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CONFLICT MANAGEMENT, JOB SATISFACTION, INTENT TO STAY, AND SPECIFIC DEMOGRAPHIC VARIABLES OF PROFESSIONAL NURSES IN THAILAND

by

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A DISSERTATION

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ABSTRACT OF DISSERTATION
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Title Conflict management, Job Satisfaction, Intent to Stay, and Specific Demographic Variables of Professional Nurses in Thailand

This descriptive correlational study of nurses was conducted to describe conflict management styles, level of job satisfaction, and intent to stay and to ascertain the relationships among conflict management styles, level of job satisfaction, intent to stay, and specific demographic variables. The sample consisted of 375 professional nurses employed in three government-operated regional university hospitals in Thailand. The instruments used in this study were the Thomas-Kilmann Conflict Management of Differences Exercise Instrument (Thomas & Kilmann, 1974), the Job Descriptive Index and the Job in General (Smith, Kendall, & Hulin, 1985), and a researcher-developed demographic and intent to stay survey. The findings showed that the majority of subjects used accommodation most frequently followed by compromise, avoidance, collaboration, and competition. Subjects were mostly satisfied with the job in general, followed by satisfaction with supervision and co-workers, respectively. They were neither satisfied nor dissatisfied with work and present pay but were dissatisfied with promotion opportunities. Most subjects had high intent to stay in their present jobs and intent to stay for 1 year but intent to stay for the next 5 years decreased tremendously. The results of the relationships among the variables showed that conflict management

styles can be explained by age, educational preparation, clinical area, position, time working as a nurse, and time working in the present position. The level of job satisfaction can be explained by age, marital status, clinical area, position, time working as a nurse, time working in the present position, and conflict management styles. Intent to stay in the present job can be explained by the variables of age and the work facet of job satisfaction. Moreover, intent to stay for the next year and for the next 5 years can be explained by selected variables of age, clinical area, shift, time working in the present position, compromise style of conflict management, work, supervision, and job in general facets of job satisfaction. Harrison's organization system theory, conflict management theory, the concepts of job satisfaction and intent to stay were used effectively in guiding this study. Implications for nursing practice, nursing education, and nursing research were formulated. Recommodations for future research were suggested.

Abstract Approved by: Committee Chairman Rachel M. Scott

Program Director Elizabeth Stallenburger

Date 8/31/94 Dean of Graduate School Joan Gordon

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CHAPTER I

Introduction

The term conflict has been widely used for a long time and in a variety of ways. Human conflict is a ubiquitous feature of social interaction and occurs in many forms. At the global level, human conflict is manifested by war and pervades human history. Similarly, at the group level, differing political ideologies divide interest groups within nations, and gang fights permeate inner cities. Within families, child and spouse abuse occur at alarming rates. At the individual level, particularly among men, episodes of physical aggression sometimes escalate to homicide (Daly & Wilson, 1983). Conflict can be a problem because of the aggressive behavior on the part of those individuals or groups in conflict. An experience with conflict can increase the esteem of one group while decreasing that of another, thereby making it very difficult for the groups to work together in the future. Moreover, conflict can create intrapsychic tension that continues within the psyche; it also can create repression and anxiety which may lead to further problems (Carter, 1981).

Conflict, however, is not necessarily a negative term. Like politics or power, it has value for an organization (Robbins, 1976). Conflict promotes thinking and creative problem solving, clarifies issues, and allows underlying problems to rise to the surface. Conflict improves production by creating a useful level of tension and competition (Steven, 1985).

As a natural phenomenon and as an inevitable part of everyone's life, conflict is a common, indigenous occurrence in both the personal and professional lives of nurses (Cavanagh, 1991). In nursing organizations, like other organizations, conflict can occur at intrapersonal, interpersonal, intragroup, or intergroup levels (Rahim, 1983). A common solution for dealing with conflict is to withdraw from the nursing field altogether, as evidenced by the recent large number of nurses leaving the profession (Jones, Bushardt, & Cadenhead, 1990). The management of conflict is extremely important for the personal, cultural, and social development of human beings and for the effective functioning of organizations. Constructive and creative conflict management is the real challenge and goal for the humanistically oriented professional who is genuinely interested in helping people change unfavorable conflict situations into positive, cooperative, and relatively peaceful directions (Leininger, 1975). On the one hand, effective conflict management can promote motivation, enhance morale, and be an essential factor in promoting individual and organizational growth (Kuipers, Davidhizar, & Argurkis, 1989; Rahim, 1986). On the other hand, inappropriate conflict management generates even more conflict and negatively affects the organization as a whole. Studies conducted by Redland (1982), Hightower (1986), Washington (1990), and Cavanagh (1991) revealed that, when faced with conflict, large numbers of nurses were found to use avoidance, an unassertive and uncooperative strategy in managing conflict. Moreover, the studies of Marriner (1982) and Marriner-Tomey and Poletti (1991) showed that nurses used avoidance and accommodation most frequently in unsuccessful resolutions, while collaboration and compromise were used most frequently in successful resolutions. Hightower's (1986) study of conflict management and demographic data

showed that nurses aged 29 or younger used compromise most frequently while nurses age 30 and older used avoidance most frequently.

Conflict may result in turnover. If individuals cannot manage conflict effectively, they may resign rather than face added environmental pressure (Staw, 1980). Further, a high turnover rate affects the cost of recruitment and orientation of Registered Nurses (RNs) since the estimated cost per RN turnover in the United States is very high. In a study conducted by C. B. Jones (1990) regarding turnover costs, results showed that the replacement cost per RN was between $6,886-$15,152 when all expenses were included. The costs associated with the high turnover for RNs increase the costs of health care delivered to the patient, which is another serious issue. The high turnover rate is exacerbated by another important issue--the nursing shortage. In the United States, periodic shortages of nurses have occurred since before World War II. The nursing shortage has become acute, and the publicity in newspapers and television indicates that a shortage still exists. An additional concern among nursing executives in dealing with the shortage is the turnover rate of RNs. The rate of RN turnover in most of the nation's acute care hospitals is very high. At times, it has been 25-30% or higher in some hospitals (Helmer & McKnight, 1988).

In Thailand, a nursing shortage and an increased turnover rate of RNs are also concerns for nurse administrators. The average turnover of nurses in Thailand from 1986 to 1990 was about 4.69% (Charoenyooth, 1990). While this rate is not high compared to the turnover rate in the United States, the rate is higher than those of other health care professionals in Thailand. According to the Maharaj Nakorn Chiang Mai Hospital's statistics, the turnover rate at Maharaj Nakorn Chiang Mai Hospital, one of

the university hospitals in Thailand, has increased from 3.4% in 1988 to 7.3% in 1990 and to 11.5% in 1991 (Maharaj Nakorn Chiang Mai Hospital, 1992), and is projected to be higher in the future. Moreover, the registered nurses who are working in the hospital at the present time account for only 70% of the nurses needed. Similar situations are occurring in other hospitals throughout the country.

Another important factor related to the increased turnover of nurses and the nursing shortage is job satisfaction. In Thailand, a study conducted by Lauchachinda (1976) showed that Thai nurses who worked in the university hospitals were fairly satisfied with their jobs. In a more recent study, Preuksaraj, Srikasibandhu, Rungjirarat, Sombatboon, and Siripoonya (1991) found that 40% of the nurses who worked in one university hospital in Thailand were dissatisfied with their jobs, and 83% of the staff nurses had considered resigning. These data indicate that a very high percentage of nurses may leave their jobs, which could lead to a serious nursing shortage. Furthermore, Charoenyooth's (1992) study of supply and demand for professional nurses in Thailand showed that a nursing shortage will occur for the 12 years from 1988-2000. In the U.S., numerous researchers have investigated the relationship between turnover and job satisfaction (Behling & Kosmo, 1971; Longest, 1974; Seybolt, 1986; Weisman, Alexander, & Chase, 1981). Their findings show a strong inverse relationship between job satisfaction and turnover.

