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UNIVERSITY OF SAN DIEGO  
Hahn School of Nursing and Health Science  
DOCTOR OF PHILOSOPHY IN NURSING

EFFECTS OF ORGANIZATIONAL TRUST

by

PABLO VELEZ, MSN, RN

A dissertation presented to the  
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Dissertation Committee

Dr. Mary Jo Clark, PhD, RN, Chairperson

Dr. Cynthia D. Connelly, PhD, RN

Dr. Daniel Gross, DNSc, RN

## Abstract

This study examined the relationship between levels of organizational trust (OT) and nursing turnover rates, turnover expenditures, patient satisfaction scores, nurse managers' job satisfaction, and nurse managers' perception of fair compensation. An OT inventory and demographic questionnaire were used to collect data from 57 nurse managers working for not-for-profit hospitals in California. Pearson correlations analysis showed that OT was statistically significantly ( $p = .05$ ) related to overall hospital patient satisfaction scores, nurse managers' job satisfaction, nurse managers' perception of fair compensation, and executives' tenure. OT was not correlated with nursing turnover rates or nursing turnover expenditures. By focusing on developing an environment of OT, hospital executives may increase job satisfaction and perceptions of fair compensation among nurse managers, possible resulting in increased patient satisfaction scores.

## TABLE OF CONTENTS

	Page
Chapter 1: Introduction .....	1
Background .....	1
Turnover Rates and Increased Expenditures .....	2
Patient Satisfaction .....	4
Significance .....	6
Purpose .....	9
Definitions .....	9
Theoretical Definitions of Organizational Trust .....	10
Operational Definitions .....	10
Patient Satisfaction Scores .....	11
Employee Turnover Rates .....	12
Turnover Expenditures .....	12
Nurse Managers' Job Satisfaction .....	13
Nurse Managers' Perception of Fair Compensation .....	13
Summary .....	13

Chapter 2: Review of Literature.....	15
Models of Trust.....	15
Antecedents of Organizational Trust.....	20
Cognitive-based Trust and Affect-based Trust.....	21
Trust versus Mistrust.....	23
Trust and Satisfaction.....	24
Trust and the Quantity of Information.....	25
Trust and Group Performance.....	27
Trust and Empowerment.....	34
Measuring Organizational Trust.....	36
Conceptual Framework.....	40
Summary.....	43
Chapter 3: Methodology.....	44
Research Design.....	44
Sample and Sampling.....	45
Procedure.....	47
Measures.....	47
Demographic Information.....	47
Organizational Trust Inventory.....	48
Patient Satisfaction Scores.....	49
Employee Turnover Rates.....	50
Turnover Expenditures.....	51
Statistical Analysis.....	51

Protection of Human Subjects.....	53
Summary.....	54
Chapter 4: Results.....	55
Sample Characteristics.....	55
Measurements.....	59
Data Analysis and Findings.....	60
Findings Related to Research Questions.....	61
Organizational Trust and Demographic Information.....	61
Organizational Trust and Nursing Turnover Rates.....	61
Organizational Trust and Nursing Turnover Expenditure.....	62
Organizational Trust and Patient Satisfaction Scores.....	63
Organizational Trust and Nurse Managers' Job Satisfaction.....	64
Organizational Trust and Nurse Managers' Perception of Fair Compensation.....	64
Organizational Trust and Chief Executive Officer and Chief Nursing Officer Tenure.....	65
Summary.....	66
Chapter 5: Conclusions and Recommendations.....	68
Summary and Discussion of Findings.....	69
Demographic-Biographic Analysis.....	69
Executive Tenure.....	70
Nurse Manager Job Satisfaction.....	70
Organization Size and Organizational Trust.....	71

Nurse Managers' Perception of Fair Compensation.....	71
Organizational Trust Scores, Turnover Rates, and Expenditures .....	71
Patient Satisfaction Scores and OT Scores.....	72
Limitations of the Study.....	72
Implications for Future Research.....	73
Practice Implications.....	74
Conclusion.....	75
References.....	76
APPENDIX A. Demographic Information.....	81
APPENDIX B. Informed Consent.....	86
APPENDIX C. Organizational Trust Inventory.....	88
APPENDIX D. Institutional Review Board Approvals.....	90
APPENDIX E. Permission to Use Organizational Trust Inventory.....	93

## LIST OF TABLES

		Page
Table 1	Characteristics of the Sample .....	56
Table 2	Job-related Factors .....	58
Table 3	Organizational Characteristics – Continuous Variables.....	59
Table 4	Pearson Correlation Coefficients between OT Scores and Turnover Rate .....	62
Table 5	Pearson Correlation Coefficients between OT Scores and Turnover Expenditure.....	63
Table 6	Pearson Correlation Coefficients between OT Scores and Patient Satisfaction.....	63
Table 7	Pearson Correlation Coefficients between OT Scores and Job Satisfaction.....	64
Table 8	Pearson Correlation Coefficients between OT Scores and Fairness Compensation.....	64
Table 9	Tenure of Nurse Managers and Executives .....	65
Table 10	Pearson Correlation Coefficients between OT Scores and CEO and CNO Tenure .....	66



## LIST OF FIGURES

	Page
Figure 1      Organization Trust and Key Variables.....	42
Figure 2      Power Analysis Sample Size.....	47

## Chapter 1

### Introduction

The health care industry is changing in the technological, financial, and organizational realms at an accelerating pace. These changes are generating daunting challenges and a hospital's survival depends upon its ability to adapt to these challenges. For example, one in every three hospitals has negative total financial margins resulting from factors such as decreased reimbursement, increased workforce costs, increased technology costs and the high cost of pharmaceutical supplies (American Hospital Association, 2000). In addition, hospitals have been struggling with their inability to recruit and retain valuable nursing personnel. This problem has been compounded by a nation-wide nursing shortage.

### *Background*

According to a survey commissioned by the American Hospital Association, the Association of American Medical Colleges, the Federation of American Hospitals, and the National Association of Public Hospitals and Health Systems, 60% of hospitals in the United States have been experiencing increasing registered (RN) vacancy rates since 1999. California's RN vacancy rate was estimated to be 15% in 2001 (First Consulting Group, 2001).

Hospital administrators are putting pressure on recruitment personnel to hire staff nurses to reduce the high costs associated with registry and traveling nurses. On average, it takes an organization approximately 68 days to fill a vacant position and the cost has been estimated to be between 50 to 150% of an individual's base salary (Severe Nursing Shortage, 2000). As a result, hospitals must compete with one another, even within the same hospital system, for a limited supply of nurses. The magnitude of this problem will only escalate as the current nursing work force begins to retire, because there will not be enough replacements.

Health care organizations allocate approximately 50% of their budgets to salaries and benefits for nurses (Health Care Advisory Board, 2002). Employers are looking for creative strategies to recruit and retain nurses, especially during a time of nursing shortage. Creative approaches are necessary because of the critical role of nurses in health care and the impact of nursing on hospital budgets.

The nursing shortage affects many areas of concern for hospitals. For this study, three concerns, nursing turnover rates, nursing turnover expenditures, and patient satisfaction scores, will be addressed.

#### *Turnover Rates and Increased Expenditures*

High turnover rates have a direct effect on several areas of a hospital, which in turn influence the financial bottom line. If a hospital experiences high nursing turnover rates, the budget allocation for nursing services will have to increase to cover higher staffing costs. Hospitals often turn to outside health care registries to obtain temporary nursing staff. However, registry nurses are a short-term solution to vacancy issues and are typically hired for emergency supplement situations where assignments last only a few

days. Hospitals pay higher premiums for these health care workers because they must pay an agency fee in addition to the employees' salaries. If the demand for outside registry staff is greater than the supply, the cost of these health care workers escalates, creating further financial constraints on hospitals (Farrington & Martucci, 2003; Jones, 2004).

Another example of higher staffing costs occurs when hospitals hire traveling nurses. These nurses are contracted by hospitals through agencies for a more extended period of time than the registry nurses. Assignments for traveling nurses are typically 90 days or more. Traveling nurses cost more than regular staff nurses because the contracting agencies impose agency fees. Hospitals must also cover the costs of a traveling nurse's housing in addition to the standard nurse salary.

High turnover rates also influence hospital employee morale and productivity. In situations where many staff members leave a hospital or department, those who remain with the organization tend to experience a sense of abandonment. Employees feel helpless and overwhelmed with the increased workload, since those who remain must compensate for the lack of staff, which can lead to burnout (Reineck & Furino, 2005; Stracota, Normandin, O'Brien, Clary & Krukow, 2003). As a result, hospital departments with high turnover rates develop a reputation for being undesirable places to work. Such a reputation is very difficult to change and creates a greater challenge in attracting new nurses to the hospital. This sense of abandonment, burnout, and helplessness could also affect employee absenteeism and productivity (Callaghan, 2003; Jones, 2004).

Another area influenced by nursing turnover is the burden placed on the experienced or senior staff in a department who are responsible for orienting and training

new employees, registry personnel, and traveling nurses. This process is time consuming and takes staff time that could have been spent with patients. An additional burden is placed on senior nursing staff because they must coach and act as resources for new nurses. Senior staff may need to supervise the new staff more closely to ensure that critical errors do not occur. All of these added responsibilities can create an environment where senior nurses resent new staff (Cox, 2001).

Finally, high nursing turnover rates increase recruitment and orientation costs. According to Atencio, Cohen, & Gorenberg (2003), the nursing turnover rate during 2000 was estimated to be 21.3%, and the cost of replacing a general medical/surgical nurse was twice a nurse's salary. Hospitals incur even higher replacement costs for specialty nurses (Atencio et al., 2003).

#### *Patient Satisfaction*

Patient satisfaction is another area of concern that is influenced by the nursing shortage. Hospitals are regulated, in part, by two major organizations: the Joint Commission on Accreditation of Hospital Organizations (JCAHO) (2001), and the Centers for Medicare and Medicaid Services (CMS) (2004). JCAHO is an independent, not-for-profit organization and is the nation's predominant standard-setting and accrediting body in health care. Accreditation by JCAHO is required if hospitals are to receive Medicare and Medicaid funding. CMS is the federal agency within the U.S. Department of Health and Human Services responsible for several federally funded programs including Medicare and Medicaid. CMS requires hospitals to comply with a variety of regulations in order to receive Medicare and Medicaid funding. Both JCAHO's and CMS's regulatory schemes focus heavily on patient satisfaction. Thus, patient

satisfaction is a major concern for hospitals that are expecting to receive federal Medicare and Medicaid funding.

Hospital administrators are focusing on the creation of patient-care environments that promote increased patient satisfaction. Administrators frequently note that satisfied customers have tendencies to return and recommend the hospital to other patients. Dissatisfied patients on the other hand, share their experiences with friends and family members, creating a bad public image for the hospital (Beard, 2004; Press Ganey Associates, 2003). Thus, patient satisfaction can have a great impact on a hospital's financial viability because dissatisfied patients will take their business elsewhere.

The nursing shortage affects hospitals' patient satisfaction scores. Since nursing staff members spend the majority of their time interacting with patients and their families, nurses have the greatest impact on patient and family satisfaction regarding the care received (Beard, 2004). However, in departments where nursing turnover is high, nurses may tend to rush through treatments or spend less time with patients due to staffing shortages (Stracbota et al., 2003). Furthermore, nurses may disclose to patients and their families that the department is short-staffed, resulting in patients unnecessarily worrying about their care. In addition, patients may perceive that the level of care is deficient and unsafe if they hear that a hospital has a high nursing turnover rate. This perception may influence patients' loyalty to a particular hospital or health care organization and, as a result, patients may seek care at other hospitals. Thus, hospitals' patient satisfaction scores are affected by the nursing shortage.

Hospital administrators are looking for creative solutions to address the nursing shortage and its impact on turnover rates, increased expenditures, and patient satisfaction.

The concept of organizational trust is becoming a key factor in addressing the nursing shortage. Organizational trust may be an area that administrators will want to explore because of its potential benefit in decreasing turnover rates and associated expenditures, and increasing patient satisfaction.

### *Significance*

Organizational trust has the potential capacity to improve retention of health care workers by promoting better communication and cooperation among and between employees and managers and by promoting efficiency among teams. Employees are said to feel a sense of ownership and commitment when trusted by their co-workers and management (Butler, 1999; Costigan, Ilter, & Berman, 1998; Driscoll, 1978).

Creating an environment of organizational trust has many positive implications for an organization. Trust has been shown to improve communication, collaboration, and teamwork (Galford & Drapeau, 2002; Shaw, 1997; Zand, 1997). It can facilitate decision-making and improve workflow and job satisfaction. When there is a reciprocal sense of trust between employees and employers, both parties tend to communicate in a more open and honest manner. Furthermore, less time is spent implementing mechanisms to protect or prevent one group from taking advantage of the other group. In other words, less time is spent thinking about opportunistic behaviors and how to deal with this type of behavior.

Communication flows downward and upward between employees and management. When people feel that their thoughts and opinions are valued and respected, less time is spent implementing mechanisms to protect or prevent one group from taking advantage of another group (Zand, 1997). As a result, increased collaboration occurs

among employees, thus creating a team approach to working cohesively toward common goals. As an environment of organizational trust is created, employees feel a sense of loyalty and commitment to the organization, which results in increased employee retention rates. Senior executives should set the tone and create this climate of trust, making it visible and part of the organization's culture. This climate of organizational trust will trickle down to employees throughout the organization (Galford & Drapeau, 2002).

