A leader's guide to the factors influencing organizational commitment: A study of nurses in Taiwan

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A LEADER'S GUIDE TO THE FACTORS INFLUENCING ORGANIZATIONAL COMMITMENT: A STUDY OF NURSES IN TAIWAN

by

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Doctoral Degree of Education

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The purpose of this study was to investigate the existing factors related to organizational commitment associated with turnover rate. Specifically, the sample was comprised of nurses in medical center hospitals in Taiwan. A descriptive design was used to facilitate the identification of the interrelationships that exist among the nurses’ perceived factors of organizational commitment, directors’ assessment of nurses’ perceived organizational commitment factors, nurses’ organizational commitment, and nurses’ turnover rate.

The sample consisted of 588 full-time staff nurses from four different medical center hospitals. Each subject completed a survey packet including demographic data, Porter’s Organizational Commitment Questionnaire, and questions regarding their perceived factors of organizational commitment. Nursing directors from each hospital also responded. Discriminate Functional Analysis, frequency distributions, and regression were applied in the data analyses.

The results established the relationships between directors’ and nurses’ perceptions of nurses’ perceived organizational factors and led to implications for leaders committed to reducing turnover rates. The findings suggested that an optimum nurse turnover rate occurred when the director’s perception paralleled the nurses’ perceptions of organizational commitment factors. The study also revealed that the nurses’ organizational commitment levels can predict their turnover rates. Moreover, organizational structures such as the availability of training programs, organizational readiness, work schedule adjustments, and job security constitute the factors with the greatest predictability of nurses’ organizational commitment. Recommendations for further research included longitudinal and qualitative investigations to triangulate theses findings.
Acknowledgments

Sincere thanks to Dr. Evans, Chairman of my dissertation committee, has been and continues to be instrumental in my pursuit of this dissertation. The basis for this study was first inspired by her and it was through her generosity that became my mission and endeavor. Her enormously assistance made this work accomplishment.

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Thank you.

December 5, 2004
Missoula, MT
Dedication

This dissertation is dedicated to my husband, Paul, and my children, Christopher and Christina, whose support, encouragement, and love made this endeavor possible, and to my father who was a model of great strength and love.
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CHAPTER ONE

STATEMENT OF THE PROBLEM

Introduction

The health system in Taiwan has changed significantly in the past few years since the new health insurance policy had an effect on the health industry. The national health insurance system was launched in 1995 and about 96% of the population was enrolled in this system in Taiwan (International Council of Nurses, 2000). The national health insurance improves access to better health care to ensure care for all, especially children and the elderly. Moreover, with the aging of the population in Taiwan, there was an increase in health care spending, and a need for more health providers to support the increased need for health care. The increased needs of an aging population, the improvement in the health care system brought about by health insurance, and the needs of a diverse population warrant an increase in the numbers of the medical institutes (Wong, 1997). Meanwhile, advances in technology and a greater emphasis on cost effectiveness had led to changes in the structure, organization, and delivery of health care services. These factors had caused a greater need for qualified nurses in the health industry. The challenge for the health industry will be to enhance the medical environment to encourage more new nurses and increase retention of present nurses.
Statement of the Problem

The nurse turnover rate is currently a problem in several countries (ICN, 2002). The annual turnover rates for all of the nursing positions are vary widely: (a) United States from 15%-26%, (b) 10.8% in Japan, and (c) 10% in Norway (ICN, 2002). The high nurse turnover rate is a crucial issue in the health industry because an optimal turnover rate of 5 to 10% annually is normally expected in an organization (Gillies, 1982). The United States Department of Labor Statistics forecasted a 21%-35% increase in the need for nurses nationwide from 1998-2008 (Valentino, 2002). Moreover, the American Association of College Nursing (AACN) predicted that more than 100,000 jobs in the United States for nurses would be unfilled by 2015. Moreover, a recent report by Een (2003), the first six-month novice nurse turnover rate was reaching 20%, which was three times the turnover rate compared to ten years ago in Taiwan. The nurse turnover studies in Taiwan seldom are emphasized from an organizational perspective. The consequences of nurse turnover have various effects that were drawn from studies of nurses in different countries and applied to the situation in Taiwan.

The Effects of Turnover on Medical Costs

High turnover in the nursing profession is costly for a medical institution. The institute spends extra time, clinical experts, and financial disbursements when recruiting new employees. The annual nurse staffing survey by The Florida Hospital Association found that filling nursing positions costs hospitals US $158.8 million in 2001, and
hospitals spent an average of US $226,000 for nurse recruitment (Snow, 2002). In
addition, the medical facilities must provide processing, training courses, and orientation
for new staffs. The extra costs that the institute encumbered when needing to recruit,
orient, and induct new members included: (a) salaries for staffs who fill the gap during
the replacement workers’ orientation, although it is possible that the salary issue could
well be neutral for the institution, (b) the novices’ non-productive first weeks on the job,
(c) waste of supplies when not used properly, (d) equipment damage, and (e) other
inefficiencies which result from the novices’ lack of familiarity with the job (Contino,
2002; Snow, 2002).

Medical institutions have only limited resources. Even among the largest health
centers like those serving as the hospitals for this study, constantly having to train new
workers is a drain on these valuable resources and causes an inordinate amount of dollars
to be spent in the initial phase of a nurse’s induction into the medical community. Contino
(2002) indicated that some organizations report an annual registered nurse (RN) turnover
rate of 40%. Experts estimated that the cost of turnover could climb to 150% of the
employee’s annual compensation (Contino, 2002). A survey from Palomar Medical
Center and Poway’s Pomerado Hospital in Washington, D.C. found out the turnover rate
in fiscal year 2000-01 was 38 % (Conaughton, 2001). The report indicated that if the
38.4% figure was accurate, it would translate into a $4.1 million loss for the public
hospital district. In a recent report from the International Council of Nurses, “One
hospital operator in California claimed that if the registered nurse turnover rate could be reduced by just 1%, this would represent a saving in US dollars of 12 million a year” (ICN, 2003, conclusion section, ¶ 2). If this turnover rate of nurses could be reduced, the medical institution’s resources may be better spent on training, staff development, and on cutting edge nursing programs which would improve the quality of health care.

The Effects of Turnover on Work Climate

The costs to the medical system from constant turnover are not only in financial and in equipment expenditures, but also this turnover phenomenon affect other institute personnel. McNeese-Smith (2001) contended that turnover reduces consensus, increase conflicts, and reduces satisfaction among those who stay. When positions become vacant, larger workloads are the result and remaining personnel are responsible for these. Even when a new person is hired, this situation continues until the newcomer is oriented and prepared to accept the responsibilities of the job. This burden eventually could cause remaining nurses to lose enthusiasm for their job (McNeese-Smith, 2001). This constant shifting of group members that result from turnover also interferes with effective team building, group cohesiveness, and performance (Cavanagh, 1989). A good quality of health care should be based on a collaborative team (Liedtka & Whitten, 1997).

The Effects of Turnover on Health Care

Inadequate nursing staffs negatively affect health care quality, and studies show that when there are more nurses, there are lower mortality rates, shorter lengths of stay for
patients, better care plans, lower costs, and fewer complications (Cavanagh, 1989; Schalski, 2001). Since nurses spend more time with patients than any other health care providers, they have profound impact on patients' outcomes, and patients' satisfaction. Nurses' schedules that require mandatory overtime and rushing through patients' care activities interfere with the high quality care that nurses were trained to give. A study conducted by Schalski (2001) found associations between increased patients' care loads and increased patients' complications and deaths.

**Organizational Commitment**

Many studies in the United States had examined and tried to identify the indicators that affect nurse turnover. The studies showed that the high turnover rate of staffs in any organization was significantly related to an individual's organizational commitment both in Taiwan and the Unites Stated (Blau & Bola, 1987; Cohen, 1993; Hsiao & Lou, 1996; McNeese-Smith, 2001; Porter, Steers, Mowday & Boulian, 1974; Zangaro, 2001). Nurses who are more committed to the organization: (a) have a better performance in nursing care, (b) work more productively and autonomously, (c) maintain increased social involvements with others in the organization, (d) have fewer absences, and (e) tend to stay longer with the organization that were reported in both Taiwan and the Unites Stated (Chou, 2001; Corser, 1998; McDermott, 1996; McNeese-Smith, 2001; Su, 1998; Wakefield, Curry, Mueller & McClosky, 1988; Zangaro, 2001).

A nurse's commitment to an organization is a crucial issue in today's health market.
For example, a novice who is under pressure to adjust to a new environment needs a supportive group to encourage him or her to complete the work effectively. The newcomers who feel that the group or organization provide necessary and useful information would probably feel committed to the group and organization (Hellman & McMillin, 1994; McCloskey & McCain, 1987). Moreover, Cohen (1991) stated that the relationship between commitment and turnover was stronger in the early career stage than in the mid and late career stage.

According to Blau and Bola (1987), employees with a high level of organizational commitment should be highly motivated because they were attracted by the job and the organization. Nurses were more content and happier with their work if they were committed to the beliefs, values, and practices in the organization (Corser, 1998; McNeese-Smith, 2001). Therefore, nurses with a high level of organizational commitment have a positive attitude for nursing care that was the impetus for delivering competent and empathetic patient care.

The consequences of nurse turnover are demonstrated in terms of reduced quality of care, poorer patient care outcomes, damaged work climate, and increased medical costs. It is urgent that these contributing factors be addressed and much can be done at minimal or no cost. These beneficial but cost affect measures included increasing nurses' organizational commitment by creating a positive organizational climate, improving working relationships, and recognizing the professional autonomy of nurses in their daily
work life (McCloskey & McCain, 1987; McNeese-Smith, 2001).

The Purpose of Study

Almost all organizations are concerned about the efficiency of productivity including labor cost control, enhancement of employee performance, achieving a high level of productivity and customer satisfaction (Cooper & Locke, 2000). The loss of work group efficiency and the disruption of organizational performance caused by an employee separation plus the recreating, hiring and training of a replacement were major negative consequences of turnover (Cavanagh, 1989). How to enhance the employee commitment to the organization in order to retain the individual in an organization to perform quality work became a major issue of every institution. Nursing professions also face the problem of how to increase organizational commitment in order to reduce nurse turnover.

The nurse turnover represents a major problem for the health care industry in terms of cost, the ability to care for patients, and the quality of care given. The purpose of this study is to explore the existing organization factors related to nurse turnover rate in the large medical center hospitals in Taiwan. This study provides scientific data showing the effective factors within an organization that promote commitment to that organization. Once the relationship between nurses' organizational commitment and nurse' retention has been clearly identified, effective strategies could be implemented to better orient, educate, satisfy, motivate and retain quality-nursing staff. The findings of this study present factors that enhance nurses' organizational commitment, in turn reduce turnover
rate and increase the quality of health care in medical center hospitals in Taiwan.

Research Questions

This research was guided by the following question:

What factors are associated with organizational commitment and nurse turnover rate in Taiwan?

Definitions

For the purpose of this study, the following terms apply:

*Factors of Organizational Commitment (organizational characteristics).* Factors that provided nurses' commitment and were benchmarked in the literatures included: (a) organizational readiness (Ingersoll, Kirsk, Merk & Lightfoot, 2000), (b) training programs (Corser, 1998; Hinshaw, 1987; Ingersoll, Olsan, Drew-Cates, Devinnet & Davies, 2002; Yin, 2001), (c) communication (McNeese-Smith, 1997), (d) shared decision-making (Janney, Horsman & Bane, 2001), (e) group cohesiveness (Lucas, Atwood & Hagaman, 1993), (f) working schedule (Ingersoll et al., 2002), (g) promotional opportunity (Shader, Broome, West & Nash, 2001), (h) autonomy (Fisher, Hilson & Deets, 1994), (i) environmental security (Newman & Kachuba, 1992), and (j) job security (McNeese-Smith, 2001).

*Organizational Readiness.* Organizational readiness was defined as employees' cognitive stage of understanding the organization and a state of preparedness for change, "its plans for continuous organizational refinement, and its ability through its social and
technical systems to initiate and sustain that change” (Ingersoll, 2000, p. 14).

*Training Program.* Training program means that courses were provided to assist an employee to become a part of the system and allowed the employee to acquire the job skills needed to feel competent (Newman, & Kachuba, 1992). Training program included recruitment/retention plans and professional development.

*Communication.* Communication was defined to mean: accessibility of the supervisor for listening and guidance, effective communication, and clear expectations and feedback that was needed for better work performances (Parsons & Stonestreet, 2003).

*Shared Decision.* Shared decision was defined that approaches were group interventions, which included an open distribution of information, group problem solving, and giving out of power to create a desired future (Janney et al., 2001).

*Group Cohesiveness.* Group cohesiveness was defined as a strong force in the socialization process within an organization that was the interactive dynamics between the individual and co-workers (McDermott, 1996).

*Working Schedules.* Working schedules were defined to mean working hours and duty shifts system (Strachota 2003).

*Promotional Opportunity.* Opportunity means the vertical mobility or promotion within an organization that occurred because of professional development such as clinical proficiency (professional development) and promotion in the hospitals’ hierarchy (Corser,

**Autonomy.** Autonomy was defined in terms of “the characteristics of the position that allow or encourage individual decision making with daily operational activities” (Hinshaw et al., 1987, P. 10).

**Environmental Security.** Environmental security referred to the safe working environment that was perceived by employees (Newman & Kachuba, 1992). Suggestion from the International Council of Nurses (2000) promoted the development policies or instruments that would protect the nurse in a safe work environment, including continuing education, immunization, and protective clothing and protective equipment.

**Job Security.** Job security was defined as contentment in being secure about not losing a job (McNeese-Smith, 2001).

**Organizational Commitment.** Organizational commitment can be defined as the relative strength of an individual’s identification with and involvement in a particular organization. According to Porter et al. (1974), organizational commitment was characterized by three factors: (a) a strong belief in and acceptance of the organization’s goals and values, (b) a willingness to exert considerable effort on behalf of the organization, and (c) a strong desire to maintain membership in the organization.

**Turnover.** Turnover is defined to mean when employees resign voluntarily, are discharged, retired, laid off, on disability, or die (Gillies, 1982). This included
resignations, terminations, retirements, transfers, and promotions.

The Significance of Study

An understanding of the factors influencing turnover can identify strategies that would encourage and support nurses remaining in their jobs. This understanding may allow for more effective organizational orientation and training programs and would provide managers with more accurate explanations about the behavior of their members on the job. In addition, the quality of health care also can be improved if professional nurses are retained for longer periods in their medical organization (McNeese-Smith, 2001). Thus, it is vital for healthcare management to understand the factors influencing nurses' commitment to enhance their medical facilities.

The results of this study provide knowledge of the effective factors within an organization that promotes employees' commitment to their organization. Nurses with commitment to an organization would be more involved in their jobs, perform that job efficiently, and usually remain in the medical organization (McNeese-Smith, 2001; Wakefield, Curry, Mueller & McCloskey, 1988; Zangaro, 2001). Moreover, hospitals and other medical institutes have economic benefits from reducing the high turnover rate of nurses. These changes not only benefit the hospitals but also their patients and the health system itself.
Limits

For the purposes of this inquiry, the following limitations exist:

1. This study cannot control the responses of the participants in medical center institutions.

2. The nurses' organizational commitment (OCQ) score was ordinal data.

3. The identification of the factors of organizational commitment score was nominal data.

4. Only the director of nursing departments for each of the selected hospitals was surveyed to identify the factors of organizational commitment.

Delimitations

Delimitations intended to provide parameters for this study are:

1. This study selected four out of 17 medical center hospitals in Taiwan that were similar to the medical center hospitals in Taiwan rather than a stratified sample of Taiwanese hospitals.

2. The identification of the factors of organizational commitment was decided solely by the director of the nursing departments in the selected hospitals.

3. The score on the organizational commitment factors that nurses experienced in their jobs was decided by nurses in the selected hospitals.

4. The score of the organizational commitment was decided only by the nurses.
CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

According to many researchers' conclusions, retention of an employee was the most important thing for any organization. The International Council of Nurses (2003) and Valentino (2002) stated that in today's health care market, the nursing profession is forced to maintain a high quality of care at a reduced cost. The inability to retain staff had an adverse affect on the budget and the quality of care provided to patients (ICN, 2003; Snow, 2002). Nursing professions were continuing to search for methods that would increase employee's retention and performance in both the United States and Taiwan (Chen & Lin, 1996; Chen, 2000; Hinshaw et al., 1987; Janney et al., 2001; Neuhauser, 2002; Wong et al., 1997).

A review of the literature from both Western countries and Taiwan showed that there were varied indicators that affected nurses leaving their jobs. Nurses reported unhappiness with many factors of the job environment, which included: (a) inadequate staffing, (b) heavy workloads, (c) the increased use of overtime, (d) a lack of sufficient support staff, and (e) the inadequacy of their wages (Chen & Lin, 1996; Cavanagh, 1989; Een & Ann, 1991; Gauci Borda & Norman, 1997; Strachta, 2003; Wong et al., 1997; Yang, 1988). In many cases this growing dissatisfaction was contributing to the increased nursing turnover (Cavanagh, 1989; Gauci Borda & Norman, 1997; Strachta, 2003; Wong
et al., 1997; Yang, 1988).

Other aspects that contributed to nurses leaving their jobs were related to workplace environments. They included (a) working climate, (b) autonomy, (c) job stress, (d) leadership, (e) job satisfaction, and (f) organizational commitment (Chen & Lin, 1996; Hsiao & Lou, 1996; Lee, 1992; McClokey & McCain, 1987; McNeese-Smith, 2001; Shader et al., 2001; Wakefield et al., 1988; Zangaro, 2001). The study of “Factors Associated with Turnover among Nurses in Taiwan” by Yang (1989) claimed that organizational factors were the first priority for nurses’ choosing their job, and also the ones most likely related to the nurse turnover rate. According to an extensive review of literature, if an organization was sensitive to individual needs, presented an atmosphere of respect, promoted cooperative and collaborative working relationships, and valued individual differences in competencies and skills, nurses would be more apt to remain with this organization.

The literature in nursing and non-nursing fields attempted to identify factors that indicated or predicted turnover and were adopted from many different methodologies in Western countries and Taiwan. The factors of nurse turnover fell into four categories including (a) organizational commitment, (b) job satisfaction, (c) factors of organizational commitment (organizational characteristics), and (d) demographic data.
Organizational Commitment

Commitment is a strong belief in and acceptance of the organizational goals and values, a willingness to exert considerable effort on behalf of the organization, and a definite desire to maintain organizational membership (Porter et al., 1974). The concept of an employee committed to an organization had received increased attention from both scientists and practitioners. This interest was made apparent by numerous studies that had examined the relationships between organizational commitments, its antecedents, and outcomes in the various areas (Cohen, 1992; Steers, 1977; Zangaro, 2001). Studies of predictors of organizational commitment in various careers identified the following antecedent predictors: personal characteristics (age, education, gender, and various personality traits), job characteristics, and role-related variables. The outcomes of organization commitment included work effectiveness, absenteeism, tardiness and turnover (Porter et al., 1974, Porter, Crampon, & Smith, 1976; Hsiao & Lou, 1996; Ingersoll et al., 2000; Sneed & Herman, 1990; Wakefield et al., 1988).

Researchers also stated that organization commitment was an indicator that could predict turnover better than other work attitudes in the United States (Blau & Bola, 1987; Ingersoll et al., 2002; Mowday, Steers, & Porter, 1979). Mowday et al. (1979) said that the factors that influenced one staying in a job included commitment to the organization and job satisfaction. He further stated that commitment to the organization was a better predictor of longevity in the job than is job satisfaction. A recently similar finding based
on nursing staffs report by Ingersoll also supported this finding (2002). He identified organizational commitment as a predictor of intent to stay or leave, but not overall job satisfaction. Recent studies supported the importance of organizational commitment to the phenomenon of nurse turnover. Nursing literature in the United States indicated that nurses who had high organizational commitment would more likely remain in the job (Cohen, 1993; Manion, 2004; Shader et al., 2001; Strees, 1977; Wakefield et al., 1988; Zangare, 2001).

The organizational commitment studies conducted in Taiwan mostly were done in the non-nursing careers (Chen & Lin, 1996; Chen, 1996; Huang, Yu, & Lin; 1995; Kang, & Chung, 1993; Lee & Lin, 1994; Lin, 2001; Lin, 1994; Lu, 1996; Tsai, 2000). Those studies focused on the relationships between organizational commitment and variables such as (a) organizational climate, (b) job characteristics, (c) leadership styles, (d) personal characteristics, (e) organizational communication, (f) professional commitment, (g) turnover intention, and (h) work quality in diverse areas in Taiwan. Few of these studies were found any data regarding employees’ organizational commitment related to turnover behavior.