In addition, the results from some studies have shown that there are relationships among job satisfaction, intent to stay, and certain demographic variables as well as between conflict management and certain demographic variables. In a study by Lynn (1990), findings indicated that age and education level were significantly related to job

satisfaction and that job satisfaction was lowest among the better educated and younger hospital nurses. Further, Arrington (1990) reported that the number of year(s) of experience and the clinical area were correlated with the intent to stay in the job, which is, in turn, correlated with job satisfaction.

Gardner (1992) reported that job conflict among staff nurses had a significant inverse relationship with the level of job satisfaction. In addition, as proposed by Blake and Moulton (1964) and by Thomas and Kilmann (1978), there is substantial evidence that directly relates the conflict management style of a leader to the level of job satisfaction of the subordinate. Further, Minar (cited by Ashmore, 1979) suggested that superintendents who demonstrated high level skills in managing conflict had longer tenures in the position than those who had low level skills. Boyd (cited by Ashmore, 1979) suggested that conflict management styles of superintendents may be related to their tenure. Since there have been no studies in nursing to investigate the relationship between and among these important variables, this present study was designed to explore the relationships of conflict management, job satisfaction, intent to stay, and demographic variables among professional nurses in Thailand.

Statement of Purposes

The purposes of this study are (a) to describe conflict management styles, level of job satisfaction, and intent to stay of professional nurses in Thailand; and (b) to ascertain the relationships among conflict management styles, level of job satisfaction, intent to stay, and specific demographic variables of professional nurses in Thailand.

Significance of the Study

There is a nursing shortage and an increasing turnover of professional nurses in Thailand. Since there are numerous opportunities for conflict to occur among nurses in any hospital in any country, it is assumed that Thai nurses have some or many of the usual bureaucratic, professional, and personal conflictive situations that American nurses have. The literature review found only a few studies conducted in Thailand regarding conflict, conflict management, job satisfaction, and intent to stay in the nursing profession. If conflict is not managed effectively, job dissatisfaction and turnover may occur (Jones et al., 1990; Staw, 1980). Thus, it is imperative to explore the relationships among these important concepts of conflict management, job satisfaction, intent to stay, and specific demographic variables of professional nurses in Thailand.

Knowledge gained will be applied to nursing administration and clinical nursing in order to improve the quality and continuity of care provided to the clients in Thailand. Jezek's (1985) study found that nurses who reported higher satisfaction with their work delivered higher quality of care than those who reported a lower level of work facet of job satisfaction. In nursing research, the results from the current study will provide a reference point and new arena for further study of conflict management, job satisfaction, intent to stay, and turnover of nurses. In nursing education, the results of the current study can be used to increase and update the knowledge of nursing students, nurse educators, and staff nurses, as well as nurse administrators, regarding conflict management styles that are related to the outcome variables of job satisfaction and intent to stay.

Research Questions

The research questions of this study were

1. What are the conflict management styles of nurses?

2. What is the level of job satisfaction of nurses?

3. What is the intent to stay of nurses?

4. How much variability in conflict management styles can be explained by the specific demographic variables?

5. How much variability in the level of job satisfaction can be explained by conflict management styles and specific demographic variables?

6. How much variability in the intent to stay can be explained by conflict management style, job satisfaction, and specific demographic variables?

7. How much variability in the intent to stay for the next year and the next 5 years can be explained by conflict management style, job satisfaction, and specific demographic variables?

Theoretical Framework

The theoretical framework chosen for this study was used to delineate and guide the steps of the investigative process. The framework selected was derived from the general systems theory of Bertalanffy (1968) and expanded by Harrison (1987). The conflict and conflict management theory of Thomas (1978) and the concepts of job satisfaction and intent to stay were used to guide the selection and development of assessment tools and the diagnosis of the nursing organization.

Systems Theory

A system is defined as a set of elements that are interrelated (Bertalanffy, 1968). It can be categorized as a closed system or an open system. A closed system is not influenced by and is isolated from its environment (Herbert, 1981.) On the other hand, an open system is influenced by and influences its environment in order to maintain equilibrium with that environment. General systems theory is generally applicable to the study of biology, mathematics, physics, and the social sciences. The social sciences include sociology, economics, political science, psychology, cultural anthropology, linguistics, a large part of history, and the humanities.

An organization is "a collection of people who, with consciously coordinated efforts, pursue and contribute to the attainment of a common purpose" (Herbert, 1981, p. 57). The organization can be viewed as an open system and as one element of a number of elements which interact interdependently and are maintained in equilibrium with the environment through input, behaviors and processes, and output (Luthans, 1989). The application of systems theory as an open system serves as the basis for describing the behavior of an organization, both internally and externally. Internally, it shows how and why people inside the organization perform their individual and collective tasks. Externally, it shows the transactions among organizations or institutions and the environment.

Harrison (1987) expanded the original concept of systems theory and added the elements of structure, purpose, culture, and technology. His reason for doing so was to make the theory more relevant to the actual processes and behaviors that occur in contemporary organizations (Figure 1).

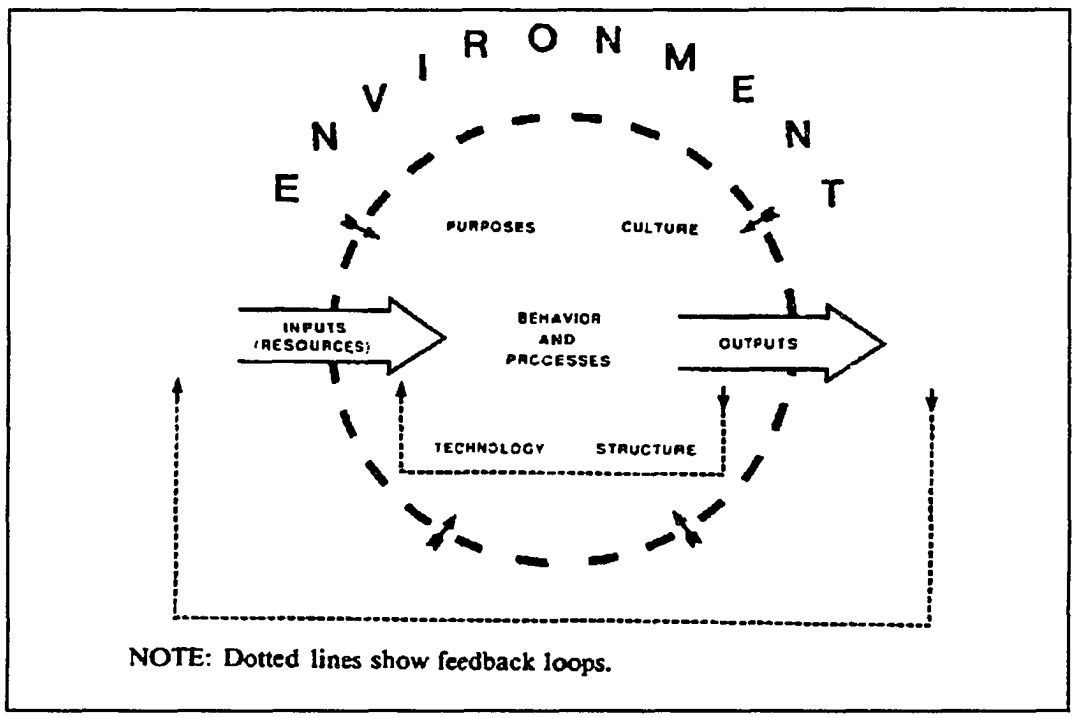

Figure 1. Organization as an open system (Harrison, 1987, p. 24).

The elements of an organizational system were as follows:

1. Input: Resources are considered as inputs into the system and include new material, money, people or human resources, and information and knowledge that an organization gets from its environment. Human resource information can be obtained by examining the number of employees by job category, social and educational backgrounds, and training and previous experience.

2. Structure: Structure includes role assignments, grouping of positions in divisions, departments and other units, standard operating procedures, human resource mechanisms, and actual patterns that may differ from officially mandated ones.