A review of the literature shows that the impact of organizational trust on variables such as turnover rates, costs of turnover, and patient satisfaction have been studied in a very limited way. Three studies were found that measured the impact of organizational trust on variables such as group performance, turnover, cost of turnover, and patient satisfaction (Davis, Schoorman, Mayer, & Tan, 2000; Dirks, 1999; Lafferty, 2003).

The first study (Dirks, 1999) explored whether the level of trust affected group performance, and, if so, how this relationship operated. Dirks used an experimental method with the unit of analysis being the work group. Trust was examined at two treatment levels (high trust and low trust) in a laboratory setting. Dirks (1999) found that groups with higher levels of trust did not necessarily have better processes or better performance than the groups with low levels of trust. Instead, trust appeared to influence how motivation was translated into group process and performance. Limitations to this study include the experimental method used and the lack of consideration of work context and work history of participants.



The second study (Davis et al., 2000) examined the relationship between trust and organizational effectiveness with a chain of nine restaurants. Davis et al. found that general manager (GM) trust was a significant predictor of sales, restaurant size played a role in the total sales of the restaurant, and that GM trust was statistically significant in predicting profit and employee turnover.

Thus, one may argue that the findings could be biased and inconclusive because the study failed to capture the context, personalities, relationships and past history of participants with one another or with the organization. Studies need to be conducted in real time and in live environments to adequately address all factors influencing a study's findings.

The third study (Lafferty, 2003) measured the impact of organizational trust on hospital nursing staff. The author looked at variables such as turnover costs related to organizational trust and the relationship between nursing staff organizational trust and employee compensation costs.

A significant negative association was reported between organizational trust scores across nursing job classifications and turnover rate. Organizations with low levels of organizational trust reported higher turnover rates; however, there was no correlation between levels of organizational trust and turnover cost. The relationship between organizational trust and patient satisfaction scores was also partially supported. This study was conducted with a limited sample size and incorporated employees of only one health care system. Further studies are needed to validate the findings of this study in multiple health care systems. The correlation found between organizational trust and patient satisfaction (Lafferty, 2003) needs to be further evaluated. The author looked at a

patient satisfaction survey created by the hospital system. Results might have been different if a more valid and reliable patient satisfaction survey had been used that compared patient satisfaction across different hospital systems. The limited nature of this body of research on organizational trust in health care settings and limitations of the three studies indicate a need for further research in this area.

### *Purpose*

The purpose of this descriptive correlational study is to determine whether a relationship exists between organizational trust and (a) departmental turnover rates among nurses; (b) the costs associated with turnover; (c) departmental patient satisfaction scores; (d) nurse managers' job satisfaction; and (e) nurse managers' perception of fair compensation. This study will address the following research questions:

1. Are levels of organizational trust associated with staff nurse turnover rates?
2. Are levels of organizational trust associated with staff nurse turnover expenditures?
3. Are levels of organizational trust associated with patient satisfaction?
4. Is nurse managers' job satisfaction associated with organizational trust?
5. Is nurse managers' perception of fair compensation associated with organizational trust?

### *Definitions*

In the following paragraphs, a theoretical definition of organizational trust will be presented followed by the operational definition of organizational trust. Other dependent variables, such as patient satisfaction scores, employee turnover rates, turnover

expenditures, nurse managers' job satisfaction and perception of fair compensation, will be discussed.

### *Theoretical Definitions of Organizational Trust*

Three definitions of organizational trust were found in the literature. Sashkin (1996) defined organizational trust as the “confidence that employees feel toward management and the degree to which they believe what management tells them” (p. 6). Gilbert and Tang (1998) defined it as a belief that the employer will be straightforward and follow through on commitments. Gibbs (1972) defined organizational trust as “an atmosphere in which people have reciprocal feelings of confidence, warmth, and acceptance” (p. 157). For the purpose of this paper, organizational trust is defined as an atmosphere in which employees believe that managers will treat them fairly, consistently, and be honest in their communication process. This definition is similar to Gilbert and Tang (1998) in that employees look to executives' behaviors, such as following through with commitments, when developing organizational trust. However, this definition is broader than those of both Sashkin (1996) and Gibbs (1972) because it not only encompasses employees' feelings toward management, but also takes into account behaviors, consistency of behavior, and communication processes.

### *Operational Definitions*

Study variables measured included organizational trust, patient satisfaction scores, employee turnover rates and expenditures, nurse managers' job satisfaction, and nurse managers' perception of fair compensation. Operational definitions for each of these variables are presented below.

Organizational trust was measured using the Organizational Trust Inventory (OTI) (Cummings & Bromiley, 1996). This tool is divided into three dimensions addressing whether or not members of an organization keep commitments, negotiate honestly, and avoid taking excessive advantage of other individuals or organizations. The dimensions are measured based on affective state (how people feel about others), cognition (how they think about others), and intended behavior. The instrument has a total of 12 questions, with a seven-point Likert-type scale. The higher the score, the higher the level of trust. The OTI was selected for use in this study because it has been used multiple times in different studies, has tested internal validity and reliability, and is short and simple to use. In addition, the instrument measures variables of interest for this study, such as executives avoiding taking advantage of employees, honest communication, and fair treatment by executives (Cummings & Bromiley, 1996).

Nurse managers completed the OTI for their individual departments. The individual OTI scores were compared to five dependent variables for the individual departments (turnover rates, turnover expenditures, patient satisfaction scores, nurse managers' job satisfaction, and nurse managers' perception of fair compensation). In addition, a hospital composite score was calculated by adding individual OTI scores for unit managers in a given hospital and dividing the sum by the number of nurse managers who completed the scale. This composite score was then compared to hospital-wide variables for turnover rates, turnover expenditures, patient satisfaction scores, nurse managers' job satisfaction, and nurse managers' perception of fair compensation.

*Patient satisfaction scores.* Patient satisfaction was measured utilizing the Press Ganey (PG) survey system. PG is a for-profit organization that contracts with health care

institutions to survey patients regarding their satisfaction with care. The PG organization sends a satisfaction survey to each patient discharged from a participating institution. Patients return the survey to PG, which provides participating institutions with monthly, quarterly, and annual results by department and for the entire institution. Patient satisfaction data for this study were obtained from participating department managers who were asked to provide the PG patient satisfaction scores for their department for the past year. Institutional composite satisfaction scores were based on the mean score for all departments within the institution, this composite score was provided by PG. The PG survey uses a five-point Likert scale that measures patient perceptions of care from “very poor” to “very good”.

*Employee turnover rates.* Departmental turnover rates were calculated from information obtained from managers on the Demographic Information Form (Appendix A). Managers were asked to indicate how many registered nurses (RNs) had left the department in the last year excluding deaths, traveling nurses, and transfers to other departments in the institution. They were also asked to provide information on the number of budgeted FTEs and positions in the department. Turnover rates were calculated based on the ratio of number of positions to number of employees who left the department multiplied by 100 (e.g., 5 nurses who left the department / 70 FTE for the department =  $0.0714 \times 100 = 7.14\%$  turnover rate). Similar calculations were used to determine a composite turnover rate for the institution, based on data provided by participating departments within that institution. A minimum of 25% of the total managers in a given institution was required to calculate composite institutional rates.

*Turnover expenditures.* Turnover cost data were calculated from information

obtained from managers on the Demographic Information Form. Managers were asked to indicate the average Registered Nurse salary for their respective institutions. The average Registered Nurse salary was multiplied by two to give an estimated cost of replacing nurses that left the institution. The number of nurses who had left the department in the past year was multiplied by the estimated cost of replacing a nurse, which is two times the average RN salary. Similar calculations were used to determine composite turnover costs for the institution, based on data provided by participating departments within that institution. A minimum of 25% of the total managers in a given institution was required to calculate composite institutional data.

*Nurse managers' job satisfaction.* Job satisfaction was estimated by asking managers to indicate to what degree they were satisfied with their jobs. A five-point Likert scale was used for this question. Responses ranged from very satisfied to very dissatisfied. A composite score was calculated for the organization based on the mean rating of participating managers in that institution.

*Nurse managers' perception of fair compensation.* Nurse managers were asked to indicate how fairly they believed the organization was compensating them for the job that they were doing. A five point Likert-type scale was used to measure satisfaction with compensation. A mean score derived from individual manager's response was calculated for the entire organization.

### *Summary*

There is a need to determine if a relationship exists between levels of organizational trust and nursing turnover rates, turnover expenditures, patient satisfaction scores, nurse managers' job satisfaction and nurse managers' perception of fair

compensation. In this cost-containment environment, hospitals must look to creative alternatives to remain viable as organizations. This study may provide empirical information related to the relationships of the aforementioned variables to organizational trust, and, in turn, may assist hospital administrators to decrease nursing turnover rates and associated costs, as well as increase patient satisfaction.

## Chapter 2

### Review of Literature

Scholars from different social disciplines have developed a special interest in the construct of organizational trust and its impact on a multitude of variables. The purpose of this chapter is to review and analyze the existing literature on organizational trust. More specifically, I will review four trust models and studies that evaluate the relationship between organizational trust and concepts such as communication, group performance, satisfaction, and empowerment. In addition I will review measures of organizational trust.

#### *Models of Trust*

This section will describe the four models of organizational trust most frequently cited in the literature. These include (a) the Development of Trust, Influence, and Expectations model (Gabbaro, 1978); (b) an Integrative Model of Organizational Trust (Mayer, Davis, & Schoorman, 1995); (c) the Spiral Model of Trust (Zand, 1997); and (d) the Experience and Evolution of Trust model (Jones & George, 1998).

The Development of Trust, Influence and Expectation model is based on Gabarro's (1978) observation of how newly appointed company presidents developed



working relationships with their key subordinates. The primary purpose of this study was to understand how these new presidents and their subordinates went about developing working relationships and what problems they faced. The study was conducted in four companies, each of which had named a new president. A total of thirty-three superior-subordinate pairings were studied, all of which consisted of men. In all four companies, the president had been selected from outside the company and had established a track record of success in previous positions.

Two key findings led to the development of this trust model. First, the evolution of working relationships differed from those of an intimate or social nature. Interpersonal attraction plays a more important role in social relationships than in a business relationship. Second, openness about task problems or issues was rated as very important to developing trust. Gabarro's (1978) analysis of the qualitative data led him to develop a model of organizational trust that included three categories: character, competence, and judgment. The category of character included trust in another's integrity, motives, intentions, and consistency of behavior, openness, and discretion. Gabarro divided the category of competence into functional or specific competence, interpersonal competence, and general business sense. Functional or specific competence was defined as the "knowledge and skills required to do a particular job" (p. 296). Interpersonal competence was defined as the ability to work with people to get the job done. General business sense was defined as having an "experience base," "sharp common sense," and "wisdom" (p. 297). The judgment category was described as trust in another's ability to make good judgments in his work and behavior. These concepts developed as a result of people's cumulative interactions over time. The process is dynamic in nature and

observations are constantly occurring during the course of people working together. Two limitations to this model were identified: (1) since the model was derived from research that looked at the formation of relationships between men, it may not apply to women; and (2) the sample size was small.

The second model, an Integrative Model of Organizational Trust by Mayer et al. (1995), incorporates three elements of perceived trustworthiness: ability, benevolence, and integrity. The propensity to trust others and perceived risk assessment were also considered in this model. Propensity was defined as the general willingness to trust others. Mayer et al. (1995) indicated that “propensity influences how much trust one has for the other person or party prior to data on that particular party being available” (p. 715). Ability was defined as the “skills, competencies, and characteristics that enable a party to have influence within some specific domain” (p.717). Benevolence was defined as an intention to want to do good. Integrity was defined as a set of principles found to be acceptable to the individuals involved. This trust model focuses on trust in an organizational setting involving two specific parties (trustor and trustee). As indicated by Mayer et al. (1995), the interaction of perceptions of a person's ability, benevolence, and integrity, as influenced by a person's propensity to trust others, produces trust. Once trust is developed, individuals engage in transactional activities in which they calculate a perceived risk, followed by engaging in a risk-taking relationship, and a final outcome is achieved. For example, if a Chief Executive Officer (CEO) consistently keeps his/her promises, then he/she will be perceived as being honest in his/her communications. He/she will also be known for being fair if he/she gives employees the opportunity to fix

and learn from their mistakes without fear of ridicule or humiliation. Thus, hospital staff will be more inclined to trust a CEO who demonstrates these behaviors.

The limitation of the Mayer et al. (1995) model is that the model is simplistic in nature. Mayer et al. only considered definitions of trust in developing this model, and failed to capture other important components that are necessary for trust to develop. For example, important antecedents of trust, such as attitudes/behaviors, sharing of information, history of individuals and competence, have been considered by other scholars.

The third model, the Spiral Model of Trust by Zand (1997), addressed three key components: information, influence, and control. The author stated that "trust moves up or down the spiral depending on how leaders disclose information, exercise and receive mutual influence, and delegate and exercise control" (Zand, 1997, p. 93). This model outlines three phases in which trust occurs. The first phase involves predisposing beliefs. The second phase incorporates short-cycle feedback, and the third phase addresses equilibrium. The predisposing beliefs apply to situations where the leader estimates or tries to assess the trustworthiness of others. Based on his/her estimation of trustworthiness, the leader will provide information, allow influence, and impose levels of control. The second phase was the short-cycle feedback phase. During this phase, people involved in an interaction estimate the relevance of information provided to them and, based on this information, determine whether other people should be trusted. People also observe the levels of influence and control exercised by the other person during the interaction. The short cycle becomes repetitive and trust levels reach a plateau, or a point of equilibrium, which is the third phase. Trust levels may be high, medium, or low

depending on the individual interaction. The author did not state the specific developmental phases of how this model was created. However, this model has been empirically tested with business executives and found to be valid in that executives and staff go through these phases in their routine interactions with others.