Most studies of nurse’ organizational commitment in Taiwan were designed to explore levels of nurses’ organizational commitment at particular areas in Taiwan (Hsiao, & Lou, 1996; Hu, 1997; Liou, & Cheng, 1992). Some studies of nurses’ organizational commitment had brought attention to various areas. A study of organizational
commitment in nurses by Hu in Taiwan (1999), stated that the organizational commitment could be influenced by professional commitment and personal characteristics. A recent study by Tsai, Huan, and Yeh, (2002) also showed that nurses' organizational commitment could promote the organizational citizenship behaviors and job satisfaction. In addition, a doctoral dissertation at University of Texas at Austin by Su (1998), title in "The relationships among management style, participation in decision-making, organizational commitment, and intention to leave for staff nurses working in hospitals in Taiwan", she declared that organizational commitment was the strongest determinant of staff nurses' intention to leave. Furthermore, the discussion of studies and the relationships between nurse's organizational commitments and retention was discussed and conclusions were drawn from personal characteristics (Hsiao & Lou, 1996).

Previous research found organizations' members who had higher levels of commitment would show better job performance, job satisfaction and productivity, and lower levels of absenteeism and tardiness in both Western countries and Taiwan (Cohen, 1993; Chou, 2001; Fletcher & Williams, 1996; Ingersoll et al., 2002; McNeese-Smith, 2001; Roy & Ghose, 1997; Su, 1998; Tsai, 2000; Wakefield et al., 1988). Employees were willing to complete their work when they were committed to beliefs of the organization (Burns, 1978). When an individual's soul was connected to the organization, they became connected to something deeper - the desire to contribute to a larger purpose,
to feel they are part of a greater whole (Fullan, 2001). Therefore, it can be assumed that individuals highly committed to an organization's goals and objectives and willing to devote a great deal of energy toward those ends, would be inclined to remain with the organization to assist the realization of such highly valued goals and objectives.

Job Satisfaction

In Herzberg's (1959) Motivation-Hygiene model, the factors influencing job satisfaction were forced to relate to circumstances within the work itself and were called motivational factors. These factors were achievement, recognition, content of work, responsibility, promotion, and all were expected to increase job satisfaction. Herzberg's factors relating to circumstances of the employment were called hygiene factors, such as company policy and administration, salary, interpersonal relations, and working conditions. These factors were expected to prevent job dissatisfaction.

Many studies pointed to the importance of job satisfaction as a predictor of turnover (Gauci Borda & Norman, 1997; Irvine & Evans, 1995; Tai, Bame & Robinson, 1998). Most of nurses' turnover studies were focused on the job satisfaction in Taiwan (Een, & Ann, 1991; Chen, 1996; Wong, Lin, & Lee, 1997; Wo, 2003). Studies also had investigated nurses' job satisfaction and their commitment to the organization that were related to determine a nurse's decision to leave (McCloskey & McCain, 1987; Porter et al., 1974; Wakefield et al., 1988). In those studies, nurses who reported higher levels of job satisfaction also reported a greater commitment to the organization and were more
likely to remain in the current institution.

Factors of Organizational Commitment

Factors of Organizational Commitment that provided nurses' commitment were benchmarked in the literature. The factors evinced from the review included (a) organizational readiness (Ingersoll et al., 2000), (b) training programs (Corser, 1998; Hinshaw et al., 1987; Ingersoll et al., 2002; Yin, 2001), (c) communication (McNeese-Simith, 1997), (d) shared decision-making (Janney et al., 2001), (e) group cohesiveness (Lucas, 1993), (f) working schedules (Ingersoll et al., 2002), (g) promotional opportunity (Shader et al., 2001), (h) autonomy (Fisher et al., 1994), (i) environmental security (Newman & Kachuba, 1992), and (j) job security (McNeese-Smith, 2001).

Organizational Readiness

Organizational readiness was a strong predictor of an employee's commitment to the organization (Ingersoll, 2000). Organizational readiness was defined as a state of preparedness for change, "its plans for continuous organizational refinement, and its ability through its social and technical systems to initiate and sustain that change" (Ingersoll, 2000, p.14). This concept is employees' cognitive stage of understanding the organization. The concept of organizational readiness was established in the bi-directional communication that information must continually flow between employees and organizational management to nurture a high level of commitment (Zangaro, 2001).
The individuals must clearly understand the goals, values, and needs of organization; the organization must also clearly understand the goals, values, and needs of the individual. Furthermore, organizations should focus on clarification of an employee’s responsibilities and accountabilities (through employees’ expectation, job descriptions, role definitions and task identification) and provide an employee with meaningful experiences to increase attachment and commitment to the organization (Fletcher, & Williams, 1996; McCloskey & McCain, 1987; Steers, 1977).

Ingersoll (2000) asserted that organizational readiness was influenced by the organization’s existing orientation. The primary approach for creating employees’ commitment in organization according to Desler’s (1999) research was clarifying and communicating the organizational mission and ideology. “A clear mission and ideology provides a double benefit: the mission provides a focus to which employees can commit, while the values that make up the organizational ideology provide internalized guideline for their behaviors” (Desler, 1999, p. 11). Hagen (2001) also stated that this clear organizational mission through meaningful orientation served as a powerful factor to engage the members’ willingness to accept the community’s aims and earned the member’s commitment. The employees were more likely to become assimilated in the organization if the organization had been successful in implementing mission, orientation and change processes (Desler, 1999; Hagen, 2001). It was also vital that those resources were available and perceived as appropriate for implementing change in the organization.
According to these researchers, employees were more committed to the organization when they were knowledgeable about goals and any changes in its organizational environment (Desl1er, 1999; Fullan, 2001; Hagen, 2001).

Training Programs

Recruitment Plans

The development of work site-specific recruitment and retention plans had been recommended by various scholars (Corser, 1998; Ingersoll et al., 2002; Yin, 2001). Corser (1998) discussed recruitment plans in terms of skill acquisition and integration of novices into a hospital setting. A recruitment plan with preceptors would help nurses became a part of the system and acquired the job skills needed to feel competent (Newman, & Kachuba, 1992; Reilly, 2003). The preceptor-ship was a relationship in which a staff nurse assisted the novice by explaining the context of the work environment, articulating the norms of professional practice in that particular area, and being available to answer work related questions. As Yoder (1995) stated “It is instructional in nature, meaning that tasks are focused on role expectations and behavior” (p. 291). In addition, studies showed that a good mentor for a newly hired nurse also provided a support system improving the health care delivery (Reilly, 2003; Shader et al., 2001).

Professional Development (Continuing Education)

Supporting professional development also had been suggested as an important strategy in fostering employee commitment (Corser, 1998; Desl1er, 1999; Hagen, 2001;
Ingersoll et al., 2002). An analysis of employee commitment among hospital administrators, nurses, service workers, clerical employees, and among scientists and engineers from a research lab concluded that the employer's ability to fulfill the employee's personal career aspirations had a marked effect on employee commitment (Steers, 1977). As Deslver (1999) stated "commitment is higher among employees who believe they are being treated as human resources to be developed rather than commodities to buy and sell" (p. 60).

In addition, appropriate professional development did not only gain the employee's commitment, but also helped retain them in their job. Professional development including the personal growth plan and individual's needs development promote their motivation to remain in their jobs was suggested by several scholars in both Western countries and Taiwan (Cavanagh, 1990; Shader, et al., 2001; Tang, 1994; Wong, et al., 1997).

Professional development not only provided the continued professional training in nursing practices, but also offered the program's related preparation such as preparing a preceptor, coach, or first-line manager. Neuhauser (2002) in the article *Building a High-Retention Culture in Health Care* declared, "The first-line supervisors can make or break your organization" (p. 473). Neuhauser (2002) affirmed that the first-line manager had to be a master of many different skills. Mentoring and training to help the first-line manager to develop these skills was the most important thing when building a high-retention culture (Neuhauser, 2002; Reilly, 2003). Thus, educational programs for
nurse managers/executives should be encouraged (Yoder, 1995).

Group Cohesiveness

Group cohesiveness was an important aspect of job satisfaction and predictability for retention within an organization (Hinshaw et al., 1978; Ingersoll et al., 2002; Lucas, 1993). One of the strongest forces in the socialization process within an organization was the interactive dynamics between the individual and co-workers (McDermott, 1996). Such interaction can provide support and reinforcement necessary for adjustment and attachment to the work environment. Conversely, failure to secure such support may result in alienation from the workplace (McDermott, 1996). This strong positive relationship between gratification with co-worker relationships and propensity to remain was found in many nursing settings (Hinshaw et al., 1978; Ingersoll et al., 2002; McNeese-Smith, 2001) and various careers (Porter et al., 1976). McNeese-Smith (2001) found that both perceived low group cohesiveness and low inclusion in the organization were more likely effective predictors of employee turnover.

In addition, group dynamics principles needed to be implemented by nurse managers (Corser, 1998). Schein (1992) suggested that the most important thing that leaders do was help to shape an effective culture in which people would complete their work. The leaders should address individual concerns respectfully, creating a sense of community in the environment by fostering collaboration, and developing collegial relationship among members (Kouzes & Posner, 1995). Leveck and Jones (1996) reported that nurses who experience participative management would then perceive higher levels of group
cohesion, higher levels of job satisfaction, and that would positively affect nurse retention.

Communication

Communication was a dominant theme because accessibility of the supervisor for listening and guidance, effective communication, and clear expectations and feedback was needed for better work performances (Parsons & Stonestreet, 2003; Zangare, 2001). The supervisory style contributes to the retention of professional nurses and employees (Cohen, 1992; Corser, 1998; Lin, 1994; Porter et al., 1974; Strachota, 2003). The nursing managers' behaviors also affected the nurses' job satisfaction, productivity, and organizational commitment (Loke, 2001; Manion, 2004; McNeese-Smith, 1997).

A positive supervisor-employee relationship leads to increased morale and the retention of nurses (Cohen, 1992; Corser, 1998; Strachota, 2003). Finding ways to give employee feedback and recognition for their input was important in the nursing profession (Persson, Hallberg & Athlin, 1993). As Fullan (2001) stated, two-way communication, being approachable and having an "open door" policy makes for very good team relations. Providing plenty of opportunities for two-way communication had been recommended in building an effective working environment that increases the employee's commitment to an organization. Contemporary communication experts contend that "two-way" communication should more appropriately be considered a continual loop occurring in an organization. In addition, Kobasa and Puccetti (1983) in a study of Personality and Social Resource in Stress Resistance found that when an
employee perceived supervisor support it had a positive effect on his/her health.

**Shared Decision**

Shared decision was defined that approaches are a group intervention, which included an open distribution of information, group problem solving, and giving out of power to create a desired future (Janney et al., 2001). Janney et al. (2001) in a study promoting registered nurses retention through shared decision-making described an organization’s success in creating a process, which aligned nurses and senior management in the creation of a desired future state. The outcome was a significant investment in this organization’s future by discovering the key interventions that would enhance nurses’ satisfaction and commitment, and ultimate retention. The suggestion from Su’s study in Taiwan (1998), “nurses who experience higher levels of participation in decision making, develop higher levels of commitment to the organization and display lower degrees of intention to leave” (P.152).

Moreover, McDermott et al. (1996) in the study of *Work Empowerment and Organizational Commitment* affirmed, “Sharing power with others will expand one’s own power” (p.46) and that “all levels of nursing management must be genuinely committed to fostering empowered behavior in staff” (p.47). This version must begin with the nurse manager. Furthermore, the International Council of Nurses (2000) conducted nursing and health research and ascertained that nurses’ participation in decision-making and policy development positively affected the quality and created a more cost-effective health care
delivery system.

Employees were willing to work for the benefit of the organization when they felt they were considered an integral part of organization by allowing them to participate in decision-making (McNeese-Simith, 1997; Sergiovanni, 1994). As Deslter (1999) declared, “having a membership that shares the organization’s goals and policies can ensure that your individuals act instinctively to benefit the organization” (p. 58). This ability to share in the decision making process allowed an employee to incorporate the institution as their own, and this process became a shared covenant that bonded leader and follower in a moral commitment (Burns, 1978; Parsons & Stonestreet, 2003; Shader et al., 2001; Su, 1998).

**Working Schedules**

In Strachota’s (2003) qualitative study of reasons nurse left employment, over half of the respondents suggested that the hours worked were their main problem. Working long shifts, overtime, weekends, and nights prompted nurses to look for other jobs. However, recognition by the organization and the inclusion of flexible schedules in the work setting may contribute to job satisfaction, organizational commitment, and reduce turnover as found in studies in the United States and Taiwan (Ingersoll et al., 2002; Strachota et al., 2003; Wong et al., 1997; Yang, 1989). These studies pointed out that nurses wanted more flexible policies, more autonomy, and more flexible schedules in their jobs (Ingersoll et al., 2002; Neuhauser, 2002; Strachota, 2003). Similar nursing
studies in Taiwan found that nurses desired flexible schedules, more time off, and more ability to change positions within the organization (Chen, 1996; Wong et al., 1997; Yang, 1989). In addition, a recent article in the United States reported that many employees were more interested in increased personal time than increased financial compensation (Neuhauser, 2002).

In contrast, Shader et al. (2001) mentioned that constantly changing schedules resulted in employees needing to change child-care arrangements and this disrupts family life a situation that was not likely to be tolerated by professional employees. Shader et al. (2001) claimed when an organization provided a stable schedule, that provision led to increased moral and higher work satisfaction.

Promotional Opportunity

Gauci Borda and Norman (1997) affirmed that opportunity for advancement was an important factor in turnover. Opportunity means the vertical mobility or promotion within an organization that occurs because of increased professional development such as clinical proficiency and promotion in the hospitals' hierarchy (Corser, 1998; Curry et al, 1985; Shader et al., 2001; Tai et al., 1998). People who had high opportunity for growth and mobility in their work were more likely to have high aspirations and to be more committed to the organization (Corser, 1998; Curry et al., 1985; Shader et al., 2001; Tai et al., 1998). For many nurses, opportunities for growth and development were limited, resulting in feelings of being stuck in their jobs (Een & Ann, 1991; McDermott et al.,
This limited opportunity for advancement in the current job caused individuals to quit in order to seek career advancement. In Taiwan, studies indicated that increasing one's educational level was also reported being important to nurses (Een, & Ann, 1991; Lee, 2000; Tang, 1994; Yang, 1989). In addition, Cavanagh (1989) stated that opportunity for advancement from outside of a specific organization also contributed to turnover.

**Autonomy**

Autonomy was defined in terms of "the characteristics of the position that allowed or encouraged individual decision making with daily operational activities" (Hinshaw et al., 1987, p.10). A study based on a survey distributed to nurses who had resigned indicated that one of the most important factors behind the decision to leave was the difficulty they had when attempting to implement changes (Persson et al., 1993). Persson's (1993) study indicated that "developmental work should focus on changes that increase the nurses' abilities to control and develop their own domain" (p. 33). The level of autonomy enables the nurses' abilities to control their practice, control over work schedules, and competence in clinical decision-making were found to be important factors to increase both job satisfaction and retention (Acorn, Ratner, & Crawford, 1997; Curry et al., 1985; Fisher et al., 1994; Janney, et al., 2001; Strachota, 2003).

In a meta-analysis of 77 studies on organizational commitment across occupational groups, Cohen (1992) stated that autonomy was one of the important dimensions of professionals' work and therefore an important component of their expectations, and
affected their organizational commitment more strongly than that of nonprofessionals. Nursing professionals were expected to control their own nursing practice when they were carrying heavy patient loads while lacking sufficient autonomy to implement procedures and make decisions; it became frustrating for the nurses (Cohen, 1992; Persson et al., 1993).

*Environmental Security*

Environmental security referred to the safe working environment that is perceived by employees. International Council of Nurses (2000) in the report of *Occupational Health and Safety for Nurses* deplored:

"The lack of appropriate occupational health and safety legislation covering nurses in their place of employment, the often inadequate mechanisms for workers’ participation in the monitoring/elimination of professional hazards, and the insufficient resources allocated to ensure optimal occupational health and safety services and labour inspection. (ICN, 2000, introduction section, ¶ 1)"

The security afforded by a safe and healthy working environment in the hospital may actually be the deciding factor in a nurse's choice of position and decision to remain at their current workplace (Newman & Kachuba, 1992). Training nurses in health and safety policies and procedures must be of prime importance to any hospital concerned about its employees (Newman & Kachuba, 1992). Suggestion from the International Council of Nurses (2000) promoted the development and application of policies or instruments that
would safeguard the nurses' right to a safe work environment, including continuing education, immunization, and protective clothing and protective equipment.

**Job Security**

Job security, feelings of being secure about not losing a job, was important for commitment (McNeese-Smith, 2001). Most people believed that job security was automatically provided by their organizations. "There are no guarantees, but the firm is on record as having a strong commitment to make every effort not to lay off personnel except in the most extreme economic circumstances" (Desler, 1999, p. 65). Moreover, the increasing competition and performance requirements in the work world today required managers to focus on providing relevant value everyday to secure nurses and their positions (Broscio & Scherer, 2003).

**Demographics**

Demographics consisted of those variables that define the participants' personal data. Those demographic data included (a) age, (b) gender, (c) education, (d) working experiences, (e) kinship responsibility, (f) job status, (g) clinical service unit, and (h) salary. These demographic variables were reported to have great influence on nurses’ turnover in various studies in the United States and Taiwan (Cavanagh, 1989; Cavanagh, 1990; Chen & Lin, 1996; Chen, 2000; Een, & Ann, 1991; Lucas et al., 1993; Roy & Ghose 1997; Shader et al., 2001; Tai et al. 1998; Wong et al., 1997; Yang, 1989). Similar findings were also reported from non-nursing turnover studies (Cohen, 1993; Porter et al., ...
Moreover, personal characteristics as demographics (age, education, gender, and various personality traits) had been identified as an antecedent predictor for organizational commitment (Porter et al., 1974, Porter et al., 1976; Ingersoll et al., 2002; Wakefield et al., 1988).

Age

An employee's age can be an indicator of employee turnover. In a review of nursing turnover research from 1977 to 1996, Tai et al. (1998) found that the elder nurses had a lower likelihood of turnover than younger ones. Nurses in the elder age range would stay until retirement because they had too much devoted in the position. In contrast, younger nurses wanted a variety of experiences and might decide to leave the institution or the profession (Strachota, 2003). The similar findings were stated in studies of Taiwan that the younger the employees the shorter period of time they remained in the organization (Liou, 2002; Wong et al., 1997; Yang, 1989).

The organizational commitment related studies explored that employees' age was associated to level of commitment (Mowday et al., 1979; Ingersoll et al., 2002). Elder employees had been long invested and their identity is defined by their position, thus elder employees had a higher commitment to the organization (Sneed & Herman, 1990). Thus, age exerted a curvilinear relationship with organizational commitment and longevity in the nursing profession.
Gender

One of moderating effects of organizational commitment was found to be the gender variable (Cohen, 1992; Porter et al., 1974; Porter et al., 1976). In a meta-analysis of various occupational groups’ organizational commitment and its antecedents, the results showed that females were more committed to the organization among blue collar employees indicating unskilled, semi-skilled employees in industrial organizations, while males were more committed to the organization among white collar professionals including scientists, engineers, nurses, and accountants (Cohen, 1992). Although most of the population of nurses was female workers, there were an increasing number of male nurses in nursing profession in the large health system in Taiwan (Dai, 1999). Very little research had discussed gender in relationship to the nurses’ organizational commitment and nurses’ turnover.

Education

Education was another personal factor contributing to nursing turnover (Cavanagh, 1989; Tai, et al., 1998). The level of education achieved by a nurse was associated with turnover. The personal needs or career may be directly related to the educational level. Strachota (2003) found nurses stayed a shorter time in their job not given the opportunity to gain educational advancement. However, Shader et al. (2001) also found that registered nurses possessing an undergraduate degree were more likely to leave their jobs than nurses who did not have a degree. The studies in Taiwan (Chen, Chiu, & Chen, 1994;...
Chen & Lin, 1996; Hu, 1997) had similar findings as those nurses who were vocational graduates tended to stay longer in the hospital than nurses who were college graduates.

Education had been identified as a predictor for organizational commitment (Cohen, 1993; MacRobert et al., 1993). MacRobert et al. (1993) studied reasons nurses stayed in their employments, and concluded that nurses with more education were able to actualize their professional roles and had more autonomy at work, which increased their commitment. However, studies both in Taiwan (Hu, 1999) and the United States (Steers, 1977) found either no relationship between the level of education and level of commitment or an inverse relationship (Ingersoll et al., 2002).

Working Experiences

Turnover rate was the highest in the first year of novice employment (Hellman & McMillin, 1994). McCloskey and McCain (1987) found that the highest turnover rate was found to be from seven months to fifteen months for nurses. Yang's (1989) study in Taiwan reported that nurse turnover started six months after being in a hospital. Nurses who had less working experience experienced higher levels of job stress and dissatisfaction than the experienced nurses (Chen et al., 1994; Hsiao, & Lou, 1996; Shader et al., 2001). People needed experience in an organization to develop a realistic evaluation of their relationship with it (Porter et al., 1976; Sharder et al., 2001). A novice who was under pressure to adjust to a new environment needs a supportive group to encourage him/her to complete the work effectively (Cohen, 1991). Work experiences
also had positive impact on the employees’ commitment to the organization (Chen, 1996; Hsiao, & Lou, 1996; Steers, 1977). The longer work experiences the higher level of organizational commitment nurses acquired (Lee, & Mo, 1994; Porter et al. 1976; Steers, 1977).