3. Purposes: Purposes are strategies, goals, objectives, plans, and interests of the organization's dominant decision makers.

4. Behavior and Processes: These elements include the prevailing patterns of behavior, interactions, and relationships between groups and individuals, including cooperation, conflict, coordination, communication, controlling and rewarding behavior, influence and power relations, supervision, leadership, decision making, problem solving, planning, goal setting, information gathering, self-criticism, evaluation, and group learning. Behavior and processes are those events that occur within the system and lead to the product, that is, the outputs.

5. Culture: Culture includes shared norms, beliefs, values, symbols, and rituals relating to key aspects of organizational life, including the nature and identity of the organization, the way work is done, the value and possibility of changing or innovating, and the relationship between lower and higher ranking members.

6. Technology: Technology includes the methods and processes for transforming resources into outputs. These methods can be mental, physical, or mechanical.

7. Outputs: Outputs include the products, services, and ideas that are the outcome of an organization's action. An organization transfers its main outputs back to the environment and uses others internally. Human outputs, such as absenteeism or turnover, can indicate dissatisfaction and lack of commitment.

8. Environment: Environment can be subcategorized into task environment and general environment. The task environment includes all the external organizations and conditions that are directly related to an organization through its main operations and its technology (e.g., supplies, unions, customers, or product markets.) The task environment includes the economy, legal system, or state of scientific and technical

knowledge. The general environment includes institutions and conditions that may have infrequent contact with or long-term effects on the organization.

Since organizations are open systems, Harrison (1987) stated that external conditions influence the flow of inputs to organizations, and affect the internal operations and reception of outputs. He illustrated his idea by depicting a broken, permeable boundary around the organization. Also, the information gained from outputs can be used as feedback to change inputs. A change may occur in inputs after assessing the possibility of improving outputs. He further proposed that these eight system elements and the subcomponents are interrelated and influence one another. Moreover, the success of an organization depends heavily on its ability to adapt to the environment, manage operations, conduct transformations, and retain human resources.

In the current study, elements most directly related to the focal problem were studied: inputs, behaviors and processes, and outputs. Nurses and demographic variables were considered as inputs; conflict management was considered as behavior and process; and job satisfaction and intent to stay were considered as outputs. For the purposes of this study, the professional registered nurse was considered as the input into the system. Demographic variables, such as age, educational preparation, marital status, number of children, clinical area, shift, position, time working as a nurse, and time working in the present position of nurses, were analyzed.

Conflictive situations are always present in a system and require conflict management for resolution. The behaviors and processes used for management and resolution will constitute the part of the system that leads the process from input to output. In this study, the five styles of conflict management and resolution proposed by

Thomas (1978) will be used: (a) Competition--assertive & uncooperative, (b) Collaboration--assertive & cooperative, (c) Compromise--somewhat assertive & somewhat cooperative, (d) Avoidance--unassertive & uncooperative, (e) Accommodation --unassertive & cooperative. The nurses' job satisfaction and intent to stay were considered as output variables. Job satisfaction was defined as feelings or affective responses to facets of the work situation (Smith, Kendall, & Hulin, 1969). The level of job satisfaction and intent to stay were examined to determine if there is a relationship between the process or conflict management style utilized by the nurses and their specific demographic variables.

In summary, the nursing organization is viewed as an open system. The system consists of interaction with the environment and contains the elements of inputs, behaviors and processes, and outputs (Figure 2). The inputs are the human resource, the professional nurses, and demographic variables and conflict. The behaviors and processes are the relationships that occur between and among groups and individuals within the system. In the current study, the system process that was studied was the conflict management style of nurses. Further, outputs were measured as the professional nurses' level of job satisfaction and intent to stay. In addition, based on the concepts of job satisfaction and intent to stay, the relationship between input (specific demographic variables) and output (the level of job satisfaction and intent to stay) and the output (the level of job satisfaction) and output (intent to stay) were also examined.

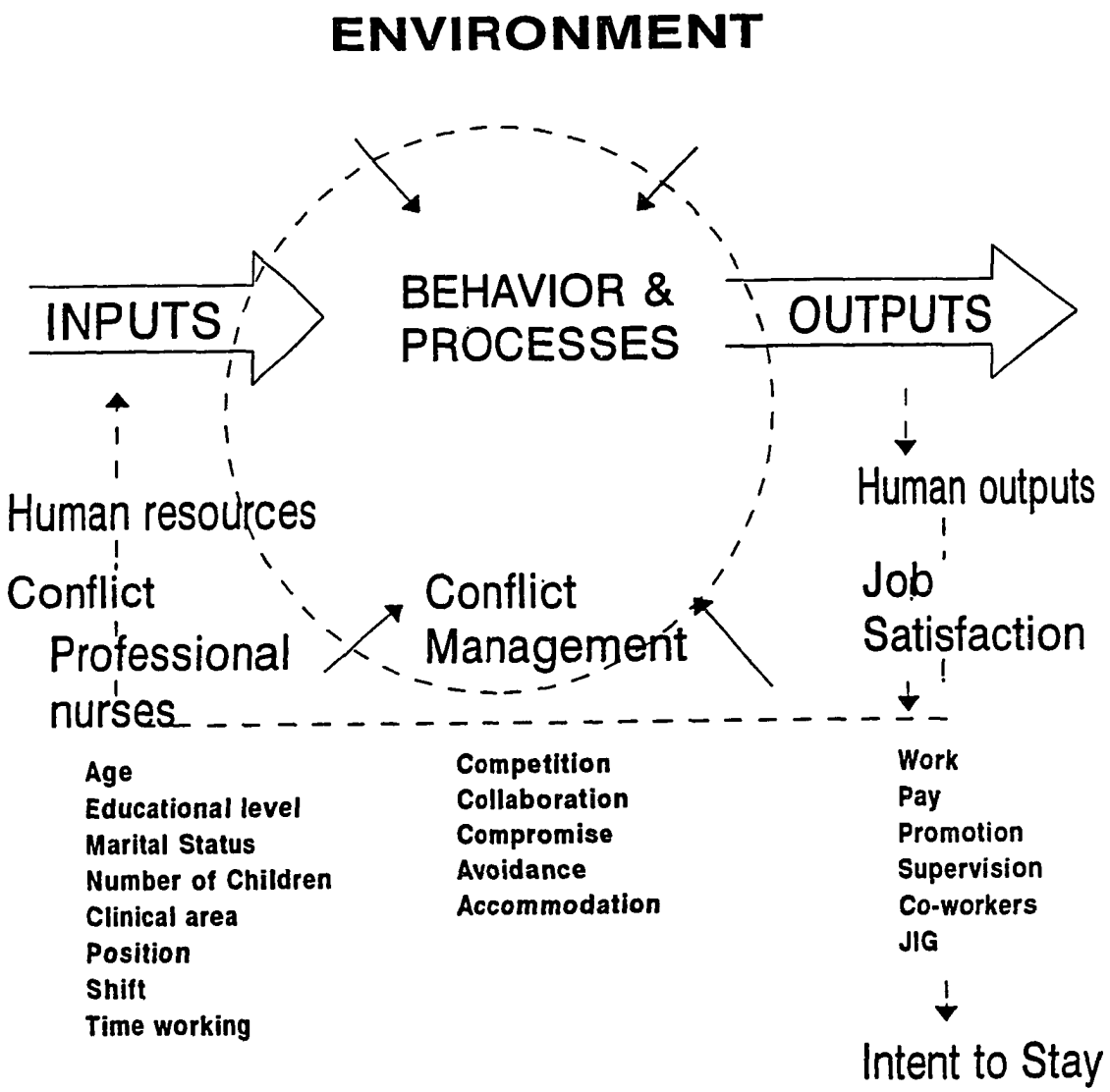

Figure 2. Theoretical framework of the study of conflict management, job satisfaction, intent to stay, and specific demographic variables of nurses.

Research Hypotheses

The following research hypotheses were addressed in this study:

1. The specific demographic variables--age, educational preparation, marital status, number of children, clinical area, shift, position, time working as a nurse, time working in present position--explain a significant amount of the variance in nurses' conflict management styles.