The fourth model, the Experience and Evolution of Trust, by Jones and George (1998), is based on the idea that trust is a psychological construct, the experience of which is the outcome of the interaction of people's values, attitudes, moods, and emotions. Values were defined as desired principles, such as loyalty, helpfulness, fairness, predictability, reliability, honesty, responsibility, integrity, competence, consistency, and openness. However, depending upon the situation, not all of these values are necessary to build trust. For example, a manager may be unreliable because of a history of being late for meetings; however, the manager may still be trusted by his or her employees because of competence or integrity in work.

Attitude was defined as "the knowledge structures containing the specific thoughts and feelings people have about others, groups, or organizations and the means through which they define and structure their interactions with others" (Jones & George, 1998 p. 532). Jones and George indicated that moods and emotions capture people's feelings as they interact with others. Emotions are more intense and have a greater impact on cognitive processes, while moods are less intense and don't interrupt ongoing activities. The authors suggested a strong correlation between moods, emotions, and trust. However, this correlation implies that during periods of negative or down moods and emotions, trust cannot be built. On the contrary, irrespective of a person's negative emotional state of mind, trust can be built as long as there is no correlation between the

negative emotions and the relationship (Gabbaro, 1978). No evidence was provided about the authors' methods in developing this model, nor has this model been empirically tested.

Zand's (1997) trust model had a related antecedent (competence) with Mayer's model (ability). Although a person may have the ability to perform a task or duty, employees may not perceive him/her as being competent to perform the task well. No commonalities were noted with either Gabbaro's model (1978) or with Jones & George's model (1998), both of which focus on character, competence, and judgment. On the other hand, similarities such as loyalty, predictability, honesty, consistency and openness were found in the Gabbaro and Jones and George trust models.

The above discussion analyzed and critiqued four trust models. The following paragraphs will illustrate other important components found in the literature that were not included in these trust models.

#### *Antecedents of Organizational Trust*

Gilbert and Tang (1998) conducted an exploratory descriptive study to examine antecedents of organizational trust. A total of 83 managerial employees were surveyed within a branch of a federal government agency located in a large metropolitan city in the southwestern United States. The sample consisted of 46% males, and 54% females; 69% of the sample was Caucasian, 18% African-American, 12% Hispanic and 1% Asian-American. The mean age of the group was forty-six years. Organizational trust was measured utilizing a two-item, five-point instrument. The employees were asked to evaluate two statements: "Employees here feel you can't trust this organization" and "People in this organization will do things behind your back." Higher scores indicated

greater organizational trust levels. The validity and reliability of the instrument utilized to measure organizational trust in this study was not provided. Gilbert and Tang found that age and marital status were significant predictors of organizational trust ( $p < .05$ ). They also found that work group cohesion was positively correlated with trust ( $p < .01$ ). They indicated that married people are happier, and suffer less depression, stress, and anxiety. As a result, married participants had higher levels of organizational trust. Similar correlations were noted between age and group cohesion ( $p < .05$ ) and higher levels of organizational trust; as age and group cohesion increased, so did levels of organizational trust. No statistically significant associations were found between race or gender and organizational trust.

#### *Cognitive-based Trust and Affect-based Trust*

Costigan et al. (1998) conducted a study of multi-dimensional trust in organizations. They looked at workplace trust from a horizontal perspective (i.e., co-worker trust) as well as from a vertical perspective (i.e., trust of both the supervisor and top management). In addition, two dimensions of interpersonal trust, cognitive-based trust and affect-based trust, were examined in relation to key workplace behaviors such as motivation, risk taking, and assertiveness. Costigan et al. defined cognitive-based trust as a “rational decision to trust or withhold trust of another party” (p. 306) based on three qualities: responsibility, dependability, and competence. In contrast, affect-based trust was defined as a “deep emotional investment in a relationship” (p. 306) based on deep care and concern for a person. Costigan et al. also looked at the employee’s trust of top management and its relationship to key variables, such as desire to leave the organization. Costigan et al.’s (1998) study sample consisted of 150 part-time graduate students

employed in various firms located in the northeastern region of the United States. All participants worked full-time; 103 of the students attended a Master of Business Administration program; 33 students attended a graduate nursing program; and 14 students attended a continuing education program. Participants were asked to complete a questionnaire regarding trust and to deliver a similar questionnaire to their immediate supervisors and to a co-worker of their choice. Trust was measured utilizing McAllister's (1995) five item affect-based trust and cognitive-based trust scale. Reported reliability estimates were .89 and .91, for affect-based & cognitive-based trust, respectively. Employees were asked to do a self-evaluation in four areas: motivation, risk-taking, assertiveness, and personal initiative for professional development. The employees' supervisors performed a similar evaluation of the employees in the following three areas: motivation, risk-taking, and assertiveness.

The results of Costigan et al.'s (1998) study showed that the longer one is on the job, the higher the level of trust in one's supervisor ( $p < .05$ ). Employees' dyadic trust of supervisors and co-workers was positively associated with employees' work-related risk-taking behavior ( $r = .42, p < .05$ ) and motivation ( $r = .47, p < .01$ ). The employees' risk-taking, motivation, and assertiveness behaviors were associated with affect-based trust, but no association was found with cognitive-based trust. Employees' affect-based and cognitive-based trust of their supervisors was positively associated ( $r = .55, p < .01$ ) with the employees' personal initiative to improve their professional education and/or qualifications on the job.

Costigan et al. developed an item that assesses employees' perception of the organization's reward practices. A five-point Likert scale format was used to anchor the

question “The company has a history of rewarding high performing employees” (p. 310). Costigan et al. concluded that the factors of a sound professional development program, a fair appraisal system, and effective pay-for-performance practices were related closely to employees’ trust of top management. In addition, they found that employees’ lack of trust of top management was correlated with the employees’ desire and intent to leave the organization. As levels of trust decreased, the employees’ desire and intent to leave the organization increased. The study measured these factors based upon an adapted version of Cook and Wall’s six-item scale that measures an employee’s trust of his or her organization’s chief executive officer. It is unclear what specific questions were asked in the questionnaire and how these factors were rated.

The limitations of Costigan et al.’s (1998) study included a small sample size of 35 participants. The authors also adapted and created some instruments that had not been tested previously to ensure their validity and reliability. The generalizability of their findings will need to be tested with larger and more diverse samples.

#### *Trust versus Mistrust*

According to Zand (1997), “Executives are remarkably unaware of the specific effects of trust and mistrust” (p. 103). Zand conducted a study in which 400 executives attending a leadership seminar participated in a group simulation to solve a marketing problem. Executives were randomized into groups of four. One executive in each group was assigned to be the president, and the other executives were assigned the roles of vice-presidents. Other executives who were not part of the randomized group were appointed to observe the interaction and to take notes about the degree of problem-solving initiative displayed by participants. Initial trust levels were manipulated within the groups of



executives. Some groups were allowed to believe that the group and the president were trustworthy; other groups were given information that would indicate that members of the group were not to be trusted. At the end of the exercise, the groups were allowed to debrief, but were not aware that initial trust levels had been manipulated. In the high trust level groups, members came up with creative and effective action plans for addressing the situation presented to them. The low trust groups resisted coming up with creative solutions and spent most of their time blaming other members of the team for lack of progress. When asked about the difference in performance between the groups, the executives attributed the success of the high trust level groups to personality, leadership styles, and disclosing information early in the meeting. This study had a large sample size, and the authors were very careful how they provided information to the participants. Concise and specific instructions were given to each executive. Limitations of the study include that this was a game/role playing exercise. Thus, it fails to capture context, relationship with the executive, past experiences of the executives, and other environmental factors.

#### *Trust and Satisfaction*

Driscoll (1978) assessed the usefulness of trust and participation in decision-making in predicting satisfaction among college faculty. One hundred nine faculty members responded to a survey (39%). Of the respondents, 49% were full or associate professors, 81% male, and 56% were less than 40 years old. Driscoll found that as levels of participation increased, greater overall satisfaction with the organization occurred. In addition, the more trust the faculty members had in the organization's decision makers, the higher the level of employee satisfaction. Trust was not correlated with levels of

participation. Participation was measured utilizing a seven-point Likert scale with a Coefficient alpha of .65. Organizational trust was measured by averaging three Likert items that evaluated whether subordinates trusted administrators. Driscoll created the scale and the coefficient alpha was relatively low (.37), raising questions about the construct validity and reliability of the instrument and the findings. Even though this study is several years old, many authors who have been studying the construct of organizational trust frequently cite this study.

#### *Trust and the Quantity of Information*

Butler (1999) conducted a study to investigate the relationship between trust and the quantity of information shared through role-playing. The participants in the study consisted of 324 practicing managers enrolled in 14 sections of an evening graduate course in organizational behavior. The participants were randomly grouped within each classroom into 108 triads (2 role-playing negotiators and one observer per triad) to perform the Ugli Orange Exercise, which is a negotiating role-play with a logrolling solution (Butler, 1999). Initial trust expectations were manipulated by telling members of the groups that some individuals in the group were untrustworthy. The participants were provided data about the quality of information shared, the climate of trust, and the outcomes of the negotiations.

Butler (1999) defined logrolling as a “negotiating process that allows the parties to trade off their low priority concerns to achieve high priority concerns” (p. 218). For logrolling to be possible, there must be at least two issues under consideration, and the negotiators must prioritize the issues differently. Triads were formed using the condition that two participants were assigned as negotiators, and a third participant was assigned as

the observer of the negotiation. Negotiators were given a scenario in which, within fifteen minutes, they had to negotiate how they were going to share a scarce resource. The observer was assigned to take notes and observe the negotiation process. Data were collected utilizing an observer's report form and a negotiator report. The two groups (negotiators and observers) had to answer questions about how much information was provided by the negotiators utilizing a Likert-type scale from 5 (very much) to 1 (very little).

The two groups (negotiators and observers) completed the Climate of Trust scale and indicated whether logrolling occurred. They also answered questions about the complexity of the negotiations. The Climate of Trust scale has a coefficient alpha of .89. Results of the study indicated that the initial trust expectation was significantly associated with information sharing ( $p < .01$ ). However, quantity of information shared did not mediate the relationship between expectation of trust and a climate of trust. The study results also indicated that if negotiators mistrusted each other before the negotiation process started, information sharing did not have any impact on the Climate of Trust.

The quantity of information shared was significantly associated with logrolling. Thus, the more information the negotiators shared, the less time they took to develop a solution. The relationship between the climate of trust and logrolling was not significant. A climate of trust was found to have a significant negative association with the complexity of the delivery arrangements. For example, as trust levels increased among group members, less complex delivery arrangements of goods were required.

The findings of Butler's (1999) study have limited generalizability because all of the participants were management students who had no expertise in the area of

negotiation. The students knew each other in a classroom setting, not in a work environment, which may have limited their ability to take the study seriously. There were no consequences attached to level of performance during these negotiations. Also, the amount of time allotted for the negotiation was limited to 15 minutes, an unrealistic scenario since it is very difficult to analyze and negotiate a solution to a problem in such a short time. Finally, the only independent variable used in this study was the quantity of information shared. Other independent variables should have been considered such as accuracy, consistency, relevance, and timeliness of information.

### *Trust and Group Performance*

In another study, Dirks (1999) explored whether the level of trust affected group performance, and if so, how this relationship operated. Dirks used an experimental method with the work group as the unit of analysis. Trust was examined at two treatment levels (high trust and low trust) in a laboratory setting. The sample consisted of 42 three-person work groups of undergraduate students. A tower-building task was used to study group behavior and performance.

In the task, three individuals worked as a group to build a single tower out of wooden blocks. The participants stood around a table and each person had a pile of 14 wooden blocks. Each participant's blocks were of a different color so that their contribution to the tower could be assessed. The primary objective of the participants was to place as many blocks on the tower as possible, either individually or as a group. They started out by building a tower by themselves and then as a group as they were timed to measure performance. At one of the treatment levels, participants were told different things about the extent to which their partners were reliable and would sacrifice personal

goals for group goals. “Trust was manipulated by providing participants with different perceptions about their partners. In the high trust condition, the information indicated that partners were reliable and would not take advantage of the individual. In the low-trust condition, the information indicated that partners were unreliable and that they would take advantage of the individual” (Dirks, 1999, p. 450).

After the experiment, each individual completed the Interpersonal Trust Measure (ITM), a 10-item seven-point Likert scale that measured the levels of trust. The ITM was created by McAllister (1995) and the coefficient alpha was reported to be .98. Dirks (1999) found that groups with higher levels of trust did not necessarily have better processes or better performance than the groups with low levels of trust. Instead, trust appeared to influence how motivation was translated into group process and performance. That is, “in high-trust groups, motivation was transformed into joint efforts and hence higher performance; in low-trust groups, motivation was transformed into individual efforts” (Dirks, 1999, p. 453). Motivation was assessed using a self-report survey. Participants were asked to respond to a statement, on a 7-point Likert scale, that they “attempt to maximize personal gains while working in groups” (p. 451).

Dirks concluded that the findings of this study provided tentative evidence that trust is a concept that indirectly influences group performance by moderating the relationship between inputs (motivation), group process, and performance. The results of this study are meaningful in understanding the role of trust in temporary work groups or task forces; that is, work groups where unacquainted individuals are brought together for a short period of time to perform a task. The results also have important implications for administrators when assembling work groups or committees. The creation of high levels

of trust among group members may facilitate the completion of projects in an efficient manner due to the ability of the group to share information and help each other while completing tasks. There are two limitations to this study. The first limitation is due to the experimental method used. Since participants were role-playing, they might not have taken their roles seriously, and no consequences were associated with how well or poorly they performed. The second limitation is that this study did not take into consideration work context and work history.

