Martuza, 1977, p. 126). Internal consistency or homogeneity occurs to the degree that a tool's subparts measure the same concept (Polit & Hungler, 1987).

Internal consistency, via use of Cronbach's alpha, assesses covariance of all scale items examined simultaneously (Woods & Catanzaro, 1988). The alpha treats each tool item as a "mini-test"

(Martuza, 1977, p. 128). Alpha ranges from zero to one: the higher the number, the higher the internal consistency (Martuza; Polit & Hungler, 1987; Woods & Catanzaro). An internal consistency from .7 to .9 was considered adequate for the purposes of this study. Item-total correlations, indicating the degree to which individual tool items relate to the tool's total score (Woods & Catanzaro), were used to make decisions regarding retention of items on the instrument. The method is particularly useful in tool development, because correlations may be used to decide upon item retention or deletion (Woods & Catanzaro).

Results of analysis of pilot data for internal consistency of the N-PRS are available in Appendix E. In this analysis, the alpha was .93, which exceeded the pre-set minimum measure for internal consistency. Based on this analysis, all 30 items were retained.

Additionally, internal consistency was assessed for the 30 items of the N-PRS using study data. Results of analysis for internal consistency of the N-PRS study data are available in Appendix F. In this analysis, the alpha was .97.

Chapter Summary

This chapter summarizes study design and human subjects' protection measures. Instrument reliability and validity are discussed at length. Development of the N-PRS instrument is discussed, and details of the pilot are given.

CHAPTER FOUR

Presentation, Analysis, and Interpretation of Data

Introduction

This chapter presents the analysis and interpretation of data collected for the study. The chapter is organized into three sections as follows: 1) Research Question, 2) Statistical Analysis (which includes Scoring the N-PRS, N-PRS Reliability, Multicollinearity, and Regression Analysis), and 3) Interpretation.

Research Question

The study question was whether a positive relationship existed between selected variables, i.e., personal (satisfaction with career choice and satisfaction with nurse-patient relationships), demographic (age), professional (years of nursing experience and years of public health nursing experience), contextual (work satisfaction, number of years with current employer, satisfaction with workload, and type of nursing care delivery system), and nurse-perceived reciprocity in the nurse-patient relationship. Because the study was exploratory in nature, specific hypotheses were not tested.

Statistical Analysis

Scoring the N-PRS

N-PRS values were determined through converting participants' scores so that disagreement was signified by a negative number and agreement was signified by a positive number. To do this, values on each item were scored from -3 to +3, with -3 corresponding to strongly disagree, -2 to moderately disagree, -1 to somewhat disagree, 0 to undecided or neutral, +1 to somewhat agree, +2 to moderately agree, and +3 to strongly agree. Scores were summed for all 30 items, yielding a summed score for the instrument, with a range from -90 to +90, a mean of 55.217, a mode of 55, and a standard deviation of 26.920 (Table 4.1).

Table 4.1

Summary Statistics for the N-PRS

Mean	55.217	Median	58.00	Mode	55.00
Std Dev	29.290	Minimum	-90.00	Maximum	90.00
Percentile	Value	Percentile	Value	Percentile	Value
10.00	34.00	20.00	43.00	30.00	52.00
40.00	55.00	50.00	58.00	60.00	62.00
70.00	66.00	80.00	75.00	90.00	83.00

The N-PRS is a new scale developed by the researcher for this study. No norms are developed, which is recognized as limiting meaningful comparisons and analysis.

N-PRS Reliability

The N-PRS was assessed for reliability, using results from 68 study participants. The coefficient alpha was .968. Inter-item correlations ranged from .2032 to .9405, with a mean of .5300. Item-total statistics were also calculated. Corrected item-total correlations ranged from .5169 to .8408. The alpha, if each item were deleted individually, ranged from .9658 to .9680.

Multicollinearity

Multicollinearity exists when independent variables are highly correlated (Afifi & Clark, 1990; Norusis, 1992). Collinear variables provide highly similar information, making it difficult to differentiate effects of individual variables (Norusis; Stevens, 1992). If multicollinearity is present, computed estimates of regression coefficients are considered unstable and interpretations tenuous (Afifi & Clark). Afifi and Clark suggest three ways to eliminate multicollinearity. First, discard one variable if two variables have a correlation of greater than .95. Second, using the tolerance option, discard variables with a tolerance of less than 0.01. Third, use the variance inflation factor (VIF), which is the inverse of tolerance.

Use of multicollinearity diagnostics resulted in the removal of one of the thirteen proposed independent variables from the equation. The deleted variable was team nursing (a contextual variable, one form of nursing care delivery system). Tolerance and VIF for the smallest (two-factor) set of variables in the predictor model are reported in Table 4.5.

Description of Study Variables

Several findings are notable regarding participants' satisfaction with certain concepts studied: career choice, nurse-patient relationships, and workload. These are explored in the sections that follow.

Career Choice.

Almost ninety percent of all study participants (n=61) were satisfied with their career choice, with nearly two-thirds (62.3%) moderately to very satisfied. About a tenth of participants (n=7) were dissatisfied with their career choice, with five (7.2%) moderately to strongly dissatisfied. One person (1.4%) was neutral/undecided (see Table 4.2).

Table 4.2

Participants' Reported Career Satisfaction

	Frequency	%	Cumulative %
Strongly Dissatisfied	2	2.9%	2.9%
Moderately Dissatisfied	2	2.9%	5.8%
Somewhat Dissatisfied	3	4.3%	10.1%
Neutral or Undecided	1	1.4%	11.6%
Somewhat Satisfied	18	26.1%	37.7%
Moderately Satisfied	18	26.1%	63.8%
Strongly Satisfied	25	36.2%	100.0%
Total	69	99.9%	

Satisfaction with Nurse-Patient Relationships.

Almost 90 percent of study participants (n=62) were satisfied with their interpersonal relationships with clients, with more than three-fourths moderately to strongly satisfied. Only five (7.2%) participants were dissatisfied with their interpersonal relationships with clients. Only two participants (2.9%) were undecided or neutral (see Table 4.3).

Table 4.3

Reported Satisfaction with Nurse-Patient Relationships

	Frequency	%	Cumulative %
Strongly Dissatisfied	1	1.4%	1.4%
Moderately Dissatisfied	2	2.9%	4.3%
Somewhat Dissatisfied	2	2.9%	7.2%
Neutral or Undecided	2	2.9%	10.1%
Somewhat Satisfied	9	13.0%	23.2%
Moderately Satisfied	26	37.7%	60.9%
Strongly Satisfied	27	39.1%	100.0%
Total	69	99.9%	

Satisfaction with Workload.

Nearly two-thirds (62.3%) of study participants reported satisfaction with their workload, with almost half (49.3 %) moderately to strongly satisfied. About a third (31.8%) reported dissatisfaction with workload, with slightly more than a fifth of all participants (21.7%) moderately to strongly dissatisfied. Four (5.8%) were undecided or neutral (see Table 4.4).

Table 4.4

Reported Satisfaction with Workload

	Frequency	%	Cumulative %
Very Dissatisfied	7	10.1%	10.1%
Moderately Dissatisfied	8	11.6%	21.7%
Somewhat Dissatisfied	7	10.1%	31.9%
Neutral or Undecided	4	5.8%	37.7%
Somewhat Satisfied	9	13.0%	50.7%
Moderately Satisfied	24	34.8%	85.5%
Strongly Satisfied	0	4.5%	100.0%
Total	69	99.9%	

Regression Analysis

Before testing the relationship, a correlation matrix was constructed and reliability estimates for the N-PRS scale items were calculated. The correlation matrix for study variables may be found in Appendix G.

The research question was tested using a hierarchical multiple regression analysis. Demographic (age) and professional variables (years of nursing experience and years of public health nursing experience) were entered in the first block. Personal variables

(satisfaction with nursing as a career and satisfaction with nurse-patient relationships) were entered in the second block. Contextual variables [job satisfaction, years with current employer, type of nursing care delivery system used (Team, Primary Nursing, Case Management, Functional, and Other), and satisfaction with workload] were entered in the third block. Additionally, backward selection was employed within each block. This technique initially includes all independent variables in the equation, then sequentially eliminates the least useful variables in the equation (Afifi & Clark, 1990; Norusis, 1992). At each step, the F value associated with the change in amount of variance was calculated. Based on the sample size, an alpha of 0.05 had been specified as the criterion of significance. The results of the multiple regression analysis may be found in Appendix H.

Smallest Significant Set of Predictors

Of the thirteen independent variables entered into the equation, the smallest significant set of predictors ($F=7.75372$, $p=.0010$) included just two variables: career satisfaction (from personal variables) and case management (from contextual variables, type of nursing care delivery system) (see Table 4.5).

Table 4.5

Variables in the Equation of the Smallest Significant Set of Predictors

<u>Variable</u>	<u>B</u>	<u>SE B</u>	<u>Beta</u>		
Career Satisfaction	6.529672	2.031550	.359036		
Case Management	13.720252	6.682859	.229337		
(Constant)	14.343244	11.935926			
<u>Variable</u>	<u>Tolerance</u>	<u>VIF</u>	<u>I</u>	<u>Sig I</u>	
Career Satisfaction	.995441	1.005	3.214	.0020	
Case Management	.995441	1.005	2.053	.0441	
(Constant)			1.202	.2338	

The multiple regression equation suggests that career satisfaction and case management are the most important predictors of nurse-perceived reciprocity in the nurse-patient relationship. These two variables account for 16.8 percent (Adjusted R Square) of the variance (see Table 4.6).

Table 4.6

Statistics for the Equation and Analysis-of-Variance Table for the
Smallest Significant Set of Predictors

Multiple R	.43889
R Square	.19262
Adjusted R Square	.16778
Standard Error	24.55785

Analysis of Variance			
	DF	Sum of Squares	Mean Square
Regression	2	9352.35313	4676.17657
Residual	65	39200.71336	603.08790
F=7.75372	p=.0010		

Largest Significant Set of Predictors

A larger model with nine predictor variables is also significant. In addition to career satisfaction and case management, these variables include: satisfaction with nurse-patient relationships, years with current employer, work satisfaction, the "other" category of type of nursing care delivery system, satisfaction with workload, the functional category of type of nursing care delivery system, and primary nursing (see Table 4.7). However, the additional contribution to the prediction of the larger

model with nine variables is relatively small, adding 5.8 percent variance (Adjusted R Square) to the total equation, accounting for 22.6 percent.

Table 4.7

Statistics for the Largest Set of Significant Predictor Variables in the Equation

<u>Variable</u>	<u>Multiple R</u>	<u>R Square</u>	<u>Significance of F</u>
Satisfaction with Nurse-Patient Relationships	.4752	.2258	.045
Years with Current Employer	.4752	.2258	.025
Work Satisfaction	.4751	.2257	.013
"Other" Type of Nursing Care	.4749	.2256	.006
Delivery System			
Satisfaction with Workload	.4726	.2233	.003
"Functional" Type of Nursing	.4662	.2173	.001
Primary Nursing	.4389	.1926	.001
Career Satisfaction	-----	-----	-----
Case Management	-----	-----	-----

Variables not Found to be Significant

Three independent variables were not significant: age, years of nursing experience since completion of basic nursing education (Years as RN), and years of public health nursing experience (Years in Public Health Nursing) (see Table 4.8).

Additionally, one proposed independent variable, the Team method of nursing care delivery, was not assessed in the multiple regression because of "impossible tolerance." (This has been explained previously in this chapter in the section on multicollinearity.)

Table 4. 8

Statistics for Variables not Found to be Significant in the Equation

<u>Variable</u>	<u>Multiple R</u>	<u>R Square</u>	<u>Significance of F</u>
Years as RN	.5076	.2576	.082
Age	.5052	.2552	.056
Years in Public Health Nursing	.4848	.2350	.058

Bivariate Correlations

Additionally, bivariate correlations were moderately high on several factors: reciprocity, satisfaction with nurse-patient relationships, work satisfaction, workload, and career satisfaction (see Appendix G).

These correlations suggest a robust and positive relationship between these variables, which further supports the theoretical framework of this study.

Interpretations

Brief Review of Theoretical Framework

This study used the concept of reciprocity and Social Exchange Theory as a theoretical framework. Reciprocity was theoretically defined as a perceived balance or near-balance of costs and rewards in interpersonal relationships, a balance that is essential to satisfaction with those relationships (Homans, 1974; Van Baal, 1975). Social Exchange Theory proposes that people tend to participate in relationships that are rewarding to them (Befu, 1980; Nye, 1982; Stoller, 1985; Passuth & Bengtson, 1988). Using social exchange theory in a nursing paradigm would suggest that nurses who perceived reciprocity in their relationships with patients would be more satisfied with their relationships. Conceding that nurses' satisfaction with reciprocal interpersonal interactions with patients could be affected by other influences, this study assessed the effects of 13 variables upon nurse-perceived reciprocity. Although no specific expectations were identified because this is an exploratory study, work satisfaction variables and satisfaction with choice of career and satisfaction with interpersonal

relationships with patients were anticipated to be important predictors of nurse-perceived reciprocity.

Interpretation of the N-PRS

Although the lack of norms for the N-PRS makes interpretation of instrument results difficult, it is possible to comment on several interesting findings. First, only two participants (2.8%) had summed scores with a negative number. This suggests that only two persons did not feel rewarded in their interpersonal relationships with clients (as operationalized by the summed scores of the N-PRS). Second, an additional four participants (5.8%) had summed scores totaling less than 30, the minimum score for satisfaction. This suggests that only 4 participants could be generally categorized as neutral (or slightly positive, but less than the category "somewhat agree") about the rewards in their nurse-patient relationships. The remaining 63 participants (91.3%) had summed scores between 34 (somewhat agree) and 90 (strongly agree), with 31 of these (44.9%) having summed scores at or above 60 (moderately agree). These summed scores suggest that this group overall did perceive rewards in their interpersonal relationships with clients, with nearly half perceiving these relationships to be at least moderately rewarding (see Appendix I).

Findings Supporting the Theoretical Framework

It is recognized that study results cannot be generalized. However, there are several findings that deserve attention and support the theoretical framework used in this study.

First, more than 90 percent of participants viewed their relationships as rewarding, as operationalized by summed scores on the N-PRS. This finding strongly supports that nurse-patient relationships in this study are perceived to be reciprocal -- that participants generally find their relationships with their patients to be rewarding.