2. Conflict management styles--competition, collaboration, compromise, avoidance, and accommodation, in combination with specific demographic variables--age, educational preparation, marital status, number of children, clinical area, shift, position, time working as a nurse, time working in present position--explain a significant amount of the variance in nurses' level of job satisfaction.

3. Conflict management styles--competition, collaboration, compromise, avoidance, and accommodation, in combination with facets of job satisfaction--work, pay, promotion opportunities, supervision, co-workers, and JIG and specific demographic variables--age, educational preparation, marital status, number of children, clinical area, shift, position, time working as a nurse, time working in present position--explain a significant amount of the variance in nurses' intent to stay.

4. Conflict management styles--competition, collaboration, compromise, avoidance, and accommodation, in combination with facets of job satisfaction--work, pay, promotion opportunities, supervision, co-workers, and JIG and specific demographic variables--age, educational preparation, marital status, number of children, clinical area, shift, position, time working as a nurse, time working in present position--explain a

significant amount of the variance in nurses' intent to stay for the next year and for the next 5 years.

Assumptions

For the purposes of this study, the following assumptions are made:

1. Nurses will respond honestly and objectively to the items on each instrument.

2. All nurses in the study have experience in managing conflict, and the Thomas-Kilmann Management of Differences Exercise (MODE) is the appropriate instrument for measuring the styles of conflict management used by nurses.

3. The Job Descriptive Index of Smith, Kendall, and Hulin (1985) used in this study will provide an accurate measurement of the six facets of job satisfaction of nurses.

4. The demographic and the intent to stay survey will provide accurate data for specific demographic data and intent to stay of nurses.

Definition of Terms

The following definitions were used in this study:

Nurses: Full time, registered, professional nurses who are either staff nurses or head nurses and who are currently working in the government-operated regional university hospitals in Thailand.

Conflict: The interactive process manifested by incompatibility or difference in the goals of individuals, groups, or others.

Conflict management styles: Strategies utilized by nurses to manage conflict in nursing organizations. These strategies are competition, collaboration, compromise, avoidance, and accommodation and were measured by the Thomas-Kilmann MODE instrument (1974).

University hospitals: Three 500 to 2,000-bed government-operated, regional, university teaching hospitals in Thailand administered by the Ministry of University Affairs.

Job satisfaction: Feeling or affective responses to facets of the situation (Smith et al., 1969). The Smith et al. (1985) Job Descriptive Index (JDI) and Job in General (JIG) instrument were used to measure six facets of job satisfaction: work, pay, opportunities for promotion, supervision, co-workers, and job in general. The higher the score was on the Index, the greater the level of job satisfaction.

Intent to stay: The likelihood perceived by the individual of continued participation in the organization (Price & Mueller, 1981.) These data were obtained from the demographic and intent to stay survey instrument.

Specific demographic variables: Personal characteristics of the nurse to include age; educational preparation: diploma, bachelor's degree, and master's degree or higher; marital status: never married, married, separated, divorced, and widowed; number of children; clinical areas: obstetric and gynecological nursing section, surgical nursing section, medical nursing section, pediatric nursing section, private ward nursing section, outpatient and emergency nursing section, or general nursing section that includes psychiatric, eye, ear, nose, throat, burn, and others; shift: day, evening, night, and rotation; position: staff nurse or head nurse; time working as a nurse; and time working in present position. These data were obtained by the demographic survey questionnaire.

Limitations

The limitations of this study are as follows:

1. The sample included only nurses who worked in regional university hospitals in Thailand, and the findings may be generalized only to that target population.

2. The specific demographic variables used in this study are limited. Other variables not included in this study may influence conflict management styles, the level of job satisfaction, and intent to stay of nurses. Moreover, Harrison's (1987) organizatioal model contains many variables other than the variables selected for this study.

3. The data obtained in this study were collected by self-report and are not obtained by direct or indirect observation. Thus, their use to describe or predict actual behavior is limited.

CHAPTER II

Literature Review

This chapter presents a review of the research literature, using the study research questions and the theoretical framework as guides. Conflict management theory and concepts of job satisfaction and intent to stay are described, followed by the nursing research related to each. The chapter is organized into the following sections: (a) conflict, (b) conflict management, (c) job satisfaction, (d) conflict management and job satisfaction, and (e) intent to stay. Also the relationships between and among these variables and the demographic variables were integrated in each section.

Conflict

The term conflict has no single meaning. Conflict is derived from the Latin "confligere" which means "to strike together or to clash," suggesting that it was derived from an actual encounter with arms. The definition denotes a fight or a struggle, especially one that is prolonged and intense (Singer, 1949, cited in Fink, 1968, p. 434).

Conflict has been defined in both broad and narrow terms. Broadly defined, conflict is a collision between two or more opposing forces (Archison & Hill, 1978). Dahrendorf (1959) also defined conflict broadly: "a motive centered in any antagonistic relationship between organized collectivities that can be explained in terms of the pattern of social structure" (p. 135). On the other hand, Mack and Snyder (1957) defined conflict in a narrower way. They maintain that conflict is a particular kind of socially

interacting process or relationship between parties who have mutually exclusive or incompatible values.

Coser (1956) defined social conflict as a "struggle over value and claim to scarce status, power and resources in which the aims of opponents are to neutralize, injure or eliminate their rivals" (p. 8). An alternative view of conflict is presented by Tedeschi, Schlenker, and Bonoma (1973); they viewed conflict as an interactive state which occurs when there is incompatibility in the behavior or goals between one actor and another actor or actors. Similarly, Rahim (1986) stated that conflict is an interactive state which manifests in incompatibility, disagreement, or difference within or between social entities such as individuals, groups, organizations, and others. In addition, Pondy (1967) proposed that conflict is a phenomenon which includes overt objective conditions, emotions, perceptions, and behaviors. This view of conflict was adopted by Thomas (1978) who defined conflict as a process which results from the perceptions, the emotions, the behaviors, and the outcome of two opposing parties.

Sullivan and Decker (1992) viewed conflict from both a behavioral and a process standpoint. From a behavior standpoint, these two scholars embraced Albanese's (1981) definition of conflict as a perceived condition that exists between parties when there are goal incompatibilities and some opportunity for interfering with the goal accomplishment of others. In terms of a process, conflict occurs when real or perceived differences exist among the goals, values, ideas, attitudes, beliefs, feelings, or actions of individuals or groups.

In summary, conflict is the interactive process manifested by incompatibility or difference in goals of individuals, groups, or others. Conflict begins when one

experiences frustration internally as well as perceives it externally in another. The conflict is then conceptualized, and the individual behaves in an attempt to manage the conflict. Finally, an outcome is produced that may be functional or dysfunctional.

Types of Conflict

Several authors have offered classifications or typologies of conflict. March and Simon (1958) classified conflict according to the setting: (a) individual conflict--conflict in an individual's decision making; (b) organizational conflict--individual or groups in conflict within an organization; and (c) interorganizational conflict--conflict between organizations or groups. A similar conflict classification system is offered by Booth (1993), Rahim (1986), and Sullivan and Decker (1992). According to these authors, the four classes of conflict are intrapersonal, interpersonal, intragroup, and intergroup. Intrapersonal conflict is the conflict which occurs when there is incongruence between the requirements of an individual to perform certain tasks or roles and his or her expertise, interests, goals, and values. Interpersonal conflict occurs when an inner experience becomes disturbing enough to cause problems in relationships between two or more individuals engaging in verbal and/or nonverbal or even physical behavior. Intragroup conflict is the conflict occurring among members of a group or between two or more subgroups. Its manifestation depends directly on the personality and behaviors of group members or on the organizational climate. Intergroup conflict is conflict that occurs because of the plethora of differences among and within individuals, groups, and missions.