*Kinship Responsibility*

Many studies including the United States and Taiwan had concluded that personal kinship responsibilities were a major reason for nurses leaving their employment (Cavanagh, 1989; Een & Ann, 1991; Hsiao, & Lou, 1996; Tai et al., 1998). Gauci Borda and Norman (1997) studied the factors influencing turnover in the nursing literature carried out between 1991 and 1996, which indicated that the family responsibilities were an important variable influencing turnover. Gauci Borda and Norman (1997) explained higher absence and turnover among woman was due to their traditional responsibilities in caring for the family. The family reasons included taking care of children and elderly, getting married and assisting with their husband’s work. This traditional kinship responsibility influencing nurse turnover was also found in studies in Taiwan (Chen, 1996; Hsiao, & Lou, 1996; Wong et al., 1997; Yang, 1988). Moreover, studies showed that absences and turnover decreased with career progression because kinship responsibilities decreased when children grew up, and increased with increasing family size (Cavanagh, 1990).
Job Status

The higher the position in the organization the more the individual focused on management aspects. A higher position in the clinical hierarchy should increase participation in decision making of the organization and improved the communication avenues, which also would provide a greater sense of control and reorganization (Sneed & Herman, 1990). Roy and Ghose (1997) found that higher-ranking employees would be more involved in organizational goals and objectives and lower level employees would be more concerned with daily operations. Studies showed that as the employees’ position became higher in the organizational hierarchy, so did the level of satisfaction with their jobs (Strachota et al., 2003), degrees of commitment to the organization (Roy & Ghose, 1997; Sneed & Herman, 1990), and the possibility that they were more likely to remain in their jobs (Tai et al., 1998). Similar studies’ findings were confirmed in Taiwan that the higher position of job status the longer the individual retained in their present jobs (Chen, 1996).

Clinical Service Unit

The hospital service variations in patient acuity, specialty, or labor intensiveness could be related to differences in employee attitudes and behaviors. Those differences in the clinical service units indicated the different workload and shift schedule to be important determinants of differences in job satisfaction (Wakefield et al., 1988). There were two main categories of nursing service units: (a) labor-intensive units, determined on the basis of nursing administrators’ rating of staff/patient ratios, including medical,
surgical, pediatric intensive care units, and emergency care units; and (b) non-labor-intensive units including general medical, general surgical, gynecology, orthopedics, and rehabilitation. The study found that labor-intensive units had a significantly higher job satisfaction level than non-labor-intensive units (Wakefield et al., 1988). A similar result was found on a replication study that medical/surgical nurses experienced lower job satisfaction than critical care nurses (Lucas et al., 1993). In the contrast, studies in both the United States and Taiwan comparing units based on acuity had found emergency care units and intensive care units (ICU) nurses to experience greater job stress, lower satisfaction and higher turnover than non-labor-intensive units’ nurses (Chen, 1996; Curry et al., 1985). However, there are few studies of nurse organizational commitment that explored the differences, if any, of commitments among the clinical service units.

Remuneration

Salary or the perceived equity of rewards compared to expended effort often appeared to represent a significant factor in the decision for leaving employment (Cavanagh, 1990; Gauci Borda & Norman, 1997; Strachota, 2003). Higher levels of distributive justice (fairness of rewards) were also associated with higher levels of commitment to the organization (Curry et al. 1985). According to Branham (2001), author of Keeping the People Who Keep You in Business, an alarming 89% of managers truly believed that employee retention was primarily tied to money.
However, survey after survey of employees found that financial compensation was only one of many factors contributing to overall job commitment, and money often ranked 10th out of 15 key factors. Similar studies in the United States and Taiwan found that payment was not the most important factor in determining nurses' job satisfaction (Irvine & Evans, 1995; Een & Ann, 1991) and retention in the organization (MacRoert et al., 1993).

Conceptual Framework

The linkage among the concepts from the review of the literature appears in Figure 1. This framework represented a set of propositions concerning the influence of the determinants to turnover. The arrows showed the expected direction of the relationships between the variables and their expected relative variables. These elements, derived from the related literature, also served as the cognitive map and guided this study.
Figure 1: Conceptual Framework

Organizational factors:
- Organization readiness,
- Training program, Shared decision, Communication,
- Group cohesiveness,
- Working schedules,
- Promotional opportunity,
- Job security, Autonomy,
- Environmental security,

Job Satisfaction \[\rightarrow\] Nurse Organizational Commitment \[\rightarrow\] Outcomes:
Turnover & Associated costs.

Demographics:
- Age, Gender, Education,
- Working experiences,
- Job status, Salary,
- Kinship responsibility,
- Clinical service unit.

Summary

The review of the literature clearly showed that a multiplicity of organizational structures including a variety of training programs, organizational readiness, working schedule, promotional opportunity, environment security, and job security could be associated with organizational commitment (Corser, 1998; Ingersoll et al., 2000; Ingersoll et al., 2002; McNeese-Smith, 2001; Newman, & Kachuba, 1992; Shader et al., 2001).

Research findings highlighted personal interaction within strategies such as group cohesiveness, communication, autonomy, shared decision-making, as beneficial to increase organizational commitment (Hisher, et al., 1994: Janney et al., 2001; Lucas et al.,...
1993; McNeese-Smith, 1997). Personal factors such as age, gender, education, work experience, kinship responsibility, job status, clinical service unit, and salary also contributed to organizational commitment and nurse turnover (Cavanaugh, 1989; Cavanaugh, 1990; Chen, 1996; Wakefield et al., 1988; Lucas et al., 1993; Roy & Ghose 1997; Shader et al., 2001; Tai et al. 1998; Yang, 1988).

A large portion of researchers had tended to focus on measures of job satisfaction to predict employees' turnover (Een, & Ann, 1991; Chen, 1996; Gauci Borda & Norman, 1997; Irvine & Evans, 1995; Tai et al., 1998; Wong, Lin, & Lee, 1997; Wo, 2003). However, the linkage between job satisfaction and employee turnover had inconsistent findings. As results of recent studies' attention had been diverted to organizational commitment because of its ability to be a more stable indicator of work related behaviors (Mowday et al., 1979; Ingersoll et al., 2002). The nurses' turnover studies in Taiwan had more focused on nurses' job satisfaction (Een & Ann, 1991; Yang, 1989), and rarely focused on nurse turnover from an organizational perspective. Thus, this study only focused on exploring the organizational commitment related to the nurse turnover rate rather than both organizational commitment and job satisfaction.

According to recommendations from researchers, organizational commitment could be solidified through a multiplicity of organizational factors. Health institutions needed to build organizations that inspired employees to have pride in their work. The larger health institutions had similar facilities and budgets and higher nurse turnover rates than smaller
health institutions (Bloom, Alexander, & Nuchols, 1992). Understanding of the factors influencing nurse retention is vital for the medical center hospitals in Taiwan. This study focused on effective organizational factors within an organization that promoted nurses’ commitment to an organization in order to retain nurses at the medical center hospitals in Taiwan.
CHAPTER THREE

METHODOLOGY

Introduction

This study focused on effective organizational factors within an entity that promoted nurses' commitment to an organization in order to retain nurses at the medical center hospitals in Taiwan. A conceptual framework in Chapter Two emerged from an extensive review of literature and guided this study. The research investigated data in order to ascertain the relationships, if any, of nurse turnover, nurses' organizational commitment, demographics, and factors of organizational commitment.

For the purpose of this study, the principal research question was:

What factors were associated with nurses’ organizational commitment and nurse turnover rates in Taiwan?

The sub-questions were as follows:

1. Does the nurse turnover rate correspond to a particular level of nurses’ organizational commitment (OCQ) on the part of a hospital nursing staff?

2. What are the relationships between the nurse turnover rate and other factors of organizational commitment that are benchmarked in the literature as assessed by directors (FOC-D)?

3. What are the relationships between the nurses’ organizational commitment (OCQ) and other factors of organizational commitment that are benchmarked in the
literature as assessed by directors (FOC-D)?

4. What organizational factors do nurses perceive as important in their organizational commitment?

5. What organizational factors do nurses perceive as important in their desire to remain in the same medical organization?

6. Will the level of nurses' organizational commitment (OCQ) be related to the nurses' desire to remain in the same medical organization?

7. Do nurses' demographics relate to the nurses' organizational commitment?

Question Figure

This question figure represented the relationship between the variables in each question. The black-arrows with questions' number showed how the expected direction of the relationship between the variables and their expected relative variables.

Figure 2

[Diagram representing the relationship between factors of organizational commitment, nurses' perceived factors of OC, nurse turnover rate, nurses' desire to remain, and demographics data]

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Research Design

A correlation descriptive survey design was selected for this study. The following factors were examined: (a) nurses’ organizational commitment, (b) nurses’ demographics data, (c) existing factors of organizational commitment both from the viewpoints of nurses and the directors of nursing departments in the selected hospitals, and (d) nurse turnover rates via existing hospital databases.

Population and Sample

The population for this study was all medical center hospital personnel in Taiwan. The sample for this study was personnel from four out of 17 medical center hospitals in Taiwan. Among all the 17 medical center hospitals in the nation, five are university institutions, three are religious related, four are business-consortium supported and five are government supported. The four medical center hospitals which were selected included one with a religious affiliation, two university institutions, and one that is partially run by the government. These hospitals’ ecologies reflect the types of all the medical center hospitals in Taiwan. The hospitals were located around both urban and rural areas and all were located within same region of the country. These selected medical center hospitals were similar to all medical center hospitals in Taiwan.

The four directors in charge of the nursing departments in each of the selected hospitals were the individuals designated to identify the factors provided by the organization and were asked to indicate them on the identification of nurses’ perceived
factors of organizational commitment form. The nursing directors in hospitals are responsible for all the policies related to nursing matters including recruitment, training programs for developing personnel abilities, policies and procedures regarding the quality of health care, providing information, and communicating with all the medical team members in health care. Thus, the nursing director would be a person who is acquainted with all the commitment factors that the organization provided.

Nurses were randomly selected from each of these four hospitals. This study included criteria for nurses who had been working full time for at least six months in their current medical center hospitals. The reason for this six-month criterion was that organizational commitment appeared to develop and became consistent overtime as individuals thought about their relationship with the organization (Porter et al, 1976) and any less time would not be of a duration to allow for the vestiges of a relationship to form. Furthermore, according to previous studies, the highest nurse turnover rate was six or seven months after entering an organization (McCloskey & McCain, 1987; Yang, 1989). There were 800 nurses who were asked to participate in this study.

Instrumentation

Two instruments were utilized in this study. These instruments were surveys of (a) nurses perceived factors of organizational commitment and nurses’ Organizational Commitment Questionnaire (Appendix D) completed by nurses and, (b) identification of
factors of organizational commitment (Appendix E) completed by the director. These two instruments were distributed in separate packets.

Nurses' Organizational Commitment Survey

A packet was completed and distributed to each of the participants. The packet for participating nurses included a letter of introduction, an informed consent form (Appendix B), and the nurses' organizational commitment survey. This survey for the nurses consisted of (a) demographic and background data, (b) questions about organizational factors that nurses have experienced in their jobs, and (c) an Organizational Commitment Questionnaire developed by Porter et al. (Mowday et al., 1979). An estimated time for completion of the survey was 20-30 minutes.

In part A of the survey, demographic data included age, gender, education, marital status, kinship responsibility, years of nursing experience, job status, clinical service unit, and salary which had been determined to be predictors for organizational commitment (Ingersoll et al., 2002; Porter et al., 1974, 1976; Shader et al., 2001; Tai et al. 1998; Wakefield et al., 1988) and associated with nurse turnover (Cavanagh, 1989; Gauci Borda & Norman, 1997; Lucas et al., 1993). Moreover, the number of years that nurses desired to remain in the organization, and the years of individual’s anticipated retirement were included.

In part B, the factors of organizational commitment included in this instrument were those that nurses perceived valuable in their organization related to their retention. The
development of these questions was influenced from the existing literature as synthesized from the review of the literature. An audit of the questions was conducted and literature of support was indicated in the following section. This synthesis pointed to ten areas to be studied: (a) organizational readiness (Ingersoll et al., 2000), (b) training programs (Corser, 1998; Hinshaw, 1987; Ingersoll et al., 2002), (c) communication (McNeese-Smith, 1997), (d) shared decision-making (Janney et al., 2001), (e) group cohesiveness (Lucas et al., 1993), (f) promotional opportunity (Shader et al., 2001), (g) autonomy (Fisher, Hison & Deets, 1994), (h) working schedules (Ingersoll et al., 2002), (i) environmental security (Newman & Kachuba, 1992), and (j) job security (McNeese-Smith, 2001). A total of 33 questions with a Likert scale were scored as 7 (strongly agree), 6 (moderately agree), 5 (agree), 4 (neither), 3 (disagree), 2 (moderately disagree), and 1 (strongly disagree). The questions also asked participants for suggestions to improve the institution. One open-ended question also was provided to include all possible factors that nurses’ perceived to be valuable and proactively related to their retention.

In part C, the Organizational Commitment Questionnaire (OCQ) was developed by Porter and his colleagues (Mowday, et al., 1979). The Organizational Commitment Questionnaire was selected because it had been used previously in Taiwan (Hu, 1997; Hu, 1999; Kang & Chung, 1993) and had been adapted to the cultural aspects of the Taiwanese. The specific permission for using this questionnaire in this research was not needed as stated by the developers (Appendix F). Participants were asked to mark their
responses on 15 items with a seven-point Likert scale. The Organizational Commitment Questionnaire was scored as follows: 7 (strongly agree), 6 (moderately agree), 5 (agree), 4 (neither), 3 (disagree), 2 (moderately disagree), and 1 (strongly disagree). The total scores on this scale were ranged from 105 to 15. The higher the score, the more committed to the organization an individual was judged to be. Some items were negatively phrased as well as reverse scored to reduce the responses’ bias.

The Organizational Commitment Questionnaire had shown good reliability and validity. Internal consistency on this instrument was presented by Cronbach’s Alpha reliability in various studies that were .86 to .92 (McCloskey, 1987), .79 (Sneed, 1990), and .88 (Porter, 1974). The test-retest reliability of this instrument with 104 subjects tested 10 weeks apart resulted in a correlation coefficient of .59, which indicated moderate reliability (Lam, 1983).

Identification of Factors of Organizational Commitment by Directors

A packet was distributed to each director in the four selected hospitals. The packet included a letter of explanation, an informed consent form (Appendix C), and the identification of factors of organizational commitment survey. This survey for the director consisted of (a) a demographic data form, (b) the identification of factors of organizational commitment, and (c) nurses’ turnover rate.

The identification of factors of organizational commitment was developed by a synthesis from the previous literature review. The factors used to ascertain nurses’
commitment were from benchmarks found in the literature including (a) organizational readiness (Ingersoll et al., 2000), (b) training programs (Corser, 1998; Hinshaw et al., 1987; Ingersoll et al., 2002; Yin, 2001), (c) communication (McNeese-Simith, 1997), (d) shared decision-making (Janney et al., 2001), (e) autonomy (Fisher, Hison & Deets, 1994), (f) working schedules (Ingersoll et al., 2002), (g) environmental security (Newman & Kachuba, 1992), (h) job security (McNeese-Smith, 2001), and (i) promotional opportunity (Shader et al., 2001). An audit of the questions was conducted and supportive literatures were indicated in the following section. A total of 36 self-designed questions with categorical scales (yes/no) were used to identify the existing factors of organizational commitment. If the answer was yes to these questions, the participant was asked to explain how he/she would accomplish the suggestion.

The turnover rates were gathered from the selected hospitals' existing databases. A retrospective turnover rate was calculated from each hospital. Turnover was defined as a ratio of the number of people who resigned or terminated to the average number of staff working at the hospital during the same year. Most studies concluded that a one-year time period was appropriate for calculating the turnover rate (Shader et al., 2001).

**Question Audit**

The development of these research questions was influenced by the literature synthesized for the review of the literature. The factors used to ascertain nurses' commitment were benchmarked as found in the literature including (a) organizational readiness (Ingersoll et al., 2000), (b) training programs (Corser, 1998; Hinshaw et al., 1987; Ingersoll et al., 2002; Yin, 2001), (c) communication (McNeese-Simith, 1997), (d) shared decision-making (Janney et al., 2001), (e) autonomy (Fisher, Hison & Deets, 1994), (f) working schedules (Ingersoll et al., 2002), (g) environmental security (Newman & Kachuba, 1992), (h) job security (McNeese-Smith, 2001), and (i) promotional opportunity (Shader et al., 2001). An audit of the questions was conducted and supportive literatures were indicated in the following section. A total of 36 self-designed questions with categorical scales (yes/no) were used to identify the existing factors of organizational commitment. If the answer was yes to these questions, the participant was asked to explain how he/she would accomplish the suggestion.

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readiness, (b) training programs, (c) group cohesiveness, (d) communication, (e) shared decision, (f) working schedules, (g) promotional opportunity, (h) autonomy, (i) environment security, and (j) job security. The researcher developed the questions to be included in the questionnaire based on the mentioned themes that the literatures revealed.

**Organization Readiness**

The organization must clarify and communicate its mission and ideology and engage the employees' willingness to accept the community's aims. To facilitate the readiness an organization should provide clear employees' expectation, job descriptions, and role definitions that would increase attachment and commitment to the organization.

*Questions 1.1 to 1.4 in nurses' survey, questions 1.1 to 1.5 in director’s survey.*


**Training program**

Training programs should include a recruitment plan and the plan for professional development. When employees participated in training programs, they acquired new skills and increased competency in their field. A professional training program was also very important for employees to acquire related preparation such as preparing to be a preceptor, coach, or first-line manager.

*Questions 2.3 to 2.6 in nurses' survey, question 2.1 to 2.10 in director’s survey.*

**Communication**

A positive supervisor - employee communication can lead to increased morale for both the employee and the supervisor and increased retention of nurses. Finding ways to give employees' feedback, through two-way communication had been recommended in building an effective working environment.

*Question 3.1 to 3.5 in nurses' survey, question 3.1 in director's survey.*


**Shared Decision**

Employees were willing to work for the benefit of the organization when they felt they were an integral part of organization because they had been included in the decision-making process.

*Question 4.1 to 4.3 in nurses' survey and question 3.2 to 3.4 in director's survey.*
Supporting research to elaborate on shared decision making included: Burns, 1978; Desler, 1999; ICN, 2000; Janney et al., 2001; McDermott et al., 1996; McNeese-Simith, 1997; Parsons, & Stonestreet, 2003; Sergiovanni, 1994; Shader et al., 2001; Tai et al., 1998; and Yang, 1988.

Group Cohesiveness

One of the strongest forces in the socialization process within an organization was the interactive dynamics between the individual and his/her co-workers. Group cohesiveness often created a positive relationship that resulted in gratification with co-worker relationships and an increase in the employees’ propensity to remain in the organization.

Questions 5.1 to 5.5 in nurses’ survey.

Supporting research included the following research: Corser, 1998; Gauci Borda & Norman, 1997; Hinshaw et al., 1978; Ingersoll et al., 2002; Kouzes & Posner, 1995; Leveck & Jones, 1996; Lucas et al., 1993; McDermott, 1996; McNeese-Smith, 2001; Porter, 1979; Shader et al., 2001; Schein, 1992; and Steers, 1977.

Working Schedules

Working schedules may contribute to increased job satisfaction, organizational commitment, and reduce anticipated turnover.

Questions 6.1 to 6.3 in nurses' survey, questions 4.1, 4.2 in director's survey.

Supporting research regarding work schedules include: Chen, 1996; Ingersoll et al.,
Promotional Opportunity

People who had a greater opportunity for growth and mobility in their work were more likely to have high aspirations and to be more committed to the organization.

Questions 2.1 in nurses' survey; questions 8.1 to 8.7 in director's survey.

The promotional opportunity was supported by the following research: Cavanagh, 1989; Corser, 1998; Curry et al., 1985; Een & Ann, 1991; Lee, 2000; McDermott et al., 1996; Shader et al., 2001; Tai et al., 1998; Tang, 1994; Gauci Borda & Norman, 1997; and Yang, 1988.

Autonomy

Nurses who were able to have a level of autonomy in making clinical decisions tended to have increased job satisfaction and were more likely retained in their employment.

Questions 7.1, 7.2 in nurses' survey; questions 5.1, 5.2 in director's survey.


Environmental Security

The environmental security afforded by a safe and healthy working environment in the hospital may actually be the deciding factor in a nurse's choice of employer.

Questions 8.1, 8.2 in nurses' survey, questions 6.1, 6.2 in director's survey.
Supporting research that was utilized in this study included: Newman & Kachuba, 1992; and ICN, 2000.

**Job Security**

Job security, feelings of being secure about not losing a job, was an important variable that increased an employees' commitment to the organization.