Nevertheless, there is variability in participants' perceptions of reciprocity, with not all nurses feeling rewarded and not all nurses feeling the same amount of reward (at least, not as defined in the N-PRS instrument). It is this variability which is the next focus for discussion.

Two variables, career satisfaction and case management, were found to be the smallest set of statistically significant predictors ($p=.0010$) of nurse-perceived reciprocity. From a social exchange perspective, the significance of both items is logical. Social Exchange Theory predicts that people tend to participate in relationships that are rewarding to them. Thus, the theory would also predict that nurses tend to participate in relationships that are rewarding to them. Therefore, nurses who are happy with their interpersonal relationships with their patients will be more likely to continue in a career wherein they interact with their patients. Implications for this include satisfaction with career choice if reciprocal relationships occur -- and, potentially, dissatisfaction

with career choice if reciprocal relationships are not occurring. Case management, as a type of care service delivery, because it requires a depth of relationship, could be perceived as more rewarding than other forms of nursing care delivery, which may not allow the maximization of "therapeutic reciprocity" (using Marck's term, 1990) to develop.

Further, another seven variables (in addition to case management and career satisfaction) were found to be statistically significant: satisfaction with interpersonal relationships with patients, years with current employer, work satisfaction, the "other" category of type of nursing care delivery, satisfaction with workload, the functional type of nursing care delivery, and primary nursing. This larger model's additional contributions to prediction of nurse-perceived reciprocity are small. Nevertheless, the statistical significance of the additional seven variables does support the theoretical framework of the study. As an example, the positive relationship between number of years with a current employer and nurse-perceived reciprocity supports the study's prediction that nurses are more likely to remain in work settings wherein reciprocal relationships with patients exist. The positive relationship between workload and nurse-perceived reciprocity supports the study's prediction that nurses satisfied with their workload are more likely able to control the quality of their work. A satisfactory workload would both increase nurses' work satisfaction and allow the development of client relationships perceived by nurses as reciprocal, and, thus, rewarding.

The researcher had anticipated that type of nursing care delivery system would impact nurse-perceived reciprocity. While each type studied was found to be statistically significant, it is notable that case management was one of the two variables in the smallest predictive set of variables, implying that this form affects nurse-perceived reciprocity. Case management frequently involves intensity and deep commitment by nurse case manager. It is logical to assume that case management would foster the reciprocal "instrumental friendship" (Rawnsley, 1990, pp. 46-47), "nursing care partnership" (Schroder & Maeve, 1992, p. 25), or "therapeutic reciprocity (Greenberg-Edelstein, 1986), discussed in the literature. In addition, primary nursing also requires the primary nurse's accountability to patients' welfare and their plan of care. Primary nursing also involves a depth and comprehensiveness that seems to foster the development of a therapeutic alliance (as described by Rawnsley, Schroder and Maeve, or Greenberg-Edelstein) between primary nurses and their patients. However, primary nursing did not appear as a predictor in the smaller two-factor model, perhaps because of the small sample involved. Because of the relatively high degree of satisfaction reported by study participants, further investigation is needed to explore this variable that may affect nurse-perceived reciprocity.

CHAPTER FIVE

Summary, Conclusions, and Recommendations

Introduction

This chapter summarizes the study. The chapter is organized into three sections as follows: 1) Study Summary and Findings; 2) Conclusions and Implications; and 3) Recommendations.

Study Summary and Findings

Study Purpose

The purpose of this study was to examine the presence of nurse-perceived reciprocity in nurse-patient relationships of practicing public health nurses in selected public health settings in Texas. Selected personal (career satisfaction and satisfaction with nurse-patient relationships), demographic (age), professional (years of nursing experience since completion of basic nursing education and years of public health nursing experience), and contextual [work satisfaction, years with current employer, type of nursing care delivery system used (team, primary, case management, functional, or other), and satisfaction with workload] factors were examined for their relationship with nurse-perceived reciprocity.

Theoretical Framework

The study utilized the concept of reciprocity and Social Exchange Theory within a nursing paradigm to examine the importance of interpersonal relationships between nurses and patients. Both reciprocity and Social Exchange Theory emphasize the need for mutuality of exchange in order to have satisfying interpersonal relationships. Applying these concepts to nurse-patient relationships, then, suggests that both nurses and patients give and receive in the interpersonal relationships between them. Social Exchange theory also would predict that nurses who perceive reciprocity in nurse-patient relationships will be more satisfied with those relationships and will continue to participate in those relationships. This may be extrapolated further, that nurses perceiving reciprocity will continue to provide nursing services and feel more satisfied with their career choice and, perhaps, with their work environment.

Research Question

The study was guided by the research question: What are the relationships between selected personal, demographic, professional, and contextual variables with nurse-perceived reciprocity in the nurse-patient relationship? It was believed that there is a positive relationship between selected variables and nurse-perceived reciprocity in nurse-patient relationships. Because this was an exploratory study, more specific hypotheses were not made.

Methodology

This study used a non-experimental descriptive correlational design that sought to describe relationships between the independent variables and the dependent variable, nurse-perceived reciprocity. The study utilized a convenience sample of 69 public health nurses working at one of three health departments in large urban areas of Texas: City of Austin Health and Human Services/Travis County Health Department, Houston Department of Health and Human Services, and Harris County Health Department. Participants were volunteers who met study criteria and agreed to participate in completing study questionnaires. A sample size of 65 had been determined through use of statistical power analysis, based on an alpha of .05, a medium effect size of .22, and a power of .81 for a hierarchical multiple regression (Borenstein & Cohen, 1988). A data sheet, the Nurse-Perceived Reciprocity Scale (N-PRS), and a modified version of the Index of Work Satisfaction (IWS) comprised data collection tools. These tools are available in Appendices B, C, and D.

Data Analysis

After construction of a correlation matrix and calculation of instrument reliability estimates, data were entered into a hierarchical multiple regression to test the proposed model. Demographic (age) and professional variables (years of nursing experience and years of public health nursing experience) were entered in the first block, followed by personal variables (satisfaction with nursing as a career and satisfaction

with nurse-patient relationships) in the second block, and contextual variables [work satisfaction, years with current employer, type of nursing care delivery system (Team, Primary Nursing, Case Management, Functional, and Other), and satisfaction with workload] in the third block. Additionally backward selection was employed within each block. At each step, the F value associated with the change in amount of variance was calculated. Based on sample size, 0.05 had been specified as the criterion of significance.

In addition to inferential statistics, descriptive statistics were used to describe the sample. Descriptive statistics included range, means, standard deviation, frequency, and percentages.

Findings

The study found statistically significant relationships between nine of the study's thirteen independent variables and reciprocity, the dependent variable. The smallest (two-factor) statistically significant predictor model and the largest (nine-factor) statistically significant predictor model were identified. These are discussed next. The study also found that study participants perceived moderate reciprocal interactions with their patients, as measured by their summed scores on the N-PRS.

Smallest Set of Significant Predictors

Of the thirteen independent variables entered into the equation, the smallest significant ($F=7.75372$, $p=.0010$) set of variables included: career satisfaction and case management. These accounted for 16.8 percent of the variance (Adjusted R Square). The equation suggests that, of all the variables studied, career satisfaction and case management are the most important predictors of nurse-perceived reciprocity in nurse-patient relationships.

Largest Set of Predictor Variables

A larger nine-variable model was also significant. In addition to case management and career satisfaction, the other seven variables included satisfaction with nurse-patient relationships, years with current employer, work satisfaction, the "other" category of type of nursing care delivery system, satisfaction with workload, the "functional" type of nursing care delivery system, and primary nursing. However, this larger model adds little to the predictiveness of the model, explaining only an additional 3.18 percent variance (Adjusted R Square) more than the smallest (2-variable) model .

Variables not Found to be Significant

Three independent variables were not statistically significant: age, years of nursing experience since completion of initial nursing education, and years of public health nursing experience. Additionally, one variable,

team nursing (from contextual variables, type of nursing care delivery system) was removed from the equation because of impossible tolerance.

Bivariate Correlations

Additionally, certain bivariate correlations were sufficiently high to suggest strong, positive relationships between some independent variables, including career satisfaction, satisfaction with nurse-patient relationships, work satisfaction, and workload. Moreover, bivariate correlations between independent variables and the dependent variable, nurse-perceived reciprocity, were sufficiently high to suggest a positive relationship between nurse-perceived reciprocity and career satisfaction, satisfaction with nurse-patient relationships, work satisfaction, workload, and case management. Bivariate correlations are shown in Appendix H.

N-PRS Summed Scores

It is recognized that the N-PRS requires further testing to develop norms. However, a review of participants' summed scores reveals some interesting results that appear to support the theoretical framework. The vast majority (91.3%) of respondents felt some degree of reciprocity (as operationalized by the N-PRS) in their interpersonal relationships with patients. Not quite half (44.9%) had N-PRS scores at or above a moderate level of satisfaction. Only two participants (2.8%) had scores indicating dissatisfaction with nurse-perceived reciprocity, while an

additional four participants (5.8%) had scores which generally could be considered neutral.

Conclusions and Implications

This study, as evidenced by participants' N-PRS scores, strongly supports that the majority of nurses in this study did perceive some degree of reciprocity in their relationships with patients, with almost half reporting at least moderate satisfaction. Although the results of this study cannot be generalized to all public health nurses, findings validate the theoretical framework and support that reciprocity in nurse-patient relationships is a concept worth further study.

In the smallest significant predictor (two-variable) model, the study supports a relatively important correlation between case management and career satisfaction with nurse-perceived reciprocity. In the largest significant predictor (nine-variable) model, nine variables are significantly positively correlated with reciprocity, the dependent variable. This finding also further supports the theoretical framework and suggests that these variables are related to the concept of reciprocity. Findings suggest the value in further study of reciprocity and factors affecting reciprocity.

Despite the limits to generalizability of this study, the results of this study suggest theoretical, practical, and methodological implications for nursing. These are described below.

Theoretical Implications

This study began with this premise: if reciprocity is a norm (Gouldner, 1960; Blau, 1964; Mauss, 1967, Homans, 1974; Chadwick-Jones, 1976; Befu, 1980; Nye, 1982), is integral to establishment and continuation of human social relationship (Bruhn & Phillips, 1984; Tilden & Galyen, 1987), and is a basic principle of prescribed or desired social behavior for interpersonal relationships (Van Baal, 1975), then reciprocity is applicable to nurse-patient relationships, just as it is to other human behavior. Further, if Social Exchange Theory also is applicable to individuals involved in ongoing social transactions (Blau, 1964; Homans, 1974; Passuth & Bengtson, 1988), then Social Exchange Theory is applicable to nurse-patient relationships. Through development and use of a tool (the N-PRS) that measures nurse-perceived reciprocity in nurse-patient relationships, this study found that over ninety percent (91.3%) of participants perceived reciprocal rewards in their interpersonal relationships with patients. This finding supports reciprocity as a valid concept in nurse-patient relationships. Moreover, the N-PRS measures reciprocity from a nursing perspective, using items that nurses have identified as important rewards in their interpersonal relationships with patients.

Based upon the theoretical framework, the study also suggests that nurses who are satisfied with their interpersonal relationships with patients have more career satisfaction and work satisfaction. Because this was an exploratory study, no specific hypotheses were tested regarding these

relationships. However, career satisfaction is statistically significantly correlated with nurse-perceived reciprocity and is also one of two variables in the smallest significant predictor model. The findings support a relationship between career satisfaction and nurse-perceived reciprocity.

Lack of norms for the work satisfaction scale, the modified version of the Index of Work Satisfaction, and for the N-PRS, prevented detailed analysis of relationships between work satisfaction and nurse-perceived reciprocity. However, work satisfaction was statistically significantly correlated with nurse-perceived reciprocity, and work satisfaction was one of the nine variables in the largest (nine-variable) significant predictor model of nurse-perceived reciprocity. These findings also support the theoretical framework. Findings also suggest a need to consider the importance of patients and relationships with patients in work satisfaction theories when studying work satisfaction of nurses.

Further theory development and testing are supported by validation of the study's theoretical framework. Ideally, this could involve both partners in the nurse-patient relationship: the nurse and the patient.

Practical Implications

The study has practical significance regarding nurses' satisfaction with nurse-patient relationships. Study results suggest that the care delivery organization of nurses' work environments impacts nurses' perception of reciprocity. For instance work satisfaction scores were

statistically significantly correlated with nurse-perceived reciprocity. Workload was another statistically significant predictor of nurse-perceived reciprocity. Both work satisfaction and workload were included in the largest (nine-variable) significant predictive model of nurse-perceived reciprocity. Further, more study and a larger sample would be helpful in better eliciting the impact of type of nursing care delivery system upon nurse-perceived reciprocity. The study does support that case management is an important predictor of nurse-perceived reciprocity, both because of its significant statistical correlation with nurse-perceived reciprocity and because case management was one of the two variables in the smallest (two-variable) significant predictor model.

Study findings also suggest a need for re-examination of techniques aimed at increasing nurses' work satisfaction. Measures to enhance nurses' work satisfaction should incorporate the concept of reciprocity as an important component of work satisfaction. Work environments should be evaluated from the perspective of considering factors that impede or promote nurse-perceived reciprocity in nurse-patient relationships.

There is also a need to examine the concept of reciprocity in further studies of nurses' practice and work environments, and from both nurses' and patients' perspectives. Because reciprocity is a norm of social behavior, it is only reasonable to expect that patients also desire reciprocity in their relationships with nurses. This is supported in studies in which patients are found to desire reciprocity or participate in reciprocal

behaviors (Rempusheski, Chamberlain, Picard, Ruzanski, & Collier, 1988; Thorne & Robinson, 1988a, 1988b; Morse, 1991; Miller, Haber, & Byrne, 1992) and in numerous anecdotes in the literature that support patients' efforts to reciprocate (Mallinson, 1990; Sherlin, 1990; Hall, 1990; Frank, 1993; White, 1993; Stockton, 1994).

Therefore, an implication of this study is to design practices, care systems, and care environments in which patients are allowed and encouraged to participate in therapeutic reciprocity -- and wherein they are acknowledged for their role as equals, as partners -- in their own health care. The implications of this have enormous potential for a dramatic shift in current practice and care delivery models. Interestingly, with the increasing emphasis on "purchase" of health services and the escalating competition for service delivery, further study and incorporation of these concepts could dramatically impact economic survival of healthcare providers and systems in the "new" healthcare service provision market. These concepts might be important factors to increase patient satisfaction, promote personal responsibility for one's health, improve quality of care, and promote long-term health benefits for society.