Davis et al. (2000) studied the relationship between trust and organizational effectiveness with a chain of nine restaurants. Three hypotheses were tested:

1. Restaurants whose general managers (GMs) were more trusted by their employees would have higher sales than restaurants whose GMs were less trusted by their employees;
2. Restaurants whose GMs were more trusted by their employees would have higher net profits than restaurants whose GMs were less trusted by their employees; and
3. Restaurants whose GMs were more trusted by their employees would have lower employee turnover rates than restaurants whose GMs were less trusted by their employees.

The 371 employee participants completed a survey that measured employee trust of GMs. Employees also evaluated GMs' ability, benevolence, and integrity levels utilizing a five point Likert-type survey created by Mayer & Davis (1999). The authors calculated individual employee scores for each restaurant as well as an average score to form restaurant composite scores. These composite scores reflected the extent to which

the restaurant's workforce trusted its GM, as well as its assessment of the GM's ability, benevolence and integrity. Information on profits, sales, and turnover were then obtained for each restaurant. Two statistical approaches were taken by the authors to examine the relationship between GM trust and performance. The first consisted of tests of mean differences between restaurants with high trust and those with low trust. Trust scores were aggregated for each restaurant and classified as restaurants where the workforce had high levels of trust for their GM or low levels of trust. T-tests were done to evaluate if there was any relationship between levels of trust, sales, net profits, and turnover. Restaurants with higher levels of trust had significantly higher sales and a higher net profit margin. However, the authors reported only marginal support ( $t = -1.63$ ;  $p < 0.10$ ) for the hypothesis that restaurants whose GMs were more trusted by their employees had lower employee turnover rates. So, although higher levels of trust had a positive impact on sales and profits, levels of trust were not significantly related to employee turnover rates. The authors' explanation for this marginal support was the short timeframe (three months) of data collection for turnover rates.

The second approach utilized multiple regression analyses where the dependent variables were regressed on GM trust, with the addition of the number of households in the community, median income, and size of the restaurant. Results of the regression analyses indicated that: (a) GM trust was a significant predictor of sales ( $R^2 .87$ ,  $p < 0.05$ ); (b) restaurant size plays a role in the total sales of the restaurant ( $R^2 .87$ ,  $p < 0.05$ ); (c) GM trust was statistically significant in predicting profit ( $R^2 .87$ ,  $p < 0.05$ ); and (d) GM trust was significantly related to employee turnover ( $R^2 0.28$ ,  $p < 0.05$ ).

Lafferty (2003) conducted a correlational study to evaluate the relationship between nursing staff trust of their senior executive team and organizational effectiveness in a health care system composed of 10 not-for-profit hospitals in the southeastern United States. Three research questions provided the framework for this study:

1. What is the relationship between nursing staff organizational trust and nursing staff turnover and its associated dollar cost?
2. What is the relationship between nursing staff organizational trust and employee compensation cost for those staff members?
3. What is the relationship between nursing staff organizational trust and patient satisfaction?

In addition, three staff satisfaction variables were examined: personal job satisfaction, whether staff would recommend the organization to a friend or relative for employment, and whether staff would choose to work for the organization again. The total sample population was comprised of inpatient acute-care hospital registered nurses (RNs = 540), licensed practical nurses (LPNs = 84), and patient-care technicians (PCTs = 92). Employees were asked to complete and mail back to the researcher the modified Management Behavior Climate Assessment (MBCA) and demographic/biographic information. Corporate Human Resources and Data Management for the hospital system provided information on turnover rate and dollar cost, employee compensation cost, and patient satisfaction for each of the 10 hospitals. Compensation cost was calculated as the total number of hours for paid time off, which included sick time, vacation, and unspecified absences. Lafferty (2003) used this compensation matrix because that was the way this particular health care system computed its compensation cost, and it would have



been difficult to determine the number of hours allocated to each specific type of paid time off. Perhaps a better variable would be the cost of absenteeism for the organization.

The 10 hospitals in the study were divided into three categories: small, medium, and large. According to Lafferty (2003), smaller hospitals reported higher organizational trust scores. This finding was attributed to the fact that in smaller hospitals the senior executive team may have more opportunity for personal contact with staff. Another finding included the fact that younger respondents reported higher organizational trust scores, which was attributed to younger staff members' lack of exposure to the organization or lack of exposure to health care organizations in general. This is the opposite of what Gilbert and Tang (1998) found with their study; as age increased, so did levels of organizational trust. This discrepancy may be due to population demographics such as age and sample size used in the study. In addition, respondents with a 4-year college degree reported lower organizational trust scores. No explanation for this correlation was provided. Higher levels of organizational trust ( $p = .000$ ) were reported for employees who would rate their job satisfaction as high, recommend the organization to others, and choose to work for the organization again.

A significant negative association was reported between organizational trust scores across nursing job classifications and turnover rate. Organizations with low levels of organizational trust reported higher turnover rates; however, there was no correlation between levels of organizational trust and turnover cost. Three possible explanations were given for this lack of correlation. First, data on turnover cost may have been inaccurate and not reliable as proposed by author; second, there may not have been a relationship between turnover rate and turnover cost; and third, cost is a highly complex

construct and findings may have been attributable to the way the cost was measured or calculated.

There was a significant negative association between organizational trust levels and employee compensation cost (paid time off work) for RNs and LPNs. As levels of organizational trust decreased, compensation cost increased (Pearson's  $r = -.583$  to  $-.804$ ,  $p = .001$ ). However, this association was not consistent for PCTs for whom compensation cost decreased as levels of organizational trust decreased (Pearson's  $r = .362$ ). Two reasons were provided for the positive correlation between organizational trust levels and the compensation cost of PCT's. The first was that PCT's are one of the lowest paid employees in nursing departments. The second reason was that PCT's earn considerably less paid time off, and, as a result, are less inclined to take paid time off in an effort to save it for sickness or emergencies.

The relationship between organizational trust and patient satisfaction scores was also partially supported. Two different patient satisfaction surveys were used by the hospital system. For this reason, two analyses were done. Three large hospitals used a commercially administered survey, and the other seven regional hospitals used a telephone survey developed in-house by the health care system. No information was provided about the validity or reliability of these two patient satisfaction surveys. The patient satisfaction survey scores of the three large hospitals had a negative correlation with levels of organizational trust. In other words, "there was a strong tendency for low organizational trust to be associated with higher patient satisfaction" (p. 210). A strong association was found (Pearson's  $r$  correlation coefficients  $.684$ -. $758$ ,  $p = .000$ ) between

high organizational trust levels and increased patient satisfaction for the remaining seven regional hospitals.

Although this is the first study that evaluates the relationship between hospital nursing organizational trust levels and effectiveness, several weaknesses can be identified in the study. The study was conducted in the southeastern region of the United States and involved only one health care system. Results of the study may only be generalized to the nursing discipline in that system. All the hospitals in the region were not-for-profit, acute care hospitals. Results may not be generalizable to for-profit hospitals. According to the author, data were collected at a time of 4% unemployment in the region, and this is not a typical scenario in other parts of the United States. Unemployment in other parts of the United States is higher resulting in possible employee market competition and higher demand for health care employees, higher salaries, and increased benefits. The patient satisfaction surveys used were, at minimal, ambiguous. No information on validity and reliability of the surveys was provided. Two different satisfaction surveys were used for different hospitals, making it difficult to compare results.

#### *Trust and Empowerment*

Laschinger, Finegan, Shamian, and Casier (2000) evaluated organizational trust and empowerment in restructured health care settings. They used Kanter's model of workplace empowerment (Kanter, 1993) to examine the effects of organizational trust and empowerment on two types of organizational commitment. Organizational commitment was defined as employees' attachment to their organization. The two types of commitment were identified as affective and continuance.

Affective commitment is a person's emotional attachment to, identification with, and involvement in a particular organization. Employees with strong affective commitment work in an organization because they want to. Continuance commitment reflects an employee's awareness of the costs associated with leaving an organization. People with high continuance commitment believe the benefits of staying with an organization outweigh those of leaving and stay with the organization because they need to (Laschinger et al., 2000, p. 416).

Laschinger et al. used a predictive, non-experimental design with a random sample of 412 Canadian staff nurses working in tertiary hospitals that were downsizing. Five self-report scales were used to measure work empowerment: the Conditions of Work Effectiveness Questionnaire II (CWEQ-II), the Job Activity Scale (JAS-II), the Organizational Relationships Scale (ORS-II), the Interpersonal Trust at Work Scale; and the Organizational Commitment Scale. Laschinger et al. modified these scales from the original version and utilized them in this study. The CWEQ-II was used to measure nurses' perception of their access to four-work empowerment structure variables (access to opportunity, information, support, and resources). The Interpersonal Trust at Work Scale, a 12-item instrument, was used to measure trust. The reliability coefficient alpha was reported to be .70. Affective commitment was measured utilizing the Organizational Commitment Questionnaire with a reported reliability of .82 to .93. The JAS-II scale measured flexibility, visibility, and recognition in the work environment. The ORS-II measured perceptions of sponsor support, peer networking, and professional relationships in the work setting. Validity and reliability for the JAS-II and the ORS-II scales were not provided. The CWEQ-II is divided into four subscales that measure access to

opportunity, information, support, and resources. Each subscale is comprised of 3 items. A mean score was obtained by summing and averaging items. “Scores ranged from one to five, with high scores indicating higher perceived access to information, support, resources, and opportunity. These subscale means were then summed to create an overall empowerment score that ranged from 4 to 20” (Laschinger et al., 2000, p. 418). Higher scores indicated greater perceived workplace empowerment. Empowered nurses reported higher levels of organizational trust (measured by the Interpersonal Trust at Work Scale), which in turn was associated with higher levels of affective commitment ( $X^2 = 23.6$ ,  $R^2 = 28\%$ ). Empowerment did not predict continuance commitment, which is commitment to staying in the organization based upon perceived lack of other job opportunities. Applicability of results is limited to nurses and hospitals in the Ontario area, since the sample size was mainly from this area. Another limitation of this study was that Laschinger et al. used equal proportions of men and women in the sample size, which is not representative of the nursing work force.

#### *Measuring Organizational Trust*

In the past five decades, several instruments have been developed to measure organizational trust. However, only three instruments were identified in the literature that measure organizational trust with established reliability and validity. These are the modified Management Behavior Climate Assessment (MBCA) (Sashkin, 1996), the Condition of Trust Inventory (CTI) (Butler, 1991) and the Organizational Trust Inventory (OTI) (Cummings & Bromiley, 1996).

The original MBCA developed by Sashkin (1996) is an instrument that measures organizational trust by assessing the organizational climate created by the behavior of

senior and executive administrators. The instrument is based on two constructs, consistency and credibility. Sashkin relates credibility and consistency to validity and reliability. Credibility measures whether individuals do what they say they are going to do. It is an assessment of the congruence between a person's statement or proposed actions and the actual behavior that occurs. Consistency measures whether an individual exhibits similar behavior over time given similar environmental and psychological conditions.

The 50-item MBCA is subdivided into 10 mini scales with a five-point Likert-type scoring method. The mini scales were broken down as follows: four scales measured consistency of executive behavior; one scale measured relevance of information provided by executives; five scales measured credibility of executives with their staff; and one scale measured overall trustworthiness of executives. The following are examples of statements found in the questionnaire.

- In this organization, senior managers are consistent in their dealings with various, different individuals.
- Senior managers tell the same story to each person that they talk to.
- Senior managers follow through with actions consistent with their statements.
- Senior managers avoid telling different people what they want to hear.

Levin (1999) modified the original MBCA instrument by asking experts in the field of management to review, modify, and make changes to it. Then she re-tested the instrument with a sample of 601 subjects employed in the retail clothing industry, employees of a manufacturing company, military reservists, and federal government employees. The 10 scales of the revised MBCA showed good internal reliability with

coefficient alphas greater than 0.77. Eight of the 10 scales have alpha correlation coefficients greater than 0.80, and three of the scales have alpha coefficients greater than 0.91. The coefficient alphas for the combined consistency and credibility scales are 0.95 and 0.97, respectively, indicating very good internal reliability for the two constructs.

The second tool is the Conditions of Trust Inventory (CTI) developed by Butler (1991). This instrument measures antecedent conditions of trust, such as availability of managers, competence, consistency, discreetness, fairness, integrity, loyalty, openness, promise fulfillment, receptivity, and overall trust. The CTI is divided into 11 mini scales, one for each antecedent, with a total of 44 items. The respondent uses a key to reflect his/her opinion, such as strongly agree, moderately agree, neither agree nor disagree, moderately disagree, and strongly disagree. The following are sample items:

- Manager is usually around when I need him/her
- Manager does things competently
- Manager does things consistently from one time to the next
- Manager keeps secrets that I tell him/her
- Keeping promises is a problem for manager
- My manager makes an effort to understand what I have to say
- If I make a mistake, my manager will not use it against me.

The tool was used with 1,395 subjects who were managers and their subordinates in retail and government agencies, as well as with four groups of management students.