Since conflict is a process that begins with certain preexisting conditions, Derr (1975) cited six sources of conflict: (a) interpersonal disagreements that arise when one

experiences individual stress; (b) problems resulting from role conflict; (c) struggle for power; (d) misunderstandings and disagreements resulting from different points of view; (e) interdependence requirement for collaboration which causes communication breakdown which, in turn, leads to more intensive conflicts; and (f) external pressures.

These sources of conflict are similar to the antecedent conditions of conflict proposed by Sullivan and Decker (1992), which include incompatible goals, unclear roles, competition for scarce resources, differences in values and beliefs, task interdependency, distancing mechanisms or differentiation, and unifying mechanisms. In addition, Lewis (1976) also proposed four sources of conflict as follows: (a) role conflict occurs when there are two or more role expectations for an individual; (b) value conflict occurs when there is a difference in ideological and/or philosophical outlook; (c) communication conflict occurs when there is a distortion in any point of the communication process; and (d) other conflicts come from individual personality, personal differences, status differences, competition, divergent goals, organization structure, rewards, and leadership styles.

In a 1976 study, Krammer and Schamalenberg investigated the major sources of conflict among 220 nurses in the hospital setting. The results revealed eight sources of conflict which were most frequently encountered by nurses: (a) professional-bureaucratic conflict--conflict which arises from incompatibility between the profession's expectations of nurses and the hospital's expectation of nurses; (b) professional competency gap conflict--conflict which results from interference between the personal expectations of the nurse and the standards of practice; (c) means-goal conflict--conflict which arises when one lacks the appropriate means to reach desired goals in meeting the immediate needs

of the patients; (d) physician-nurse role differential expectation conflict--conflict which is generated by perceptual differences between the nurse and the physician in the delivery of care; (e) patient-nurse role differential expectation conflict--conflict which is generated when care goals of the nurse differ from those of the patient; (f) nurse-nurse role differential expectation conflict--conflict which is generated from differences of values and philosophy among nurses in regard to the nursing profession; (g) expressive-instrumental conflict--conflict which results when nurses are torn between the emotional needs of the patient and the technical care demanded; and (h) competing roles conflict--conflict which results from conflicting personal roles among nurses.

In a study of conflict between faculty and head nurses in the clinical teaching of baccalaureate students in Taiwan, Ma (1984) concluded that conflicts in nursing could be categorized as (a) differences in values; (b) differences in role expectations; (c) differences in perceptions; (d) lack of communication; and (e) other sources including goals, status, and organizational differences. In another nursing study, Snyder (1981) conducted a longitudinal study to examine the perceptions of new baccalaureate graduates toward organizational conflict. The sample consisted of 99 newly graduated baccalaureate nurses whose first experiences as practicing professionals were in a hospital. As a framework, this study used the model of organizational conflict which comes from professional and bureaucratic sources that was proposed by Pondy (1967). The results of this study showed a relationship between conflict-reporting behaviors and three other variables: the size of the unit in which the new graduates were working (conflict occurs from a professional source in the smallest unit while the medium size unit reported a bureaucratic source conflict and large size unit reported conflict from both

sources); the identity of the other persons in the conflict (conflict with physician came from both sources while conflict with other nurses came from a bureaucratic source); and the new graduate's work experience in a hospital system while in school (the ones who had not worked reported a professional source).

Conflict Management

As stated previously, conflict is inevitable, and the effects of conflict bring both danger and opportunity. The theory of conflict management has developed over a long period of time. In work situations, the emphasis has shifted from the elimination of conflict to the management of conflict. The goal of conflict management is to use conflict to promote creativity and growth so that it is useful and not destructive (Deutsch, 1971; Kahn & Boulding, 1964). Appropriate strategies of conflict management are necessary for all nurses to know; however, there is no best strategy that could be used all the time and for all situations because each situation is different (Booth, 1993; Marriner, 1982). Ineffective conflict management generates even more conflict. Thus, the key to successful conflict management is to learn conflict management skills and to tailor the response to fit each conflict situation instead of relying simply on one style.

Conflict management styles may be used differently by different people in similar situations. Sullivan and Decker (1992) stated that "individuals have particular styles of resolving conflict" (p. 476). This is supported by the study of Utley, Richardson, and Pilkington (1989), who investigated the relationship between personality and interpersonal conflict management in 153 college students. The instrument used in this study was the Rahim Organizational Conflict Inventory (Rahim, 1983) which measures five conflict management styles of the respondents: domination (high concern for self, low concern

for others); integration (high concern for self, high concern for others); obligation (low concern for self, high concern for others); avoidance (low concern for self and others); and compromise (moderate concern for self and others). The findings from this study showed that some of the conflict responses were directly related to personality needs. Individuals with high needs for achievement, endurance, nurturance, social desirability, or low needs for defense were likely to report relatively frequent use of integration. Those with high needs for dominance or understanding were apt to report relatively frequent use of a dominant response to conflict. Individuals with high needs for nurturance or low needs for defense were likely to report relatively frequent use of compromise. No personality needs were consistently related to obligation or avoidance responses across all three targets. In summary, the results showed the importance of both personality and situational factors in understanding responses to interpersonal conflict.

Several authors have proposed different conflict management strategies and models; however, only some of the more prominent proposals that have been used in the field of nursing are reviewed in this study. Pondy (1967) proposed three models for resolving organizational conflict:

1. Bargaining--This model is useful in dealing with conflict among interest groups when there is competition for scarce resources. The representatives of each group engage in negotiation for the most attractive solution to each acceptable settlement; a third party may need to be brought in as an arbitrator.

2. Bureaucratic--This model is used to maintain consistency and order in a complex organization and to establish authority by shifting the responsibility for control and decision making from the individual to the organization.

3. System--This model is directed at lateral relationships for the conflict which is seen among co-workers. It needs an integrator who can coordinate both vertical and horizontal lines of communication and activities.

Thomas (1978) proposed five conflict management strategies: competition, collaboration, compromise, avoidance, and accommodation. These strategies are based on a two-dimensional model that compares the degree to which individuals satisfy their own concerns and needs (assertiveness) with the degree to which individuals attempt to satisfy the concerns of others (cooperativeness). Thus, the individuals' conflict management strategies can be described as variations of assertiveness and cooperation. Under cooperation, a mode may appear as cooperative or uncooperative, and under assertive, a mode may appear as assertive or unassertive. The descriptions of these strategies are as follows:

1. Competition results in one person dominating and being uncooperative and assertive. This is a power-oriented, win-lose situation. It is appropriately used by knowledgeable persons in order to make a quick or unpopular decision. If used too often, subordinates may become afraid to admit mistakes. If not used enough, one can feel powerless and unable to take a stand.

2. Collaboration is mutual problem solving with both assertiveness and cooperation. This is a win-win strategy. It contributes to effective problem solving because both parties try to find mutually satisfying solutions. Generally, this is the most

effective method of conflict resolution because both parties participate (Kuipers et al., 1989). However, this strategy requires time in order to solve the problem.

3. Compromise is intermediate between cooperation and assertiveness (somewhat cooperative and somewhat assertive). Compromise can be used when parties have equal power and the solution is only moderately important. If used excessively, a cynical climate of gamesmanship that loses sight of important issues may develop. If used too little, it becomes difficult to make concessions or participate in effective bargaining.

4. Avoidance is more likely to appear as neglect because the person is uncooperative and unassertive. This strategy is appropriate when one has no chance of obtaining the goals, the cost of addressing the conflict is higher than the benefit of resolution, or the issues are not that important. Using the avoidance strategy excessively may adversely affect important decisions that need to be made, and using too little avoidance may provoke danger and hostility and hurt other people's feelings. Avoidance does not solve the problem; the real problem continues to exist.

5. Accommodation is unassertive and cooperative. This strategy is appropriate when the issue is more important to someone else, the other person has more power, or a person is wrong. It can promote harmony or collect social credit for more important issues later. The people who perceive that accommodation is being used may feel that their concerns are not being heard. Too little use of accommodation may result in the inability to build goodwill or in adopting a defeatist attitude.