Methodological Implications

The study has methodological implications for future work satisfaction studies. Work satisfaction and some work satisfaction variables, such as workload and type of nursing care delivery system, have been found in this study to be significantly statistically correlated with

nurse-perceived reciprocity. Study findings support the importance of nurse-patient relationships in work satisfaction. This is consistent with preliminary work satisfaction studies that link work satisfaction and nurse-patient relationships (Ullrich, 1978; Lobb & Reid, 1987; Cohen-Mansfield, 1989; Seymour & Buscherhof, 1991).

The study may also point to new areas of investigation regarding patients' perceptions of reciprocity in nurse-patient, or other provider-patient, relationships. Perhaps opportunity to participate in mutually rewarding relationships, in therapeutic alliances or nursing/health care partnerships, will increase patients' satisfaction and enhance treatment outcomes. New tools may need to be developed that include the concept of reciprocity as an important factor impacting patients' satisfaction and health outcomes.

Recommendations

It is recognized that this small, exploratory study is a preliminary step in assessing the concept of reciprocity, that the study is limited, and that findings cannot be generalized beyond public health nursing. However, from this study comes support for further investigation of the concept of reciprocity and a tool that shows good initial validity and reliability.

Clearly, more research is needed to study further the concept of reciprocity and factors affecting reciprocity in nurse-patient relationships.

Further testing of the N-PRS tool is needed to establish its usefulness with a variety of nurses in differing settings, and establishment of its psychometrics and norms would increase its usefulness and generalizability.

Repeated testing and a larger sample would add to what is known about reciprocity in nurse-patient relationships. Well-designed studies with larger samples would add to theory construction and testing the importance of reciprocity, factors affecting reciprocity, and the impact of perceived reciprocity on other outcomes. For instance, future studies could examine the role of reciprocity in nurses' work satisfaction, turnover, and burn-out. Reciprocity could also be studied in context of quality of care, health care delivery systems, and modalities of practice.

In addition, because reciprocity is not a one-way street, it would be interesting and useful to study reciprocity from patients'/families' perspectives. This would probably require construction and testing of a new scale, focused on measuring patient-perceived reciprocity, or testing (possibly with modification) of the existing scale. It would be helpful to assess what patients' consider as reciprocal behaviors. It also would be interesting to study the impact of patient-perceived reciprocity on satisfaction with care received, choice of healthcare provider or service system, self-care, participation in care, and health outcomes.

This country is experiencing a potentially massive shift in the way healthcare is designed and delivered. What will happen is yet unclear. There does seem to be a mandate to deliver care, which is both high-

quality and cost-effective. Approaches to cost-effectiveness, quality, service delivery, and outcomes are needed that consider the whole picture for patients and for healthcare providers. Reciprocity appears to be a concept that has been largely overlooked, or even refuted, in professional-client relationships and studies. Nevertheless, as a concept, reciprocity appears to exist and may have enormous potential.

Whatever happens in healthcare, it is important to promote theory development, testing, and utilization in practice of all concepts that have a major impact on health and health service. What is needed is an approach and system which promotes good health outcomes for all. Designing a system that considers human needs and cultural norms, such as reciprocity, may be part of the answer.

APPENDIX A

Consent Form

CONSENT FORM

FACTORS AFFECTING NURSE-PERCEIVED RECIPROCITY IN NURSE-PATIENT RELATIONSHIPS

You are invited to participate in a study of nurse-perceived reciprocity in nurse-patient relationships. I am a Registered Nurse and a doctoral candidate at The University of Texas at Austin School of Nursing. This study is my doctoral dissertation. From this study, I hope to learn more about what affects nurses' satisfaction with their relationships with patients. You are being invited to participate in this study because you are a Registered Nurse currently practicing in public health in Texas. You will be one of approximately 80 Registered Nurse participants.

I think the study of relationships between nurses and their patients is important. I believe that nurse-patient relationships affect nurses' work satisfaction and quality of nursing care. The more we know about nurse-patient relationships, the better we can plan our work environment to increase nurses' work satisfaction and promote high quality nursing care. While there is no direct benefit to you for participating in this study, your completing these instruments may help us begin to study these relationships.

If you decide to participate, you will complete a data sheet and two questionnaires. Completing these will take no more than 60 minutes. These questionnaires are the Nurse-Perceived Reciprocity Scale and a modified version of the Index of Work Satisfaction. You may complete these forms in the privacy of your home or other setting, then mail completed forms to me in an addressed, stamped envelope (provided with the questionnaires). This study is anonymous. Please do not put your name or agency on any of the data collection instruments. Only code numbers are used; data are kept secure and known only to the investigator.

Other than the time spent in completing these forms, I do not anticipate any risks, inconveniences, or discomforts to you for participating in this study. Any information that is obtained in connection with this study and that can be identified with you will

remain confidential. Only group data will be used in my dissertation or any other published reports. I do plan to offer a copy of my dissertation to the public health agencies which were sources for study participants. I also anticipate publishing study results in one or more professional journals. However, your confidentiality is assured.

Your decision to participate in this study is voluntary and will not prejudice your future with The University of Texas or public health departments from which participants are recruited. You are under no obligation to participate. Your completion and return of study instruments is taken as evidence of your willingness to participate and your consent to have the information used for purposes of the study.

If you have any questions, please contact me, Elnora (Nonie) Prihoda Mendias, MS, RN, CSFNP, at ([REDACTED]) (days, Monday - Friday) or [REDACTED] (after-hours), or write me at [REDACTED]. Or, you may call Susan J. Grobe, Ph.D., RN, my dissertation chair, at The University of Texas at Austin, School of Nursing, at [REDACTED], or write her at The University of Texas at Austin, School of Nursing, [REDACTED].

You will not be compensated monetarily for your participation in this study. However, I am attaching a teabag and two pencils as a token of thanks.

You may keep this consent form with its explanation about the nature of your participation and the handling of the information you supply.

Note: If you wish to receive a report of the results of this study, please send me your name and address in a separate envelope. If you choose to send it with this packet, I will immediately separate this paper from your forms and place in a secure place, then mail you results after the study is completed.

APPENDIX B

Data Sheet

Code Number _____

DATA SHEET
PART ONE:

DIRECTIONS: Please enter the correct number or check one answer, as appropriate, for each item below:

1. Current age in years: _____
2. Gender:
___(Female) ___(Male)
3. Race/Ethnicity:
___White, Non-Hispanic
___White, Hispanic
___African-American
___Asian-American
___Other (Specify) _____
4. Marital Status:
___Married ___Not Married
5. Initial Nursing Preparation:
___Associate Degree
___Diploma
___Bachelor's
___Master's
___Doctorate
6. Highest Level of Education Completed:
___Associate Degree
___Diploma
___Bachelor's in Nursing
___Bachelor's in non-nursing field (specify) _____
___Master's in Nursing
___Master's in non-nursing field (specify) _____
___Doctorate in Nursing
___Doctorate in non-nursing field (specify) _____

DATA SHEET (cont.)

7. Numbers of years worked as a nurse since completing basic nursing education: _____
8. Number of years worked in public health nursing: _____
9. Number of years with current employer: _____
10. Type of nursing care delivery system used:
 ___ Team
 ___ Primary Nursing
 ___ Case Management
 ___ Functional
 ___ Other
 (specify) _____

PART TWO

DIRECTIONS:

Please self-rate your satisfaction with the statements below, using the scale below:

- | | |
|------------------------------|-------|
| 1 = Very Dissatisfying | (VD) |
| 2 = Moderately Dissatisfying | (MD) |
| 3 = Somewhat Dissatisfying | (SWD) |
| 4 = Undecided or Neutral | (U/N) |
| 5 = Somewhat Satisfying | (SWS) |
| 6 = Moderately Satisfying | (MS) |
| 7 = Strongly Satisfying | (SS) |

- | | VD | MD | SWD | U/N | SWS | MS | SS |
|--|----|----|-----|-----|-----|----|----|
| 10. Overall, in my current employment, I rate my inter-personal relationships with clients as: | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

DATA SHEET (cont.)

	VD	MD	SWD	U/N	SWS	MS	SS
11. Overall in my current employment, I rate my choice of nursing as a career as:	1	2	3	4	5	6	7
12. Overall, in my current employment, I rate my workload as:	1	2	3	4	5	6	7

APPENDIX C

Index of Work Satisfaction (IWS) - Adapted

INDEX OF WORK SATISFACTION - Adapted*

Adapted with permission from Nurses and Work Satisfaction: An Index for Measurement by Paula L. Stamps and Eugene B. Piedmonte (Ann Arbor, MI: Health Administration Press, 1986).

Part A (Paired Comparisons)

Listed and briefly defined on this sheet of paper are six terms or factors that are involved in how people feel about their work situation. Each factor has something to do with "work satisfaction." We are interested in determining which of these is most important to you in relation to others.

Please carefully read the definitions for each factor as given below:

1. **Pay** -- dollar remuneration and fringe benefits received for work done
2. **Autonomy** -- amount of job-related independence, initiative, and freedom, either permitted or required in daily work activities
3. **Task Requirements** -- tasks or activities that must be done as a regular part of the job
4. **Organizational Policies** -- management policies and procedures put forward by the organization and nursing administration of this organization
5. **Interaction** -- opportunities presented for both formal and informal social and professional contact during working hours
6. **Professional Status** -- overall importance or significance felt about your job, both in your view and in the view of others

Scoring. These factors are presented in pairs on the questionnaire that you have been given. Only 15 pairs are presented: this is every set of combinations. No pair is repeated or reversed.

INDEX OF WORK SATISFACTION - Adapted* (cont.)

For each pair of terms, decide which one is **more important** for your job satisfaction or morale. Please indicate your choice by a check on the line in front of it. For example: If you felt that Pay (as defined above) is more important than Autonomy (as defined above), check the line before Pay.

☒ Pay or ☐ Autonomy

We realize it will be difficult to make choices in some cases. However, please do try to select the factor which is more important to you. Please make an effort to answer every item; do not change any of your answers.

- | | | |
|--|----|--|
| 1. <input type="checkbox"/> Professional Status | or | <input type="checkbox"/> Organizational Policies |
| 2. <input type="checkbox"/> Pay | or | <input type="checkbox"/> Task Requirements |
| 3. <input type="checkbox"/> Organizational Policies | or | <input type="checkbox"/> Interaction |
| 4. <input type="checkbox"/> Task Requirements | or | <input type="checkbox"/> Organizational Policies |
| 5. <input type="checkbox"/> Professional Status | or | <input type="checkbox"/> Task Requirements |
| 6. <input type="checkbox"/> Pay | or | <input type="checkbox"/> Autonomy |
| 7. <input type="checkbox"/> Professional Status | or | <input type="checkbox"/> Interaction |
| 8. <input type="checkbox"/> Professional Status | or | <input type="checkbox"/> Autonomy |
| 9. <input type="checkbox"/> Interaction | or | <input type="checkbox"/> Task Requirements |
| 10. <input type="checkbox"/> Interaction | or | <input type="checkbox"/> Pay |
| 11. <input type="checkbox"/> Autonomy | or | <input type="checkbox"/> Task Requirements |
| 12. <input type="checkbox"/> Organizational Policies | or | <input type="checkbox"/> Autonomy |
| 13. <input type="checkbox"/> Pay | or | <input type="checkbox"/> Professional Status |
| 14. <input type="checkbox"/> Interaction | or | <input type="checkbox"/> Autonomy |
| 15. <input type="checkbox"/> Organizational Policies | or | <input type="checkbox"/> Pay |

INDEX OF WORK SATISFACTION - Adapted* (cont.)

Part B (Attitude Questionnaire)

The following items represent statements about satisfaction with your occupation. Please respond to each item. It may be very difficult to fit your responses into the seven categories; in that case, select the category that comes closest to your response to the statement. It is very important that you give your honest opinion. Please do not go back and change any of your answers.

Instructions for Scoring. Please circle the number that most closely indicates how you feel about each statement. The **left** set of numbers indicates degrees of **disagreement**. The **right** set of numbers indicates degrees of **agreement**. The **center** number means "undecided." Please use it as little as possible. For example, if you **strongly disagree** with the first item, circle 1; if you **moderately agree** with the first statement, you would circle 6.

Remember: The more strongly you feel about the statement, the further from the center you should circle, with disagreement to the left and agreement to the right.

	Disagree	Agree
1. My present salary is satisfactory.	1 2 3 4 5 6 7	
2. Most people do not sufficiently appreciate the importance of nursing care to patients.	1 2 3 4 5 6 7	
3. The nursing personnel in this agency do not hesitate to pitch in and help one another out when things get in a rush.	1 2 3 4 5 6 7	
4. There is too much clerical and "paperwork" required of nursing personnel in this agency.	1 2 3 4 5 6 7	
5. The nursing staff has sufficient control over scheduling their own work hours in this agency.	1 2 3 4 5 6 7	

INDEX OF WORK SATISFACTION - Adapted* (cont.)

	Disagree				Agree		
6. Physicians in general cooperate with nursing staff in this agency.	1	2	3	4	5	6	7
7. I feel that I am supervised more closely than is necessary.	1	2	3	4	5	6	7
8. Excluding myself, it is my impression that a lot of nursing personnel in this agency are dissatisfied with their pay.	1	2	3	4	5	6	7
9. Nursing is a long way from being recognized as a profession.	1	2	3	4	5	6	7
10. New employees are not quickly made to "feel at home" in this agency.	1	2	3	4	5	6	7
11. I think I could do a better job if I did not have so much to do all the time.	1	2	3	4	5	6	7
12. There is a great gap between the administration of this agency and the daily problems of nursing service.	1	2	3	4	5	6	7
13. I feel I have sufficient input into the program of care for each of my patients.	1	2	3	4	5	6	7
14. Considering what is expected of nursing service personnel in this agency, the pay we get is reasonable.	1	2	3	4	5	6	7
15. There is no doubt whatever in my mind that what I do on my job is really important.	1	2	3	4	5	6	7
16. There is a good deal of teamwork and cooperation between various levels of nursing personnel in this agency.	1	2	3	4	5	6	7
17. I have too much responsibility and not enough authority.	1	2	3	4	5	6	7
18. There are not enough opportunities for advancement for nursing personnel in this agency.	1	2	3	4	5	6	7

INDEX OF WORK SATISFACTION - Adapted* (cont.)