The CTI has been tested for content and construct validity with a documented .80 Cronbach alpha value and .80 test-retest correlation. Butler (1991) tested the CTI for discriminant validity, which was assessed by “correlating the CTI trust condition scores

with characteristics shown to be theoretically and empirically unrelated, weakly related, or negatively related to the trust construct” (p. 651). As indicated by Butler (1991), a weak positive correlation of trust with six variables (self-esteem, social desirability, expressed affection, wanted affection, expressed inclusion, and wanted inclusion) was found. Butler did not provide specific information on what he considered a weak positive correlation. Convergent validity was difficult to validate due to the fact that there were no previously validated scales to which this instrument could be compared.

The MBCA instrument measures organizational trust with a very limited capability, only looking at consistency and credibility of the executives in an organization. It does not measure dimensions identified in the literature, such as competence, organizational commitment, or past experience. Likewise, The CTI measures competence in a very limited way. It does not measure intellectual competence of executives, and the questions are limited to asking if the executives do things competently.

The third tool is the Organizational Trust Inventory (OTI) created by Cummings & Bromiley (1996). The OTI is divided into three dimensions that measure whether or not members of an organization keep commitments, negotiate honestly, and avoid taking excessive advantage of other individuals or organizations. These dimensions are measured based on affective state, cognition, and intended behavior. The following reflect items found in the inventory:

- We think the people in administration tell the truth.
- We feel that administration tries to get the upper hand.
- We feel that administration negotiates joint expectations fairly.



The instrument has a total of 12 questions with a seven-point Likert-type scale. The questions in the instrument were analyzed using a latent variable structural equation analysis. This methodology was utilized over an exploratory factor analysis "because the questions had been composed to directly represent specific dimensions and response modes" (Cummings & Bromiley, 1996, pp. 319). The fit of the model was high with a reported Bentler's Comparative Fit Index of .98. Composite reliability of each dimension's measure was a high .95 to .96.

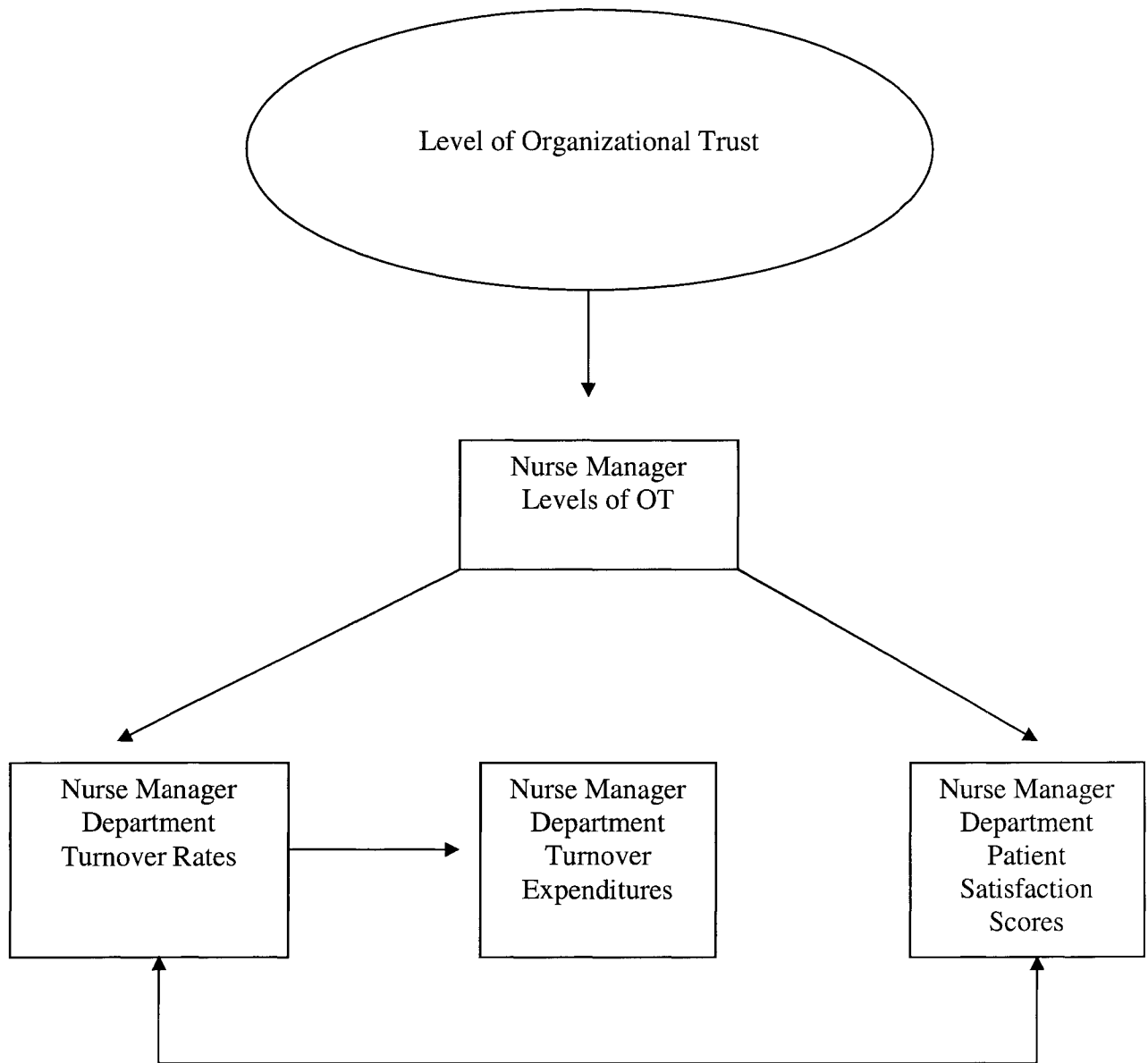
In summary, three organizational trust measuring instruments were discussed and the most valid and reliable instrument was identified and selected for the present study. In the following paragraph, a theoretical framework that outlines the relationship of key dependent variables affected by levels of organizational trust will be discussed.

#### *Conceptual Framework*

The premise of this conceptual framework is based on a climate of trust created by senior executives in an organization. The leaders in the organization should set the tone and create a climate where employees feel valued and are able to provide input and not feel that they will be punished if they express their feelings about operations. The creation of this climate may have potential benefits to the organization. As levels of organizational trust increase in the organization, clear and concise communication with employees can be achieved. Employees may develop a strong sense of commitment and satisfaction with the organization. When employees feel satisfied and trusted, they tend to remain with the organization. As a result, a low turnover rate is realized. As turnover rates decrease, so do the costs of replacing staff. Decreased turnover may also have a direct relationship with patient satisfaction. Committed employees will be more inclined

to provide better customer service to patients. Figure 1 provides a visual illustration of the relationships among these concepts.

Figure 1 Organization Trust and Key Variables



### *Summary*

Limited study has been conducted that examines the effects of organizational trust on nursing staff retention and turnover and their consequent influence on organizational performance. Only one study was found that measured the impact of organizational trust and nursing staff effectiveness in the not-for-profit hospital setting and in a part of the United States where the unemployment rate was very low.

Two main concerns can be outlined from the organizational trust literature that need to be addressed. First, the concept of organizational trust has largely been studied in simulated game/role-playing environments with students. As a result, one could argue that the findings could be biased and inconclusive. These studies fail to capture context, personalities, relationships, and past history with other individuals or within the organization. Studies need to be conducted in real time and in live environments.

Second, additional studies need to be conducted in other parts of the United States where a nursing shortage exists and evaluated to see if similar findings are experienced. In these times of high turnover rates in hospital organizations and high costs associated with health care worker shortages, it is imperative that we look at initiatives that could be implemented to decrease escalating costs. Therefore, additional studies are needed to explore the relationship between organizational trust and performance measures that could assist hospitals in retaining staff and controlling costs.

## Chapter 3

### Methodology

This descriptive correlational study was designed to determine whether a relationship existed between organizational trust and managers' department nursing turnover rates, turnover expenditures, patient satisfaction scores, nurse managers' job satisfaction, and nurse managers' perception of fair compensation. This chapter provides a description of the research design, sample and sampling, instrumentation, data collection procedures, and data analytic techniques. The protection of human subjects is also discussed.

#### *Research Design*

A descriptive correlational design was used for this study. A descriptive correlational design is used to describe the relationship among variables rather than to infer cause and effect relationships. This method was used because the investigator was interested in accurately determining relationships between variables without any attempt to modify, control, or introduce something new to the environment (Munro, 2005; Polit & Hungler, 1991).

### *Sample and Sampling*

Participants were nurse managers with departmental responsibilities and accountability for managing the financial performance of their departments, overall patient care responsibilities, and patient satisfaction scores for their departments. The sample size for this study was 57 nurse managers, from various hospitals located throughout the state of California, who met the inclusion criteria outlined below. For the purpose of this study, a department was defined as the place where patients are housed and where they receive care during their hospitalization. The department had a cost center number so that information related to the department could be accessed without difficulty.

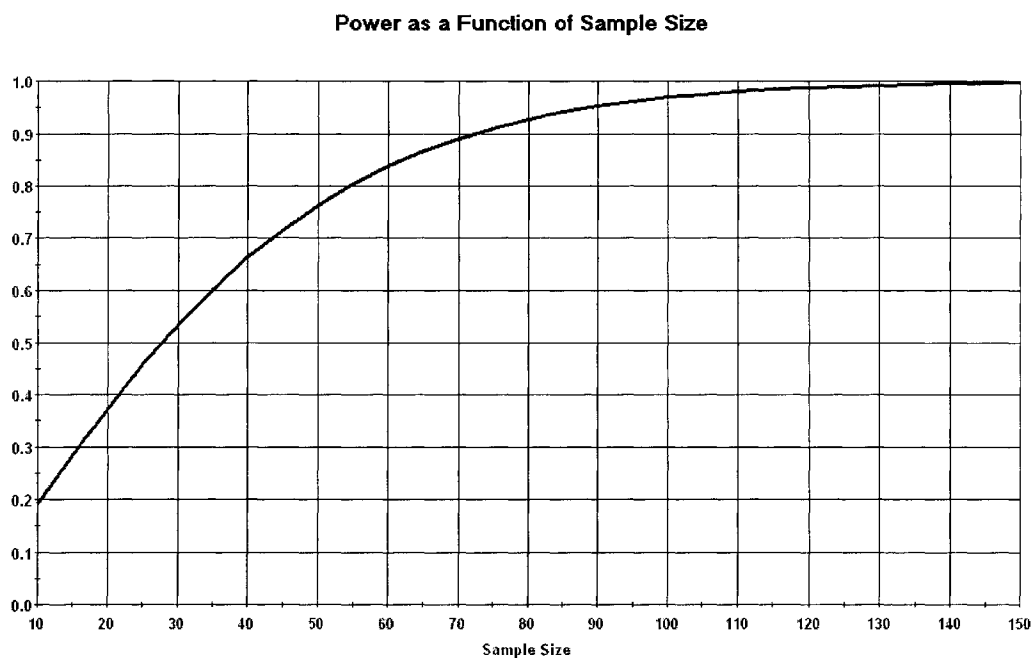
For inclusion in the study nurse managers had to have: (1) a minimum of one year of experience in the organization; (2) report directly to the Chief Executive Officer, the Chief Financial Officer, the Chief Nursing Officer, or a Director of Nursing; (3) have responsibilities for budget preparation and tracking of department financial performance and (4) work for hospitals collecting patient satisfaction data utilizing the Press Ganey Survey (Press Ganey Associates, 2003). Other middle managers, such as supervisors, were excluded from the study.

The managers selected performed similar job responsibilities, had daily interactions with senior executives, and were able to observe the behaviors and attitudes of those senior executives. Also, because of their regular contact with senior executives, nurse managers were well situated to evaluate the trustworthiness of senior executives.

This research proposal was presented at the San Diego Imperial County Nurse Leaders group in June of 2005. Members of this group are nurse leaders in different hospitals and clinics throughout the state of California. Nurse leaders attending the meeting were asked to add their names to a list if they were interested in having their organization participate in the study; in addition nurse leaders not in attendance were contacted by phone and email to explore interest. Once permission was obtained from this group to present the proposal to their nurse manager group and solicit participants from its membership, the study was presented at interested sites. Study research information was emailed to the CNOs of interested organizations who then forwarded the information to their managers.

Even though every subject who met the inclusion criteria between June 2005 and January 2006 was included in the study, a determination of the minimum sample size for this study was conducted. A power analysis was conducted to estimate the sample size required for this study. The model included (a) zero covariates, which will yield an  $R^2$  of .000, (b) one variable in the set of interest, which will yield an increment of .130, (c) zero variables entered subsequent to the set of interest, which account for an additional .000 of variance. With a sample size of 55 and alpha set at .05, the study will have power of 0.80 (see Figure 2). This effect was selected as the smallest effect that would be important to detect, in the sense that any smaller effect would not be of clinical or substantive significance. It is also assumed that this effect size is reasonable, in the sense that an effect of this magnitude could be anticipated in this field of research (Borenstein et al., 2001).

Figure 2. Power Analysis and Sample Size.



### *Procedure*

Interested managers were asked to complete the following: the Informed Consent (Appendix A), the Organizational Trust Inventory (Appendix B), and the Demographic Information (Appendix C). A pre-addressed stamped envelope accompanied the questionnaires for return to the investigator. Additional information, such as managers' department patient satisfaction scores and nursing turnover rates, was gathered from the managers as part of the demographic questionnaire. Managers who were not tracking these elements were excluded from participation in this study.

### *Measures*

#### *Demographic Information*

The following items were collected as part of demographic information: age, ethnic background, educational level, tenure in the organization, marital status, fairness



of compensation system, degree of satisfaction with job, size of the organization, and tenure of senior executives in the organization.