*Questions 9.1 to 9.3 in nurses' survey, questions 7.1 to 7.3 in director's survey.*

Supporting research that elaborated on the job security included: Broscio & Scherer, 2003; Desller, 1999; MacRoert et al., 1993; and McNeese-Smith, 2001.

**Procedures**

Permission to conduct the study was received from The University of Montana Institutional Review Board and from institutional research boards in each of the selected hospitals (Appendix A). The survey of nurses' organizational commitment and identification of factors of organizational commitment were translated to Chinese in the actual questionnaires and available in both English and Chinese in the appendices of this study. The translation of the questionnaires was inspected by a professor who was very presciently in both English and Chinese languages. The informed consent forms and cover letters also were translated to Chinese.

A contact person was identified at each hospital to assist with identifying nurses and helping to gather data. The subjects were selected from every 5th person who met the criteria from among the list of nurses in each hospital. A number of 200 participants were
selected from each hospital. A total number of 800 nurses were chosen from four medical center hospitals. The contact person of each hospital distributed the survey of Organizational Commitment Questionnaire (OCQ) to those nurses randomly selected from the designated hospital mailing system.

The survey of identification of factors of organizational commitment was sent to the director of the nursing department in each of the selected hospitals. A return sealed envelope was included in both packets for the return of completed questionnaires and consent forms. Two weeks after the initial mailing, a note was sent to thank those who had responded and remind those who had not to please completed the survey as soon as possible. A copy of the informed consent form also was included in this second letter. Approximately four to six weeks were allowed for the return of questionnaires. An anticipated response rate was 67%.

Confidentiality

All participants were assured that anonymity was maintained. The informed consent forms, along with instruments were mailed to the randomly selected nurses and the director of nursing departments in each of the selected hospitals. All data collected were confidential with regard to the names of the participating hospitals and participating individuals. All data were stored in a locked cabinet for the duration of the research. All of the relevant confidential records were destroyed, leaving only aggregate tabulation of data for publications or validation purposes.
Variables/Statistics

**Sub-question One**

1. Do nurses' turnover rates correspond to a particular level of nurses' organizational commitment (OCQ) on the part of a hospital nursing staff?

**Variables**

The dependent variable was ratio data, the nurse turnover rate. The independent variable was ordinal data, the scores of nurses' organizational commitment (OCQ).

**Statistical Analysis**

The nurses' organizational commitment (OCQ) mean score and nurse turnover rate for each hospital were compared between groups.

**Null Hypothesis of Sub-question One**

There was no experimentally important and consistent predictability of nurses' turnover rate using the score of nurses' organizational commitment as the predictor variable.

**A priori Experimental Importance**

The experimental importance was defined as $r = .8$ and $r^2 = 64\%$ predictability.

**A priori Experimental Consistency**

The experimental consistency was defined at $\alpha \leq .05$ level.

**Statistical Analysis**

Linear regression was used to calculate the predictability of the criterion variable.
using the predictor variables.

Sub-Question Two

2. What are the relationships between the nurse turnover rate and other factors of organizational commitment that are benchmarked in the literature as assessed by directors (FOC-D)?

Variables

The dependent variable was ratio data, the turnover rate. The independent variable was the number of organizational commitment factors provided by the hospital as assessed by the director. Their data were reported by frequency and was ratio data.

Statistical Analysis

The nurse turnover rate and the scores of provided factors of organizational commitment from each hospital were only four numbers. Therefore, there was no hypothesis tested and the trends were reported.

Sub-Question Three

3. What are the relationships between the nurses’ organizational commitment (OCQ) and other factors of organizational commitment that are benchmarked in the literature as assessed by directors (FOC-D)?

Variables

The dependent variable was nurses’ organizational commitment (OCQ) and scores were reported as ordinal data. The independent variable was the number of organizational
commitment factors identified by the nursing director of the hospital. It was reported by frequency and was ratio data.

**Statistical Analysis**

The mean of nurses' organizational commitment (OCQ) and numbers of directors' assessed factors of organizational commitment for each hospital was compared between groups. The scores of provided factors of organizational commitment from each hospital were only four numbers. Thus, there was no hypothesis tested and trends were reported.

**Limitation**

The nurses' organizational commitment (OCQ) mean score was calculated from ordinal data.

**Sub-question Four**

4. What organizational factors do nurses perceive (FOC-N) as important in their organizational commitment (OCQ)?

**Variables**

The organizational factors perceived by nurses were reported by interval data and served as the predictor variable. The nurses' organizational commitments were converted to dichotomous data and were to serve as criteria variables.

**Null Hypothesis of Sub-question Four**

There was no experimentally important and consistent predictability of nurses' organizational commitment using the number of nurses' perceived organizational
commitment factors as the predictor variable.

A priori Experimental Importance

The experimental importance was defined as 70% of correct predictability.

A priori Experimental Consistency

The experimental consistency was defined at $\alpha \leq .05$ level.

Statistical Analysis

Discriminate Function Analysis was used to calculate the predictability of the criterion variable using the predictor variables.

Sub-question Five

5. What organizational factors do nurses perceive as important in their desire to remain in the same medical organization?

Variables

The organizational factors perceived by nurses were interval data and served as the predictor variable. The length of time nurses desired to remain in the organization reported in years was converted to dichotomous data and served as the criteria variables.

Null Hypothesis of Sub-question Five

There was no experimentally important and consistent predictability of nurse desiring to remain in the same organization using the number of factors that nurses perceived in the organization as the predictor variable.
A priori Experimental Importance

The experimental importance was defined as 70% of correct predictability.

A priori Experimental Consistency

The experimental consistency was defined at $\alpha \leq .05$ level.

Statistical Analysis

Discriminate Function Analysis was used to calculate the predictability of the criterion variable using the predictor variables.

Sub-question Six

6. Will the level of nurses' organizational commitment (OCQ) be related to the nurses' desire to remain in the same medical organization?

Variables

The length of time nurses desired to remain in the organization was reported by year, was ratio data, and served as the predictor variable. The scores of nurses' organizational commitment (OCQ) were converted to dichotomous data and served as the criteria variables.

Null Hypothesis of Sub-question Six

There was no experimentally important and consistent predictability of nurses' organizational commitment (OCQ) using number of years that nurses desired to remain in the organization as the predictor variable.
A priori Experimental Importance

The experimental importance was defined as 70% of correct predictability.

A priori Experimental Consistency

The experimental consistency was defined at \( \alpha \leq .05 \) level.

Statistical Analysis

Discriminate Function Analysis was used to calculate the predictability of the criterion variable using the predictor variables.

Sub-Question Seven

7. Do nurses' personal characteristics relate to the nurses' organizational commitment?

Variables

The criteria variable was the nurses' organizational commitment (OCQ) and scores were converted to dichotomous data. The predictor variables were nurses' personal characteristics such as age, working experiences, educational level, kinship responsibility (number of family numbers who live with participant), job status, and salary that were ratio data. Nurses' personal characteristics such as gender, marital status, and clinical service unit were ordinal data and served as predictor variables.

Null Hypothesis of Sub-question Seven

There was no experimentally important and consistent predictability of nurse organizational commitment using personal characteristics as the predictor variable.
A priori Experimental Importance

The experimental importance was defined as 70% of correct predictability.

A priori Experimental Consistency

The experimental consistency was defined at $\alpha \leq .05$ level.

Statistical Analysis

Discriminate Function Analysis was used to calculate the predictability of the criterion variable using the predictor variables.

Summary

This chapter started with seven sub-questions that emerged from the principle research question and illustrated by the question figure. Second, this chapter supplied the question audit section explored from review of the literature as a foundation for the development and validation of the survey instruments. Third, this chapter also enumerated the sampling characteristics and data collection procedures. Finally, a description of analytical methods to test the research questions and hypotheses was detailed.
CHAPTER FOUR

RESULTS

Introduction

This study investigated the factors associated with nurses’ organizational commitment and nurse turnover rate in Taiwan. The results of this research hold the potential to guide leaders’ and managers’ decision-making with regard to recruitment, hiring, induction, evaluation, and professional development within their organizations. This chapter is a presentation of the data garnered via the pilot and the subsequent research.

Pilot Study

A preliminary pilot test of the nurse survey instrument was conducted in Taiwan. The first test involved seven female nurses whose nursing experience ranged from one year to 12 years. The purpose of this test was to clarify and validate the questions for Chinese readability and to ascertain the internal validity of this instrument. The Chinese edition of the nurse questionnaire was refined based upon the input of these seven participants.

A formal pilot study of the nurse survey instrument was performed after the initial test. Using a convenience sampling method, 41 nurses participated in this pilot study. The participants of this pilot study would not be potential participants in the formal survey. Criteria for inclusion were full time nurses who had at least six months of work experience in their current hospital. After having to delete six samples due to missing data, a total number of 35 respondents’ surveys (85%) were used for analysis.
The nurses' survey instrument contained two major parts of the investigation: (a) factors of nurses' perceived organizational commitment, and (b) an organizational commitment questionnaire. The coefficient alpha internal consistency of reliability for part one, factors of nurses' perceived organizational commitment, was reported at the Cronbach's alpha 0.91 level. The coefficient alpha of reliability for the nurses' organizational commitment questionnaire was reported at the Cronbach's alpha 0.92 level, which was similar to the previous studies that ranged from 0.88 to 0.92 (McCloskey, 1987; Sneed, 1990; Porter, 1974). Thus, this scale was considered an appropriated instrument to assess the factors of nurses' perceived organizational commitment and nurses' organizational commitment.

Response Rate

The population and sample of participants included all the full time nurses who met the criteria of working at least six months in medical center hospitals in Taiwan. The total number of completed surveys from respondents from each hospital varied. A total of 593 respondents of the 800 nurses returned surveys, eliciting a response rate of 74%. Among those 593 returned surveys, five incomplete surveys were excluded in the final analysis. Thus, a total number of 588 surveys were deemed applicable for analysis to be included in the research. A summary of the response rates for each hospital is included in Table 1.
Table 1

Survey Response Rates

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Mailed Surveys</th>
<th>Returned Survey (Usable Survey)</th>
<th>Returned Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>200</td>
<td>148</td>
<td>74%</td>
</tr>
<tr>
<td>B</td>
<td>200</td>
<td>170 (167)</td>
<td>85% (84%)</td>
</tr>
<tr>
<td>C</td>
<td>200</td>
<td>133 (131)</td>
<td>67% (66%)</td>
</tr>
<tr>
<td>D</td>
<td>200</td>
<td>142</td>
<td>71%</td>
</tr>
<tr>
<td>Total</td>
<td>800</td>
<td>593</td>
<td>74%</td>
</tr>
<tr>
<td>Total Useable Surveys</td>
<td>588</td>
<td></td>
<td>74%</td>
</tr>
</tbody>
</table>

Nurse Demographic Profile

The personal characteristics to clarify a demographic profile of the respondents included the following: age, gender, education, marital status, kinship responsibility, years of nursing experience, years of current job, job status, clinical service unit, salary, years desiring to remain in their organizations, and anticipated retirement. The variables were measured on categorical scales as nominal and ordinal data that were summarized via frequencies and percentages. Those variables included gender, marital status, educational level, job status, and clinical service unit.

The variables measured on a continuous scale as ratio data were calculated by using means, distribution, and percentage. Those variables were age, years of nursing experience, years of current job, salary, kinship responsibility (the number of children, and number of other persons living together), years desiring to remain in their organizations, and years of anticipated retirement is presented in Table 2.
Table 2

The Means and Distributions of Demographics Data

<table>
<thead>
<tr>
<th>Item</th>
<th>Range</th>
<th>Mean</th>
<th>SD</th>
<th>Valid N.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>20-56</td>
<td>30</td>
<td>6.2</td>
<td>588</td>
</tr>
<tr>
<td>No. of Children Living with</td>
<td>0-3</td>
<td>0.6</td>
<td>0.9</td>
<td>587</td>
</tr>
<tr>
<td>No. of Persons Living with (Except Children)</td>
<td>0-10</td>
<td>2.1</td>
<td>1.9</td>
<td>559</td>
</tr>
<tr>
<td>Years of Current Job</td>
<td>0.5-23.8Y</td>
<td>4.9</td>
<td>4.4</td>
<td>586</td>
</tr>
<tr>
<td>Years of Nursing Experience</td>
<td>0.5-35Y</td>
<td>8.2</td>
<td>6.25</td>
<td>586</td>
</tr>
<tr>
<td>Salary/month/NT $</td>
<td>22,500-89,000</td>
<td>41,840</td>
<td>10,702</td>
<td>584</td>
</tr>
</tbody>
</table>

**Age Distribution**

The age distribution among the respondents is shown in Table 2. The respondents ranged in age from 21 years to 56 years of age. The mean of respondents' ages was 30 years old with a Standard Deviation of 6.2. The majority of the respondents, 58% (341), were from 25 years old to 35 years old.

**Gender Distribution**

A majority of respondents, 587 nurses, were females. Only one respondent was male.

**Educational Level**

Only 1% (4) of the respondents had a graduate degree. Nearly half of the respondents, 49% (287), held bachelor degrees, 50% (292) of the respondents held associate degrees, and only 1% (4) of the respondent held a vocational degree.

**Marital Status**

Most of participants, 61% (359), were single, and 39% (229) of the respondents were married.

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Number of Children Living in Same Household

Among the 587 respondents, a majority or 70% (409) of the respondents had no children living with them. Eleven percent (62) of the respondents had one child, 15% (87) had two children, and 5% (29) had three children living with them. The average of the number of children living with respondents was one child, with a Standard Deviation of 0.9.

Number of Persons Living in Same Household (Except Children)

The data (N=588) showed that 26% (154) of the respondents had no other persons in their same households, 39% (230) had one or two people, 24% (139) had three or four people, and 11% (65) lived with more than five people. The average number of persons living with participants was two persons, and the Standard Deviation was 1.9.

Year of Current Job

There were 32% (188) of the respondents who had held their current positions less than two years, 57% (333) had held their current positions between 2 and 10 years, 10% (56) had held their current positions between 10 and 20 years, and 2% (10) for over 20 years. The mean number of years employed as a nurse at one’s current job was nearly 5 years, with a Standard Deviation of 4.4.

Year of Nursing Experience

The range of participants' nursing experiences was from 6 months to 22 years (N=585). The mean was 8.2 years for the years of nursing experience with a Standard Deviation of 6.5. Only 15% (88) of the respondents had been in a nursing experience less than two years. Half of the respondents, 57% (337), had nursing experience between two
to ten years, while 21% (123) of the nurses had nursing experience of 10 to 20 years, and only 7% (39) had been in the nursing career over 20 years.

**Salary/Monthly**

Monthly salary of the respondents ranged from NT $22,500 (New Taiwan Dollars) to NT $89,000. The majority (72% or 424) of the respondents’ salaries fell between NT $30,000 to NT $50,000, and about 26% (152) of the respondents’ salaries were over NT $50,000. The average of all respondents’ salaries in this study was New Taiwan $41,840 (SD = 10,702). The mean salary was approximately equal to $1,231 US dollars (One United States dollar is equal to about NT $34 dollars).

**Job Status**

There were several positions of clinical hierarchy described by respondents in the nursing profession. The level of nursing profession was based upon individual work, performance, and working experiences. The symbol of N₀ represented the level zero of the nursing profession, signifying nurse at the beginning level of the nursing profession. The higher the subscript numbers the higher the position is in the nursing hierarchy system. According to Table 3, the majority (82% or 486) of the participant nurses’ job status was N₁, N₂, N₃.
Table 3
The Distribution of Job Status

<table>
<thead>
<tr>
<th>Job Status</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>N_0</td>
<td>34</td>
<td>6%</td>
</tr>
<tr>
<td>N_1</td>
<td>165</td>
<td>28%</td>
</tr>
<tr>
<td>N_2</td>
<td>207</td>
<td>35%</td>
</tr>
<tr>
<td>N_3</td>
<td>114</td>
<td>19%</td>
</tr>
<tr>
<td>N_4</td>
<td>18</td>
<td>3%</td>
</tr>
<tr>
<td>Specialist</td>
<td>4</td>
<td>1%</td>
</tr>
<tr>
<td>Leader (NH)</td>
<td>40</td>
<td>7%</td>
</tr>
<tr>
<td>Supervisor</td>
<td>1</td>
<td>0%</td>
</tr>
<tr>
<td>Others</td>
<td>5</td>
<td>1%</td>
</tr>
</tbody>
</table>

N = 588
Clinical Service Unit

A variety of clinical units is presented in Table 4. In this study, most participants (78%) were nurses in non-labor intensive units. In addition, a majority of the participants (40% or 232) were employees in medical and surgical wards.

Table 4 The Distribution of Clinical Service Unit

<table>
<thead>
<tr>
<th>Unit</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-labor-intensive Unit</td>
<td>442</td>
<td>78%</td>
</tr>
<tr>
<td>Medical ward</td>
<td>129</td>
<td>22%</td>
</tr>
<tr>
<td>Surgical ward</td>
<td>103</td>
<td>18%</td>
</tr>
<tr>
<td>Out patient Department</td>
<td>25</td>
<td>4%</td>
</tr>
<tr>
<td>Pediatric Ward</td>
<td>51</td>
<td>9%</td>
</tr>
<tr>
<td>Hospice</td>
<td>12</td>
<td>2%</td>
</tr>
<tr>
<td>Obs &amp; Gyn</td>
<td>32</td>
<td>6%</td>
</tr>
<tr>
<td>Operation Room</td>
<td>53</td>
<td>9%</td>
</tr>
<tr>
<td>Hemo-dialysis R</td>
<td>5</td>
<td>1%</td>
</tr>
<tr>
<td>Rehabilitation</td>
<td>11</td>
<td>2%</td>
</tr>
<tr>
<td>Nursing Department</td>
<td>7</td>
<td>1%</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>16</td>
<td>3%</td>
</tr>
<tr>
<td>Community Health</td>
<td>2</td>
<td>0%</td>
</tr>
<tr>
<td>Labor-intensive Unit</td>
<td>101</td>
<td>18%</td>
</tr>
<tr>
<td>Intensive Care Unit</td>
<td>74</td>
<td>13%</td>
</tr>
<tr>
<td>Emergency Room</td>
<td>28</td>
<td>5%</td>
</tr>
<tr>
<td>Others</td>
<td>26</td>
<td>5%</td>
</tr>
</tbody>
</table>

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Nurses' Perceived Factors of Organizational Commitment

The 35 questions encompassed nine factors and were designed to investigate the nurses' perceived factors of organizational commitment. The frequency and percentage count were based upon the participants' responses in each factor category. To identify the nurses' perceived commitment factors, Likert scales of 1, 2, 3, represented different degrees of disagreement, Likert scales of 5, 6, 7, represented different degrees of agreement, and Likert scales of 4 represented non-response. Thus, the respondents who chose to answer with a response other than 4 (non-response) regarding the variables recorded their forced choice.

Factor One: Organizational Readiness

The factor of organizational readiness contained four questions: (a) B1.1, Understanding the organizational vision, (b) B1.2, understanding the organizational strategic plan, (c) B1.3, understanding job descriptions and expectation, clearly and made available to members, and (d) B1.4, agreement of a two-way communication among the departments in the organization. The frequency of response to each question is shown in Table 5. Among the responses who made the decision on each question, the difference between the disagreement and agreement also is represented in Table 5. In the forced choice, 65% of the respondents replied in agreement with questions of organizational readiness. The standard of how a nurse perceived this factor with organizational readiness was established when three out of four questions were answered in agreement. As a result of this standardization of responses, 61% (359) of the respondents indicated that they did not perceive the factor of organizational readiness, while 39% (229) of the respondents agreed that the factor of organizational readiness was perceived.
Table 5
Nurses’ Perception of Organizational Vision, Strategic Plan, Job Descriptions and Expectation, and A Two-way Communication

<table>
<thead>
<tr>
<th>Item</th>
<th># Forced Choice / %</th>
<th>Non Response / %</th>
<th>Valid N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#Disagreeing / %, #Agreeing / %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Org. Vision</td>
<td>422 / 72%</td>
<td>166 / 28%</td>
<td>588</td>
</tr>
<tr>
<td></td>
<td>111 / 26%</td>
<td>311 / 74%</td>
<td></td>
</tr>
<tr>
<td>Strategic Plan</td>
<td>387 / 66%</td>
<td>199 / 34%</td>
<td>586</td>
</tr>
<tr>
<td></td>
<td>151 / 39%</td>
<td>236 / 61%</td>
<td></td>
</tr>
<tr>
<td>Job Description &amp; Expectation</td>
<td>438 / 75%</td>
<td>148 / 25%</td>
<td>586</td>
</tr>
<tr>
<td></td>
<td>120 / 27%</td>
<td>318 / 73%</td>
<td></td>
</tr>
<tr>
<td>A Two-way Communication</td>
<td>441 / 75%</td>
<td>146 / 25%</td>
<td>587</td>
</tr>
<tr>
<td></td>
<td>201 / 46%</td>
<td>240 / 54%</td>
<td></td>
</tr>
<tr>
<td>Forced Choice</td>
<td>583 / 35%</td>
<td>1105 / 65%</td>
<td></td>
</tr>
<tr>
<td>All Participants in Org. Readiness</td>
<td>359 / 61%</td>
<td>229 / 39%</td>
<td>588</td>
</tr>
</tbody>
</table>

*Factor Two: Training Program*

The commitment factor of the training program included these five questions: (a) B2.2, Training opportunities were made available to participants, (b) B2.3, training programs provide information to enhance nurses’ job performance, (c) B2.4, provisions and opportunities exist to provide for additional skill development, (d) B2.5, personal growth and development are supported, and (e) B2.6, new staff is adequately trained and oriented. The frequency of responses to each question is shown in Table 6. About 67% of the respondents answered in agreement among the forced choice.