	Disagree				Agree		
19. There is a lot of teamwork between nurses and doctors in this agency.	1	2	3	4	5	6	7
20. In my work area, my supervisor(s) make all the decisions. I have little direct control over my own work.	1	2	3	4	5	6	7
21. The present rate of increase in pay for nursing service personnel in this agency is not satisfactory.	1	2	3	4	5	6	7
22. I am satisfied with the types of activities that I do on my job.	1	2	3	4	5	6	7
23. The nursing personnel in this agency are not as friendly and outgoing as I would like.	1	2	3	4	5	6	7
24. I have plenty of time and opportunity to discuss patient care problems with other nursing service personnel.	1	2	3	4	5	6	7
25. There is ample opportunity for nursing staff to participate in the administrative decision-making process.	1	2	3	4	5	6	7
26. A great deal of independence is permitted, if not required, of me.	1	2	3	4	5	6	7
27. What I do on my job does not add up to anything really significant.	1	2	3	4	5	6	7
28. There is a lot of "rank consciousness" in this agency. Nursing personnel seldom mingle with others of lower ranks.	1	2	3	4	5	6	7
29. I have sufficient time for direct patient care.	1	2	3	4	5	6	7
30. I am sometimes frustrated because all of my activities seem programmed for me.	1	2	3	4	5	6	7

INDEX OF WORK SATISFACTION - Adapted* (cont.)

	Disagree				Agree		
31. I am sometimes required to do things on my job that are against my better professional nursing judgment.	1	2	3	4	5	6	7
32. From what I hear from and about nursing service personnel in other agencies, we at this agency are being fairly paid.	1	2	3	4	5	6	7
33. Administrative decisions at this agency interfere too much with patient care.	1	2	3	4	5	6	7
34. It makes me proud to talk to other people about what I do on my job.	1	2	3	4	5	6	7
35. I wish the physicians here would show more respect for the skill and knowledge of the nursing staff.	1	2	3	4	5	6	7
36. I could deliver much better care if I had more time with each patient.	1	2	3	4	5	6	7
37. Physicians at this agency generally understand and appreciate what the nursing staff does.	1	2	3	4	5	6	7
38. If I had the decision to make all over again, I would still go into nursing.	1	2	3	4	5	6	7
39. The physicians in this agency look down too much on the nursing staff.	1	2	3	4	5	6	7
40. I have all the voice in planning policies and procedures in this agency and in my work area that I want.	1	2	3	4	5	6	7
41. My particular job really doesn't require much skill or "know-how."	1	2	3	4	5	6	7
42. The nursing administrators generally consult with the staff on daily problems and procedures.	1	2	3	4	5	6	7

INDEX OF WORK SATISFACTION - Adapted* (cont.)

	Disagree				Agree		
43. I have the freedom in my work to make important decisions as I see fit, and can count on my supervisor(s) to back me.	1	2	3	4	5	6	7
44. An upgrading of pay schedules for nursing personnel is needed.	1	2	3	4	5	6	7

- The End -

Thank you for completing these forms!

APPENDIX D

Nurse-Perceived Reciprocity Scale (N-PRS)

Code Number _ _ _ _

THE NURSE-PERCEIVED RECIPROCITY SCALE (N-PRS)

Nurses interact with patients and patients' families. Some of these interactions may be more rewarding than others, and some may not be rewarding at all.

Reciprocal relationships occur when persons in the relationships think they are getting as much from the relationship as they are giving -- that is, when the "rewards" in the relationship seem to be at least equal to the "costs" of participating in the relationship.

I am interested in learning about reciprocal relationships, or reciprocity, between nurses and patients and what factors affect nurses' perceptions of reciprocity in nurse-patient relationships. You can help me learn about reciprocity by telling me what you think is rewarding about interactions you have or have had with patients and their families.

To ensure your confidentiality, the code number in the upper right hand corner will permit information grouping by agency for statistical purposes only. **PLEASE DO NOT WRITE YOUR NAME ON THIS QUESTIONNAIRE.**

Thank you in advance for your help. Please accept the enclosed teabag and pencils as a token of my appreciation for your help.

DIRECTIONS:

Please respond to each item below by circling the number which best describes how you feel about interactions with patients and families. To help me study what agency characteristics may influence your perception, please select the number based upon your feelings about interactions with patients and families in the agency in which you are currently working. Please circle the response that best indicates how you generally feel and not how you would like things to be.

N-PRS (cont.)

The numbers on the scale below indicate the following:

- | | |
|--------------------------|-------|
| 1 - Strongly Disagree | (SD) |
| 2 - Moderately Disagree | (MD) |
| 3 - Somewhat Disagree | (SWD) |
| 4 - Undecided or Neutral | (U/N) |
| 5 - Somewhat Agree | (SWA) |
| 6 - Moderately Agree | (MA) |
| 7 - Strongly Agree | (SA) |

QUESTIONS:

As a nurse, I feel rewarded because patients and I share with each other mutual:

	SD	MD	SWD	U/N	SWA	MA	SA
1. Respect.	1	2	3	4	5	6	7
2. Trust.	1	2	3	4	5	6	7
3. Interest in each other.	1	2	3	4	5	6	7

As a nurse, I feel rewarded because patients and I:

	SD	MD	SWD	U/N	SWA	MA	SA
4. Listen to each other.	1	2	3	4	5	6	7
5. Work together to meet the patient's needs.	1	2	3	4	5	6	7
6. Try to do things in a way that satisfies us both.	1	2	3	4	5	6	7
7. "Connect" with each other.	1	2	3	4	5	6	7
8. May disagree with each other and still work together.	1	2	3	4	5	6	7

N-PRS (cont.)

As a nurse, I feel rewarded because:

		SD	MD	SWD	U/N	SWA	MA	SA
9.	I can help patients with their suffering.	1	2	3	4	5	6	7
10.	I can help patients face, with dignity, difficult or painful events, such as dying.	1	2	3	4	5	6	7
11.	I can help patients maintain their independence.	1	2	3	4	5	6	7
12.	I can help patients maintain their dignity.	1	2	3	4	5	6	7
13.	I can extend warmth and caring in an environment which may be unfamiliar or appear hostile to the patient.	1	2	3	4	5	6	7
14.	I am able to empower patients by involving them in their own health care decisions.	1	2	3	4	5	6	7
15.	I am able to help patients grieve a loss.	1	2	3	4	5	6	7
16.	My work with patients makes me feel good about my work performance.	1	2	3	4	5	6	7
17.	I value the intimacy of my work relationships with patients.	1	2	3	4	5	6	7
18.	I learn so much from patients.	1	2	3	4	5	6	7
19.	I learn about myself from my interactions with patients.	1	2	3	4	5	6	7
20.	I establish therapeutic relationships with patients.	1	2	3	4	5	6	7

N-PRS (cont.)

As a nurse, I feel rewarded because:

		SD	MD	SWD	U/N	SWA	MA	SA
21.	I have opportunities to show kindness when persons are most vulnerable.	1	2	3	4	5	6	7
22.	What I do for patients makes me feel good about myself.	1	2	3	4	5	6	7
23.	Patients get better because of my care.	1	2	3	4	5	6	7
24.	Patients trust me.	1	2	3	4	5	6	7
25.	Patients share concerns or fears with me.	1	2	3	4	5	6	7
26.	Patients believe I am competent.	1	2	3	4	5	6	7
27.	Patients listen to me.	1	2	3	4	5	6	7
28.	Patients ask for my advice.	1	2	3	4	5	6	7
29.	Patients ask that I be their nurse again.	1	2	3	4	5	6	7
30.	Patients say they are glad to have me as their nurse.	1	2	3	4	5	6	7

APPENDIX E

N-PRS Pilot Internal Consistency Analysis

NURSE-PERCEIVED RECIPROCITY SCALE (N-PRS)

RELIABILITY ANALYSIS OF PILOT DATA - SCALE (ALPHA)

	<u>LABEL CODE</u>		<u>ITEM</u>	
1.	ASKADVIC	=	ITEM	28
2.	ASKFORME	=	ITEM	29
3.	CARING	=	ITEM	13
4.	COMPETNT	=	ITEM	26
5.	CONNECT	=	ITEM	7
6.	DISAGREE	=	ITEM	8
7.	DOTHINGS	=	ITEM	6
8.	EMPOWER	=	ITEM	14
9.	FEELGOOD	=	ITEM	16
10.	GETBETTR	=	ITEM	23
11.	GLADME	=	ITEM	30
12.	GOODSELF	=	ITEM	22
13.	HELPDIG	=	ITEM	12
14.	HELPPFACE	=	ITEM	10
15.	HELPGRIV	=	ITEM	15
16.	HELPINDP	=	ITEM	11
17.	HELPSUF	=	ITEM	9
18.	INTEREST	=	ITEM	3
19.	INTIMACY	=	ITEM	17
20.	LEARNFRM	=	ITEM	18
21.	LEARNSLF	=	ITEM	19
22.	LISTEN	=	ITEM	4
23.	LISTENME	=	ITEM	27
24.	RESPECT	=	ITEM	1
25.	SHAREFER	=	ITEM	25
26.	SHOWKIND	=	ITEM	21
27.	THERREL	=	ITEM	20
28.	TRUST	=	ITEM	2
29.	TRUSTME	=	ITEM	24
30.	WORKTOG	=	ITEM	5

N-PRS ITEM BY-ITEM CORRELATION MATRIX FOR PILOT

	ASKADV	ASKFORME	CARING	COMPETNT	CONNECT	DISAGREE	DOTHINGS	EMPOWER
ASKADV	1.0000							
ASKFORME	.4246	1.0000						
CARING	.1765	.1299	1.0000					
COMPETNT	.5241	.8101	.4543	1.0000				
CONNECT	.0151	.5011	.6326	.3918	1.0000			
DISAGREE	.7543	.1190	.4121	.1468	.3073	1.0000		
DOTHINGS	-.1761	.1555	.3413	.1920	.4018	-.1850	1.0000	
EMPOWER	.7339	.3317	.6434	.4738	.3646	.8207	-.0943	1.0000
FEELGOOD	.6061	.8823	.2610	.7526	.4239	.3774	-.0493	.6223
GETTBETTR	-.2067	-.0066	.0275	.0367	-.1273	-.2518	.5763	-.0843
BLADME	.5241	.8101	.4543	1.0000	.3918	.1468	.1920	.4738
GOODSELF	.3027	.2228	.2058	.2750	-.0794	.1885	.2464	.4842
HELDPDG	.4704	.3464	.7600	.4726	.5555	.6456	.4490	.8010
HELFFACE	.3208	-.0694	.5004	.3858	-.0297	.2644	.1555	.3664
HELPGRIV	.3882	-.0124	.1377	.1840	-.2722	.2128	-.4019	.2825
HELPINDP	.5241	.8101	.3074	.6071	.6186	.5507	-.0720	.6668
HELPSUF	-.2819	-.2075	.3125	.0501	-.1736	-.3434	.5388	-.1149
INTEREST	.1859	.6000	.2334	.5263	.2813	.0301	.4716	.3735
INTIMACY	.5006	.3684	.5543	.5363	.2813	.4708	-.1048	.7948
LEARNFIRM	.4808	.6652	.0392	.3407	.3177	.4310	-.2113	.5408
LEARNSLF	.6080	.4474	.5600	.4543	.4629	.7143	-.0539	.9323
LISTEN	.4454	.5854	-.2920	.5636	-.1627	-.1448	.1311	-.0426
LISTENME	.8577	.6312	.0171	.5271	.0662	.5771	.0770	.6080
RESPECT	.4836	.6170	.3288	.9227	.1522	.0113	.1772	.2590
SHAREFER	.3654	.5803	.6080	.8124	.3480	.1616	.4051	.5923
SHOWKIND	.7885	.5803	.6080	.8124	.3480	.6061	.0176	.8755
THERREL	.6864	.5052	.5125	.5011	.4918	.8156	-.1684	.9274
TRUST	.4030	.2966	.5754	.7689	.1268	.1129	.1476	.4533
TRUSTME	.2359	.5979	.7483	.6071	.8454	.3488	.4560	.4738
WORKTOG	.5929	.7675	.0209	.6409	.2574	.2291	-.1124	.4381

N-PRS ITEM-BY-ITEM CORRELATION MATRIX

FEELGOOD GETBETTR GLADME GOODSELF HELPDIG HELPFACE HELPGRIV HELPINDP

	1.000						
FEELGOOD	1.000						
GETBETTR	-.0441	1.0000					
GLADME	.7526	.0367	1.0000				
GOODSELF	.4476	.7389	.2750	1.0000			
HELPDIG	.4945	.2750	.4276	.5488	1.0000		
HELPPFACE	.1190	.4058	.3858	.4951	.3464	1.0000	
HELPGRIV	.3428	-.2722	.1840	.1550	.0516	.3313	1.0000
HELPINDP	-.2490	.6703	.6071	.2750	.5746	-.0386	-.0058
HELPSUF	-.2490	.6703	.0501	.4180	.2375	.4210	-.0753
INTEREST	.5810	.7154	.5263	.8130	.5689	.2526	-.2385
INTIMACY	.6912	.1270	.5263	.6754	.5689	.5614	.3829
LEARNFRM	.8755	-.0899	.3407	.4372	.3922	-.1132	.3545
LEARNSLF	.7143	.0275	.4543	.5831	.7600	.2887	.1377
LISTEN	.4679	.0149	.5636	.1113	-.0649	-.0156	.2792
LISTENME	.7067	.1336	.5271	.5147	.5488	.1320	.1550
RESPECT	.5081	-.0075	.9227	.0987	.2173	.4429	.2476
SHAREFER	.6061	.4854	.8124	.6727	.6864	.5284	.0169
SHOWKIND	.7543	-.0090	.8124	.4877	.6864	.5284	.2954
THERREL	.7211	-.1031	.5011	.4073	.7250	.2406	.1345
TRUST	.3613	.1733	.7689	.3665	.3288	.7751	.2193
TRUSTME	.5507	-.0980	.6071	.0229	.7216	.1029	.0575
WORKTOG	.8592	-.2580	.6409	.2324	.2085	-.0602	.3858
							.6409

N-PRS ITEM-BY-ITEM CORRELATION MATRIX

HELPSUF INTEREST INTIMACY LEARNFRM LEARNSLF LISTEN LISTENME RESPECT SHAREFER

HELPSUF	1.0000							
INTEREST	.3738	1.0000						
INTIMACY	.0729	.5319	1.0000					
LEARNFRM	-.3922	.4434	.6007	1.0000				
LEARNSLF	-.1000	.5543	.8752	.6864	1.0000			
LISTEN	-.2028	.2130	-.0473	.2545	-.1136	1.0000		
LISTENME	-.1715	.5378	.4003	.6222	.5831	.5703	1.0000	
RESPECT	.1027	.2878	.2878	.0484	.1480	.6667	.4088	1.0000
SHAREFER	.3922	.8153	.6579	.2692	.6080	.2704	.4877	.6609
	1.0000							
SHOWKIND	-.0123	.5006	.8153	.4808	.8237	.2704	.6727	.6609
	.7885							
THERREL	-.3125	.4285	.7293	.6619	.9250	-.0203	.6431	.2363
	.5516							
TRUST	.3493	.3717	.6355	-.0484	.3946	.2134	.2115	.7838
	.7577							
TRUSTME	.0501	.3119	.3119	.3407	.4543	.0867	.2750	.4394
	.5241							
WORKTOG	-.4952	.3194	.4866	.7565	.4796	.6934	.6258	.4971
	.3680							

SHOWKIND THERREL TRUST TRUSTME WORKTOG

SHOWKIND	1.0000				
THERREL	.8212	1.0000			
TRUST	.7577	.3288	1.0000		
TRUSTME	.5241	.5011	.2856	1.0000	
WORKTOG	.5929	.4952	.2571	.3344	1.0000

NURSE-PERCEIVED RECIPROCITY SCALE (N-PRS)

RELIABILITY ANALYSIS OF PILOT DATA - SCALE (ALPHA) -cont.