#### *Organizational Trust Inventory (OTI)*

The Organizational Trust Inventory (OTI) developed by Cummings and Bromiley (1996) was used to measure levels of organizational trust in this study. The instrument is divided into three dimensions, addressing whether or not members of an organization keep commitments, negotiate honestly, and avoid taking excessive advantage of other individuals or organizations. The dimensions are measured based on affective state (how people feel about others), cognition (how they think about others), and intended behavior. The instrument has a total of 12 questions with a seven-point Likert-type scale. As an individual agrees or disagrees with the statements, the scores go up or down as follows:

1. Respondent strongly disagrees with the statement
2. Respondent slightly disagrees with the statement
3. Respondent disagrees with the statement
4. Respondent neither agrees nor disagrees with the statement
5. Respondent slightly agrees with the statement
6. Respondent agrees with statement
7. Respondent strongly agrees with the statement.

The higher the score, the higher the level of trust.

As noted earlier, the instrument was found to have a good fit with a reported Bentler's Comparative Fit Index and high composite reliability scores for each dimension. The OTI was selected for use in this study because it has been used multiple

times in different studies, has tested internal validity and reliability, and is short and simple to use (Cummings & Bromiley, 1996).

### *Patient Satisfaction Scores*

“Patient satisfaction is the outcome resulting from the patient’s filtering the experience through his or her own unique perspective and evaluating the extent to which the experience met his or her needs” (Press Ganey Associates, 2003) and was measured utilizing the Press Ganey survey (PGS). Press Ganey Associates is the health care industry's top satisfaction measurement and improvement firm, with 40% of all hospitals with more than 100 beds across the country participating in benchmarking through the company’s patient satisfaction surveys. The PGS provides correlation coefficients as well as Internal and External Priority Indices that rank, or weight, questions by their relative importance to patients' overall satisfaction. Relative importance is measured by correlation coefficients between each question and the overall satisfaction score (an average of all of the items in a questionnaire). The survey uses a five-point Likert-type scale that ranges from very poor (1) to very good care (5). Scores are reported on a 0-100 scale, even though patients rate services on a 1-5 scale. The scores are converted because people find it easier to interpret scores from 0-100. The scores are calculated as follows: very poor (1) is scored as zero; poor (2) is scored as 25 points; fair (3) is scored as 50 points; good (4) is scored as 75 points; and very good (5) is accorded the full 100 points for the item. A mean score is calculated for each patient, as well as for each department, and then a mean score was calculated for the hospital. Hospitals are then compared to one another based on percentile rankings. Comparisons can be made monthly, quarterly, and

annually. For the purpose of this study, one year's worth of data was obtained from participants.

The PGS is divided into different sections that enable patients to evaluate services such as the admission process, room, meals, nursing care, tests and treatments, how visitors and family were treated, physician care, discharge process, personal issues and overall assessment of the care received. Patients complete the PGS and send it back to the company, at which point Press Ganey compiles, analyzes, and reports scores to managers on a monthly, quarterly and annual basis. Information regarding patient satisfaction scores was obtained directly from the managers as provided to them by PGS, from which overall satisfaction with hospital services for a period of one year was abstracted for each participating department.

#### *Employee Turnover Rates*

An employee turnover rate is the number of nurses who left a department or job. Managers were asked to provide turnover information for a period of one year for their department at the time that they complete the OTI. In order to ensure that turnover rate was calculated utilizing the same formula for all hospitals, the investigator requested information on the budgeted number of positions in the department at the beginning of a fiscal year and the number of resignations during the same time period.

$$TR\% = \frac{\# \text{ RN's who left}}{\text{Budgeted FTEE}} \times 100$$

Excluded from the calculation were RN deaths, traveling nurses, and transfers to other departments in the institution.

### *Turnover Expenditures*

Turnover cost data was calculated from information obtained from managers on the Demographic Information Form. Managers were asked to indicate the average Registered Nurse salary for their institution. The average Registered Nurse salary was multiplied by two to give an estimated cost of replacing nurses that left the institution. The number of nurses who had left the department in the past year was multiplied by the estimated cost of replacing a nurse, which is two times the RN's salary. Similar calculations were used to determine composite turnover costs for the institution, based on data provided by participating departments within that institution. A minimum of 25% of the total managers in a given institution was required to calculate composite institutional data.

### *Statistical Analysis*

Descriptive and correlation methods were used to analyze study data. The Statistical Package for Social Sciences (SPSS Version 12.0) was used to perform data analysis. All subjects who meet the delimitations of the study sample were included in the analysis of data. Descriptive statistics were used to summarize the demographic variables of age, gender, marital status, race/ethnicity, hospital size, education, pay, job satisfaction, number of RN's who left organization, patient satisfaction scores, budgeted FTEE, number of nurse managers in the organization, number of RN's with experience who left the organization, number of RN's with less than two years of experience who left the organization, nurse manager's tenure, CEO's tenure, CNO's tenure, and CFO tenure.

A correlational matrix was constructed to identify relationships between the independent variables and the dependent variables as defined in the measurement section. The correlation is one of the most common and most useful statistics. A correlation is a single number that describes the degree of relationship between two variables. In probability theory and statistics, correlation, also called correlation coefficient, is a numeric measure of the strength of linear relationship between two random variables (Munro, 2005).

The Pearson  $r$  indexes the extent to which a linear relationship exists between two quantitatively measured variables. The value of  $r$  can range from  $-1$  to  $+1$ . If the correlation is  $0$ , then the two variables do not vary together at all. If the correlation coefficient is positive, the two variables tend to increase or decrease together. If  $r$  is negative, the two variables are inversely related, that is, as one variable tends to decrease, the other tends to increase. The absolute value of  $r$  indicates the strength of a linear relationship and is not affected by linear transformations. The strength of the relationship is indexed by  $r^2$ , which is often called the coefficient of determination, that is, the proportion of the variance in one variable that is explained by variance in the other (Munro, 2005).

Prior to calculating correlation coefficients, the SCATTERPLOT procedure in SPSS is used to screen the data for evidence of a linear relationship. The BIVARIATE CORRELATION procedure is used to calculate Pearson correlation coefficients for pairs of continuous variables. To test the null hypothesis that a correlation coefficient is zero, a common assumption is that independent random samples are taken from a distribution in which the 2 variables are together distributed normally. In other words, Pearson's

correlation coefficient assumes that each pair of variables is bivariate normal. When assumption of bivariate normality appears unreasonable, Spearman's rho, a nonparametric measure that makes limited assumptions about the underlying distributions of the variables, is calculated. By default, SPSS does a pairwise deletion of missing values; cases with missing values for one or both of a pair of variables are excluded from the analysis. The displays include the coefficient  $r$ , indication of significance level, and the number of cases upon which the coefficients are computed (Norusis, 2003).

#### *Protection of Human Subjects*

Approval for this study was obtained from The University of San Diego Institutional Review Board and from any institution that required approval from their Institutional Review Board (See Appendix D). Participation in this study was entirely voluntary. All data collected were kept strictly confidential. Participants' names or any other information that identified participants did not appear on the surveys. Information collected during this study was stored in a protected private locked area accessible only to the primary investigator. All collected data will be kept for 5 years after the completion of this study, and then destroyed.

Study subjects were not paid, nor did they receive any non-monetary compensation. There were no physical or psychological risks involved with participating in the study. All nursing managers that participated in this study received a verbal explanation of the study purposes, what participation entailed, and the estimated duration of participation. Participants were informed of the voluntary nature of participation, the confidentiality of their responses, and the ability to withdraw from the study at any time, if desired. Participants were also informed that there were no anticipated risks to

participation and that any benefits would accrue to the nursing profession and health care delivery system rather than to them as individuals.

After the study was explained, participants were given the opportunity to ask questions. If they were interested in participating in the study, they were asked to sign the informed consent and given a copy of the consent form. Informed consent was obtained from participants either in person, electronically, or by regular mail.

### *Summary*

This chapter describes the methodology used in this study of the correlation between organizational trust and managers' department nursing turnover rates, turnover expenditures, patient satisfaction scores, nurse managers' job satisfaction, and nurse managers' perception of fair compensation. A descriptive correlational design was used for this study. The instrument used to measure OT was the Organizational Trust Inventory.

This chapter also reviewed a power analysis, data collection procedures, and data analysis. Protection of human subjects was also discussed.

## Chapter 4

### Results

This descriptive correlational study was designed to examine the relationship between organizational trust and managers' department nursing turnover rates, turnover expenditures, patient satisfaction scores, nurse managers' job satisfaction, and nurse managers' perception of fair compensation. Data analysis using descriptive and inferential statistics was conducted. The results of this study are presented in this chapter. First, a description of the sample is presented followed by scale reliability and findings related to research questions.

#### *Sample Characteristics*

The demographic portion of the survey (Appendix A) was used to collect personal data from the participants and was designed to seek information from which a profile of the sample could be developed. The following data were collected: age, ethnicity, education, gender, and marital status. Additional information requested in the demographic questionnaire included perception of fair compensation, job satisfaction, organization size, number of registered nurses that left the department, PG departmental satisfaction scores, overall PG satisfaction scores for the institution, budgeted department



FTEE, average RN salary, number of nurse managers in the organization, nurse manager tenures, and executive team tenure.

Fifty-seven nurse managers working in hospitals located throughout the state of California provided data for this study. A total of 150 questionnaires were sent out via regular mail or delivered to nurse managers in person. Fifty-seven usable surveys were received for an overall response rate of 38%. The nurse managers' ages ranged from 31 to 70 years (see Table 1). The majority were female (81%), 41 to 60 years of age (83%), and Caucasian (82%); 61% were married; and 91% had at least 4 years of college education. Table 1 summarizes the characteristics of the sample.

Table 1 Characteristics of the Sample

Characteristic	n	%
Gender		
Female	46	81
Male	11	19
Age		
21-30	0	0
31-40	7	12
41-50	28	49
51-60	19	34
61-70	3	5

Ethnicity		
Asian	6	10
Black/African American	1	2
Hispanic/Latino	1	2
Native American	1	2
White/Caucasian	47	82
Other	1	2
Marital Status		
Single	9	16
Married	35	61
Divorced	11	19
Other	2	4
Highest Level of Education		
Hospital Diploma	1	2
2 years college	4	7
4 years college	27	47
Master degree	23	40
Doctoral degree	2	4

Job related factors such as compensation, satisfaction, organization size, tenure in position, as well as organizational leaders' tenure are important factors when examining organizational trust. Table 2 summarizes these factors for the study sample.

Approximately 70% of nurse managers felt that their pay was generally or completely fair for the work they do, and 81% were generally or very satisfied with their jobs. The majority (84%) worked for organizations with 500 or more employees. The number of nursing department managers per institution ranged from 3 to 41 (mean 15.3).

Table 2 Job-related Factors

<b>Pay Fairness</b>		<b>Frequency</b>	<b>Percent</b>
Valid	Not at all fair	1	2
	Not very fair	5	9
	Somewhat fair	11	19
	Generally fair	19	33
	Completely fair	21	37
	Total	57	100.0
<b>Job Satisfaction</b>		<b>Frequency</b>	<b>Percent</b>
Valid	Not very satisfied	3	5
	Somewhat satisfied	8	14
	Generally satisfied	32	56
	Very satisfied	14	25
	Total	57	100.0
<b>Organization Size</b>		<b>Frequency</b>	<b>Percent</b>
Valid	Fewer than 50 employees	1	2
	100-249 employees	2	4
	250-499 employees	6	10
	500 or more employees	48	84
	Total	57	100.0

Table 3 displays the organizational characteristics including the mean PG and overall hospital satisfaction scores, 77 and 69 respectively. The overall hospital patient satisfaction mean score was 69 for the entire sample. The mean budgeted FTEE for departments was 63 positions. The annual salary for RNs was \$70,184. On average, the turnover rate was 12%, and turnover expenditures were \$575,000 per year.

Table 3 Organizational Characteristics – Continuous Variables

Characteristics	Mean	Range	Cases	
			Valid	Missing
Press Ganey Departmental Patient Satisfaction Score	77	12-99	48	9
Overall Hospital Patient Satisfaction Score	69	22-97	57	0
Budgeted FTEE for the department	63	4-165	55	2
Annual RN Salary	70,184	50,000 – 83,200	57	0
No. of positions for the department	71	5-200	24	33
No. of nursing department managers in the institution	15	3-41	52	5
No. of nurses who left their positions in the department †	4	0-20	56	
No. of experienced nurses who left the department in the last year	3	0-14	55	2
No. of nurses with < 2 years of experience who left the department	2	0-20	56	1
Overall Employee Turnover Rate for all hospitals (%) ‡	12	0-300	55	2
Overall Employee Turnover Expenditures for all hospitals (\$)	574,960	0 – 2,912,000	56	1

† Excluding deaths, travelers and transfers within the institution.

‡ Calculated using budgeted FTEE.

### *Measurements*

Managers participating in the study returned the self-administered survey instrument Organization Trust Index (OTI) Short Form (SF) (Cummings & Bromiley, 1996). The OTI Short Form has 12 items reflecting three constructs dimension 1 (keeps commitments), dimension 2 (negotiates honestly), and dimension 3 (avoids taking excessive advantage). This instrument has demonstrated psychometric properties. Composite reliability of each dimension's measure is a high (.95 to .96), and in this study, internal consistency reliability for all items as measured by inter-item correlation was 0.91.