Several studies have been conducted using Thomas' conflict management strategies as a framework and the Thomas-Kilmann MODE Instrument. Using the Thomas-Kilmann MODE instrument, Marriner (1982) studied the conflict management

styles of 182 participants who attended creative use of conflict workshops. Most of the subjects were hospital administrators, supervisors, or head nurses from medical-surgical clinical areas. The findings from this study showed that the strategies of collaboration and compromise were more frequently used when the outcome was positive or effective. Further, the strategies of avoidance and competition were more frequently used when the outcomes were negative or ineffective. Marriner concluded that all strategies could be used appropriately in different situations; however, individuals should choose the most appropriate strategy for a specific situation.

In another study, Marriner-Tomey and Poletti (1991) examined the strategies for managing conflict used by 55 Italian nurses who attended a workshop on the subject. The Thomas-Kilmann MODE conflict management instrument was used; it had been translated into Italian by one person and then back into English by another person to check for validity. Eighty-four percent of the sample was female, 64% were head nurses, 18% were staff nurses, 11% were directors of nursing schools, 6% were health visitors, and 1% were pediatric nurses. The findings revealed that Italian nurses used collaboration and compromise most frequently in successful resolutions, and competition and avoidance in unsuccessful resolutions. Marriner-Tomey and Poletti compared the results of this study with Marriner's 1982 study of conflict management styles among 182 American nurses and 339 practicing American managers in business and government. The results of these studies are all similar; Italian nurses and American nurse managers used the various styles of conflict management with about the same frequency as a group of managers in business and government organizations.

Redland (1982) conducted a study to determine conflict management strategies used by 48 female registered nurses in their relationships with physicians. She used the Thomas-Kilmann conflict MODE instruments, instrument of locus of control, and psychological profiles to study the approaches used by diploma and baccalaureate educated nurses in confronting physicians about patient care concerns. The findings of this study indicated that both diploma and baccalaureate nurses used collaboration whenever interactions did not involve patient care. However, there was a difference between diploma and baccalaureate nurses when interactions involved patient care. The diploma nurses used accommodation while the baccalaureate nurses used collaboration. Redland found that a large number of subjects used avoidance or accommodation, both unassertive strategies, to manage conflict that occurred during the course of patient care.

Another study of physician-nurse relationships was conducted by Prescott and Bowen (1985). The sample consisted of 90 physicians and 125 nurses in 15 hospitals. The individuals were interviewed and asked to complete questionnaires regarding the nature of their relationships, areas of disagreement related to patient care, and manner in which disagreements were resolved. The results showed that conflicts or disagreements between nurses and physicians occurred in three main areas: general plan of care, specific orders, and patient disposition. Further, 65% of the physicians and 53% of the nurses used competition more often than any other strategy, 16% of the physicians and 32% of the nurses used accommodation, and only 14% of physicians and 7% of nurses used collaboration. Compromise and avoidance strategies were rarely used by both nurses and physicians.

Additional studies showed that nurses used other strategies to manage conflict. Cavanagh (1991) investigated the conflict management styles of 145 female staff nurses and 82 nurse managers working in 20 medium-size hospitals located on the west coast of the United States. She used the Thomas-Kilmann MODE instrument to determine the conflict management style of the respondents. The response rate of this study was 38.5%. The results showed that staff nurses and nurse managers used avoidance as the most common conflict management style. However, nurse managers used compromise almost as frequently as avoidance. The research further showed that although avoidance was considered an ineffective strategy, it could be valuable in a clinical setting, especially when the issues were not important or when the individual needs or concerns could not be met. However, the author maintained that avoidance would impair patient care when the needs of the patients must be discussed between nurses and physicians.

The findings from Cavanagh's (1991) study are also supported by Hightower (1986), who investigated the conflict management behaviors of 160 nurse managers in the western United States by using the Thomas-Kilmann conflict MODE instrument. The response rate was 53.3%. Ninety-eight percent of the sample were female, and approximately 90% were employed in full-time positions with line authority. The findings from this study revealed that avoidance was the most frequently used strategy, followed by compromise, collaboration, competition, and accommodation. For nurses with a higher degree than a master's and who were age 29 or less, compromise ranked first, followed by avoidance. In addition, Hightower proposed that being a subordinate may influence the use of a particular strategy. Subordinates involved in high-risk conflict situations may use a strategy which removes the threat, such as withdrawing or avoiding

conflict. This could be related to feelings of powerlessness. Hightower further proposed that managers could increase the subordinates' use of assertiveness strategies by enhancing the subordinates' participation in goal establishment in an atmosphere of openness and trust.

The results of Hightower's (1986) study are similar to the study conducted by Jamieson and Thomas (1974) in their investigation of undergraduate and graduate students in managing conflict with teachers. Avoidance was the strategy used most frequently by the students. These researchers proposed that students may avoid conflict with teachers due to the students' lack of power and status.

Washington (1990) studied conflict management strategies utilized by 60 registered nurses in a private 200-bed hospital located in the southwestern United States. The sample consisted of 53 females and 7 males, which consisted of 22 nurse managers and 38 staff nurses. Findings showed that the most frequently used conflict management strategy was avoidance, followed by accommodation, compromise, collaboration, and competition, respectively. Subjects who were from 21 to 35 years old used compromise most frequently, followed by avoidance, accommodation, and collaboration. For subjects who were from 36 to 65 years old, avoidance was used most frequently. Nurse managers used compromise more frequently, followed by avoidance, collaboration, accommodation, and competition, while staff nurses used avoidance most frequently, followed by accommodation, compromise, collaboration, and competition, respectively. The researcher concluded that nurses who practice in a hospital setting tend to approach conflict with concern for others and tend to avoid confrontation. She further asserted

that nurses need to become aware of conflict management behavior and to learn how to manage conflict in the health care system.

M.A. Jones (1990) conducted another study of conflict management and other variables among nurses. This study examined organizational climate and conflict resolution style used by registered nurses. The subjects were 223 nursing personnel working in three hospitals in the southern region of the United States. The instruments used were the Climate Questionnaire (Litwin and Stringer, 1968), the Thomas-Kilmann Conflict MODE Instrument (1974), and a researcher-developed demographic survey. The results of the study showed that the strategy used most frequently was avoidance, followed by compromise, accommodation, collaboration, and competition, respectively. Further, there was a significant inverse relationship between the level of support in the work climate and the conflict management style of accommodation. In other words, nurses who work in organizations with a supportive climate rarely used accommodation to manage conflict.

In Thailand, only one study of conflict management in nurses has been conducted. Sangpolasit (1990) studied conflict and conflict management in 191 head nurses in the government-operated hospitals in Bangkok, Thailand. The instruments used in this study were developed by the researcher and consisted of a written questionnaire and a personal interview. Content validity was conducted, and the internal consistency reliabilities were reported as .89 for the questionnaire part and .92 for the interview part. The findings showed that sources of conflict originated mostly from the interaction between nurses and physicians, followed by the interaction between health personnel and patients and their relatives, and lastly, from nursing personnel and other personnel. Further, head nurses

most frequently used problem solving to manage conflict, followed by compromise, accommodation, forcing, and avoidance, respectively.

The findings from these studies showed that nurses frequently used different strategies to manage conflict. However, the findings from several of the studies showed that nurses used avoidance frequently to manage conflict. Jones, Fowler, and Bushardt (1992) proposed that nurses may use avoidance because of feelings of powerlessness in job relationships. Thus, they withdraw when they think they have little chance of resolving the conflict in their favor (i.e., collaboration). This reaction might lead to a decrease in the level of job satisfaction, withdrawal from a job, or even leaving the profession.

Job Satisfaction

Job satisfaction is a feeling or affective response to facets of the situation (Smith et al., 1969). Since the early 1900s, studies of job satisfaction have shifted from the idea that humans are machines to an understanding of the worker as an individual with human needs. One of the early studies conducted by Taylor (1911) found that job satisfaction is related completely to the amount of money the workers earned. Therefore, workers were considered part of the machinery of the institution and were managed as efficiently as possible (Slavitt, Stamps, Piedmont, & Haase, 1978.)