N OF CASES = 11

STATISTICS FOR SCALE

Mean	189.1818	Variance	227.9636	Std Dev	15.0985
N of Variables	30				

ITEM MEANS

Mean	6.3061	Minimum	5.3636	Maximum	6.6364
Range	1.2727	Max/Min	1.2373	Variance	.0801

	<u>ITEM</u>	<u>MEAN</u>	<u>STD DEV</u>
1.	ASKADVIC	6.4545	.6876
2.	ASKFORME	6.4545	.9342
3.	CARING	6.6364	.6742
4.	COMPETN	6.6364	.5045
5.	CONNECT	6.1818	.8739
6.	DISAGREE	6.1818	.9816
7.	DOTHINGS	6.1818	.7508
8.	EMPOWER	6.3636	1.0269
9.	FEELGOOD	6.1818	.9816
10.	GETBETTR	5.8182	1.4709
11.	GLADME	6.6364	.5045
12.	GOODSELF	6.2727	.7862
13.	HELPDIG	6.3636	.6742
14.	HELPPFACE	6.0909	.7006
15.	HELPPGRIV	5.3636	1.5667
16.	HELPPINDP	6.2727	1.0090
17.	HELPPSUF	5.8182	1.0787
18.	INTEREST	6.3636	.9244
19.	INTIMACY	6.3636	.9244
20.	LEARNFRM	6.5455	.6876
21.	LEARNSLF	6.6364	.6742
22.	LISTEN	6.0909	.8312
23.	LISTENME	6.2727	.7862
24.	RESPECT	6.4545	.8202
25.	SHAREFER	6.4545	.6876
26.	SHOWKIND	6.4545	.6876
27.	THERREL	6.1818	1.0787
28.	TRUST	6.5455	.8202
29.	TRUSTME	6.6364	.5045
30.	WORKTOG	6.2727	.6467

NURSE-PERCEIVED RECIPROCITY SCALE (N-PRS)

RELIABILITY ANALYSIS OF PILOT DATA - SCALE (ALPHA) - cont.

ITEM-TOTAL STATISTICS (30 ITEMS OF N-PRS)

		Scale Mean if Item Deleted	Scale Variance If Item Deleted	Corrected Item- Total Correlation	Squared Multiple Correlation	Alpha If Item Deleted
1.	ASK ADVIC	182.7273	214.4182	.6492	.	.9266
2.	ASKFORME	182.7273	209.2182	.6613	.	.9259
3.	CARING	182.5455	216.4727	.5563	.	.9276
4.	COMPETNT	182.5455	215.8727	.7984	.	.9263
5.	CONNECT	183.0000	217.4000	.3803	.	.9295
6.	DISAGREE	183.0000	213.8000	.4598	.	.9287
7.	DO THINGS	183.0000	223.4000	.1782	.	.9314
8.	EMPOWER	182.8182	204.1636	.7751	.	.9241
9.	FEELGOOD	183.0000	203.8000	.8278	.	.9234
10.	GETBETTR	183.3636	219.6545	.1409	.	.9372
11.	GLADME	182.5455	215.8727	.7984	.	.9263
12.	GOODSELF	182.9091	212.8909	.6300	.	.9266
13.	HELPDIG	182.8182	212.3636	.7708	.	.9255
14.	HELPPFACE	183.0909	217.8909	.4632	.	.9285
15.	HELPPGRIV	183.8182	217.3636	.1763	.	.9376
16.	HELPPINDP	182.9091	206.6909	.6981	.	.9253
17.	HELPSU	183.3636	225.8545	.0292	.	.9353
18.	INTEREST	182.8182	208.9636	.6789	.	.9257
19.	INTIMACY	182.8182	206.3636	.7811	.	.9243
20.	LEARNFRM	182.6364	215.6545	.5861	.	.9273
21.	LEANSLF	182.5455	211.8727	.7967	.	.9252
22.	LISTEN	183.0909	220.2909	.2830	.	.9306
23.	LISTENME	182.9091	211.2909	.7024	.	.9257
24.	RESPECT	182.7273	213.6182	.5703	.	.9272
25.	SHAREFER	182.7273	210.4182	.8559	.	.9246
26.	SHOWKIND	182.7273	209.2182	.9187	.	.9239
27.	THERREL	183.000	203.6000	.7536	.	.9244
28.	TRUST	182.6364	212.6545	.6119	.	.9267
29.	TRUSTME	182.5455	218.6727	.6056	.	.9277
30.	WORKTOG	182.9091	216.2909	.5917	.	.9273

Reliability Coefficients 30 Items

Alpha = .9299

Standardized Item Alpha = .9467

APPENDIX F
N-PRS Study Internal Consistency Analysis

**NURSE-PERCEIVED RECIPROCITY SCALE (N-PRS)
RELIABILITY ANALYSIS OF STUDY DATA-SCALE (ALPHA)**

<u>ITEM</u>	<u>LABEL</u>
1.	RESPECT
2.	TRUST
3.	INTEREST
4.	LISTEN
5.	WORKTOG
6.	DO THINGS
7.	CONNECT
8.	DISAGREE
9.	HELPSUF
10.	HELPPFACE
11.	HELPIND
12.	HELPPDIG
13.	CARING
14.	EMPOWER
15.	HELPGRIV
16.	FEELGOOD
17.	INTIMACY
18.	LEARNFRM
19.	LEARNSLF
20.	THERREL
21.	SHOWKIND
22.	GOODSELF
23.	GETBETTR
24.	TRUSTME
25.	SHAREFER
26.	COMPETNT
27.	LISTENME
28.	ASKADVIC
29.	ASKFORME
30.	GLADME

**NURSE-PERCEIVED RECIPROCITY SCALE (N-PRS)
RELIABILITY ANALYSIS OF STUDY DATA-SCALE (ALPHA)**

		<u>MEAN</u>	<u>STD DEV</u>	<u>CASES</u>
1.	RESPECT	1.7500	1.5964	68.0
2.	TRUST	1.6176	1.5359	68.0
3.	INTEREST	.9412	1.5824	68.0
4.	LISTEN	1.7059	1.2820	68.0
5.	WORKTOG	1.4118	1.3297	68.0
6.	DO THINGS	1.2941	1.2466	68.0
7.	CONNECT	1.3529	1.2669	68.0
8.	DISAGREE	1.2059	1.4410	68.0
9.	HELPSUF	1.5147	1.4609	68.0
10.	HELPPFACE	1.5000	1.4812	68.0
11.	HELPIND	1.7794	1.2560	68.0
12.	HELPPDIG	1.9412	1.2324	68.0
13.	CARING	2.1618	1.2768	68.0
14.	EMPOWER	1.9706	1.1193	68.0
15.	HELPPGRIV	1.2647	1.3452	68.0
16.	FEELGOOD	2.1765	1.1453	68.0
17.	INTIMACY	1.9412	1.4024	68.0
18.	LEARNFRM	2.0000	1.1197	68.0
19.	LEARNSLF	2.0000	1.0509	68.0
20.	THERREL	1.9853	1.0437	68.0
21.	SHOWKIND	2.4412	.9523	68.0
22.	GOODSELF	2.3824	1.0079	68.0
23.	GETBETTR	1.9118	1.1162	68.0
24.	TRUSTME	2.1029	1.0946	68.0
25.	SHAREFER	2.1912	1.0112	68.0
26.	COMPETNT	2.4118	.9017	68.0
27.	LISTENME	2.0294	1.0646	68.0
28.	ASKADVIC	2.3088	.9659	68.0
29.	ASKFORME	2.2941	1.0230	68.0
30.	GLADME	2.3382	1.0016	68.0

**NURSE-PERCEIVED RECIPROCITY SCALE (N-PRS)
RELIABILITY ANALYSIS OF STUDY DATA-SCALE (ALPHA)**

ITEM-BY-ITEM CORRELATION MATRIX FOR STUDY

	<u>RESPECT</u>	<u>TRUST</u>	<u>INTEREST</u>	<u>LISTEN</u>	<u>WORKTOG</u>
RESPECT	1.0000				
TRUST	.9405	1.0000			
INTEREST	.6736	.6600	1.0000		
LISTEN	.5834	.5560	.5064	1.0000	
WORKTOG	.3515	.3340	.3522	.7550	1.0000
DOTHINGS	.4575	.4572	.6293	.6526	.5381
CONNECT	.5240	.4769	.4349	.7357	.5858
DISAGREE	.3601	.3126	.2279	.5180	.5237
HELPSUF	.2032	.2154	.2134	.4247	.4425
HELPPFACE	.2430	.2821	.2866	.3223	.3713
HELPIND	.4038	.3812	.4214	.4597	.5288
HELPPDIG	.3869	.3664	.4038	.4612	.3793
CARING	.3130	.3288	.4406	.3760	.2503
EMPOWER	.4719	.4969	.4372	.5972	.5096
HELPGRIV	.2815	.2664	.3230	.3920	.3887
FEELGOOD	.5959	.5650	.5741	.6661	.5494
INTIMACY	.4267	.4259	.5096	.4800	.3894
LEARNFRM	.3089	.3298	.4128	.4679	.4010
LEARNSLF	.4448	.4346	.4846	.5539	.3418
THERREL	.6248	.6109	.5959	.6883	.5852
SHOWKIND	.5056	.4742	.4434	.5846	.5026
GOODSELF	.4499	.4429	.4542	.6774	.5267
GETBETTR	.5738	.5982	.4195	.4405	.4472
TRUSTME	.6726	.6984	.5033	.5962	.4729
SHAREFER	.3999	.4994	.4082	.4700	.4068
COMPETNT	.5807	.6111	.4147	.5712	.4789
LISTENME	.5050	.5546	.4352	.5860	.5079
ASKADVIC	.3702	.4429	.4026	.5686	.5154
ASKFORME	.2925	.3481	.3059	.3970	.4692
GLADME	.3524	.4152	.3706	.4971	.5550

**NURSE-PERCEIVED RECIPROCITY SCALE (N-PRS)
RELIABILITY ANALYSIS OF STUDY DATA-SCALE (ALPHA)**

ITEM-BY-ITEM CORRELATION MATRIX FOR STUDY (CONT.)

	<u>DOTHINGS</u>	<u>CONNECT</u>	<u>DISAGREE</u>	<u>HELPSUF</u>	<u>HELPPFACE</u>
DOTHINGS	1.0000				
CONNECT	.6421	1.0000			
DISAGREE	.4477	.6873	1.0000		
HELPSUF	.4811	.4407	.3105	1.0000	
HELPPFACE	.4042	.3420	.2447	.7415	1.0000
HELPIND	.4996	.5187	.4378	.4939	.5576
HELPDIG	.4972	.4915	.2927	.5393	.6050
CARING	.6730	.3610	.2656	.4348	.4301
EMPOWER	.5518	.6179	.4202	.5297	.5581
HELPGRIV	.3979	.4348	.2718	.6664	.7341
FEELGOOD	.6217	.6457	.4299	.4980	.5015
INTIMACY	.4540	.5159	.2424	.3574	.4167
LEARNFRM	.4919	.5156	.2128	.4471	.4230
LEARNSLF	.5127	.5269	.3154	.4083	.4698
THERREL	.5655	.6248	.4387	.4064	.4007
SHOWKIND	.5177	.5247	.4005	.4459	.4550
GOODSELF	.6100	.6759	.4177	.4827	.4899
GETBETTR	.4695	.5290	.4569	.3944	.3882
TRUSTME	.5572	.6300	.5068	.4984	.4741
SHAREFER	.4994	.5058	.4233	.5184	.5530
COMPETNT	.5147	.5895	.4852	.4712	.5141
LISTENME	.4545	.5012	.3560	.4508	.4070
ASKADVIC	.5060	.5804	.4362	.4568	.4642
ASKFORME	.4344	.4024	.3734	.4665	.5023
GLADME	.4809	.4809	.3957	.5729	.5483

**NURSE-PERCEIVED RECIPROCITY SCALE (N-PRS)
RELIABILITY ANALYSIS OF STUDY DATA-SCALE (ALPHA)**

ITEM-BY-ITEM CORRELATION MATRIX FOR STUDY (CONT.)