To standardize how nurses perceived this factor of training programs, four out of five questions were answered in agreement and were set as a regulation. As shown in Table 6,
60% (353) of the respondents did not perceive the commitment factor of training program and 40% (234) of the respondents showed that they did perceive this factor.

Table 6

Nurses' Perception of Training Opportunity, Training Program for Job Performance, Additional Development, Personal Development, and Orientation

<table>
<thead>
<tr>
<th>Item</th>
<th># Forced Choice / %</th>
<th>Non Response / %</th>
<th>Valid N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#Disagreeing / %, #Agreeing / %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training Opportunity Available</td>
<td>457 / 78%</td>
<td>129 / 22%</td>
<td>586</td>
</tr>
<tr>
<td></td>
<td>126 / 28%, 331 / 72%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training Pro. Enhance Job Performance</td>
<td>477 / 81%</td>
<td>111 / 19%</td>
<td>588</td>
</tr>
<tr>
<td></td>
<td>81 / 17%, 396 / 83%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provisions Provide Additional Dev.</td>
<td>427 / 71%</td>
<td>159 / 27%</td>
<td>586</td>
</tr>
<tr>
<td></td>
<td>138 / 32%, 289 / 68%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal Dev. Are Supported</td>
<td>440 / 75%</td>
<td>148 / 25%</td>
<td>588</td>
</tr>
<tr>
<td></td>
<td>140 / 32%, 300 / 68%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Staff Training &amp; Orientation</td>
<td>425 / 74%</td>
<td>161 / 27%</td>
<td>586</td>
</tr>
<tr>
<td></td>
<td>153 / 36%, 272 / 64%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forced Choice</td>
<td>885 / 33%</td>
<td>1764 / 67%</td>
<td></td>
</tr>
<tr>
<td>All Participants in Training Program</td>
<td>353 / 60%</td>
<td>234 / 40%</td>
<td>588</td>
</tr>
</tbody>
</table>

Factor Three: Promotional Opportunity

For the question B2.1, being given consideration for promotional opportunity, was a commitment factor of opportunity in promotion. About 72% (423) of the respondents were forced choice, and 28% (164) of the respondents did not respond to this question. Among the decision makers, 58% (247) of the respondents answered in disagreement and 42% (176) of the respondents answered in having been given an opportunity to be promoted.
Factor Four: Communication

The factor of communication encompassed five questions, including (a) B3.1, The information is efficiently and effectively communicated in their department, (b) B3.2, within the department, two-way communication exists between the head nurse and other nurses, (c) B3.3, opportunities for feedback regarding job performance are available and timely, (d) B3.4, nurses’ efforts are appreciated by their supervisor and coworkers, and (e) B3.5, the head nurse is fair and reasonable. The frequency of responses for each question is shown in Table 7. The standard that nurses perceive this factor of communication was developed when four out of five questions were answered in agreement. Over half of all the respondents, 55% (325) of the nurses, disagreed that the factor of communication was provided in their organization. The frequency of all the participants’ perceived factors of communication is shown in Table 7.
Table 7
Nurses’ Perception of Efficiently Communicated, Two-way Communication, Feedback of Job Performance, Others’ Appreciation, and Fairness of Head Nurse

<table>
<thead>
<tr>
<th>Item</th>
<th># Forced Choice / %</th>
<th>Non Response / %</th>
<th>Valid N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#Disagreeing / %, #Agreeing / %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information Efficiently Communicated</td>
<td>430 / 74%</td>
<td>158 / 27%</td>
<td>588</td>
</tr>
<tr>
<td></td>
<td>121 / 28%, 309 / 72%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two-way Communication Between HN &amp; Nurse</td>
<td>456 / 77%</td>
<td>132 / 22%</td>
<td>588</td>
</tr>
<tr>
<td></td>
<td>113 / 25%, 343 / 75%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feedback of Job Performance</td>
<td>400 / 69%</td>
<td>187 / 32%</td>
<td>587</td>
</tr>
<tr>
<td></td>
<td>97 / 24%, 303 / 76%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appreciated by Leader &amp; Coworkers</td>
<td>411 / 70%</td>
<td>174 / 30%</td>
<td>585</td>
</tr>
<tr>
<td></td>
<td>63 / 15%, 348 / 85%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head Nurse is Fair &amp; Reasonable</td>
<td>436 / 75%</td>
<td>144 / 25%</td>
<td>580</td>
</tr>
<tr>
<td></td>
<td>120 / 28%, 316 / 72%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forced Choice</td>
<td>514 / 24%</td>
<td>1619 / 76%</td>
<td></td>
</tr>
<tr>
<td>All participants in Communication</td>
<td>325 / 55%</td>
<td>263 / 45%</td>
<td>588</td>
</tr>
</tbody>
</table>
Factor Five: Shared Decision

The factor of shared decision making was contained in three questions, which were: (a) B4.1, Nurses participate in decision making regarding the department's policies and tactics, (b) B4.2, nurses participate in determining the criteria for evaluation, (c) B4.3, nurses are encouraged to come up with new ideas. The frequency and percentage of each question from respondents are explained in Table 8. When two out of three questions were in agreement, that was the standard for perceived commitment of shared decisions. Half of the respondents (51%) agreed that nurses did share in decision making in the organization. The frequency of all the participants' perceived factor of shared decision is shown in Table 8.

Table 8
Nurses’ Perception Shared Decision in Department’s Policies and Tactics, Criteria for Nurses Evaluation, and New Ideas Encouraged

<table>
<thead>
<tr>
<th>Decision</th>
<th>Forced Choice / %</th>
<th>Non Response / %</th>
<th>Valid N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#Disagreeing / %, Agreeing / %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Policy &amp; Tactics</td>
<td>438 / 75%</td>
<td>147 / 25%</td>
<td>585</td>
</tr>
<tr>
<td></td>
<td>122 / 28%</td>
<td>316 / 72%</td>
<td></td>
</tr>
<tr>
<td>Criteria for Nurse Evaluation</td>
<td>436 / 75%</td>
<td>148 / 25%</td>
<td>584</td>
</tr>
<tr>
<td></td>
<td>149 / 34%</td>
<td>287 / 66%</td>
<td></td>
</tr>
<tr>
<td>New Idea Encouraged</td>
<td>426 / 73%</td>
<td>157 / 27%</td>
<td>583</td>
</tr>
<tr>
<td></td>
<td>126 / 30%</td>
<td>300 / 70%</td>
<td></td>
</tr>
<tr>
<td>Forced Choice</td>
<td>397 / 31%</td>
<td>903 / 69%</td>
<td></td>
</tr>
<tr>
<td>All Participants in Shared</td>
<td>287 / 49%</td>
<td>301 / 51%</td>
<td>588</td>
</tr>
<tr>
<td>Decision</td>
<td>287 / 49%</td>
<td>301 / 51%</td>
<td></td>
</tr>
</tbody>
</table>

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Factor Six: Group Cohesiveness

The commitment factor of group cohesiveness included five questions, as follows: (a) B5.1, Positive relationship among members in department, (b) B5.2, group member feel free to share information, (c) B5.3, group members are receptive to feedback and criticism, (d) B5.4, group members positively influence one another, and (e) B5.5, group members negatively influence one another. The B5.5 was a negative question, which used reversed answer as a form of regulation in this study. The frequency of responses to each question is represented in Table 9. The standard for the nurses' perceived factor of group cohesiveness was accumulated when four out of five questions were answered in agreement. The frequency of all the participants' perceived factor of group cohesiveness is showed as Table 9. In this area, 56% (330) of all the nurses perceived the factor of group cohesiveness.
Table 9

Nurses’ Perception of Positive Relationship, Free to Share Information, Feedback and Criticism, Positively Influence, and Negatively Influence

<table>
<thead>
<tr>
<th>Item</th>
<th># Forced Choice / %</th>
<th>Non Response / %</th>
<th>Valid N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Relationship Among Members</td>
<td>456 / 78%</td>
<td>130 / 22%</td>
<td>586</td>
</tr>
<tr>
<td></td>
<td>62 / 14%</td>
<td>394 / 86%</td>
<td></td>
</tr>
<tr>
<td>Feel Free to Share Information</td>
<td>472 / 81%</td>
<td>113 / 19%</td>
<td>585</td>
</tr>
<tr>
<td></td>
<td>53 / 11%</td>
<td>419 / 89%</td>
<td></td>
</tr>
<tr>
<td>Feedback &amp; Criticism are Receptive</td>
<td>430 / 74%</td>
<td>156 / 27%</td>
<td>586</td>
</tr>
<tr>
<td></td>
<td>81 / 19%</td>
<td>349 / 81%</td>
<td></td>
</tr>
<tr>
<td>Positively Influence One Another</td>
<td>445 / 76%</td>
<td>141 / 24%</td>
<td>586</td>
</tr>
<tr>
<td></td>
<td>62 / 14%</td>
<td>383 / 86%</td>
<td></td>
</tr>
<tr>
<td>Negatively Influence One Another</td>
<td>421 / 71%</td>
<td>165 / 28%</td>
<td>586</td>
</tr>
<tr>
<td></td>
<td>237 / 56%</td>
<td>184 / 44%</td>
<td></td>
</tr>
<tr>
<td>Forced Choice</td>
<td>495 / 22%</td>
<td>1729 / 78%</td>
<td></td>
</tr>
<tr>
<td>All Participants in Group Cohesiveness</td>
<td>258 / 44%</td>
<td>330 / 56%</td>
<td>588</td>
</tr>
</tbody>
</table>
Factor Seven: Work Schedule

The factor of work schedule was comprised of three questions in the study which were (a) B6.1, Work schedules are appropriated, (b) B6.2, work schedules are arranged with nurses' input, and (c) B6.3, the work hours are distributed fairly. The frequency of responses to each question is shown in Table 10. Two out of three questions answered in agreement were the standard that the participant perceived the factor of work schedule. The frequency of participants' perceived this factor is presented in Table 10.

Table 10

Nurses' Perception of Appropriate Schedule, Arranged with Nurses' Input, and Distribution of Work Hours Occurs Fairly

<table>
<thead>
<tr>
<th>Schedule</th>
<th># Forced Choice / %</th>
<th>Non Response / %</th>
<th>Valid N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriate Schedule</td>
<td>431 / 73%</td>
<td>155 / 26%</td>
<td>586</td>
</tr>
<tr>
<td></td>
<td>159 / 37%</td>
<td>272 / 63%</td>
<td></td>
</tr>
<tr>
<td>Arranged with Nurses' input</td>
<td>450 / 77%</td>
<td>133 / 23%</td>
<td>583</td>
</tr>
<tr>
<td></td>
<td>186 / 41%</td>
<td>264 / 59%</td>
<td></td>
</tr>
<tr>
<td>Distributed Work Hours Fairly</td>
<td>434 / 74%</td>
<td>151 / 26%</td>
<td>585</td>
</tr>
<tr>
<td></td>
<td>178 / 41%</td>
<td>256 / 59%</td>
<td></td>
</tr>
<tr>
<td>Forced Choice</td>
<td>523 / 40%</td>
<td>792 / 60%</td>
<td></td>
</tr>
<tr>
<td>All Participants in Work Schedule</td>
<td>327 / 56%</td>
<td>261 / 44%</td>
<td>588</td>
</tr>
</tbody>
</table>
**Factor Eight: Autonomy**

The commitment factor of autonomy had two questions which included: (a) B7.1, Having adequate resources and appropriate equipment necessary to perform the job, and (b) B7.2, allowed to make decision in daily operational activities. The percentages and frequency of responses to each question are presented in Table 11. The standard of perceived factor of autonomy required that both questions had responses in agreement. The frequency of all the participants’ perceived autonomy is shown in Table 11.

Table 11

Nurses’ Perception of Resource and Equipment Necessary for Performance, and Decision Making for Daily Operational Activities

<table>
<thead>
<tr>
<th>Schedule</th>
<th># Forced Choice / %</th>
<th>Non Response / %</th>
<th>Valid N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#Disagreeing / %, # Agreeing / %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resources Necessary For Job Performance</td>
<td>426 / 73%</td>
<td>161 / 27%</td>
<td>587</td>
</tr>
<tr>
<td></td>
<td>80 / 19%, 346 / 81%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decision Making for Daily Activities</td>
<td>430 / 73%</td>
<td>153 / 26%</td>
<td>583</td>
</tr>
<tr>
<td></td>
<td>89 / 21%, 341 / 79%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forced Choice</td>
<td>169 / 20%</td>
<td>687 / 80%</td>
<td></td>
</tr>
<tr>
<td>All Participants in Autonomy</td>
<td>285 / 48%</td>
<td>303 / 52%</td>
<td>588</td>
</tr>
</tbody>
</table>
Factor Nine: Environmental Security

The factor of environmental security contained two questions that were (a) B8.1, Organizational policies address standards for environmental security, and (b) B8.2, working environment provides security regarding nurses’ health. The frequency of participants to each question is posted in Table 12. The standard that nurses perceived the factor of environmental security was accumulated when both two questions were answered in agreement. The frequency of all the participants’ perceived environmental security is shown in Table 12.

Table 12

Nurses’ Perception of Standards of Environmental Security Addressed, and Provided Security Regarding with Nurses’ Health

<table>
<thead>
<tr>
<th>Item</th>
<th># Forced Choice / %</th>
<th>Non Response / %</th>
<th>Valid N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#Disagreeing / %, #Agreeing / %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment Security</td>
<td>460 / 79%</td>
<td>127 / 22%</td>
<td>587</td>
</tr>
<tr>
<td>Standards Add.</td>
<td>57 / 12%</td>
<td>403 / 88%</td>
<td></td>
</tr>
<tr>
<td>Environment Security</td>
<td>465 / 79%</td>
<td>122 / 21%</td>
<td>587</td>
</tr>
<tr>
<td>Regarding Nr. Health</td>
<td>68 / 15%</td>
<td>397 / 85%</td>
<td></td>
</tr>
<tr>
<td>Forced Choice</td>
<td>125 / 14%</td>
<td>800 / 86%</td>
<td></td>
</tr>
<tr>
<td>All Participants in Env. Security</td>
<td>230 / 39%</td>
<td>358 / 61%</td>
<td>588</td>
</tr>
</tbody>
</table>
Factor Ten: Job Security

The factor of job security was contained in three questions that were: (a) B9.1, The salary is appropriate compensation for my employment, (b) B9.2, the employee benefits are appropriate, and (c) B9.3, the organization provides job security. The frequency of respondents to each question is shown in Table 13. The standard that nurses perceived job security was established when two out of three questions were answered in agreement. The frequency of all the respondents in perceiving job security is presented in Table 13. According to the data garnered for the study about 66% (388) of the respondents did not perceive that they had job security.

Table 13

Nurses’ Perception of Salary Appropriated, Benefits Appropriated, and Job Security Provided

<table>
<thead>
<tr>
<th>Item</th>
<th># Forced Choice / %</th>
<th>Non Response / %</th>
<th>Valid N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#Disagreeing / %, # Agreeing / %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salary Appropriated</td>
<td>417 / 71%</td>
<td>169 / 29%</td>
<td>586</td>
</tr>
<tr>
<td></td>
<td>215 / 52%</td>
<td>202 / 48%</td>
<td></td>
</tr>
<tr>
<td>Benefits Appropriated</td>
<td>429 / 73%</td>
<td>156 / 27%</td>
<td>585</td>
</tr>
<tr>
<td></td>
<td>243 / 55%</td>
<td>195 / 45%</td>
<td></td>
</tr>
<tr>
<td>Job Security Provided</td>
<td>419 / 71%</td>
<td>167 / 28%</td>
<td>586</td>
</tr>
<tr>
<td></td>
<td>202 / 48%</td>
<td>217 / 52%</td>
<td></td>
</tr>
<tr>
<td>Forced Choice</td>
<td>660 / 51%</td>
<td>614 / 49%</td>
<td></td>
</tr>
<tr>
<td>All Participants in Job Security</td>
<td>388 / 66 %</td>
<td>200 / 34 %</td>
<td>588</td>
</tr>
</tbody>
</table>

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There were ten nurses' perceived factors of organizational commitment. The ranking of agreement of the nurses' perceived factors of organizational commitment was based upon the answers of all participants and is shown in Table 14. The first five organizational commitment factors from all respondents' agreements were: (a) environmental security, (b) group cohesiveness, (c) autonomy, (d) shared decision, and (e) communication. The other five most disagreed with questions regarding organizational commitment factors were: (a) work schedule, (b) promotional opportunity, (c) training programs, (d) organizational readiness, and (e) job security.

Table 14

Ranking of Organizational Commitment Factors by all Responses

<table>
<thead>
<tr>
<th>Item</th>
<th>All Participants</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment Security</td>
<td>230 / 39%</td>
<td>358 / 61% 1</td>
</tr>
<tr>
<td>Group Cohesiveness</td>
<td>258 / 44%</td>
<td>330 / 56% 2</td>
</tr>
<tr>
<td>Autonomy</td>
<td>285 / 48%</td>
<td>303 / 52% 3</td>
</tr>
<tr>
<td>Shared Decision</td>
<td>287 / 49%</td>
<td>301 / 51% 4</td>
</tr>
<tr>
<td>Communication</td>
<td>325 / 55%</td>
<td>263 / 45% 5</td>
</tr>
<tr>
<td>Work Schedule</td>
<td>327 / 56%</td>
<td>261 / 44% 6</td>
</tr>
<tr>
<td>Promotional Opportunity</td>
<td>247 / 56%</td>
<td>176 / 42% 7</td>
</tr>
<tr>
<td>Training Program</td>
<td>353 / 60%</td>
<td>235 / 40% 8</td>
</tr>
<tr>
<td>Org. Readiness</td>
<td>359 / 61%</td>
<td>229 / 39% 9</td>
</tr>
<tr>
<td>Job Security</td>
<td>388 / 66%</td>
<td>200 / 34% 10</td>
</tr>
</tbody>
</table>

The ranking of agreement of nurses' perceived factors of organizational commitment from the answers of forced choice is shown in Table 15. The most five organizational
commitment factors from decision makers’ agreements were: (a) environmental security, (b) shared decision, (c) autonomy, (d) group cohesiveness, and (e) communication. The other five most disagreements of organizational commitment factors were: (a) training program, (b) organizational readiness, (c) work schedule, (d) job security, and (e) promotional opportunity.

Although two ranking lists had showed a little difference in order between all participants and forced choice, the factors of five most agreements of organizational commitment and five most disagreement factors were the same items. Those most agreement of perceived factors is more likely personal interaction related factors. These most disagreement factors are more organizational related factors.

Table 15

<table>
<thead>
<tr>
<th>Item</th>
<th>Forced Choice</th>
<th></th>
<th></th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment Security</td>
<td>125 / 14%</td>
<td>800 / 86%</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Shared Decision</td>
<td>62 / 14%</td>
<td>394 / 86%</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Autonomy</td>
<td>169 / 20%</td>
<td>687 / 80%</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Group Cohesiveness</td>
<td>495 / 22%</td>
<td>1729 / 78%</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Communication</td>
<td>514 / 24%</td>
<td>1619 / 76%</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Training Program</td>
<td>885 / 33%</td>
<td>1764 / 67%</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Org. Readiness</td>
<td>583 / 35%</td>
<td>1105 / 65%</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>Work Schedule</td>
<td>523 / 40%</td>
<td>792 / 60%</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Job Security</td>
<td>651 / 51%</td>
<td>614 / 49%</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Pro. Opportunity</td>
<td>247 / 58%</td>
<td>176 / 42%</td>
<td></td>
<td>10</td>
</tr>
</tbody>
</table>

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The nurses' perceived number of organizational commitment factors ranged from zero to nine. The average number of entire nurses' perceived factors of organizational commitment factors was 4.22. The percentage and frequency of number of perceived factors of organizational commitment in each hospital are shown in Table 16.