In the 1930s, management began to consider the human aspects of the worker, and studies reflected this change in philosophy. Hoppock (1935), an occupational sociologist, interviewed a cross section of workers and found that job satisfaction is related to the individual's ability to adapt to situations, the ability to relate to others, the socioeconomic group identification, and the nature of the work. These results took into

account the abilities, interests, and preparation of the employees. He further proposed that a person's job satisfaction is dependent upon the degree to which that job meets the individual's needs.

Later, Mayo (1945) studied job satisfaction from a psychological perspective. The study focused on the working conditions of a chosen group of factory employees (the Hawthorne study). The findings revealed that the most important factor in job satisfaction is group interaction. Morale increased when people interacted in the experimental group whether the changed condition was better or worse. This study provides the basic approach for many later studies in job satisfaction (Slavitt et al.,1978).

Another important influence on job satisfaction studies are the theories of motivation developed by humanistic psychologists such as Maslow (1954). He proposed a hierarchy of human needs from lowest to highest which includes physiological needs, safety, love and belonging, self-esteem, and self-actualization. Only when the needs at one level have been at least partially satisfied does the individual normally seek to satisfy those at the next level. According to Maslow, healthy people work in healthy organizations; therefore, they will have sufficiently gratified their basic physical needs and their needs for safety, belonging, love, respect, and self-esteem so that they are motivated primarily by opportunities for self-actualization or self-fulfillment. He characterized healthy people as having superior perceptions of reality, increased acceptance of others, improved interpersonal relations, and heightened identification with the human species.

Using Maslow's (1954) hierarchy, Herzberg, Mausner, and Snyderman (1959) explained how motivation parallels the level of job satisfaction. They proposed that job

satisfaction is not the counterpart of job dissatisfaction in that the factors that lead to job dissatisfaction are quite different from those that lead to job satisfaction. Consequently, the resulting behaviors from these two states are different. On the one hand, factors associated with job satisfaction are called satisfiers or motivators; these include achievement, recognition, work, responsibility, advancement, and growth. On the other hand, factors related to job dissatisfaction are called dissatisfiers or hygiene; these include company policy, administrative supervision, working conditions, salary, personal life, job security, and interpersonal relations with supervisors, subordinates, or co-workers. Thus, job satisfaction is generally a positive feeling toward one's work controlled primarily by satisfiers. If satisfiers are removed, indifference, though not necessarily dissatisfaction, will result. The dissatisfiers are perceived separately from those associated with job satisfaction. Job dissatisfaction will occur when there are negative aspects of dissatisfiers, but positive aspects of dissatisfiers are not sufficient conditions for job satisfaction.

Job satisfaction in nursing has been studied extensively. The proposed theories have been tested and determined for applicability to nursing by numerous nurse researchers. One of the earliest studies of job satisfaction among nurses was conducted by Nahm (1940). She administered questionnaires to 275 nurses and found that job satisfaction was related to individual adjustment, relationships with supervisor, family and friends, and opportunities for advancement. From the 1950s to the early 1970s, studies about job satisfaction continued to increase. These studies focused specifically on turnover rates as a measure of job satisfaction (Abdelah & Levine, 1954; Behling & Kosmo, 1971).

In 1974, Longest investigated job satisfaction among 195 registered nurses in a hospital setting. The response rate was 82%. The results showed that achievement ranked first among the factors affecting job satisfaction in nurses, followed by interpersonal relations and the work itself, policy and administration, responsibility, supervision, salary, working conditions, recognition, and advancement, respectively. Following this, Slavitt et al. (1978) developed an Index of Work Satisfaction by studying 800 nurses in three hospitals. The nurses listed autonomy, job status, pay, and task requirements as the elements essential for job satisfaction. The results of this study are not congruent with the theory of Herzberg et al. (1959) since they proposed that lack of job status and lack of adequate pay are dissatisfiers, not satisfiers.

In 1984, Crout and Crout studied job satisfiers in 80 female and 6 newly employed male nurses. The results showed the following were job satisfiers: a sense of achievement; competency; accomplishment; recognition; positive feedback; having efforts appreciated by peers and patients; being challenged professionally; collegial relationships involving common interests, goals, and motivation; acceptance; mutual respect; cooperation; commitment; security, such as salary, benefits, and job availability; working in a preferred area; and good hours that are predictable, fair, and with acceptable scheduling. These satisfiers were the anticipated working needs of new nurses, and according to Maslow's (1954) need theory, they imply that they originate from the need for self-esteem, belonging, and security among the new nurses.

Another study of factors related to job satisfaction and dissatisfaction was conducted by Pfaff in 1987. The study used a job satisfaction and dissatisfaction questionnaire developed by Walrath, Bailey, Hargrove, Noel, and Scala (1980) and a

researcher-developed questionnaire. Subjects consisted of 16 registered nurses, 10 who worked in a rural nursing home and 6 who worked in an urban nursing home. The results of this study showed the satisfiers to be recognition, responsibility, achievement, advancement, and work itself. Dissatisfiers were facility policy, current job environment, salary, job security, peer interaction, and supervisor/staff relationships. Eighty percent of the rural nurses and 82.5% of the urban nurses perceived that they were given increased responsibility as they were able to handle it. Most of the nurses in both settings (84.5%) felt that they had little opportunity for advancement, and about 71% believed that they were not getting ahead in their present positions.

Sanger, Richardson, and Larson (1985) studied job satisfaction among nurse coordinators (head nurses) and clinical nurse specialists at the University of Washington Hospital. The study consisted of eight aspects of job satisfaction: workload; accomplishment; relationships with head nurses; relationships with physicians; relationship with nursing administration; decision making; recognition; and utilization of knowledge and skills. The subjects were 16 personnel from Unit A with low turnover rates (10.8%) and 16 personnel from Unit B with moderate turnover rates (38.4%.) The job satisfaction score of Unit A personnel was significantly higher statistically than that of Unit B personnel. On all subscales, unit A also scored higher; the differences in seven of eight subscales were statistically significant, except the item "relationships with physician." The findings also showed that neither age, length of employment, shift, nor position were predictive of job satisfaction score. In 1987, Blegen and Mueller conducted a longitudinal study to investigate job satisfaction among 370 RNs at five hospitals. The researchers developed two sets of identical questionnaires which were

mailed to the subjects 8 months apart. The internal consistency reliabilities of the instrument were .61 to .92. The response rate was 63%. They found that a higher level of job satisfaction was correlated with an older age, more tenure, day shift assignments, and higher positions. Further, the determinants of job satisfaction were opportunity for an alternative job in the environment, job communication, routinization, autonomy, promotional opportunity, distributive justice, social integration, workload, pay, general training, and kinship responsibility. These findings supported the belief that personal and organizational characteristics were directly related to job satisfaction.

Dunham (1990) studied the relationship between organizational culture gaps and job satisfaction among 73 nurses using the Minnesota Satisfaction Questionnaire (Weiss, Dawis, England, & Lofquis, 1967), the Kilmann-Saxton Culture-Gap Survey (Kilmann & Saxton, 1983), and a researcher-developed questionnaire. The findings showed that task support and personal freedom culture gaps can predict job satisfaction among nurses. Moreover, nurses who earned bachelor's degrees were less satisfied with their jobs than nurses who earned associate degrees or diplomas. Further, younger nurses were less satisfied with their jobs than older nurses.

Bamber (1988) identified important factors which contributed to the decision of staff nurses to resign from hospital positions. The subjects were 162 staff nurses at Bethlem Royal and Mandsley Hospital in London, England. The response rate was 34%. The findings revealed that the main motivation to resign was related to aspects of poor management or poor staff relationships (41%), including lack of support from senior nursing management, lack of recognition and appreciation, and dislike of management. The second most common reason for leaving was a lack of resources (21%), including

low staff levels, lack of in-service training, delays in getting repairs done and supplies delivered, and poor working conditions. The other reasons included lack of further training, poor pay, dislike of the culture of the joint hospital, high levels of stress, difficulty in seeking promotions, boredom, high cost of living, poor career prospects, and violence. The results of this study suggest that the levels of job satisfaction, stress, and mobility all interact in the decision to leave.