	<u>HELPIND</u>	<u>HELPDIG</u>	<u>CARING</u>	<u>EMPOWER</u>	<u>HELPGRIV</u>
HELPIND	1.0000				
HELPDIG	.8207	1.0000			
CARING	.4693	.5942	1.0000		
EMPOWER	.7491	.8102	.5360	1.0000	
HELPGRIV	.6005	.5857	.3484	.6298	1.0000
FEELGOOD	.5670	.5573	.4599	.7260	.5505
INTIMACY	.6535	.7147	.4555	.7120	.4356
LEARNFRM	.5307	.6490	.4594	.6788	.5351
LEARNSLF	.5541	.6453	.4561	.6344	.5068
THERREL	.5895	.6375	.4834	.7151	.4812
SHOWKIND	.5068	.6074	.5296	.6284	.5133
GOODSELF	.5275	.6192	.5080	.6849	.4306
GETBETTR	.5076	.4736	.3244	.5594	.4631
TRUSTME	.4836	.5245	.4471	.7212	.4880
SHAREFER	.5508	.5481	.5306	.7171	.5767
COMPETNT	.5031	.5594	.5247	.6925	.4995
LISTENME	.3844	.4564	.4796	.6395	.4530
ASKADVIC	.4999	.5421	.4914	.7126	.5335
ASKFORME	.4694	.4401	.3973	.5421	.5608
GLADME	.4873	.5363	.5168	.6746	.5640
	<u>FEELGOOD</u>	<u>INTIMACY</u>	<u>LEARNFRM</u>	<u>LEARNSLF</u>	<u>THERREL</u>
FEELGOOD	1.0000				
INTIMACY	.6849	1.0000			
LEARNFRM	.6052	.7034	1.0000		
LEARNSLF	.6820	.7393	.6976	1.0000	
THERREL	.7888	.5602	.5236	.6259	1.0000
SHOWKIND	.7623	.5562	.5599	.6412	.7724
GOODSELF	.8199	.6497	.5687	.7046	.7432
GETBETTR	.5961	.3399	.3463	.4453	.7292
TRUSTME	.6758	.4318	.4506	.5060	.7199
SHAREFER	.6019	.4606	.5404	.5477	.6249
COMPETNT	.6657	.4916	.5470	.5670	.7678
LISTENME	.6567	.5010	.5259	.4802	.6854
ASKADVIC	.6381	.4433	.5796	.5293	.7004
ASKFORME	.5410	.3556	.4300	.4442	.6052
GLADME	.5977	.4606	.5190	.4963	.6616

**NURSE-PERCEIVED RECIPROCITY SCALE (N-PRS)
RELIABILITY ANALYSIS OF STUDY DATA-SCALE (ALPHA)**

ITEM-BY-ITEM CORRELATION MATRIX FOR STUDY (CONT.)

	<u>SHOWKIND</u>	<u>GOODSELF</u>	<u>GETBETTR</u>	<u>TRUSTME</u>	<u>SHAREFER</u>
SHOWKIND	1.0000				
GOODSELF	.8013	1.0000			
GETBETTR	.6831	.6009	1.0000		
TRUSTME	.7003	.6943	.7649	1.0000	
SHAREFER	.6395	.6155	.6102	.7505	1.0000
COMPETNT	.7760	.7111	.7337	.8184	.7472
LISTENME	.7378	.6709	.5423	.7018	.6740
ASKADVIC	.7421	.7048	.6348	.7317	.8096
ASKFORME	.7227	.6420	.6897	.7190	.7095
GLADME	.7331	.6683	.6412	.7301	.7899

	<u>COMPETNT</u>	<u>LISTENME</u>	<u>ASKADVIC</u>	<u>ASKFORME</u>	<u>GLADME</u>
COMPETNT	1.0000				
LISTENME	.7802	1.0000			
ASKADVIC	.8115	.8328	1.0000		
ASKFORME	.7405	.6223	.7525	1.0000	
GLADME	.8185	.7743	.8314	.8628	1.0000

N OF CASES = 68.0

STATISTICS FOR SCALE

MEAN	55.9265	VARIANCE	700.2781	STD DEV	26.4628
N OF VARIABLES		30			

ITEM MEANS

MEAN	1.8642	MINIMUM	.9412	MAXIMUM	2.4412
RANGE	1.5000	MAX/MIN	2.5938	VARIANCE	.1641

ITEM VARIANCES

MEAN	1.5073	MINIMUM	.8130	MAXIMUM	2.5485
RANGE	1.7355	MAX/MIN	3.1347	VARIANCE	.2529

INTER-ITEM CORRELATIONS

MEAN	.5300	MINIMUM	.2032	MAXIMUM	.9405
RANGE	.7373	MAX/MIN	4.6283	VARIANCE	.0179

**NURSE-PERCEIVED RECIPROCITY SCALE (N-PRS)
RELIABILITY ANALYSIS OF STUDY DATA-SCALE (ALPHA)**

ITEM-TOTAL STATISTICS

	<u>SCALE MEAN IF ITEM DELETED</u>	<u>SCALE VARIANCE IF ITEM DELETED</u>	<u>CORRECTED ITEM- TOTAL CORRELATION</u>	<u>SQUARED MULTIPLE CORRELATION</u>	<u>ALPHA IF ITEM DELETED</u>
RESPECT	54.1765	646.7744	.6275	.9495	.9674
TRUST	54.3088	648.1271	.6367	.9406	.9672
INTEREST	54.9853	649.3281	.6007	.7663	.9676
LISTEN	54.2206	650.6521	.7336	.8586	.9663
WORKTOG	54.5147	655.8356	.6266	.8267	.9671
DO THINGS	54.6324	653.5195	.7092	.8066	.9665
CONNECT	54.5735	651.4124	.7308	.8340	.9664
DISAGREE	54.7206	659.9357	.5169	.6528	.9680
HELPSUF	54.4118	653.1414	.6027	.7427	.9674
HELPSUF	54.4265	652.0094	.6091	.8031	.9674
HELPIND	54.1471	652.8736	.7140	.8592	.9665
HELPDIG	53.9853	652.3729	.7368	.9177	.9663
CARING	53.7647	659.5558	.5961	.7000	.9673
EMPOWER	53.9559	650.9980	.8408	.9027	.9658
HELPGRIV	54.6618	653.9884	.6465	.7962	.9670
FEELGOOD	53.7500	650.0709	.8372	.8973	.9658
INTIMACY	53.9853	649.7460	.6793	.8495	.9668
LEARNFRM	53.9265	660.4273	.6707	.7552	.9668
LEARNSLF	53.9265	660.3079	.7196	.7739	.9665
THERREL	53.9412	654.3547	.8396	.8797	.9659
SHOWKIND	53.4853	659.8655	.8074	.8596	.9662
GOODSELF	53.5441	657.0577	.8168	.8878	.9660
GETBETTR	54.0147	658.1938	.7131	.7972	.9665
TRUSTME	53.8235	652.9236	.8251	.8979	.9659
SHAREFER	53.7353	659.0931	.7735	.8181	.9663
COMPETNT	53.5147	660.7908	.8343	.8883	.9661
LISTENME	53.8971	657.9445	.7544	.8583	.9663
ASKADVIC	53.6176	660.0009	.7927	.9026	.9662
ASKFORME	53.6324	662.6837	.6939	.8986	.9667
GLADME	53.5882	659.0219	.7827	.9171	.9662

RELIABILITY COEFFICIENTS 30 ITEMS

ALPHA = .9677 STANDARDIZED ITEM ALPHA = .9713

APPENDIX G
Correlation Matrix for Study Variables

VARIABLE ITEM-BY-ITEM MULTIPLE CORRELATION FOR STUDY

Correlation, 1-tailed Sig, N of Cases:

	RECIP2	AGE	YRSASRN	YRSINPHN	IPRSAT	CARERSAT	IWS	WORKLOAD	YRSCUREM	TEAM
RECIP2	1.000	.080	.057	.092	.318	.375	.204	.168	.006	-.138
		.258	.320	.226	.004	.001	.048	.084	.480	.129
		69	69	69	69	69	68	69	69	69
AGE	.080	1.000	.704	.383	.151	.259	.078	.141	.314	-.102
	.258		.000	.001	.108	.016	.263	.124	.004	.202
	69	69	69	69	69	69	68	69	69	69
YRSASRN	.057	.704	1.000	.575	.128	.163	-.037	.044	.468	.011
	.320	.000		.000	.148	.091	.381	.360	.000	.466
	69	69	69	69	69	69	68	69	69	69
YRSINPHN	.092	.383	.575	1.000	.153	.118	.085	.132	.853	-.067
	.226	.001	.000		.105	.166	.246	.139	.000	.291
	69	69	69	69	69	69	68	69	69	69
IPRSAT	.318	.151	.128	.153	1.000	.650	.489	.442	.094	-.192
	.004	.108	.148	.105		.000	.000	.000	.222	.057
	69	69	69	69	69	69	68	69	69	69
CARERSAT	.375	.259	.163	.118	.650	1.000	.489	.367	.080	-.194
	.001	.016	.091	.166	.000		.000	.001	.256	.056
	69	69	69	69	69	69	68	69	69	69
IWS	.204	.078	-.037	.085	.489	.489	1.000	.506	.023	-.204
	.048	.263	.381	.246	.000	.000		.000	.426	.048
	68	68	68	68	68	68	68	68	68	68

VARIABLE ITEM-BY-ITEM MULTIPLE CORRELATION FOR STUDY (cont.)

	RECIP2	AGE	YRSASRN	YRSINPHN	IPRSAT	CARERSAT	IWS	WORKLOAD	YRSCUREM	TEAM
WORKLOAD	.168	.141	.044	.132	.442	.367	.506	1.000	.187	.093
	.084	.124	.360	.139	.000	.001	.000		.062	.224
	69	69	69	69	69	69	68	69	69	69
YRSCUREM	.006	.314	.468	.853	.094	.080	.023	.187	1.000	-.117
	.480	.004	.000	.000	.222	.256	.426	.0620		.168
	69	69	69	69	69	69	68	69	69	69
TEAM	-.138	-.102	.011	-.067	-.192	-.194	-.204	.093	-.117	1.000
	.129	.202	.466	.291	.057	.056	.048	.224	.168	
	69	69	69	69	69	69	68	69	69	69
OTHER	-.049	.148	.120	.273	.084	-.040	-.066	-.097	.364	-.318
	.343	.112	.164	.012	.245	.371	.298	.214	.001	.004
	69	69	69	69	69	69	68	69	69	69
PRIMARY	-.167	.000	.004	-.005	.086	.117	.182	.037	-.023	-.301
	.086	.499	.487	.483	.242	.168	.068	.382	.424	.006
	69	69	69	69	69	69	68	69	69	69
FUNCTION	.113	.035	.100	.168	.058	.137	-.042	-.145	.135	-.204
	.178	.389	.206	.083	.318	.131	.368	.118	.135	.046
	69	69	69	69	69	69	68	69	69	69
CASE	.254	-.033	-.171	-.245	.034	.068	.154	.035	-.233	-.450
	.018	.394	.080	.021	.391	.291	.106	.386	.027	.000
	69	69	69	69	69	69	68	69	69	69

VARIABLE ITEM-BY-ITEM MULTIPLE CORRELATION FOR STUDY (cont.)

	OTHER PRIMARY FUNCTION CASE			
RECIP2	-.049	-.167	.113	.254
	.343	.086	.178	.018
	68	69	69	69
AGE	.148	.000	.035	-.033
	.112	.499	.389	.394
	69	69	69	69
YRSASRN	.120	.004	.100	-.171
	.164	.487	.206	.080
	69	69	69	69
YRSINPHN	.273	-.005	.168	-.245
	.012	.483	.083	.021
	69	69	69	69
IPRSAT	.084	.086	.058	.034
	.245	.242	.318	.391
	69	69	69	69
CAREERSAT	-.040	.117	.137	.068
	.371	.168	.131	.291
	69	69	69	69
IWS	-.066	.182	-.042	.154
	.298	.068	.368	.106
	68	68	68	68

VARIABLE ITEM-BY-ITEM MULTIPLE CORRELATION FOR STUDY (cont.)

OTHER PRIMARY FUNCTION CASE

WORKLOAD	-.097	.037	-.145	.035
	.214	.382	.118	.386
	69	69	69	69
YRSCUREM	.364	-.023	.135	-.233
	.001	.425	.135	.027
	69	69	69	69
TEAM	-.318	-.301	-.204	-.450
	.004	.006	.046	.000
	69	69	69	69
OTHER	1.000	-.179	-.122	-.268
		.070	.160	.013
	69	69	69	69
PRIMARY	-.179	1.000	-.115	-.254
	.070		.173	.018
	69	69	69	69
FUNCTION	-.122	-.115	1.000	-.172
	.160	.173		.078
	69	69	69	69
CASE	-.268	-.254	-.172	1.000
	.013	.018	.078	
	69	69	69	69

APPENDIX H

Multiple Regression Analysis

MULTIPLE REGRESSION OF STUDY DATA

KEY TO CODE FOR VARIABLES

<u>CODE</u>	<u>VARIABLE</u>
RECIP2	RECIPROCITY
AGE	AGE IN YEARS
YRSASRN	YEARS OF NURSING EXPERIENCE SINCE COMPLETION
OF	BASIC NURSING PROGRAM
YEARSINPHN	YEARS WORKING IN PUBLIC HEALTH NURSING
IPRSAT	SATISFACTION WITH NURSE-PATIENT RELATIONSHIPS
CARERSAT	SATISFACTION WITH NURSING AS CAREER CHOICE
IWS	WORK SATISFACTION
WORKLOAD	SATISFACTION WITH WORKLOAD
YRSCUREM	TENURE/YEARS WITH CURRENT EMPLOYER
TEAM	TEAM TYPE OF NURSING CARE DELIVERY
OTHER	'OTHER' TYPE OF NURSING CARE DELIVERY
PRIMARY	PRIMARY NURSING TYPE OF NURSING CARE DELIVERY
FUNCTION	FUNCTIONAL TYPE OF NURSING CARE DELIVERY
CASE	CASE MANAGEMENT TYPE OF NURSING CARE DELIVERY

Pairwise Deletion of Missing Data

<u>Variable Label</u>	<u>Mean</u>	<u>Std Dev</u>	<u>Cases</u>
RECIP2	55.217	26.920	69
AGE	44.594	8.184	69
YRSASRN	18.406	9.511	69
YRSINPHN	8.087	6.877	69
IPRSAT	5.928	1.321	69
CARERSAT	5.681	1.480	69
IWS	12.277	2.269	68
WORKLOAD	4.623	1.993	69
YRSCUREM	5.822	5.806	69
TEAM	.348	.480	69
OTHER	.159	.369	69
PRIMARY	.145	.355	69
FUNCTION	.072	.261	69
CASE	.275	.450	69

Minimum Pairwise N of Cases = 68

MULTIPLE REGRESSION OF STUDY DATA (cont.)

Equation Number 1 Dependent Variable.. RECIP2

Block Number 1. Method: Enter

WARNING

The following variables have impossible tolerances. Original correlation matrix may not be positive definite: Pairwise deletion may be inappropriate for these variables.