The nurse managers provided raw data on the number of RN's that left the organization and average RN salaries. Employee turnover rate was calculated using the following formulas:

$$\text{TR\%} = \frac{\text{\# RN's who left}}{\text{Budgeted FTEE}} \times 100$$

Turnover Expenditure was calculated using the formula:

$$\text{TE\%} = \text{\# RN's who left} \times (\text{Average RN salary} \times 2)$$

As part of the demographic questionnaire, nurse managers were asked to provide information on job related factors such as perception of fair compensation, job satisfaction, organization size, and employment tenure for themselves and their executives.

#### *Data Analysis and Findings*

One-way ANOVAs were conducted to exam the average organizational trust levels by age, gender, ethnicity, education, marital status, pay fairness, job satisfaction, years of employment with organization, organization size, departmental PG patient satisfaction scores, organization overall patient satisfaction scores, average RN salary, total number of nurse managers in the organization, number of RNs that left the organization, and CEO's, CNO's and CFO's years of employment in their current positions. For each variable pair, the number of cases, mean organizational trust, standard deviation, standard error of the mean, minimum, maximum, and 95% confidence intervals were calculated. The Levene statistic was calculated to test the equality of group

variances. This test is not dependent on the assumption of normality. Once differences were identified among the means, post hoc pairwise multiple comparisons were used to test the differences between each pair of means. When variances were equal, Bonferroni, a commonly used multiple comparison test, was used. The Bonferroni test, based on t statistic, adjusts the observed significance level for the fact that multiple comparisons were made. When the variances were unequal, Tamhane's T2 conservative pairwise comparison test based on a t test was used (Norusis, 2003).

#### *Findings Related to Research Questions*

Bivariate correlations were conducted to examine the following research questions:

1. Are levels of OT associated with nursing turnover rates?
2. Are levels of OT associated with nursing turnover expenditures?
3. Are levels of OT associated with patient satisfaction scores?
4. Is nurse managers' job satisfaction associated with OT?
5. Is nurse managers' perception of fair compensation associated with OT?

#### *Organizational Trust and Demographic Information*

Correlations between OT and other demographic variables were conducted. No relationship was found between demographic variables of age, gender, marital status, education, organization size, and nurse managers' organizational tenure.

#### *Organizational Trust and Nursing Turnover Rates*

A bivariate correlation was conducted to examine if OT was associated with nursing turnover rates. Among the 57 nurse managers in the sample, the correlation between OT scores and turnover rates was not significant ( $r = .086$ ,  $p = .535$ ) at

conventional levels for a two-tailed test. There were no statistical significant differences among experienced and non-experienced nurses who left the organization in the past year ( $r = .026$ ,  $p = .853$  for experienced nurses;  $r = -.052$ ,  $p = .701$  for nurses with less than 2 years of experience). Table 4 display results of the correlation between OT and turnover rates.

Table 4 Pearson Correlation Coefficients between OT Scores and Turnover Rate

Variable	r
Nurse Mangers (n = 57)	
TR	.086
RNE	.026
RNL	-.052

Note: \*  $p = .05$  \*\*  $p = .01$  \*\*\*  $p = .001$

TR = Turnover Rate

RNE = Registered Nurses with Experience

RNL = Registered Nurses with Less than 2 years Experience

#### *Organizational Trust and Nursing Turnover Expenditure*

Average turnover expenditure per hospital was \$575,000 per year. A non-significant correlation ( $r = 0.142$ ,  $p = .295$ ) was noted for the pairing of departmental employee turnover expenditure and OT scores. In this sample of 57 nurse managers, there was no statistically significant relationship between employee turnover expenditure and organizational trust level (see Table 5).

Table 5 Pearson Correlation Coefficients between OT Scores and Turnover Expenditure

Variable	
Nurse Mangers (n = 57)	
TE	.142

Note: \*  $p = .05$  \*\*  $p = .01$  \*\*\*  $p = .001$   
 OTI = Organizational Trust Inventory  
 TE = Turnover Expenditure

### *Organizational Trust and Patient Satisfaction Scores*

Among the 57 nurse managers in the sample, the correlation between the departmental PG patient satisfaction scores and OT scores was positive but weak ( $r = .195$ ,  $p = .18$ ). This correlation was not significant at conventional levels for a two-tailed test. However, a moderate positive correlation ( $r = .442$ ,  $p = .01$ ) was found between OT levels and overall hospital patient satisfaction scores. There appears to be a significant relationship between overall hospital satisfaction scores and OT scores among the 57 nurse managers in the sample (see Table 6).

Table 6 Pearson Correlation Coefficients between OT Scores and Patient Satisfaction

Variable	r	
Nurse Mangers (n = 57)		
PGPSS	.195	1.0
OHPSS	.442**	.331*

Note: \*  $p = .05$  \*\*  $p = .01$  \*\*\*  $p = .001$   
 PGPSS = Press Ganey Patient Satisfaction Scores  
 OHPSS = Overall Hospital Patient Satisfaction Scores



*Organizational Trust and Nurse Managers' Job Satisfaction*

Displayed in Table 7 are the results of the correlation between OT and nurse managers' job satisfaction ( $r = .539$ ,  $p = .001$ ). A statistically significant relationship was found among the 57 nurse managers.

Table 7 Pearson Correlation Coefficients between OT Scores and Job Satisfaction

Variable	r
Nurse Mangers (n = 57)	
JS	.539***
Note: * $p = .05$ ** $p = .01$ *** $p = .001$	
JS = Job Satisfaction	

*Organizational Trust and Nurse Managers' Perception of Fair Compensation*

The correlation between OT and nurse managers' perception of fair compensation showed a strong positive relationship ( $r = .570$ ) and was significant at conventional levels for a two-tailed test ( $p = .001$ ).

Table 8 Pearson Correlation Coefficients between OT Scores and Fairness Compensation

Variable	r
Nurse Mangers (n = 57)	
PF	.570***
Note: * $p = .05$ ** $p = .01$ *** $p = .001$	
PF = Pay Fairness	

*Organizational Trust and Chief Executive Officer and Chief Nursing Officer Tenure*

Nurse manager tenure varied from less than one year to 15 or more years with the organization. The majority of the CNO's (63%) had been with the organization for 5 to 10 years. CEO's tenure with the organization ranged from 3 to 5 years to 5 to 10 years (see Table 9).

Table 9 Tenure of Nurse Managers and Executives

<b>Nurse Managers' Tenure</b>		Frequency	Percent
Valid	<1 yr	6	10.5
	1 yr to <3 yrs	12	21
	3 yrs to <5 yrs	1	2
	5 yrs to <10 yrs	7	12
	10 yrs to <15 yrs	6	10.5
	15 yrs or more	24	42
	Missing	1	2
	Total	57	100.0
<b>CNO's Tenure</b>		Frequency	Percent
Valid	3 yrs to <5 yrs	7	12
	5 yrs to <10 yrs	36	63
	10 yrs to <15 yrs	9	16
	15 yrs or more	5	9
	Total	57	100.0
<b>CEO's Tenure</b>		Frequency	Percent
Valid	1 yr to <3 yrs	6	11
	3 yrs to <5 yrs	16	28
	5 yrs to <10 yrs	31	54
	10 yrs to <15 yrs	2	3.5
	15 yrs or more	0	0
	Missing	2	3.5
	Total	57	100.0
<b>CFO's Tenure</b>		Frequency	Percent
Valid	1 yr to <3 yrs	2	3
	3 yrs to <5 yrs	15	26
	5 yrs to <10 yrs	30	53
	10 yrs to <15 yrs	4	7
	15 yrs or more	5	9
	Missing	1	2
	Total	57	100.0

Significant relationships were found between OT and CEO's tenure ( $r = .495$ ,  $p = .000$ ), as well as CNO's tenure ( $r = -.271$ ,  $p = .023$ ). There appeared to be a significant relationship between executive tenure and organizational trust level among the 57 nurse managers in the sample (see Table 10).

Table 10 Pearson Correlation Coefficients between OT Scores and CEO and CNO

Tenure

Variable	r
Nurse Managers (n = 57)	
CEO	.495***
CNO	-.271*

Note: \*  $p = .05$  \*\*  $p = .01$  \*\*\*  $p = .001$

CEO = Chief Executive Officer Tenure

CNO = Chief Nursing Officer Tenure

### Summary

This chapter presented the results of this study. Five research questions were the premise of this study: Are levels of organizational trust related to (a) nursing turnover rates; (b) turnover expenditures; (c) patient satisfaction scores; (d) nurse managers' job satisfaction; (e) and nurse managers' perception of fair compensation.

Other independent variables, such as organizational characteristics, work related factors, demographic information, tenures of executives, nurse managers' perception of fair compensation, and job satisfaction, were examined. After performing multiple statistical analyses, the following four independent variables were significantly associated

with OT: overall hospital patient satisfaction scores, nurse managers' perception of fair compensation, nurse managers' job satisfaction, and executive tenure. The next chapter will discuss these findings and their implications for future research as well as the study limitations.

## Chapter 5

### Conclusions and Recommendations

The purpose of this chapter is to summarize and synthesize the results of this study. This descriptive correlational study was designed to determine whether a relationship exists between organizational trust and managers' department nursing turnover rates, turnover costs, patient satisfaction scores, nurse managers' job satisfaction, and nurse managers' perception of fair compensation. More specifically, this study addressed the following research questions:

1. Are levels of OT associated with nursing turnover rates?
2. Are levels of OT associated with nursing turnover expenditures?
3. Are levels of OT associated with patient satisfaction scores?
4. Is nurse managers' job satisfaction associated with OT?
5. Is nurse managers' perception of fair compensation associated with OT?

A Pearson's coefficient of correlation ( $r$ ) was used to test the relationship between the variables of nursing turnover rates, turnover costs, patient satisfaction scores, nurse manager job satisfaction, fair compensation, and the variable of organizational trust.

Bivariate correlation was used to determine strength and direction of the relationships between OTI scores and department nursing turnover rates, OT scores and turnover costs, OTI scores and patient satisfaction scores, OTI scores and job satisfaction, and OTI scores and fair compensation.

The hospital sites were all not-for-profit corporations providing health care to Southern California and Northern California. A total of fifty-seven (57) nurse managers participated in the study. The Chief Nursing Officer or designee distributed the questionnaires after initial explanation and IRB and organizational approval. The questionnaires were returned via regular postal mail or electronic mail. Questionnaires were color-coded to identify different hospitals and a copy of color codes was kept for reference and tracking of completed surveys.

### *Summary and Discussion of Findings*

#### *Demographic-Biographic Analysis*

Demographic-biographic variables analyzed were: 1) hospital, 2) age, 3) ethnicity, 4) education, 5) gender, 6) marital status, 7) pay, 8) job satisfaction, 9) hospital size, 10) number of RN's who left the organization, 11) patient satisfaction scores, 12) budgeted FTEE, 13) number of nurse managers in the organization, 14) number of RN's with experience who left organization, 15) number of RN's with less than two years of experience who left the organization, 16) nurse manager's tenure, 17) CEO's tenure, 18) CNO's tenure, and 19) CFO's tenure.

There were no significant relationships between age, ethnicity, education level, gender, or marital status and OTI scores. Gilbert and Tang (1998) reported similar findings of no correlation between race or gender and organizational trust. However, they

reported that age and marital status were significant predictors of organizational trust ( $p < .05$ ) their findings are not supported by the results of this study. There were differences between the groups studied that may explain these results. For instance, Gilbert and Tang had similar ratios of men and women, and a more racially diverse sample, which is atypical for the nurse manager workforce. The sample group for the study reported here was homogeneous consisting of predominantly white/Caucasian married females with similar educational levels.

#### *Executive Tenure*

There was a statistically significant positive relationship between executives' years of experience in the organization and overall organizational trust scores. The longer the executives were on the job, the higher the organizational trust level among their nurse managers.

#### *Nurse Manager Job Satisfaction*

Nurse managers who reported being generally satisfied and very satisfied with their jobs also reported significantly higher levels of organizational trust ( $p = .001$ ). One possible reason for this correlation may be that nurse managers who are satisfied with their jobs tend to stay with the organization because they embrace the mission and goals of the organization. Nurse managers and top executives may feel a sense of teamwork and commitment, which results in trusting relationships. This relationship appears to be supported by the Jones and George (1998) model that trust is a psychological construct, the experience of which is the outcome of the interaction of people's values. Lafferty (2003) reported a similar relationship between nursing personnel job satisfaction and OTI scores.

### *Organization Size and Organizational Trust*

There was no significant difference between organization size and overall OTI scores. Overall OTI scores were similar in both large and small hospitals. This, too, reflects the Jones and George (1998) model that trust is a psychological construct in that the interaction of the nurse managers and their executives influences trust levels, regardless of the size of the hospital. Presumably, it's the quantity and quality of that interaction between nurse managers and executives that will have an impact on trust levels. However one of the studies had some different findings related to hospital size and OT. Lafferty (2003) found that smaller hospitals had higher levels of OT. Further exploration of this finding needs to be addressed in future research studies.

### *Nurse Managers' Perception of Fair Compensation*

Nurse managers who perceived that they were fairly compensated reported high levels of OT ( $r = .570, p = .05$ ). This finding is consistent with Costigan et al. (1998), who found that a fair appraisal system and effective pay practices were related closely with employees' trust of top management. Thus, if nurse managers perceive that they are being fairly compensated for their work, and do not feel that their executives are taking advantage of them, they are more likely to trust their executives.

### *Organizational Trust Scores, Turnover Rates, and Turnover Expenditures*

There was no significant relationship between OTI scores and turnover rates or turnover expenditures. A possible explanation for these results may be that turnover rates were consistent throughout the hospitals surveyed, regardless of the levels of OT. Given the nursing shortage in California, it is possible that turnover rates and expenditures are attributed to market factors rather than the relationship between nurse managers and their



executives.