Table 16

The Number of Nurses' Perceived Organizational Commitment Factors (FOC-N) in Each Hospital

<table>
<thead>
<tr>
<th>Hosp.</th>
<th>Average number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.01</td>
<td>45%</td>
</tr>
<tr>
<td>2</td>
<td>4.40</td>
<td>49%</td>
</tr>
<tr>
<td>3</td>
<td>3.57</td>
<td>40%</td>
</tr>
<tr>
<td>4</td>
<td>4.81</td>
<td>53%</td>
</tr>
</tbody>
</table>

Nurses' Organizational Commitment

The respondents' scores of organizational commitment questionnaire (OCQ) ranged from 18 to 105. The mean of the all respondents' scores was 66, with a Standard Deviation of 14.02. The mean core of 66 also served as criteria for determining the level of nurses' commitment. The mean of 66 was similar to previous studies. These studies in the literature substantiated the standard, which was according to the average score of participants (Su, 1998). Therefore, if the participants' OCQ score was less than 66 (OCQ < 66), it was considered to represent negative commitment. To identify the person who had positive commitment, the criteria was set as OCQ score for more than 66 (OCQ > 66). According to the respondents' score of OCQ, 52% (302) were considered to have negative commitment because their scores were lower than 66. About 48% (281) of the
lower than 66. About 48% (281) of the respondents were considered as positive commitment, because their scores were higher than 66.

The nurses' organizational commitment score was different among the hospitals. The mean of nurses' organizational commitment in each hospital were: (a) Hospital one: OCQ is 64 (SD = 13.25), (b) Hospital two: OCQ is 72 (SD = 12.50), (c) Hospital three: OCQ is 62 (SD = 14.10), and (d) Hospital four: OCQ is 69 (SD = 14.37). All the nurses' organizational commitment scores in each hospital were at moderate levels of organizational commitment. For the 583 nurses, the overall mean score of the questionnaire was 4.47 (SD = 0.93) on a Likert scale of one (strongly disagree) to seven (strongly agree). The mean of each question is shown in Table 17, and the frequency of responses to each question is also presented in Table 17.
Table 17
Nurses' Organizational Commitment

<table>
<thead>
<tr>
<th>Item</th>
<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>No R</th>
<th>Agree</th>
<th>Moderately Agree</th>
<th>Strongly Agree</th>
<th>Mean ± SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10/2%</td>
<td>15/3%</td>
<td>59/10%</td>
<td>146/25%</td>
<td>162/28%</td>
<td>134/23%</td>
<td>56/10%</td>
</tr>
<tr>
<td>2</td>
<td>14/2%</td>
<td>26/4%</td>
<td>87/15%</td>
<td>160/27%</td>
<td>152/26%</td>
<td>105/18%</td>
<td>39/7%</td>
</tr>
<tr>
<td>3</td>
<td>6/1%</td>
<td>20/3%</td>
<td>51/9%</td>
<td>128/22%</td>
<td>118/20%</td>
<td>142/24%</td>
<td>116/20%</td>
</tr>
<tr>
<td>4</td>
<td>22/4%</td>
<td>51/9%</td>
<td>95/16%</td>
<td>198/34%</td>
<td>125/21%</td>
<td>69/12%</td>
<td>22/4%</td>
</tr>
<tr>
<td>5</td>
<td>18/3%</td>
<td>55/9%</td>
<td>112/19%</td>
<td>217/37%</td>
<td>119/20%</td>
<td>48/8%</td>
<td>12/2%</td>
</tr>
<tr>
<td>6</td>
<td>9/2%</td>
<td>16/3%</td>
<td>65/11%</td>
<td>162/28%</td>
<td>141/24%</td>
<td>129/22%</td>
<td>61/10%</td>
</tr>
<tr>
<td>7</td>
<td>46/8%</td>
<td>98/17%</td>
<td>123/21%</td>
<td>178/31%</td>
<td>59/10%</td>
<td>54/9%</td>
<td>24/4%</td>
</tr>
<tr>
<td>8</td>
<td>7/1%</td>
<td>24/4%</td>
<td>74/13%</td>
<td>207/36%</td>
<td>165/28%</td>
<td>85/15%</td>
<td>20/3%</td>
</tr>
<tr>
<td>9</td>
<td>35/6%</td>
<td>68/12%</td>
<td>99/17%</td>
<td>165/28%</td>
<td>119/20%</td>
<td>65/11%</td>
<td>32/5%</td>
</tr>
<tr>
<td>10</td>
<td>7/1%</td>
<td>24/4%</td>
<td>63/11%</td>
<td>194/33%</td>
<td>129/22%</td>
<td>120/21%</td>
<td>46/8%</td>
</tr>
<tr>
<td>11</td>
<td>22/4%</td>
<td>35/6%</td>
<td>64/11%</td>
<td>182/31%</td>
<td>133/23%</td>
<td>95/16%</td>
<td>51/9%</td>
</tr>
<tr>
<td>12</td>
<td>33/6%</td>
<td>51/9%</td>
<td>119/21%</td>
<td>204/35%</td>
<td>88/15%</td>
<td>60/10%</td>
<td>25/4%</td>
</tr>
<tr>
<td>13</td>
<td>7/1%</td>
<td>20/3%</td>
<td>154/8%</td>
<td>132/26%</td>
<td>132/23%</td>
<td>131/23%</td>
<td>96/16%</td>
</tr>
<tr>
<td>14</td>
<td>22/4%</td>
<td>29/5%</td>
<td>83/14%</td>
<td>175/30%</td>
<td>116/20%</td>
<td>118/20%</td>
<td>26/7%</td>
</tr>
<tr>
<td>15</td>
<td>8/1%</td>
<td>20/3%</td>
<td>19/3%</td>
<td>153/26%</td>
<td>120/21%</td>
<td>109/19%</td>
<td>153/26%</td>
</tr>
</tbody>
</table>
According to the standardized score of the nurses' organizational commitment questionnaire, participants' personal characteristics in positive commitment and negative commitment were found. The frequency and percentage detailed the relationships between positive, negative organizational commitment, and personal characteristics such as: (a) educational level, (b) marital status, (c) service unit, and (d) job status as shown in Table 18.
Table 18

The Relationship Between OCQ and Demographic Characteristics

<table>
<thead>
<tr>
<th>Item</th>
<th>Positive Commitment</th>
<th>Negative Commitment</th>
<th>Valid No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocational D.</td>
<td>280</td>
<td>302</td>
<td>582</td>
</tr>
<tr>
<td>Associated D.</td>
<td>141 / 49%</td>
<td>149 / 51%</td>
<td>290</td>
</tr>
<tr>
<td>Bachelor D.</td>
<td>131 / 46%</td>
<td>153 / 54%</td>
<td>284</td>
</tr>
<tr>
<td>Graduated D.</td>
<td>4 / 100%</td>
<td>0 / 0%</td>
<td>4</td>
</tr>
<tr>
<td>Martial Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>144 / 40%</td>
<td>214 / 60%</td>
<td>358</td>
</tr>
<tr>
<td>Married</td>
<td>137 / 61%</td>
<td>88 / 39%</td>
<td>225</td>
</tr>
<tr>
<td>Service unit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-labor-intensive U.</td>
<td>222 / 50%</td>
<td>220 / 50%</td>
<td>442</td>
</tr>
<tr>
<td>Labor-intensive U.</td>
<td>42 / 42%</td>
<td>59 / 58%</td>
<td>101</td>
</tr>
<tr>
<td>Others</td>
<td>14 / 54%</td>
<td>12 / 46%</td>
<td>26</td>
</tr>
<tr>
<td>Job status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N₀</td>
<td>18 / 55%</td>
<td>15 / 45%</td>
<td>33</td>
</tr>
<tr>
<td>N₁</td>
<td>64 / 39%</td>
<td>100 / 61%</td>
<td>164</td>
</tr>
<tr>
<td>N₂</td>
<td>99 / 48%</td>
<td>107 / 52%</td>
<td>206</td>
</tr>
<tr>
<td>N₃</td>
<td>54 / 19%</td>
<td>59 / 20%</td>
<td>113</td>
</tr>
<tr>
<td>N₄</td>
<td>13 / 72%</td>
<td>5 / 28%</td>
<td>18</td>
</tr>
<tr>
<td>Specialist</td>
<td>1 / 25%</td>
<td>3 / 75%</td>
<td>4</td>
</tr>
<tr>
<td>Leader</td>
<td>30 / 79%</td>
<td>8 / 21%</td>
<td>38</td>
</tr>
<tr>
<td>Others</td>
<td>1 / 20%</td>
<td>4 / 80%</td>
<td>5</td>
</tr>
</tbody>
</table>
Years of Nurses Desire to Remain

The number of year nurses desired to remain employed in their current organization ranged from zero to 34 years (Table 19). The mean average of years the nurses desire to remain was 6.57 (SD = 6.96), and the mean average of years before anticipated retirement was 12.93 years (SD = 7.7).

Table 19

The Years of Nurses Desiring to Remain and Anticipated Retirement

<table>
<thead>
<tr>
<th>Item</th>
<th>Range</th>
<th>Mean</th>
<th>SD</th>
<th>Valid N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desire to remain</td>
<td>0 – 35 Ys</td>
<td>6.57</td>
<td>6.96</td>
<td>355</td>
</tr>
<tr>
<td>Anticipated retirement</td>
<td>0 – 40 Ys</td>
<td>12.93</td>
<td>7.7</td>
<td>373</td>
</tr>
</tbody>
</table>

The distribution of years nurses desire to remain and the year of anticipated retirement is shown in Figure 3.

Figure 3  The Years of Nurses Desiring to Remain and Anticipated Retirement.

![Year of nurses desired to remain and anticipated retirement](image)

Note: RY: The years a participant desired to remain.  AR: Anticipated retirement.
To understand the nurses' desires to remain, the year of anticipated retirement should be considered as a related factor. For example, an experienced nurse has five years of anticipated retirement, but even if she desires to stay longer, she would only have five years to remain in that job. In order to standardize the nurses' desire to remain, the number of years they indicated a desire to remain minus the number of years of their anticipated retirement equaled to the standardized desire to remain. Thus, if the result of standardized desire to remain is equal to zero or above zero that was considered an indication of a desire to remain in the organization until retirement or beyond. The less standardized score value, the less the nurses desired to remain in that job. The distribution of standardized nurses desire to remain is presented in Figure 4. Over a half of the respondents, 54% (167) of nurses, desired to remain in employment until they retire, and 46% (142) of the nurses would leave their jobs earlier than anticipated retirement.

Figure 4  The Distribution of Standardized Nurses Desiring to Remain
Nurse Turnover Rate

Four medical centers were chosen for this study. Each director from the selected hospitals was required to assess the nurses’ perceived factors of organizational commitment and provided the data of nurse turnover rate for the year 2003. The nurse turnover rates were gathered from the hospitals’ existing databases. The nurse turnover rate from each hospital is shown in Table 20.

Directors’ Identification of Nurses’ Perceived Organizational Commitment Factors

The questionnaire of nurses’ perceived organizational commitment factors assessed by directors included 32 Yes/No questions, eight factors benchmarked from the literature. Each question also required the participant to explain how he/she accomplished that question when his/her answer was yes. When participants did not explain the reason or method for the Yes-answer was considered as non-provided factor, or nurses’ non-perceived factor. The frequency of directors’ identification to questions of organizational commitment (FOC-D) from each hospital is shown in Table 20.

The standard of how the nurses perceived each factor of organization commitment identified and assessed by directors (FOC-D) was established as follows: (a) four out of five items were answered “Yes” for organizational readiness, (b) six out of eight items were answered “Yes” for training programs, (c) three out of four items were answered “Yes” for shared decisions, (d) two items were answered “Yes” for work schedules, (e) two items were answered “Yes” for autonomy, (f) two items were answered “Yes” for environmental security, (g) two out of three items were answered “Yes” for job security, and (h) five out of six items were answered “Yes” for job opportunity. The results of standardized factors of organizational commitment assessed by the director (SFOC-D)
from each hospital are shown in Table 20.

Table 20

The Nurse Turnover Rates, Identification of Nurses’ Perceived FOC by Directors, Standardized FOC by Directors, and OCQ in Each Hospital

<table>
<thead>
<tr>
<th>Hosp.</th>
<th>Turnover R.</th>
<th># FOC-D/item</th>
<th>#SFOC-D/%</th>
<th>OCQ/Nr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10.5%</td>
<td>21 / 32</td>
<td>2 / 25%</td>
<td>64.18</td>
</tr>
<tr>
<td>2</td>
<td>6%</td>
<td>20 / 32</td>
<td>4 / 50%</td>
<td>71.54</td>
</tr>
<tr>
<td>3</td>
<td>13%</td>
<td>25 / 32</td>
<td>6 / 75%</td>
<td>61.98</td>
</tr>
<tr>
<td>4</td>
<td>12%</td>
<td>23 / 32</td>
<td>4 / 50%</td>
<td>69.21</td>
</tr>
</tbody>
</table>

Summary

A pilot study was conducted to validate the survey instrument in this research. Providing the demographic information of participants, the data clearly explored the distribution of sampling in this study. This study exhibited the frequencies and percentages of all participants’ and decision makers’ perceived factors of organizational commitment respectively. The findings presented the ranking from most agreements of organizational commitment to the most disagreement factors as: (a) environmental security, (b) group cohesiveness, (c) autonomy, (d) shared decision, (e) communication, (f) work schedule, (g) training programs, (h) organizational readiness, and (i) job security.

The mean of nurses’ organizational commitment score in this study was 66. All the nurses’ organizational commitment scores in each hospital were at moderate levels of organizational commitment. The findings showed that about half 54% (167) of the nurses, desired to remain in employment until they retire, and 46% (142) of the nurses would leave their jobs earlier than anticipated retirement.
The nurse turnover rates of year 2003 which were 10.5%, 6%, 13%, and 12% gathered from the each hospital existing databases. The data of directors' identification of nurses’ perceived organizational commitment was discovered. The following chapter will be on analysis of the data as acquired through the research questions.
CHAPTER FIVE
CONCLUSIONS AND IMPLICATIONS

Introduction

The purpose of this research was to (a) discover the relationship between nurse turnover rates and the level of nurses' organizational commitment (OCQ), (b) explore the relationship between the nurse turnover rate and other factors of organizational commitment as assessed by directors (FOC-D), (c) investigate the relationships between the nurses' organizational commitment (OCQ) and other factors of organizational commitment as assessed by directors (FOC-D), (d) understand the organizational factors that nurses perceive (FOC-N) as important in their organizational commitment (OCQ), (e) identify the organizational factors that nurses perceive (FOC-N) as important in their desire for retention, (f) determine the relationship between the level of nurses' organizational commitment (OCQ) and the nurse desire for retention, and (g) discern the relationship between nurses' personal characteristics and the nurses' organizational commitment (OCQ). Seven research sub-questions were posed. The relationships between variables and expected variables were analyzed. This chapter will formulate conclusions and implications emerging from an analysis of data acquired through surveys. Each research question will be referenced to elaborate on the findings pertaining to that question.

Research Question One Findings and Conclusions

Research question one investigated whether nurse turnover rate corresponded to a particular level of nurses' organizational commitment (OCQ). The trend of the relationship between nurses' turnover rate and nurses' organizational commitment (OCQ)
in each hospital is represented in Figure 5.

Figure 5

The Relationships between Nurse Turnover Rate and Nurses' Organizational Commitment

Figure 5 indicates that nurse turnover rates and nurses' organizational commitment were a negative relationship. The data illustrated that nurses had high levels of organizational commitment, they were more likely to remain in their hospital, and, therefore, nurse turnover rate would be low.

The strength of this trend became more evident when a linear regression was conducted on the data (Figure 6). The resulting correlation coefficient was $r = - .96$ with an adjusted $r^2 = 87\%$ that met the *a priori* 64%. The $p$-value reflecting the degree of experimental consistency was $p = .04$, thus the *a priori* value set at $\alpha \leq .05$ was met. Thus, nurses' organizational commitment, in this research, served as an important and consistent predictor of the nurse turnover rate. The predictor equation was calculated to be: Nurse turnover rate = -.52 (OCQ) % + 45%. Thus, the data from this research would
predict a 45% turnover rate for an organizational commitment score of zero. For each point of organizational commitment as determined by the OCQ, the turnover rate would be predicted to improve by \( \frac{1}{2} \% \). The \( r^2 \) of 87% suggested that 87% of the predictability of a hospital's nurse turnover rate was accounted for by the nurses' organizational commitment (OCQ) score.

Figure 6

The Relationships Between Nurse Turnover Rate and Nurses' Organizational Commitment Using Linear Regression

Research Question Two Findings and Conclusions

Research question two was to discover the relationships, if any, between nurse turnover rate and other factors of organizational commitment as assessed by the selected hospital directors (FOC-D). The data of nurse turnover rate and nurse perceived factors of organizational commitment as assessed by directors in each hospital are shown in Table 21. To better answer Research Question Two, it was necessary to combine and condense Table 16 and Table 20 into Table 21. Table 21 searches the relationships between factors...
of organizational commitment identified and assessed by directors (FOC-D) and nurse turnover rate. The nurses’ perception in receiving factors of organizational commitment (FOC-N) should be considered as a related variable.

Table 21

Condensing and Combing Table 16 and Table 20, the Nurse Turnover Rates, Nurses’ Perceived FOC, and Directors’ Identifying FOC in Each Hospitals

<table>
<thead>
<tr>
<th>Hosp.</th>
<th>Turnover R</th>
<th>FOC-D/%</th>
<th>FOC-N/%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>6%</td>
<td>50%</td>
<td>49%</td>
</tr>
<tr>
<td>1</td>
<td>10.5%</td>
<td>25%</td>
<td>45%</td>
</tr>
<tr>
<td>4</td>
<td>12%</td>
<td>50%</td>
<td>53%</td>
</tr>
<tr>
<td>3</td>
<td>13%</td>
<td>75%</td>
<td>40%</td>
</tr>
</tbody>
</table>

From Table 21, the resulting phenomena can easily be seen as follows: (a) the hospital with the lowest nurse turnover rate (6%) occurred when factors of organizational commitment assessed by directors (FOC-D = 50%) were equal or nearly equal to the nurses’ perceived factors of organizational commitment (FOC-N = 49%); (b) the nurse turnover rate still in the accepted prior level (10.5%) was characterized when the directors’ assessed factors of organizational commitment (FOC-D = 25%) was lower than nurses’ perceived factors of organizational commitment (FOC-N = 45%); (c) when the score of directors’ assessed factors of organizational commitment (FOC-D = 50%) was higher than the nurse perceived factors of organizational commitment (FOC-D = 53%), the nurse turnover rate (12%) also increased, and (d) the hospital showing the highest nurse turnover rate (13%) happened when the directors over estimated the nurses’ perceived organizational factors (FOC-D = 75%) compared with nurses’ perceived

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factors of organizational commitment (FOC-N = 40%).

According to these findings, the perception between the directors and nurses’ perceived factors of organizational commitment is an important element in nurse turnover rate. The closer the perceptions of factors identified by the directors paralleled those identified by the nurses, the more likely the result will be a low nurse turnover rate. The director who over estimated the factors of organizational commitment compared with nurses' perception resulted in a hospital with a high nurse turnover rate. In addition, from the directors’ viewpoints where assessed factors of organizational commitment are less than the nurses’ perception, the nurse turnover rate would stay within the optimal turnover rate. Therefore, this research found that there is a relationship between the directors’ perception of nurses’ perceived factors of organizational commitment and the nurse turnover rate. The relationships between turnover rates (TR), factors of organizational commitment identified by directors (FOC-D), and nurses’ perceived factors of organizational commitment (FOC-N) are shown in Figure 7.

Figure 7

The Relationships Between Turnover Rate (TR), Factors of Organizational Commitment Identified by Directors (FOC-D), and Nurses’ Perception of FOC (FOC-N)
Research Question Three Findings and Conclusions

This research question was to investigate the relationships between the nurses' organizational commitment (OCQ) and factors of organizational commitment that were benchmarked in the literature as assessed by directors (FOC-D). The relationships between FOC-D and OCQ are represented in Figure 8.

Figure 8

The Relationships Between Nurses' Organizational Commitment (OCQ) and Factors of Organizational Commitment Identified by Directors (FOC-D)

The relationships between OCQ and FOC-D scores were better characterized in steps between hospitals rather than collectively as a whole. What was apparent from this graph was the observation that between hospitals 1 and 2, the nurses' OCQ score raised as low directors' scores increased. This would suggest that nurses' commitment improved as low scoring directors gain in their own organizational commitment. However, when a director's FOC-D score rose too much, perhaps to an unrealistic level, nurses' OCQ score actually diminished. The final step between hospitals suggested that as a director-assessed nurse perceived factors of organizational commitment (FOC-D) scores dropped down to a
more realistic level, as perceived by the nurses, the nurses’ organizational commitment level increased again. Therefore, this data suggests that there is an ideal level of organizational commitment on the part of the directors (relative to the nurses) that fosters improved commitment within the organization. Above or below this level may result in diminishing that commitment.

Research Question Four Findings and Conclusions

The research question four was to find out if nurses’ perceived organizational commitment factors (FOC-N) are important in their organizational commitment (OCQ). The relationships between nurses’ perceived organizational factors and nurses’ organizational commitment are shown in Figure 9. These relationships illustrated that the nurses’ organizational commitment and the nurses’ perceived factors of organizational commitment were a positive relationship.