Variable	Tolerance	Status
TEAM	-7.35280E-06	OUT

END OF WARNING

Equation Number 1 Dependent Variable RECIP2

Step	MultR	Rsq	F(Eqn)	SigF	Variable	BetaIn
1					In: CASE	.2536
2					In: AGE	.0880
3					In: WORKLOAD	.1499
4					In: FUNCTION	.1848
5					In: PRIMARY	-.0886
6					In: YRSCUREM	-.0127
7					In: IPRSAT	.2843
8					In: OTHER	-.0208
9					In: IWS	.0453
10					In: CARERSAT	.2767
11					In: YRSASRN	.0679
12	.5076	.2576	1.590	.122	In: YRSINPHN	.3107

End Block Number 1 Tolerance = 1.00E-04 Limits reached.

Block Number 2. Method: Backward

Criterion POUT .1000 AGE YRSASRN YRSINPHN

Step	MultR	Rsq	F(Eqn)	SigF	Variable	BetaIn
13	.5076	.2576	1.767	.082	Out: YRSASRN	
14	.5052	.2552	1.953	.056	Out: AGE	
15	.4848	.2350	1.980	.058	Out: YRSINPHN	

End Block Number 2 All requested variables removed.

Block Number 3. Method: Backward

Criterion POUT .1000 IPRSAT CARERSAT

Step	MultR	Rsq	F(Eqn)	SigF	Variable	BetaIn
16	.4752	.2258	2.151	.045	Out: IPRSAT	

End Block Number 3 POUT = .100 Limits reached.

MULTIPLE REGRESSION OF STUDY DATA (cont.)

Equation Number 1 Dependent Variable.. RECIP2

Block Number 4. Method: Backward

Criterion	POUT .1000 PRIMARY FUNCTION	IWS WORKLOAD	YRSCUREM TEAM	OTHER
-----------	--------------------------------	-----------------	------------------	-------

Step	MultR	Rsq	F(Eqn)	SigF	Variable	Betaln
17	.4752	.2258	2.499	.025	Out: YRSCUREM	
18	.4751	.2257	2.964	.013	Out: IWS	
19	.4749	.2256	3.612	.006	Out: OTHER	
20	.4726	.2233	4.528	.003	Out: WORKLOAD	
21	.4662	.2173	5.924	.001	Out: FUNCTION	
22	.4389	.1926	7.754	.001	Out: PRIMARY	

Variable(s) Removed on Step Number
22.. PRIMARY

Multiple R	.43889
R Square	.19262
Adjusted R Square	.16778
Standard Error	24.55785

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	2	9352.35313	4676.17657
Residual	65	39200.71336	603.08790

F = 7.75372 Signif F = .0010

MULTIPLE REGRESSION OF STUDY DATA cont.

Equation Number 1 Dependent Variable.. RECIP2

Variables in the Equation

Variable	B	SE B	95% Confdnce	Intrvl B	Beta
CARERSAT	6.529672	2.031550	2.472386	10.586958	.359036
CASE	13.720252	6.682859	.373661	27.066843	.229337
(Constant)	14.343244	11.935926	-9.494447	38.180935	

Variables in the Equation

Variable	Tolerance	VIF	T	Sig T
CARERSAT	.995441	1.005	3.214	.0020
CASE	.995441	1.005	2.053	.0441
(Constant)	1.202	.2338		

Variables not in the Equation

Variable	Beta In	Partial	Tolerance	VIF	Min Toler	T	Sig T
AGE	-.006203	-.006659	.930526	1.075	.927301	-.053	.9577
YRSASRN	.040551	.043761	.940257	1.064	.940257	.350	.7272
YRSINPHN	.114709	.122545	.921449	1.085	.921449	.988	.3270
IPRSAT	.133201	.112654	.577508	1.732	.575543	.907	.3678
IWS	-.009080	-.008731	.746451	1.340	.746451	-.070	.9445
WORKLOAD	.032547	.033687	.864922	1.156	.862060	.270	.7883
YRSCUREM	.033028	.035572	.936514	1.068	.936514	.285	.7768
TEAM	.045059	.044020	.770584	1.298	.770584	.353	.7256
OTHER	.028616	.030670	.927441	1.078	.924708	.245	.8069
PRIMARY	-.164129	-.174957	.917425	1.090	.917425	-1.422	.1600
FUNCTION	.108836	.117946	.948198	1.055	.948198	.950	.3456

Collinearity Diagnostics

Number	Eigenval	Cond Index	Variance Proportions		
			Constant	CARERSAT	CASE
1	2.36872	1.000	.01017	.01018	.06895
2	.59942	1.988	.01162	.01191	.93092
3	.03186	8.623	.97821	.97790	.00013

End Block Number 4 POUT = .100 Limits reached.

APPENDIX I
N-PRS Summed Scores

N-PRS SUMMED SCORES

Value	Frequency	Percent	Valid Percent	Cum Percent
-90.00	1	1.4	1.4	1.4
-18.00	1	1.4	1.4	2.9
7.00	1	1.4	1.4	4.3
12.00	1	1.4	1.4	5.8
13.00	1	1.4	1.4	7.2
24.00	1	1.4	1.4	8.7
34.00	2	2.9	2.9	11.6
35.00	1	1.4	1.4	13.0
38.00	1	1.4	4.4	14.5
41.00	2	2.9	2.9	17.4
42.00	1	1.4	1.4	18.8
43.00	1	1.4	1.4	20.3
44.00	1	1.4	1.4	21.7
46.00	2	2.9	2.9	24.6
50.00	1	1.4	10.4	26.1
51.00	2	2.9	2.9	29.0
52.00	3	4.3	4.3	33.3
53.00	3	4.3	4.3	37.7
54.00	1	1.4	1.4	39.1
55.00	4	5.8	5.8	44.9
56.00	1	1.4	1.4	46.4
57.00	1	1.4	1.4	47.8
58.00	3	4.3	4.3	52.2
59.00	2	2.9	2.9	55.1
60.00	2	2.9	2.9	58.0
61.00	1	1.4	1.4	59.4
62.00	2	2.9	2.9	62.3
63.00	1	1.4	1.4	63.8
64.00	3	4.3	4.3	68.1
65.00	1	1.4	1.4	69.6
66.0	2	2.9	2.9	72.5
68.00	1	1.4	1.4	73.9
70.00	2	2.9	2.9	76.8

N-PRS SUMMED SCORES (cont.)

Value	Frequency	Percent	Valid Percent	Cum Percent
71.00	1	1.4	1.4	78.3
75.00	2	2.9	2.9	81.2
76.00	1	1.4	1.4	82.6
77.00	1	1.4	1.4	84.1
81.00	3	4.3	4.3	88.4
83.00	2	2.9	2.9	91.3
84.00	1	1.4	1.4	92.8
85.00	1	1.4	1.4	94.2
88.00	2	2.9	2.9	97.1
89.00	1	1.4	1.4	98.6
90.00	1	1.4	1.4	100.0
Total	69	100.0	100.0	

Mean	55.217	Median	58.00	Mode	55.00
Std Dev	29.290	Minimum	-90.00	Maximum	90.00

Percentile	Value	Percentile	Value	Percentile	Value
10.00	34.00	20.00	43.00	30.00	52.00
40.00	55.00	50.00	58.00	60.00	62.00
70.00	66.00	80.00	75.00	90.00	83.00

Valid Cases	69	Missing cases	0
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REFERENCES

References

- Afifi, A.A., & Clark, V. (1990). Computer-aided multivariate analysis (2nd ed.). New York: Van Nostrand Reinhold.
- American Nurses' Association. (1980). Nursing: A social policy statement. Kansas City: American Nurses' Association.
- Anderson, E. T., & McFarlane, J. M. (1988). Community as client: Application of the nursing process. Philadelphia: J. B. Lippincott.
- Beeber, L., Anderson, C. A., & Sills, G. M. (1990). Peplau's theory in practice. Nursing Science Quarterly, 3, 6-8.
- Befu, H. (1980). Structural and motivational approach to social exchange. In K. J. Gergen, M. S. Greenberg, R. H. Willis (Eds.), Social exchange: Advances in theory and research (197-214). New York: Plenum.
- Benner, P., & Wrubel, J. (1988). Caring comes first. American Journal of Nursing, 88, 1072-1075.
- Blau, P. M. (1964). Exchange and power in social life. New York: John Wiley & Sons.
- Blegen, M. A., & Mueller, C. W. (1987). Nurses' job satisfaction: A longitudinal analysis. Research in Nursing & Health, 10, 227-237.
- Blenkarn, H., D'Amico, M., & Virtue, E. (1988). Primary nursing and job satisfaction. Nursing Management, 19 (4), 41-42.

- Borenstein, M., & Cohen, J. (1988). Statistical power analysis: A computer program. Hillsdale, NJ: Lawrence Erlbaum.
- Brady, J. (1994). Being there. American Journal of Nursing, 94 (5), 54.
- Browner, C. H. (1987). Job stress and health: The role of social support at work. Research in Nursing & Health, 10, 93-100.
- Bruhn, J. G., & Henderson, G. (1991). Values in health care: Choices and conflicts. Springfield: Charles C. Thomas.
- Bruhn, J. G., & Phillips, B. U. (1984). Measuring social support: A synthesis of current approaches. Journal of Behavioral Medicine, 7, 151-169.
- Buck, R. (1988). Human motivation and emotion (2nd ed.). New York: John Wiley & Sons.
- Butler, J., & Parsons, R. J. (1989). Hospital perceptions of job satisfaction. Nursing Management, 20 (8), 45-48.
- Caine, R. M. (1991). Incorporating CARE into caring for families in crisis. AACN Clinical Issues in Critical Care Nursing, 2, 236-241.
- Caudill, M., & Patrick, M. (1989). Nursing assistant turnover in nursing homes and need satisfaction. Journal of Gerontological Nursing, 15 (6), 24-30.
- Chadwick-Jones, J. K. (1976). Social exchange theory: Its structure & influence in social psychology. London: Academic Press.
- Chinn, P. L., & Jacobs, M. K. (1987). Theory and nursing: A systematic approach. St. Louis: C. V. Mosby.

- Cobb, S. (1976). Social support as a moderator of life stress. Psychosomatic Medicine, 38, 300-312.
- Cohen-Mansfield, J. (1989). Sources of satisfaction and stress in nursing home caregivers: Preliminary results. Journal of Advanced Nursing, 14, 383-388.
- Cooper, M. C. (1989). Gilligan's different voice: A perspective for nursing. Journal of Professional Nursing, 5, 10-16.
- Curtin, L. L. (1990). The excellence within. Nursing Management, 21 (10), 7.
- Diekelmann, N. (1991). The emancipatory power of the narrative. In Curriculum Revolution: Community Building and Activism (NLN Pub. No. 15-2398) (pp. 41-62). New York: NLN.
- Dolan, N. (1987). The relationship between burnout and job satisfaction in nurses. Journal of Advanced Nursing, 12, 3-12.
- Donahue, M. P. (1985). Nursing: The finest art: An illustrated history. St. Louis: C. V. Mosby.
- Donaldson, S. K., & Crowley, D. M. (1978/1986). The discipline of nursing. In L. H. Nicoll (Ed.), Perspectives on Nursing Theory. Boston: Little, Brown.
- Donley, R., & Flaherty, M. J. (1989). Analysis of the market driven nursing shortage. Nursing & Health Care, 10, 183-187.
- Dowd, J. J. (1975). Aging as exchange: A preface to theory. Journal of Gerontology, 30, 584-594.

- Dowd, J. J. (1978). Aging as exchange: A test of the distributive justice proposition. Pacific Sociological Review, 21, 351-375.
- Ekeh, P. (1974). Social exchange: The two traditions. Cambridge: Harvard University Press.
- Everly, G. S., & Falcione, R. L. (1976). Perceived dimensions of job satisfaction for staff registered nurses. Nursing Research, 25, 346-348.
- Fawcett, J. (1989). Analysis and evaluation of conceptual models of nursing. Philadelphia: F. A. Davis.
- Foa, E. B., & Foa, U. G. (1980). Resource theory: Interpersonal behavior as change. In K. J. Gergen, M. S. Greenberg, & R. H. Willis (Eds.), Social Exchange: Advances in Theory and Research (pp. 77-93). New York: Plenum.
- Foa, U. G. (1971). Interpersonal and economic resources. Science, 171, 345-351.
- Frank, S. K. (1993). Long-term AIDS care given from the heart. The American Nurse, 25 (2), 2.
- Gadow, S. A. (1985). Nurse and patient: The caring relationship. In A. H. Bishop & J. R. Scudder, Jr. (Eds.), Caring, curing, coping (pp. 31-43). Birmingham, AL: The University of Alabama Press.
- Geissler, E. M. (1990A). Nurture flows two ways. American Journal of Nursing, 90, 72-74.

- Geissler, E. M. (1990B). An exploratory study of selected female registered nurses: Meaning and expression of nurturance. Journal of Advanced Nursing, 15, 524-530.
- Gilbert, D. A. (1993). Reciprocity of involvement activities in client-nurse interactions. Western Journal of Nursing Research, 15, 674-689.
- Gillmore, M. R. (1987). Implications of general versus restricted exchange. In K. S. Cook (Ed.), Social exchange theory (pp.170-189). Newbury Park: Sage.
- Giovanetti, P. (1986). Evaluation of primary nursing. In H. H. Werley, J. J. Fitzpatrick, & R. L. Taunton (Eds.), Annual review of nursing research: Vol. IV (127-151). New York: Springer.
- Goeppinger, J. (1983). Work stress of community health nurses. In S. F. Jacobson & H. M. McGrath (Eds.), Nurses under stress (pp. 84-97). New York: John Wiley & Sons.
- Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. American Sociological Review, 25, 161-178.
- Greenberg, M. S. (1980). A theory of indebtedness. In K. J. Gergen, M. S. Greenberg, & R. H. Willis (Eds.), Social exchange: Advances in theory and research. New York: Plenum.
- Greenberg-Edelstein, R. R. (1986). The nurturance phenomenon: Roots of group psychotherapy. Norwalk, CN: Appleton-Century-Crofts.