#### *Patient Satisfaction Scores and OTI Scores*

A positive correlation was found with institutional OT scores and patient satisfaction scores ( $r = .426, p = .001$ ). Specifically, hospitals in which nurse managers rated their executive team members as “avoids taking excessive advantage” had higher patient satisfaction scores. A possible explanation of this relationship could be that nurse managers who see that their executives avoid taking advantage of situations have a higher commitment to their executives and, consequently, to the organization. Nurse managers who trust that their executives are not taking excessive advantage of situations will presumably talk positively about the executives and the organization to their staff, who will, in turn, be more likely to embrace initiatives from leadership, such as improving patient satisfaction scores.

It is important to explain the non-significant relationship of PG departmental satisfaction scores and OT. A possible explanation for this non-significance is that nine nurse managers did not provide their respective PG departmental satisfaction scores in their survey responses. Thus, the non-significance could be a function of a sample size too small to be captured by so few participants. In contrast, the overall hospital patient satisfaction scores, which were composite scores provided by PG, included scores for some nurse managers who did not participate in this study providing a larger sample of scores.

#### *Limitations of the Study*

Limitations of the study include self-reporting, sampling techniques, and sample size. As with any self-reporting questionnaires, the validity and reliability of the

information reported cannot be assured. To minimize self-reporting errors, information regarding executive tenure, overall hospital patient satisfaction scores and number of nurse managers in the organization were collected directly from the CNO or designee.

Although, every effort was made to enroll as many participants as possible, some hospitals did not permit the researcher to present the study directly to their managers. In some instances, the information was provided to the CNO who then assigned a person to coordinate the study, which resulted in low interest and participation. At organizations where the researcher or the CNO coordinated and presented the study, participation increased significantly. Only one hospital system in Northern California participated in the study, while the rest were in Southern California. All hospitals were not-for-profit. Thus, generalizability of findings would only be applicable to California not-for-profit hospitals.

Another possible limitation of the study may have been discomfort with the subject matter that may have prevented organizations from participating. For instance, CNO's may have felt uncertain about how their managers viewed them and, consequently, how their managers would have responded in the surveys. Conversely, nurse managers may have been concerned about sharing their true feelings about their bosses and, thus, chose not to participate. This was demonstrated by several surveys having been returned via postal mail that were left blank.

#### *Implications for Future Research*

Further research is needed to explore the relationship between other variables and OT. Other statistical analyses such as predictive models and structural equation analyses should be explored in future studies. These research analyses will provide additional

empirical information that will generate knowledge and understanding of how OT influences organizational environments. This study did not look at the possible link between nurse managers' job satisfaction and employees' job satisfaction and whether there is any relationship to OT and patient satisfaction scores. Further studies should also look at whether promoting job satisfaction among the nurse managers has an impact on either the managers' intent to leave the organization or nurse manager vacancy rates. It is possible that relationships between these variables would provide hospital leaders with additional methods for recruiting and retaining nurse managers during these times of nursing shortages.

#### *Practice Implications*

A descriptive correlational study indicated that a significant relationship exists between nurse managers with high levels of OT and high patient satisfaction scores for their organizations. In addition, nurse managers who reported high job satisfaction and perception of fair compensation also reported higher levels of OT. These findings have significant implications for hospital executives. By focusing on developing an environment of OT, hospital executives may increase nurse managers' job satisfaction and perceptions of fair compensation. However, further research is needed to establish such a causal relationship. Satisfied nurse managers will help promote organizational values and goals. This study suggested that improved organizational trust might contribute to increase patient satisfaction scores, but, again, further study is required to test this hypothesis. Since satisfied customers tend to return and recommend the hospital to other patients, increasing OT in their organizations might improve financial viability of the hospitals.

### *Conclusion*

This study addressed five research questions: (1) Are levels of organizational trust associated with nursing turnover rates?; (2) Are levels of organizational trust associated with nursing turnover expenditures?; (3) Are levels of organizational trust associated with patient satisfaction scores?; (4) Is nurse managers' job satisfaction associated with organizational trust?; and (5) Is nurse managers' perception of fair compensation associated with organizational trust? These questions were examined using a descriptive correlational study design. Study findings provided support for three of the research questions. Relationships exist between OT and overall hospital patient satisfaction scores, nurse manager job satisfaction, and fair compensation. This study also provides support for the theoretical framework discussed in Chapter 2. If senior executives in an organization create a climate of trust, nurse managers may develop a strong sense of commitment and satisfaction with the organization, which may result in a strong commitment to providing better customer service to patients in the organization.

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## Appendix A

## Demographic Information

1. What is your age?

21 to 30 years

31 to 40 years

41 to 50 years

51 to 60 years

61 to 70 years

2. What is your ethnic background?

Asian

Black/African American

Hispanic/Latino

Native American

White/Caucasian

Other \_\_\_\_\_

3. What is the highest level of education you have completed?

Hospital diploma

2 years college

4 years college

Masters degree

Doctoral degree

(Go on to next page)

4. What is your gender?
- Female       Male
5. Marital Status
- Single       Married       Divorced       Other
6. How fairly do you feel you are paid for what you do in this organization?
- Completely fair
- Generally fair
- Somewhat fair
- Not very fair
- Not at all fair
7. Overall, to what degree are you satisfied with your job?
- Very satisfied
- Generally satisfied
- Somewhat satisfied
- Not very satisfied
- Very dissatisfied

(Go on to next page)

8. How large is your organization?
- Fewer than 50 employees
- 50 to 99 employees
- 100 to 249 employees
- 250 to 499 employees
- 500 or more employees
9. How many RN's have left positions in your department in the last year? (exclude deaths, travelers, and transfers within the institution) \_\_\_\_\_
10. What is the overall Press Ganey patient satisfaction score for your department for last year? \_\_\_\_\_ What is the overall score for the institution? \_\_\_\_\_
11. What are the budgeted FTEE \_\_\_\_\_ and number of positions for your department? \_\_\_\_\_
12. What is the average RN salary for your hospital? \_\_\_\_\_
13. How many total nursing department managers are there in your institution? \_\_\_\_\_
14. How many nurses with experience left your department last year? \_\_\_\_\_

(Go on to next page)

15. How many nurses with less than two years of experience left your department? \_\_\_\_\_

16. How long have you worked for this organization?

Less than 1 year

1 year to less than 3 years

3 years to less than 5 years

5 years to less than 10 years

10 years to less than 15 years

15 years or more

17. How long has your CEO been in his/her current position?

Less than 1 year

1 year to less than 3 years

3 years to less than 5 years

5 years to less than 10 years

10 years to less than 15 years

15 years or more

(Go on to next page)

18. How long has your CNO been in his/her current position?

- Less than 1 year
- 1 year to less than 3 years
- 3 years to less than 5 years
- 5 years to less than 10 years
- 10 years to less than 15 years
- 15 years or more

19. How long has your CFO been in his/her current position?

- Less than 1 year
- 1 year to less than 3 years
- 3 years to less than 5 years
- 5 years to less than 10 years
- 10 years to less than 15 years
- 15 years or more

Questionnaire is complete. Please place this form and the Organizational Trust

Inventory in the pre-addressed stamped envelope and return it to me.

Thank you,

Pablo Velez, RN, MSN

1245 31<sup>st</sup> Street

San Diego, CA 92102

## Appendix B

### Informed Consent

#### The Impact of Organizational Trust on Hospital Effectiveness

You are being asked to participate in a study being conducted by Pablo Velez, a doctoral student in nursing. Before you give your consent to be a volunteer, it is important that you read the following information and ask as many questions as necessary to be sure you understand what you will be asked to do.

This study will attempt to determine if there is a correlation between organizational trust and hospital RN staff turnover rates, nursing service turnover cost, and department patient satisfaction scores.

Participation in this study is entirely voluntary. If you decide to participate, you are free to withdraw your consent and discontinue your participation at any time. If you withdraw your participation, any information you have provided will be destroyed.

All data collected will be kept strictly confidential. Participants' names or any other information that may identify participants' will not appear on the surveys. Information collected during this study will be stored in a protected private locked area accessible only to the researcher. All collected data will be kept for 5 years after the completion of this study, then destroyed.

Study subjects will not be paid, nor will they receive any non-monetary compensation. There are no physical or psychological risks involved with participating in this study. By participating in this study, you will help advance nursing knowledge. You will be asked to complete two questionnaires that will take approximately a half hour of your time.

#### Questions about the Study:

If you have any questions about the research, please ask now. If you have questions later about this research, you may contact Pablo Velez at (619) 234-8459 or Dr. Mary Jo Clark at (619) 260-4574. There are no physical or psychological risks involved with participating in this study.

#### Agreement:

Your signature below indicates that you have read the information above, had a chance to ask any questions about the study, and agree to participate. You have been given a copy of this agreement. There is no agreement, written or verbal, beyond that expressed in this consent form.

I agree to participate in the study describe above. I have had any questions about the study answered to my satisfaction.

\_\_\_\_\_  
Print Subject Name

\_\_\_\_\_  
Signature of Subject

\_\_\_\_\_  
Date

\_\_\_\_\_  
Location

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Principal Investigator

\_\_\_\_\_  
Date



## Appendix C

## The Organizational Trust Inventory

This questionnaire is designed to assess the organizational climate created by the actions of senior and executive-level management in your organization. The purpose is not to identify or judge the actions of a particular individual, but to get a sense of the climate that top managers, as a group, have, by their actions, constructed.

In responding to each item, you are asked to think about the actions that are typical of top-management. While you might find it helpful to think of a particular manager who you have had an opportunity to observe, remember that your responses should be in terms of the sort of behaviors that top management generally display. The assessment is not about what any one manager does but of the overall effect of what managers, especially senior managers, say and do.

Because neither you nor the managers you are describing can be identified, your responses are completely confidential and there will be no way that your responses can be associated with you.

Please circle the number to the right of each statement that most closely describes your opinion towards your executive team members. You are to interpret the blank spaces as referring to the executive team members about which you are commenting.

Strongly Disagree	Slightly Disagree	Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

1. I think the people in \_\_\_\_\_ tell the truth in negotiations. 1 2 3 4 5 6 7
2. I think that \_\_\_\_\_ meets its negotiated obligations to my department. 1 2 3 4 5 6 7
3. In my opinion, \_\_\_\_\_ is reliable. 1 2 3 4 5 6 7
4. I think that the people in \_\_\_\_\_ succeed by stepping on other people. 1 2 3 4 5 6 7
5. I feel that \_\_\_\_\_ tries to get the upper hand. 1 2 3 4 5 6 7
6. I think that \_\_\_\_\_ takes advantage of our problems. 1 2 3 4 5 6 7

(Go on to next page)

7. I feel that \_\_\_\_\_ negotiates with us honestly. 1 2 3 4 5 6 7
8. I feel that \_\_\_\_\_ will keep its word. 1 2 3 4 5 6 7
9. I think that \_\_\_\_\_ does not mislead me. 1 2 3 4 5 6 7
10. I feel that \_\_\_\_\_ tries to get out of its commitments. 1 2 3 4 5 6 7
11. I feel that \_\_\_\_\_ negotiates joint expectations fairly. 1 2 3 4 5 6 7
12. I feel that \_\_\_\_\_ takes advantage of people who are vulnerable. 1 2 3 4 5 6 7

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Questionnaire is complete. Please place this form and the Demographic Information form in the pre-addressed stamped envelope and return it to me.

Thank you,

Pablo Velez, RN, MSN

Appendix D  
Institutional Review Board Approvals

June 29, 2005

Pablo Velez, RN, PhD (c)  
1245 31<sup>st</sup> Street  
San Diego, CA 92102

**RE: The Effects of Organizational Trust, IRB# 050781**

Dear Mr. Velez:

This is notification that you have been granted expedited approval by the Sharp HealthCare Institutional Review Board (IRB) of your application, and informed consent document dated 6/15/2005, for the above-referenced research study. This action will be reported to all committee members at the July 20, 2005 meeting.

The following sites and investigators are approved:

**Sites:**

Coronado  
Grossmont  
Mary Birch  
Memorial

**Principal Investigator:**

Pablo Velez, RN, PhD (c)

**Sub-investigator:**

Mary Jo Clark, RN, PhD

**Your IRB approval reference number is 050781. Please include this reference number in all of your future correspondence and reporting to the IRB Office. As a reminder, it is the responsibility of the principal investigator to submit status reports to the Institutional Review Board. Your IRB approval expires July 21, 2006. You must submit a status report by Friday, June 8, 2006, in order to ensure the continuation of your study. If you have any amendments, revisions, or changes to the protocol or informed consent document, please submit them to the Institutional Review Board for approval. In addition, all patient recruitment materials must be submitted to the Board for approval prior to their use.**

It is the policy of Sharp HealthCare Institutional Review Board that the Principal Investigator(s) submit a copy of their reports, findings, or manuscripts to the Board prior to publication. Sharp HealthCare would expect that if the results of the research project came to publication, their role would be properly recognized in the research.

Please contact the IRB Office if you should have any questions at (858) 499-4836.

Sincerely,

David Bodkin, M.D.  
Chair, Institutional Review Board  
Sharp HealthCare

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Sharp Coronado Hospital and HealthCare Center ■ Sharp Mesa Vista Hospital ■ Sharp Mary Birch Hospital For Women  
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Appendix E  
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1245 31st St  
San Diego, California 92102  
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\_\_\_\_\_  
Signature of Requester

\_\_\_\_\_  
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Date:

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