Figure 9

Relationships Between Nurses’ Perceived Organizational Commitment Factors and Nurse Organizational Commitment
About 52% (N = 302) of the participants’ OCQ scores were less than the mean of 66, which were representative of negative commitment. Forty-eight percent (N = 281) of the respondents were considered to have a positive commitment, because their scores were higher than the mean of 66. Discriminate Functional Analysis was applied to calculate the predictability of the organizational commitment (OCQ) using the nurses’ perceived factors of organizational commitment (FOC-N). As the result of this study, an experimental consistency of < 0.0001 was found, and this level met the level of experimental consistency, α ≤ .05 set a priori. The predictability of organizational commitment was 72%, and that met the level of importance of 70% correct predictability set a priori. This overall 72% predictability was based on 75% correct predictability of negative organizational commitment and 69% correct predictability of positive organizational commitment. Thus, the nurses’ perceived factors of organizational commitment (FOC) could predict the nurse organizational commitment (OCQ) at an important and consistent level.

According to the findings of the ranking of nurses’ perceived factors of organizational commitment (FOC-N), the first five organizational commitment factors from all respondents’ and decision makers’ agreements were: (a) environmental security, (b) group cohesiveness, (c) autonomy, (d) shared decision, and (e) communication. Those five factors reflected the personal interaction with a working group in the nursing profession was selected as the most agreement of perceived factors in this study. Discriminate Functional Analysis was used to analyze the predictability of the nurses’ organizational commitment (OCQ) using those five factors of organizational commitment (5FOC-N). The result of this analysis was that a p value was < 0.0001 and met the level
of experimental consistency set *a priori* at \( \alpha < .05 \). The predictability of organizational commitment was 70%, with 66% correct predictability of negative organizational commitment and 73% correct predictability of positive organizational commitment. Therefore, when using those top five indicators of organizational commitment factors (5FOC-N) one could predict the nurses' organizational commitment (OCQ) at a consistent and important level.

In addition to understanding what factors of organizational commitment are important to nurses' organizational commitment, the factors most disagree with were noted and were evaluated. The five elements of organizational commitment factors with which most disagreed were: (a) training program, (b) organizational readiness, (c) work schedule, (d) job security, and (e) promotional opportunity, which may more likely belong to the organizational structure. However, the factor of promotional opportunity was only determined by one question that did not present as a good variable for prediction of nurses' organizational commitment, then excluded in the final analysis. The most disagreed factors for analyzing the nurses' organizational commitment were (a) training program, (b) organizational readiness, (c) work schedule, and (d) job security.

Discriminate Functional Analysis was used to analyze the predictability of the nurses' organizational commitment (OCQ) using those four factors of organizational commitment (4FOC-N). As a result of this finding, a \( p \) value at < 0.0001 met the level of consistency which was set *a priori* at \( \alpha < .05 \). The predictability of organizational commitment was 74%, which met the level of importance of 70% correct predictability also set *a priori*. This 74% predictability was found with a 77% correct predictability of negative organizational commitment and a 71% correct predictability of positive

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organizational commitment. Thus, the factors of disagreement regarding organizational commitment (4FOC-N) could predict the nurses' organizational commitment (OCQ) at an experimental consistent and important level set a priori.

The entire compilation of nurse perceived factors of organizational commitment predicted nurse organizational commitment. The five factors of organizational commitment (5FOC-N) with which nurses agreed and the four factors of organizational commitment (4FOC-N) with which nurses disagreed could also predict the nurses' organizational commitment (OCQ). In addition, those factors of organizational commitment (4FOC-N) were related to organizational structure and had better prediction of nurses' negative organizational commitment. This suggested that organizational commitment, hence turnover rate, was better predicted by analyzing the factors most nurses' disagreed with than analyzing those factors with which most nurses' agreed.

**Research Question Five Findings and Conclusions**

Research question five sought to find if the organizational factors nurses perceive as important play a role in their desire to remain in the same medical organization. From the results of data on nurses' desire to remain in their organizations, 54% (167) of nurses indicated a desire to remain in employment until they retired and 46% (142) of the nurses said they would leave the job earlier than anticipated retirement. Discriminate Functional Analysis was applied to analyze the predictability of nurses' desire to remain using nurses' perceived factors of organizational commitment (FOC-N).

The results were an experimental consistency of $p < 0.0001$, which met the level of experimental consistency $\alpha \leq .05$ set a priori. However, the predictability of nurses remaining in the organization was 60% and did not meet the level of importance of 70%
correct predictability set \textit{a priori} in this study. Therefore, the factors of nurses' perceived organizational commitment (FOC-N) could predict the nurses' desire to remain in the same hospital at a consistent level, but not at the level of important set by this research. Possible reasons for this finding are that there are many non-factors of organizational commitment contributing to the nurses' desire to remain in their institution. These include having a child, moving, and other personal factors that might contribute to the nurses' desire to remain in the same hospital.

\textbf{Research Question Six Findings and Conclusions}

Research question six sought to determine if the level of nurses' organizational commitment (OCQ) was related to the nurses' desire to remain in the same medical organization. Discriminate Functional Analysis was calculated to recognize the predictability of the nurses' desire to remain in the medical center. The results showed that the experimental consistency was $p < 0.0001$, and met the standard of experimental consistency $\alpha < .05$ set \textit{a priori} for this research. The predictability of nurses' desire to remain in their organizations was 68% and thus did not meet the level of importance of 70% predictability set \textit{a priori}. This entire 68% predictability was found from 66% correct predictability of those not desiring to remain in the organization and 71% correct predictability of those desiring to be retained. Although the prediction of the years of nurses' desire to remain in their organization by nurse organizational commitment had experimental consistency, it did not have the level of importance as set \textit{a priori}.

There are many non-factors of organizational commitment that might contribute to the nurse's desire to retain in the same hospital. For instance, nurses might have positive organizational commitment and received high numbers of organizational factors, but they
would not stay in organizations because of personal factors such as moving, sicknesses, or situations related to family kinships. As a result of these findings, the organizational commitment showed that there was a close relationship with nurses who desired to remain with their organizations. The nurses' organizational commitment could have better predictability of nurses who desire to retain compared with those who did not desire to remain in their organizations.

Research Question Seven Findings and Conclusions

Research question seven sought to find out if nurses' personal characteristics related to the nurses' organizational commitment. Discriminate Function Analysis was used to analyze the relationships between nurses' organizational commitment and personal characteristics such as (a) age, (b) number of children living with the nurse, (c) number of family living with the nurse, (d) years in current job, (e) years of nursing experience, and (f) monthly salary as shown in Table 22.

Table 22.
The Discriminate Functional Analysis of Relationship Between Personal Characteristics and Nurses' Organizational Commitment

<table>
<thead>
<tr>
<th>Personal category</th>
<th>P Value</th>
<th>predictability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>&lt;0.0001</td>
<td>65 %</td>
</tr>
<tr>
<td>Children number</td>
<td>&lt;0.0001</td>
<td>62 %</td>
</tr>
<tr>
<td>Family member</td>
<td>0.3</td>
<td>51 %</td>
</tr>
<tr>
<td>Years of current job</td>
<td>&lt;0.0001</td>
<td>57 %</td>
</tr>
<tr>
<td>Nursing experience</td>
<td>&lt;0.0001</td>
<td>62 %</td>
</tr>
<tr>
<td>Salary</td>
<td>&lt;0.0001</td>
<td>63 %</td>
</tr>
</tbody>
</table>
The results as shown in Table 22 reveal that most of the personal variables did ascertain a consistency in positively predictive relationship ($p < 0.0001$) with nurses' organizational commitment, except the variable number of family member. However, all of the variables' predictability did not meet the level of importance, 70% predictability having been set \textit{a priori} for this research. Thus, the personal characteristics including age, number of children, family member, current job, nursing experience, and monthly salary do not have at least a 70% prediction rate of nurses' organizational commitment. These findings differed from previous studies, which had different \textit{a priori} consistency and importance levels.

The frequency and percentages were used to detail the relationships between nurses' organizational commitment and personal characteristics such as (a) educational level, (b) marital status, (c) service unit, and (d) job status (see Chapter four, Table 18). Only the 10% difference in distribution would be discussed in this study. Furthermore, only one male nurse was included in this random sample; thus, gender was not used as a variable to predict organizational commitment in this study.

In the education level, two groups of nurses (those with vocational degrees and those with graduated degrees) had positive commitments. People with vocational educational degrees had high commitment and tended to stay longer in the organizations (Chen & Lin, 1996; Hu, 1997; Shader; 2001). Also, nurses with graduate degrees had increased their efforts for the nursing profession and the organization that increased their commitment. However, the small sample size of those two groups (N=4) needed to be considered as a limitation in this analysis and may need to be addressed in future research.

For marital status, among married nurses, 61% (137) of the nurses had a more
positive commitment than negative commitment. In contrast, there were more single nurses who answered in the negative commitment (60%). This finding was different from other studies conducted by Hu in 1997 and Liou et al. in 1992.

When an analysis of the variable job status was conducted, it revealed that nurses having positive commitment were also in the higher positions in the organizations such as: (a) N4, 72%, and (b) Leader, 79%. Those findings were consistent with the findings of other studies (Liou, & Cheng, 1992; Roy & Ghose, 1997; Sneed & Herman, 1990). Employees in the higher position usually have increased participation and communication within the organization, which provided for them a greater sense that they could manage their works and also revealed that they were more readily recognized for their contributions to the organization. In contrast, nurses in the lower job status (N1) showed more negative commitment (61%). People need experience in an organization to develop a realistic evaluation of their relationship with it (Porter et al., 1979; Sharder et al., 2001). People usually need to work hard or put more effort in their works to adjust the work liability and understand the organizational ecology in the early stage. However, nurses in the first year with basic status (N0) would still have positive a commitment (55%) at the beginning of employment. This finding might be explained because novices generally have idealistic expectations when they begin a new job.

The categories of personal characteristics having the limitation of small sample size were nurses with vocational degrees (N=4), graduate degrees (N=4), N4 (N =18), and specialists (N=4). Further research of those variables and their relationships to organizational commitment could be subject matter studied in subsequent research.
Summary of Conclusions

This study attempted to explore the existing organization factors related to nurses’ organizational commitment that are associated with nurse turnover rate in the medical center hospitals in Taiwan. The nurses’ organizational commitment was predictive of nurse turnover rate using this equation: Nurse Turnover Rate = -.52 (OCQ) % + 45%.

Moreover, the 87% of the predictability of a hospital’s nurse turnover rate was accounted for the nurses’ organizational commitment (OCQ) score.

This finding suggested that an optimum nurse turnover rate occurred when the director’s perception was similar, or at a realistic level with the nurses’ perception of organizational commitment factors. The leader needs to lead in order to foster strong organizational commitment within the organization; however, it would appear that it is important for the leader to lead incrementally rather than moving too fast, which may diminish the level of commitment. This could also mean the director is out of touch with the employees and are not as familiar as they should be about the available resources for personnel. To be effective, the director knows what the organization does and does not offer that affects employees’ commitment. From knowing this and his/her employees, the director can promote valuable factors that employees think are important. This is important for any organization concerned about employee stability, as this research has found a very strong relationship between the level of organizational commitment and turnover rate.

The results showed that the effective factors selected as most disagreement of nurses’ perceived commitment factors within an organization promote nurses’ commitment to that organization. Those factors were: (a) training programs, (b) organizational readiness,
(c) work schedules, and (d) job security, which related to organizational structure. Furthermore, the results proposed that the factors such as (a) environmental security, (b) group cohesiveness, (c) autonomy, (d) shared decision, and (e) communication regarding personal interaction were selected as most perceived factors, and could also enhanced nurses' organizational commitment in this study. To enhance the nurses' organizational commitment, organizational structure was found to be the key element of effective organizational factors within an organization that promoted nurses' commitment to an organization in order to retain nurses at the medical center hospitals in Taiwan.

From the ranking of all participants' perceived factors, presented in Table 14, and the result of these findings, the employers should be focused on the areas of greatest disagreement of this survey. These factors of the organizational structure were similar to the needs enumerated by Maslow Hierarchy of Needs (1954). According to Maslow theory (1954), the potential for growth is contained within each person at various hierarchical levels. The high levels of social needs, belongingness, and autonomy needs of Maslow theory seems already to be accepted as perceived factors of personal social interaction by the participants in this study. The nurses are considered as knowledgeable and professional workers and they have been receiving more of the higher level of needs than the lower level of needs in their organizations. It seems that the lower level of human needs should be more emphasized by management in order to promote the job security, satisfaction, and commitment of employees.

On the other hand, the nurses' perceived factors of organizational commitment (Question 5) and nurses' organizational commitment (Question 6) had no strong affect on a nurse's desire to remain in the same hospital. There are still some gaps between
desiring to remain and actual turnover behavior. It may be that people's attitude of
desiring to remain would not only be based on their perceived factors of organizational
commitment and the level of organizational commitment, but they might want to stay in
the organization simply because of personal reasons, or a personal career plan.

The study sought to identify the personal characteristics and their impact on
employees' organizational commitment. No relationship between demographics variables
and nurse' organizational commitment was found from the data of this research.

Implications for Nursing Directors and Hospital Administrators

Nursing directors provide a realistic job preview that seems to be an important and
positive determinant on nurses' organizational commitment. How to meet the gap
between the perceptions on nurses' perceived factors of organizational commitment and
those of the director's? How can the director realize the nurses' realistic perception of the
organization? Nursing directors can maximize the employee's commitment on their job
by (a) providing facilitated organizational commitment factors, (b) understanding nurses'
expectations and needs, and (c) consistently integrating the organizational and
employees' values and goals. To gain commitment, there is an intense preparatory period
that includes productive conversations, exploration of shared values, open sharing of
information, and collaborative development of the vision and plan.

Leaders need to listen and communicate with staff in order to understand what needs
staff desires. Furthermore, the leader acts as a filter for employees (McCaw, 1999). Often
the leader interprets the organization's goals for employees. In this capacity, the leader
has to comprehend the organization's goals and values, as well as realize the employees'
needs. A reciprocal conversation with employees and directors would allow more
understanding and a more realistic level of each other's perceptions, needs, and expectations. The communication should flow freely and unfettered throughout the hierarchy without being distorted in the process of messages being sent and received. Leaders need to be open minded to accept employees' suggestions for improvements in the organization. In turn, the employees need to be open minded to the organizations' purpose, goals, objects and availability of resources. The communication would truly make the most of employees' commitment.

The facilitated factors of organizational commitment are organizational readiness, job security, training program, and work schedule. The organizational readiness can be built and started in the recruitment program, and through consistent and timely communication with employees. A clear mission and organizational ideology provide internalized guidelines for employees' behaviors (Desiller, 1999; Ingersoll, 2000). The directors and managers should create a channel for continually communicating between organizational and employees' goals, values, and needs. A hot line for information may provide the employees an easy access to information about organizational happenings in a timely manner. By opening the lines of communication, directors would have more realistic perception of nurses' perceived factors of organizational commitment and employees would comprehend and identify the organizational goals and values more readily. Thus, the directors would better understand employees' expectations and needs and then they would be in a better position to facilitate and promote employees' commitment to the organization.

Training programs in terms of recruitment and professional development have been suggested as a vital strategy in fostering employee commitment, and again are explored
as one of the important commitment factors in this study. Those training programs and professional development activities should include career workshops that enhance employees' opportunities for promotion from within and appeal to their desire to grow and to learn. Those strategies should encompass the width and depth of personnel development in the organization. To encourage personal development, directors or administrators can create the opportunities for advanced educational degrees or diplomas. Advanced education can encourage people to aspire to higher needs and achieve increased self-esteem. Training programs should not only focus on professional knowledge and skills, but also the development of activities should include the hospital policies, management and leadership, social relationships, communication, emotional management, and even the beauty of life related programs. A lasting organization should be built upon a base of holistic human resources.

The negative organizational commitment score is higher in the N1 status, the first and second years of the nursing profession in this study. The previous studies also reported that nurses with less than one year in the nursing profession are the most likely to quit their jobs (Hellman & McMillin, 1994; Hsiao, & Lou, 1996; Shader et al., 2001; Yang, 1989). Nurse organizational commitment is a dynamics process, which is established at the first few months in the employment. Thus, how to develop and promote the novices' organizational commitment is an urgent and important aspect. The recruitment programs are a different form for units even in the same hospital, but usually form according to regulations. The study suggests that the period of recruitment should be extended and the support system for novices needs to be increased.

Directors or managers should create a flexible schedules policy, be sensitive to the
need for family-focused time away from work, and recognize the personal factors that interfere with time in the work setting, which may contribute to increase organizational commitment. Rigid structures that lack the capacity to be flexible and innovative stifle the work environment and discourage nurses who do not see ample opportunities to improve their career processes. The flexible schedules may include part time and flex time with appropriate benefits and job security.

The results of this study find that job security is one of the effective factors of organizational commitment. An appropriate salary and job benefits are considered as an important element of feeling job security. Although the employees' salary does not directly affect their organizational commitment in this study, the whole concept of obtained rewards would affect their organizational commitment. The job security translates to feeling secure about employment. To help increasing the employees' feelings of satisfaction, the director should reevaluate the cost of human resources. Indeed, it would be valuable to find a reasonable cost/benefit calculation, and then deliver a feasible benefits system. The hospital administers also need to understand that job security increases employees' organizational commitment, and supports the necessary reformation for the benefits system.

Recommendation for Further Research

There are several directions for further research to study the relationships between organizational commitment and turnover rate. First, the nurses' perceived factors of organizational commitment (Question 5) and nurses' organizational commitment (Question 6) are not strong predictors of the nurses' desire to remain in their present institutions. Nurses' desire to remain is different from the actual turnover behavior and
some different components may to be taken into consideration. Further research is needed
to develop more information about the nurses’ desire to remain in an organization. One
option for this issue might be to conduct a qualitative study using interviews, and
observations, and then from these interactions create an appropriate questionnaire for
identifying this domain more concretely. Further research needs to emphasize the domain
of the nurses’ desire to remain in their organization.

Secondly, there were insufficient data in some variables such as educational degree,
job status, gender, and some personal factors in this study. Those variables need further
research to investigate their relationships to organizational commitment. Furthermore, no
strong relationship was found between demographic variables and organizational
commitment in this study. Past research indicated a significant link between personal
characteristics and organizational commitment. Thus, more empirical research is needed
to validate result and conclusion of relationship between demographic variables and
organizational commitment.

Finally, further research should improve on the basic research design of this study.
Longitudinal research would allow for more confidence in the proposed relations of the
dynamic external and internal environments of the organization in analyzing either
turnover or retention. That is, conducting an assessment of changes in attitude over time
may allow the researcher to acquire more data and to ascertain if the variables as they
relate to organizational commitment might change over time.

Chapter Summary

This study attempted to comprehensively analyze the relationships between the
factors of organizational commitment and outcomes of turnover intentions. The findings
clarify and elaborate on the knowledge of the relationships between nurses’ organizational commitment and nurse turnover rate. The important finding of this study is the predictability of nurse turnover rate could be accounted by nurses’ organizational commitment, which is consistent with the results of other studies.

The findings also find the relationships between directors’ and nurses’ perceptions of nurses’ perceived organizational factors, which may affect the nurse turnover rate. The nurse turnover rate may be low when the director and nurses have similar perception of nurses’ perceived factors of organizational commitment. This study suggests that the director should recognize the nurses’ perceived organizational commitment, in order to provide the appropriate facilitators to support employees’ needs, and in turn foster their commitment to the organization. The only way to understand and realize staffs’ expectations and needs is through effective communication.

The study also demonstrates the important relationship between nurses’ perceived factors of organizational commitment and nurses’ organizational commitment. The organizational structure related factors could have more affect on nurses’ commitment compared with personal interaction related factors in this study. This research suggests that hospital administrators and nursing directors should carefully look at the organization structure, monitor consistency between organizational and employee goals and values rather than focusing exclusively on organizational well-being.

The health care industry is very challenging in today’s dynamic environment. Turnover is detrimental to overall organizational growth. The negative consequences of turnover includes direct costs involved in recruiting and training employees, reduces productivity that results in possible malfunctions in nursing care quality. In today’s
market marked by diminishing resources, increasing financial constraints, and a need to be customer centered, the organizational commitment is the true catalyst for change. An understanding of the effective factors related to the development of organizational commitment has great implications for employees and organizations. Applying the effective factor of promoting nurses' organization commitment will only maximize the human potential in an organization. Increased organizational commitment should lead to decreased turnover, and increased productivity in the hospitals in Taiwan.
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Appendix A

Permission Letter
Dear committee member (or director):

I am a doctoral candidate in Educational Leadership at the University of Montana in the United States. I am also a faculty member in the China Medical University in Taiwan. I am conducting a study of factors influencing the nurses' organizational commitment in Taiwan.