- Grobe, S., Becker, H., Dobal, M., Jordan, C. B., & Brown, J. L. (1991). Texas nurses workplace issues survey. Austin, TX: Texas Nurses Association.
- Hagerty, B. M. K., Lynch-Sauer, J., Patusky, K. L., & Bouwsema, M. (1993). An emerging theory of human relatedness. Image, 25 (4), 291-296.
- Hall, B. A., VonEndt, L., & Parker, G. (1981). A frame-work for measuring satisfaction of nursing staff. Nursing Leadership, 4 (4), 29-33.
- Hall, M. D. (1990). The way it is. American Journal of Nursing, 90, 86.
- Haug, M. R. (1988). Professional client relationships and the older patient. In S. K. Steinmetz (Ed.), Family & support systems across the life span (pp. 225-242).
- Helmer, F. T., & McKnight, P. (1989). Management strategies to minimize nursing turnover. Health Care Management Report, 14, 73-80.
- Herzberg, F., Mausner, B., & Snyderman, B. B. (1959). The motivation to work. New York: John Wiley & Sons.
- Hinshaw, A. S., & Atwood, J. R. (1983). Nursing staff turnover, stress, & satisfaction: Models, measures, & management. In H. H. Werley and J. J. Fitzpatrick, Annual Review of Nursing Research: Vol.1 (pp. 133-153). New York: Springer.
- Homans, G. C. (1974). Social behavior: Its elementary forms. New York: Harcourt Brace Jovanovich.

- Juhl, N., Dunkin, J. W., Stratton, T., Geller, J., & Ludtke, R. (1993). Job satisfaction of rural public health nurses. Public Health Nursing, 10 (1), 42-47.
- Kahn, R. L., & Antonucci, T. C. (1980). Convoys over the life course: Attachment, roles, and social support. In P. B. Baltes and O. G. Brim, Jr. (Eds.), Life-Span Development and Behavior: Vol. 3 (pp. 253-286). New York: Academic Press.
- Kahn, R. L., Wethington, E., & Ingersoll-Dayton, B. (1987). Social support and social networks. In R. P. Abeles (Ed.), Life-Span Perspectives and Social Psychology (pp. 139-165). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Kalisch, P. A., & Kalisch, B. J. (1986). The advance of American nursing (2nd ed.). Boston: Little, Brown & Co.
- Kane, C. F. (1988). Family social support: Toward a conceptual model. Advances in Nursing Science, 10 (2), 18-25.
- Kazan, S. (1978). Adler's gemeinschaftsgefuehl and Meyeroff's caring. Journal of Individual Psychology, 34 (1), 3-11.
- Khaleque, A. (1984). Introduction. In A. Khaleque (Ed.), Job satisfaction & work in industry: Three case studies in Bangladesh (pp. 1-2). University of Dhaka: Bangladesh.
- Koelbel, P. W., Fuller, S. G., & Misener, T. R. (1991). An explanatory model of nurse practitioner job satisfaction. Journal of the American Academy of Nurse Practitioners, 3 (1), 17-24.

- Kramer, M., & Schmalenberg, C. (1988a). Magnet hospitals: Part I institutions of excellence. Journal of Nursing Administration, 18 (1), 13-24.
- Kramer, M., & Schmalenberg, C. (1988b). Magnet hospitals: Part II institutions of excellence. Journal of Nursing Administration, 18 (2), 11-19.
- Kramer, M., Schmalenberg, C., & Hafner, L. P. (1989). What causes job satisfaction and productivity of quality nursing care? In T. F. Moore & E. A. Simendinger (Eds.), Managing the nursing shortage: A guide to recruitment and retention (pp. 12-29). Rockville, MD: Aspen.
- Lee, G. R. (1985). Theoretical perspectives on social networks. In W. J. Sauer & R. T. Coward (Eds.), Social support networks and the care of the elderly (pp. 21-37). New York: Springer.
- Leininger, M. (1977). The phenomenon of caring, part V. Nursing Research Report, 12 (1), 2-3.
- Leininger, M. (1990). Caring: A central focus of nursing and health care services. Nursing & Health Care, 11 (3), 135-176).
- Leininger, M. M. (1988). Leininger's theory of nursing: Cultural care diversity and universality. Nursing Science Quarterly, 1, 152-160.
- Levi-Strauss, C. (1969). The elementary structures of kinship. Boston: Beacon.

- Lobb, M., & Reid, M. (1987). Cost-effectiveness at what price? An investigation of staff stress and burnout. Nursing Administration Quarterly, 12, 59-66.
- Lucas, M. D., McCreight, L. M., Watkins, J. G., & Long, S. E. (1988). Job satisfaction assessment of public health nurses. Public Health Nursing, 5, 230-234.
- Mackey, C. L. (1988). Creative retention and recruitment. Nursing Management, 19 (2), 25-27.
- MacPherson, K. I. (1989). A new perspective on nursing and caring in a corporate context. Advances in Nursing Science, 11 (4), 32-39.
- Malinowski, B. (1922). Argonauts of the Western Pacific: An account of native enterprise and adventure in the archipelagoes of Melanesian New Guinea. New York: E. P. Dutton.
- Mallinson, M. B. (1990). How about an "interdependence day"? American Journal of Nursing, 90 (7), 7.
- Marck, P. (1990). Therapeutic reciprocity: A caring phenomenon. Advances in Nursing Science, 13, 49-59.
- Martuza, V.R. (1977). Applying norm-referenced and criterion-referenced measurement in education. Boston: Allyn & Bacon.
- Mauss, M. (1967). The gift: Forms and function of exchange in archaic societies (I. Cunnison, Trans.). New York: W. W. Norton.
- Meleis, A. I. (1985). Theoretical nursing: Development & progress. Philadelphia: J. B. Lippincott.

- Miller, B. K., Haber, J., & Byrne, M. W. (1992). The experience of caring in the acute care setting: Patient and nurse perspectives. In D. A. Gaut (Ed.), The Presence of Caring in Nursing, (NLN Pub. No. 15-2465) (p. 137-156). New York: NLN.
- Minnick, A., Roberts, M. J., Curran, C. R., & Ginzberg, E. (1989). What do nurses want? Priorities for action. Nursing Outlook, 37, 214-218.
- Mitch, C. (1991). Thank heavens for crazy people. American Journal of Nursing, 91 (1), 108.
- Mitchell, R.E., & Trickett, E. J. (1980). Social-network research and psychosocial adaptation: Implications for community mental-health practice. In P. M. Insel (Ed.), Environmental Variables and the Prevention of Mental Illness (pp. 43-68). Lexington: D. C. Heath.
- Molm, L. D. (1987). Linking power structure and power use. In K. S. Cook (Ed.), Social Exchange Theory (pp. 101-129). Newbury Park: Sage.
- Morse, J. M., Solberg, S. M., Neander, W. L., Bottorff, J. L., & Johnson, J. L. (1990). Concepts of caring and caring as a concept. Advances in Nursing Science, 13 (1), 1-14.
- Morse, J. M. (1991). The structure and function of gift giving in the patient-nurse relationship. Western Journal of Nursing Research, 13, 597-615.

- Mottaz, C. J. (1985). The relative importance of intrinsic and extrinsic rewards as determinants of work satisfaction. The Sociological Quarterly, 26, 365-385.
- Mottaz, C. J. (1987). An analysis of the relationship between work satisfaction and organizational commitment. The Sociological Quarterly, 28, 541-558.
- Mottaz, C. J. (1988). Work satisfaction among hospital nurses. Hospital & Health Service Administration, 33, 57-74.
- Munhall, P. L. (1982/1986). Nursing philosophy and nursing research: In apposition or opposition. In L. H. Nicoll (Ed.), Perspectives on Nursing Theory. Boston: Little, Brown.
- Nolan, M., & Grant, G. (1993). Rust out and therapeutic reciprocity: Concepts to advance the nursing care of older people. Journal of Advanced Nursing, 18, 1305-1314.
- Norusis, M. J. (1992). SPSS for Windows: Base system user's guide, release 5.0. Chicago: SPSS.
- Nye, F. I. (1982). The basic theory. In F.I. Nye (Ed.), Family relationships: Rewards & costs (pp. 13-31). Beverly Hills: Sage.
- Parasuraman, S. (1989). Nursing turnover: An integrated model. Research in Nursing & Health, 12, 267-277.
- Passuth, P. M., & Bengtson, V. L. (1988). Sociological theories of aging: Current perspectives and future directions. In J. E. Birren & V. L. Bengtson (Eds.), Emergent Theories of Aging (pp. 333-355). New York: Springer.

- Paternostro, J. M. (1994). Recognition: A little bit goes a long way. RN, 57 (4), 11-12.
- Peplau, H. E. (1956). Interpersonal relations: A theoretical framework for application in nursing practice. Nursing Science Quarterly, 5 (1), 13-18.
- Phillips, K. (1994). Forum. The American Nurse, 26 (9), 4-5.
- Polit, D. F., & Hungler, B. P. (1987). Nursing research: principles and methods, 3rd ed. Philadelphia: J. B. Lippincott.
- Prescott, P. A. (1987). Another round of nurse shortage. Image: Journal of Nursing Scholarship, 19, 204-209.
- Prestholdt, P. H., Lane, I. M., & Mathews, R. C. (1988). Predicting staff nurse turnover. Nursing Outlook, 36, 145-147.
- Pryor, F. L., & Graburn, N. H. H. (1980). The myth of reciprocity. In K. J. Gergen, M. S. Greenberg, & R. H. Willis (Eds.), Social exchange: Advances in theory & research (pp. 215-237). New York: Plenum.
- Rawnsley, M. (1990). Of human bonding: The context of nursing as caring. Advances in Nursing Science, 13 (1), 40-48.
- Reed, S. E. (1988). A comparison of nurse-related behaviour, philosophy of care and job satisfaction in team and primary nursing. Journal of Advanced Nursing, 13, 383-395.
- Rempusheshki, V. F., Chamberlain, S. L., Picard, H. B., Ruzanski, J., & Collier, M. (1988). Expected and received care: Patient expectations. Nursing Administration Quarterly, 12 (3), 42-50.

- Roedel, R. R., & Nystrom, P. C. (1988). Nursing jobs and satisfaction. Nursing Management, 19 (2), 34-38.
- Roloff, M. E. (1981). Interpersonal communication: The social exchange approach. Beverly Hills: Sage.
- SAS Institute. (1985). SAS user's guide: Statistics, version 5. Cary, NC: Author.
- Schroder, C., & Maeve, M. K. (1992). Nursing care partnerships at the Denver Nursing Project in Human Caring: An application and extension of caring theory in practice. Advances in Nursing Science, 15 (2), 25-38.
- Seymour, E., & Buscherhof, J. R. (1991). Sources and consequences of satisfaction and dissatisfaction in nursing: Findings from a national sample. International Journal of Nursing Studies, 28, 109-124.
- Sherlin, M. M. (1990). On nurturance [Letter to the editor]. American Journal of Nursing, 90 (12), 18.
- Slavitt, D. B., Stamps, P. L., Piedmonte, E. G., & Haase, A. M. B. (1978). Nurses' satisfaction with their work situation. Nursing Research, 27, 114-120.
- Slocum, J. W., Susman, G. I., & Sheridan, J. E. (1972). An analysis of need satisfaction and job performance among professional and paraprofessional hospital personnel. Nursing Research, 21, 338-342.

- Stamps, P. L., & Piedmonte, E. B. (1986). Nurses and work satisfaction.
Ann Arbor: Health Administration Press Perspectives.
- Stevens, J. (1992). Applied multivariate statistics for the social sciences
(2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Stockton, S. (1994). Forum. The American Nurse, 26 (9), 5.
- Stoller, E. P. (1985). Elder-caregiver relationships in shared
households. Research on Aging, 7, 175-193.
- Sussman, M. B. (1977). Family, bureaucracy, and the elderly individual:
An organizational/linkage perspective. In E. Shanas & M. B.
Sussman (Eds.), Family, bureaucracy, and the elderly (pp. 2-20).
Durham: Duke University Press.
- Tabachnick, B. G., & Fidell, L. S. (1989). Using multivariate statistics
(2nd ed.). New York: Harper & Row.
- Texas Nurses Foundation. (1988). Texas' nursing shortage: Situations
& solutions. Austin, TX: Texas Nurses Association.
- Thorne, S. E., & Robinson, C. A. (1988a). Health care relationships:
The chronic illness perspective. Research in Nursing & Health,
11, 293-300.
- Thorne, S. E., & Robinson, C. A. (1988b). Reciprocal trust in health
care relationships. Journal of Advanced Nursing, 13, 782-789.
- Tilden, V. P., & Galyen, R. D. (1987). Cost and conflict: The darker
side of social support. Western Journal of Nursing Research, 9,
9-18.

- Ullrich, R. A. (1972). A theoretical model of human behavior in organizations: An eclectic approach. Morristown, NJ: General Learning.
- Ullrich, R. A. (1978). Herzberg revisited: Factors in job dissatisfaction. Journal of Nursing Administration, 8 (9), 19-24.
- Van Baal, J. (1975). Reciprocity & the position of women. Amsterdam: Van Gorcum, Assen.
- van Maanen, H. M. Th. (1990). Nursing in transition: An analysis of the state of the art in relation to the conditions of practice and society's expectations. Journal of Advanced Nursing, 15, 914-924.
- Walker, L. O., & Avant, K. C. (1983). Strategies for theory construction in nursing. Norwalk, CT: Appleton-Century-Crofts.
- Vroom, V.H. (1964). Work and motivation. New York: John Wiley & Sons.
- Wandelt, M. A., Hales, G. D., Merwin, C. M., Olsson, N. G., Pierce, P. M., & Widdowson, R. R. (1980). Conditions associated with registered nurse employment in Texas. Austin, TX: The University of Texas at Austin School of Nursing.
- Watson, J. (1990). Caring knowledge and informed moral passion. Advances in Nursing Science, 13 (1), 15-24.
- Watson, M. J. (1988). New dimensions of human caring theory. Nursing Science Quarterly, 11, 175-181.

- White, M. A., & Green, M. A. (1989). Social exchange theory for nursing administration. In B. Henry, C. Arndt, M. DiVincenti, & A. Marriner-Tomey (Eds.), Dimensions of nursing administration: Theory, research, education, practice (pp. 213-223). Boston: Blackwell Scientific.
- White, S. (1993). Patients challenge RN to learn more. The American Nurse, 25 (2), 2.
- Wood, A. F. (1991). Factors affecting reciprocity between nurses and preterm infants during feeding. Journal of Perinatal Nursing, 4 (4), 62-70.
- Woods, N. F., & Catanzaro, M. (1988). Nursing research: Theory and practice. St. Louis: C. V. Mosby.

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