The purpose of this study is to explore the existing organizational factors related to nurse turnover rate in the medical center hospitals. I do not intend to evaluate your nursing practice in any way, but plan to apply information obtained to promote nurses' organizational commitment in nursing practice. The findings of this study will contribute to the knowledge of the effective factors within an organization that promote nurses' organizational commitment in order to reduce nurse turnover rate and thus increase the quality of health care.

The survey is divided in two parts as enclosed questionnaires. One is for the director of the nursing department about the factors of organizational commitment. Another is for participating nurses about organizational commitment. All participants will be assured that anonymity and confidentiality will be maintained. All data collected will be confidential with regard to the names of the hospitals and individuals. This study has been approved by The University of Montana Institutional Review Board. However, the University of Montana Institutional Review Board requests you to sign your permission for this study. Thank you for your consideration of this request and your subsequent permission.

If you have any questions or comments, please e-mail me at lichi@mail.cmu.edu.tw or lh158277@cuel.umt.edu or call 406-251-3297(USA).

Sincerely,

Lichi Huang,
Doctoral Student, The University of Montana
Lecturer, China Medical University
Appendix B

Nurses' Packet Material

Letter and Consent Form
Dear nursing member:

One of most valuable resources in hospital is a registered nurse. Many studies have suggestions or ideas about the current status of the nursing environment. There are also suggestions to focus on the promotion of nurses' organizational commitment in order to retain nurses and increase the quality of the health care system.

The attached survey is being sent to obtain your opinions about your organizational commitment in your current job. In order to have a valid survey, your reply is important, indeed critical! Your point of view will be extremely valuable in the understanding of what are the effective factors within an organization that promotes nurses' commitment to that organization. There are no correct answers. What is important is your point of view. With your participation, the analyses of the information obtained will make a major contribution to identifying and increasing nurses' organizational commitment to a health facility.

Your responses will be strictly confidential and anonymous. None of the research will identify you personally. The research will be reported as aggregate data. Please take a few minutes, complete the enclosed questionnaire with an informed consent form and return this survey and signed consent form in the stamped envelop before April __, 2004. You will receive a copy of consent form.

Thank you for your participation in this study. Your response will provide important information about the nurses’ organizational commitment in Taiwan. If you have additional questions regarding the study, please feel free to contact Lichi Huang at lichi@mail.cmu.edu.tw or lh158277@cue1.umt.edu or call 406-251-3297(USA).

Contact person in Taiwan:

Sincerely,

Lichi Huang,
Doctoral Candidate, The University of Montana in USA
Lecturer, China Medical University in Taiwan.
Appendix C

Directors' Packet Material

Letter and Consent Form
Cover Letter for Director of Nursing Department

Dear nursing director:

I am a doctoral candidate in Educational Leadership at The University of Montana in the United States. I am also a faculty member in the China Medical University in Taiwan. I am conducting a study of factors influencing the nurses’ organizational commitment in Taiwan.

Your hospital has been selected for this study of the factors influencing nurses’ organizational commitment. The purpose of this study is to explore the existing organization factors related to nurse turnover rate in the medical center hospitals. I do not intend to evaluate nursing practices in your hospital in any way, but plan to apply information obtained to promote nurses’ organizational commitment in nursing practice. The findings of this study will contribute to the effective factors within an organization that promote nurses’ organizational commitment in order to reduce the nurse turnover rate and thus increase the quality of health care.

Your participation is extremely important to this study, as you are one of the directors of a nursing department of medical center hospitals being surveyed. To assure confidentiality, no name is required on the questionnaire. Information collected in this study will not identify particular hospitals’ districts, hospitals, or individuals. Completion of the questionnaire will take approximately 20 minutes. It is also very important that nurse turnover rate of 2003 be completed. Please complete the enclosed survey with an informed consent form at your earliest convenience and return it in the stamped envelope before April, 2004. You will receive a copy of consent form.

Thank you for your participation in this study which your response will provide important information about the nurses’ organizational commitment in Taiwan. If you have additional questions regarding the study, please feel free to contact Lichi Huang at lichi@mail.cmu.edu.tw or lh158277@cue1.umt.edu or call 406-251-3297(USA).

Contact person in Taiwan:

Sincerely,

Lichi Huang,
Doctoral Student, The University of Montana
Lecturer, China Medical University.
Appendix D

Nurses' Survey Instrument
Nurses’ Organizational Commitment

Dear Nurse:

You are invited to participate in a research study that explores the factors influencing nurses’ organizational commitment. Your answers to all the questions will be anonymous and will later be reported only in aggregate form. Please respond to each question by circling the number of the degree which best indicates your agreement or disagreement. Please try to answer every question. Thank you.

親愛的護理人員:

誠摯的邀請您參與『影響護理組織承諾因素』的研究。您的答案將是不記名的，且答案將呈統計數字呈現在報告上。請依您對每題的同意或不同意的程度數字上劃圈作答，請盡量回答每一個問題。謝謝您的參與！

A. Demography

1. Age: _______ 年齡: _______

2. Gender: (1) □ Female, (2) □ Male. 性別: (1) □ 女, (2) □ 男。

3. Education level: 教育程度

   (1) Vocational degree, (2) □Associated degree, (3) □Bachelor degree, (4) □ Graduate degree.

   (1) □ 職業學校, (2) □ 專科, (3) □ 大學, (4) □ 研究所。


   婚姻狀況: (1) □ 未婚, (2) □ 已婚。

5. Number of children living with you: _______

   與您一起居住的子女數______位。

6. Number of other persons living with you: _______

   與您一起居住的人數______位（除了子女外）。

7. Clinical service unit: _______ 工作服務單位: _______

8. Number of years and months working at current job: _______

   您在目前的工作單位多久時間: ____年____月。

9. Total number of years and months working in nursing: _______

   您在護理的工作有多久時間: ____年____月。

10. Salary: _______/Monthly. _______/Yearly. 您目前的資薪: _______/月，

    _______/年。

11. Job status: _______ (e.g., N0, N1, N2, N3, N4, preceptor, specialist, researcher, leader...)

   工作職位: _______ (例: N0, N1, N2, N3, N4, 護理長、研究員、教育員、輔導員、專科護理師...)

12. How many more years you would want (desire) to remain employment in this organization?____

   您渴望再繼續留任這醫院幾年？________
13. How many more years before your anticipated retirement? __________

離您預期退休還有幾年？________

B. Factors of Organizational Commitment 護理組織承諾因素

1. Organization

1.1 I understand the organization’s vision (the direction the organization is striving to go) ......................... 1 2 3 4 5 6 7

Suggestions, if any for improvement?

1.2 I understand the organization’s strategic plan (how to accomplish that vision) ......................... 1 2 3 4 5 6 7

Suggestions, if any for improvement?

1.3 The job descriptions and expectations are stated clearly and readily made available to employees ..................... 1 2 3 4 5 6 7

Suggestions, if any for improvement?

1.4 Within the organization, two-way communication among the various departments is fostered and encouraged........ 1 2 3 4 5 6 7

Suggestions, if any for improvement?

2. Opportunity / Training program: 訓練課程/進昇機會

2.1 I believe I have been given appropriate consideration for promotional opportunities within the organization?... 1 2 3 4 5 6 7

Suggestions, if any for improvement?

2.2 Training opportunities were made available to me........ 1 2 3 4 5 6 7

Suggestions, if any for improvement?
2.3 Training programs appropriately provide information to enhance nurses' job performance.

Suggestions, if any for improvement?

2.4 Provisions and opportunities exist to provide for additional skill development when a supervisor identifies a need...

Suggestions, if any for improvement?

2.5 Personal growth and development through education and training are supported.

Suggestions, if any for improvement?

2.6 New staff is adequately trained and oriented.

Suggestions, if any for improvement?

3. Communication

3.1 Within my department, information is efficiently and effectively communicated.

Suggestions, if any for improvement?

3.2 Within the department, there is two-way communication between the head nurse and other nurses.

Suggestions, if any for improvement?

3.3 Opportunities for feedback regarding job performance are available and timely.

Suggestions, if any for improvement?
Suggestions, if any for improvement?

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<th>Strongly Disagree</th>
<th>Strongly Agree</th>
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<td>1 2 3 4 5 6 7</td>
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</table>

有任何可以改進，請建議：

3.4 My efforts are appreciated by my supervisor and coworkers

我的上司和同仁感激我對護理工作的盡力。

Suggestions, if any for improvement?

3.5 My head nurse is fair and reasonable

我的護理長是公平合理的。

Suggestions, if any for improvement?

4. Shared decision

4.1 Within my department, nurses participate in decision making regarding the department’s policies and tactics

Suggestions, if any for improvement?

4.2 Nurses participate in determining the criteria for evaluation

Suggestions, if any for improvement?

4.3 Nurses are encouraged to come up with new and original ideas.

Suggestions, if any for improvement?

5. Group Cohesiveness

5.1 Within my department, there is a positive relationship among members

在我的工作單位內，工作人員間有良好的關係。

5.2 Group members usually feel free to share information

組間人員通常自由的分享資訊。

5.3 Group members are receptive to feedback and criticism

組間人員接納回饋和批評。

5.4 Group members positively influence one another

Suggestions, if any for improvement?
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5.5 Group members negatively influence one another

5. Group members negatively influence one another

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6. Schedules

6.1 Work schedules are appropriate

Suggestions, if any for improvement?

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6.2 Work schedules are arranged with my input

Suggestions, if any for improvement?

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<tr>
<th>Strongly Disagree</th>
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6.3 The work hours are distributed fairly

Suggestions, if any for improvement?

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7. Autonomy

7.1 I have adequate resources and appropriate equipment necessary to perform my job

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7.2 I am allowed and encouraged to make decisions about my daily operational activities

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8. Environment security

8.1 The organizational policies address standards for environmental security

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8.2 The working environment provides security regarding my health.

Suggestions, if any for improvement?

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(through continuing education, immunization and protective clothing/equipment.) Suggestions, if any for improvement?

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這工作環境提供有關我的健康安全的事項。......... 1 2 3 4 5 6 7

〈包括有繼續教育、疫苗注射和防護用品〉。
9. Job security 工作保障
9.1 I believe my salary is appropriate compensation for my employment.
    Suggestions, if any for improvement?
    我認為我的薪資是適切合理的報酬。 .................. 1  2  3  4  5  6  7
    有任何可以改進，請建議:

9.2 The employee benefits are appropriate........................... 1  2  3  4  5  6  7
    Suggestions, if any for improvement?
    員工的福利是適當合理的。 ......................... 1  2  3  4  5  6  7
    有任何可以改進，請建議:

9.3 The organization provides job security........................ 1  2  3  4  5  6  7
    Please explain your response:
    這個醫院提供員工工作保障。 .................... 1  2  3  4  5  6  7
    請說明你的回答：“

Open question 開放性問題
    Are there any changes the hospital (department) has made to retain you in your
    position as a nurse?  這醫院可有任何的改變、可以使你留任在護理：
C. Organizational Commitment Questionnaire (OCQ)

With respect to your own feelings about the particular organization for which you are now working hospital, please indicate the degree of your agreement or disagreement with each statement. Each item is identified in a 7-point scale as: (1) strongly disagree; (2) moderately disagree; (3) slightly disagree; (4) neither disagree nor agree; (5) slightly agree; (6) moderately agree; (7) strongly agree. 謝依您目前對所工作醫院的感受，對每題的同意或不同意的程度作答。每題有 7 個分數〈1.最不同意；2. 不同意；3. 有些不同意；4. 無意見；5. 有些同意；6. 同意；7. 最同意〉。

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<th>Strongly Disagree</th>
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1. I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful. 我願意付出更多的努力，以協助這組織獲得成功。

2. I talk up this organization to my friends as a great organization to work for. 我會對朋友說這是值得服務的好組織（醫院）。

3. I feel very little loyalty to this organization 我對本院的忠誠度很少。

4. I would accept almost any type of job assignment in order to keep working for this organization. 為了能替這組織（醫院）服務，我會接受任何指派的工作。

5. I find that my values and the organization’s values are very similar. 我發現我的觀念價值與組織（醫院）的觀念價值非常相似。

6. I am proud to tell others that I am part of this organization. 我引以本院為榮的告訴他人，我是本院的一員。

7. I could just as well be working for a different organization as long as the type of work was similar. 只要工作性質相似，我可以到別的組織（醫院）服務。

8. This organization really inspires the very best in me in the way of job performance. 這組織（醫院）可以促使我發揮工作的能力。
9. It would take very little change in my present circumstances to cause me to leave this organization... 1. 2. 3. 4. 5. 6. 7.

依我目前的情況，只要有些許的改變就會使我離開這組織（醫院）。

10. I am extremely glad that I chose this organization to work for over others I was considering at the time I joined.... 1. 2. 3. 4. 5. 6. 7.

我很慶幸當考慮工作時，選擇這組織（醫院）服務。

11. There’s not too much to be gained by sticking with this organization indefinitely............................................... 1. 2. 3. 4. 5. 6. 7.

繼續留在本院並沒有太多的好處。

12. Often, I find it difficult to agree with this organization’s policies on important matters relating to its employees. 1. 2. 3. 4. 5. 6. 7.

我常發現這組織（本院）有關員工的政策是不合理的。

13. I really care about the fate of this organization. ....... 1. 2. 3. 4. 5. 6. 7.

我非常關心這組織（本院）的未來。

14. For me, this is the best of all possible organizations for which to work. .................................................... 1. 2. 3. 4. 5. 6. 7.

對我而言，這是最好的一家組織（醫院）。

15. Deciding to work for this organization was a definite mistake on my part.............................................. 1. 2. 3. 4. 5. 6. 7.

在這組織（醫院）服務顯然是錯誤的決定。


Thank you for your time and cooperation. Please return the form in the enclosed stamped envelope. Your prompt response is appreciated.
Lichi Huang, lichi@mail.cmu.edu.tw or lh158277@cuel.umt.edu Tel: 406-251-3297(USA).
Contact person in Taiwan:

謝謝你的參與和合作，請將此問卷放入附郵信封寄回，感謝您即時的回應。
黃立琪 lichi@mail.cmu.edu.tw or lh158277@cuel.umt.edu
Appendix E

Organization Survey Instrument
Identification of Factors of Organizational Commitment

Dear Director:

You are invited to participate in a research study that explores the factors influencing nurses’ organizational commitment. Your answers will not be shared with any of your organizational board. Individuals’ and departments’ confidentiality will be maintained in all published and written materials. Please respond to each question by placing X on the square box which best indicates your organization. Please try to answer every question. Thank you for your participation.

A. Factors of organizational commitment

1. Organization

1.1 The organizational vision (the direction the organization is striving to) are clearly presented to all employees. If yes, how is this accomplished?

1.2 The organizational strategic plan (how to accomplish that vision) are clearly presented to all employees. If yes, how is this accomplished?

1.3 Is it important for employees to be knowledgeable about the organizational mission? In what way is this knowledge evident?

1.4 Job descriptions and expectations are clearly stated and readily made available to employees. If yes, how is this accomplished?
1.5 Within the organization, departments’ collaboration and cooperation is fostered and encouraged. If yes, how is this accomplished?

2. Training program/New staff

2.1 How many hours a year are devoted to recruiting new staff members?

2.2 What is the length of time a new staff member spends in orientation and induction into this organization?

2.3 New staff is adequately trained and orientated. If yes, how is this accomplished?

2.4 A mentorship program is provided for all new staff members. How long is this relationship formally maintained?

2.5 Training opportunities are made available to all employees. If yes, how is this accomplished?

2.6 Training programs are appropriately designed to address staffs’ job performances. If yes, how is this accomplished?

2.7 Provisions and opportunity exist to provide for additional skill development when the supervisor identifies individual needs.

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If yes, how is this accomplished?

If personal growth and development are included in training program.

If A training program is provided for the mentor/preceptor.

If A training program is provided for the head nurse (first line leader).

3. Communication/Shared decision:

3.1 Opportunities for feedback regarding job performance are available to employees in a timely manner.

3.2 The head nurse (first line leaders) empowers staff members to make decisions that affect their work.

3.3 Within the organization, staff nurses participate in decision making regarding nursing department’s policy and tactics.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
3.4 Nurses participate in determining the criteria for measuring performance.  
If yes, how is this accomplished?  
護理人員參與決定護理人員評價的標準。...........................................  □  □  
如果答案是“是”，如何完成的？

4. Schedules  工作時間表  
4.1 Work schedules are flexible and made available to employees...........  □  □  
If yes, how is this accomplished?  
工作時間表(排班表)是彈性的且對員工是可行的。..........................  □  □  
如果答案是“是”，如何完成的？

4.2 Nurses participate in determining the work schedules......................  □  □  
護理人員參與決定工作時間表的安排。.................................  □  □

5. Autonomy: 自主性  
5.1 The nurses have adequate resources necessary to perform their jobs....  □  □  
If yes, how is this accomplished?  
護理人員有足夠的資源去執行工作。.................................  □  □  
如果答案是“是”，如何完成的？

5.2 The nurses are allowed and encouraged to make decisions about their daily operational activities ...........................................  □  □  
If yes, how is this accomplished?  
護理人員被鼓勵對每天工作活動做決定。.................................  □  □  
如果答案是“是”，如何完成的？

6. Environment Security 環境安全  
6.1 The organization policies address security in the workplace environment.  
組織(醫院)政策是否標示工作環境安全的標準。..........................  □  □  

6.2 The workplace environment provides security regarding staff members' health..........................................................  □  □  
If yes, how is this accomplished?
7. Job Security  工作保障

7.1 The salary is appropriate compensation for employees. 員工的薪資是適切合理的報酬。

7.2 The employee benefits are appropriate. 員工的福利是適當合理的。

7.3 This organization provides job security for employment. 這個組織(醫院)提供員工工作保障。

If yes, how is this accomplished? 如果答案是“是”，如何完成的？

8. Opportunities 工作進昇機會

Please place X in each question’s square box according to the opportunities for nurses to fill in the position that occurs most frequently in your organization.

請根據每個職位最常由院內或院外人員任職，在每一個小題中的方格中打 V。

<table>
<thead>
<tr>
<th>Within the organization.</th>
<th>Outside of the organization.</th>
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<tbody>
<tr>
<td>8.2 HN-assistance, HN. 護理長</td>
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<tr>
<td>8.3 Researcher 研究員</td>
<td>医院内</td>
</tr>
<tr>
<td>8.4 Educator 教育員</td>
<td>医院内</td>
</tr>
<tr>
<td>8.5 Preceptor 工作輔導員</td>
<td>医院内</td>
</tr>
<tr>
<td>8.6 Specialist 專科護理師</td>
<td>医院内</td>
</tr>
<tr>
<td>8.7 Other 其它</td>
<td>医院内</td>
</tr>
</tbody>
</table>
B. Nurse turnover rate 護理人員離職率
Please state the nurse turnover rate as defined below for 2003. ____________%  
☐ from records ☐ estimates (please check one).
請寫出 2003 年護理人員離職率(定義公式如下). __________%  
☐ 出自紀錄 ☐ 自己預測 (請填－答案)。

Annual number of employee separations  
Total member of employees  X 100 = Nurse turnover rate

一年中護理人員離職的人數  
所有護理人員的人數  X 100 = 護理人員離職率

Thank you for your time and cooperation. Please return the form in the enclosed stamped envelope. Your prompt response is appreciated.
謝謝你的參與和合作，請將此問卷放入附郵信封寄回，感謝您即時的回應。

黃立琪 Lichi Huang, lichi@mai.cmu.edu or lh158277@cue1.umt.edu  
Tel; 406-251-3297(USA).
Contact person in Taiwan:
Appendix F

Letter of No Permission Needed for Organizational commitment Questionnaire
I received your letter requesting permission to use the organizational commitment questionnaire (OCQ).

This instrument was originally developed by Professor Lyman Porter and he decided not to copyright it to encourage others to use it in their research. Thus, the OCQ exists in the public domain and you are free to use it without formal permission.

Please feel free to use the OCQ in your dissertation. Good luck.

Rick Mowday
Request the permission for using Organizational Commitment Questionnaire

Feb. 1, 2004

Dear Dr. Mowday:

I am a doctoral candidate in Educational Leadership at the University of Montana. I am also a faculty member in the China Medical University in Taiwan.

The dissertation will explore the existing organization factors related to nurse turnover rate in the medical center hospitals in Taiwan. The finding of this study will contribute to the knowledge of the effective factors within an organization that promotes commitment to that organization in order to reduce the nurse turnover rate and thus increase the quality of health care in Taiwan.

I am requesting your permission to use the Organizational Commitment Questionnaire that you had reported in the article “The Measurement of Organizational Commitment” on the Journal of Vocational Behavior in 1979. I would like to use all the format of questionnaire if I could gain your permission. The questionnaire will be translated to Chinese version. The translation of questionnaire will be completed by the professor who understands both English and Chinese language in the academically.

Any information will be highly appreciated, and I will be happy to share the results of my research with you if requested.

Sincerely,

Lichi Huang,
Doctoral candidate, University of Montana
Lecturer, China Medical University in Taiwan.
lh158277@cuel.umt.edu
lichi@mail.cmu.edu.tw
406-251-3297 (H)