Further, using a questionnaire developed by Price and Mueller (1981), Cavanagh (1992) studied the job satisfaction of 221 staff nurses who worked in the greater Los Angeles area. The internal consistency reliability was .83, and the validity was determined by using factor loadings ranging from .54 to .89. The findings showed that the statistically significant factors in determining job satisfaction were benefits, participation in decision making, education, routine, promotion, and opportunity for advancement outside their institutions.

In 1991, using convenience sampling, Busby and Banik studied the satisfaction with work of 69 registered nurses who worked in eight rural hospitals. A researcher-developed instrument was used, and the content validity was examined by six experts. The response rate was 69%. The findings showed that six work-related factors of work satisfaction were pay, professional status, interactions with physicians, autonomy, task requirements, and organizational policies. Furthermore, in the content analysis part, three themes emerged. The first theme was the improvement of professional relationships, and the second one focused on nurses controlling nursing and having input to improve patient care. The third theme centered on low salaries and the need to increase remuneration if nurses were to remain in rural situations.

Another study by Dwyer, Schwartz, and Fox (1992) investigated the relationship among preferences for decision making, autonomy, and job satisfaction among 151 full-time registered nurses employed in a medium-sized, private hospital. Tenure within the organization ranged from 2 to 486 months, with a mean of 101 months. The variables in this study were clinical ladders, perceived control, preference for decision making, and facet satisfaction. The instruments used were facet satisfaction scale (Kunin, 1955) and a researcher-developed instrument. The response rate was 76%. The findings showed a positive relationship between the perceived control measures and the measures of overall job satisfaction, and satisfaction with work itself and the clinical ladder. This indicates that nurses were more satisfied with their jobs and the work they did if they perceived that their jobs had more opportunities for autonomy. Moreover, nurses who were at higher levels on the clinical ladder perceived that they had more autonomy and control. These findings are similar to the study of Taunton, Krampitz, and Woods (1989), who studied 59 registered nurses and 12 other professionals in an academic medical center hospital located in a mid-western U.S. metropolitan area. The results revealed that less information and involvement in the decision making of the present job resulted in an increase in absences and a decrease in satisfaction and commitment.

In Thailand, Roongsuwan (1969) studied the reasons Thai nurses leave the country to work in the United States. The findings showed that the dependent status of the work in Thailand creates dissatisfaction with the working environment. Another source of nurse dissatisfaction was revealed in a study by Sanadeesai (1973), who found registered nurses in one Thai hospital to be frustrated with the lack of opportunity to be further

educated. Further, Lauchachinda (1976) studied the job satisfaction of nurses in relation to their intention to remain or to leave the university hospital in Bangkok Metropolis, Thailand. The subjects were 131 registered nurses who had been working in the hospital for more than 6 months. The results of this study showed that registered nurses were found to be fairly satisfied with their jobs; however, they were not satisfied with salary and benefits, opportunity for advancement, and administrative policies. Moreover, there were no significant differences in job satisfaction between the group of nurses who intended to remain and those who wanted to leave the job because of working conditions, administrative policies, the chain of command, relationships among personnel, salary and benefit, opportunity for advancement, and the security of job. The level of job satisfaction from this study is congruent with the studies of Sawakwan (1974) and Tantisirin (1977), which showed that Thai nurses were fairly satisfied with their jobs.

Silapapiput (1975) studied the relationship between leadership and job satisfaction of head nurses and staff nurses in the hospitals under the Thai Ministry of Public Health. The findings showed that leadership was positively correlated with job satisfaction. Further, there was no significant difference in job satisfaction of head nurses and staff nurses. This result was contrary to Tantisirin (1977) and Chitpakdee (1993) in that head nurses and associates or heads of nursing departments were more satisfied with their job than staff nurses.

Hemindra (1981) conducted a comparative study on job satisfaction between two groups of nurses who worked in urban and rural areas of Thailand. The findings showed that there was no significant difference between the two groups of nurses regarding job satisfaction. For urban area nurses, factors affecting job satisfaction were job security,

health service welfare, and the administrative system. Further, age, time working in the government service, inspiration for achievement, academic qualifications, and position were significantly correlated with job satisfaction. Similar results were found for rural area nurses with the factors contributing to job satisfaction being job security, social aspect, and opportunities for promotion and advancement. Moreover, age, time working in government service, and inspiration for achievement were correlated with job satisfaction. However, academic qualification, position, working efficiency, income, and marital status were not significantly correlated with job satisfaction.

A study by Preuksaraj et al. (1991) examined job satisfaction and opinions about the desires and causes of resignation of staff nurses. The subjects were 500 registered nurses who worked in Siriraj Hospital in 1990. The findings showed that 40% of the registered nurses indicated dissatisfaction with their jobs. The causes of dissatisfaction included low salary, inappropriate fringe benefits, slow work promotions, hard and repetitive tasks, and conflicts with administrators and with nursing staff within the unit. Eighty-three percent of the staff nurses had considered resigning due to having to work the night shift. Other causes of the desire to resign included excessively demanding work, low salary, inappropriate fringe benefits, family problems, administrative problems, and need for further education.

The most recent study of job satisfaction in Thailand was conducted by Chitpakdee (1993). She studied job satisfaction of 558 professional nurses who worked in government-operated and private hospitals in Chiang Mai, Thailand. The findings showed that an average level of job satisfaction was at the medium level. Nurses reported high levels of job satisfaction with professional status and medium levels of

satisfaction with autonomy, task requirement, organization policies, and interaction. Further, a low level of job satisfaction was reported with pay. Satisfaction of nurses who were older than 41 years, divorced or widowed, had earned a master's degree, had worked over 16 years, were an associate director or director of a department, and earned more than 15,000 Baht (about $600) per month were higher than those of other groups. In addition, nurses who worked in private hospitals indicated higher satisfaction than those who worked in government-operated hospitals.

Conflict and Job Satisfaction

Several studies of the relationship between conflict and job satisfaction have been conducted. Rickaro (1986) studied the relationships between role ambiguity and job satisfaction in 138 clinical nurse specialists by using three instruments: the Role Ambiguity Index (Rizzo, House, & Lirtzman, 1970), the JDI, and the JIG Instrument (Smith et al., 1969, 1985). The response rate was 52.8%. Rickaro maintained that the sources of role ambiguity are goal conflict, inconsistency, delay in decision making, accrual of more and different obligations, distortions and suppression of information, and violations in the chain of command. The findings of this study showed a significant correlation between role ambiguity and job satisfaction. The respondents whose score indicated low degrees of role ambiguity were more likely to have scores that showed a high level of job satisfaction.

Burke and Scalzi (1988) studied the relationships between role conflict, role ambiguity, and job satisfaction and dissatisfaction in 119 hospital administrators and nursing executives. The result of this study showed that there was a significant inverse correlation between role conflict and job dissatisfaction. Scalzi's (1990) study found

similar relationships. The Scalzi study was done in two phases: Phase I was a mail questionnaire survey, and Phase II was a semistructured interview. The Phase I sample consisted of 75 nurse executives: 39 were directors of nursing service, 10 were vice presidents for nursing, 9 were assistant administrators of nursing, and 17 were various other top level nurse executives. Thirty respondents from Phase I subjects were selected to be interviewed for Phase II. The instruments in this study were role conflict and ambiguity scales (Rizzo et al., 1970), the Center for Epidemiologic Studies Depression Scale (Radloff, 1977), and a researcher-developed demographic questionnaire. The findings showed that there was a significant correlation among these variables. Whenever role conflict was increased, role ambiguity increased, but job satisfaction decreased.

Gardner (1992) studied the relationship of job conflict and job satisfaction in 320 registered nurses who joined a large midwestern hospital in the United States over a 15-month period. The perceived conflict scale developed by the researcher and the McCloskey-Muller Satisfaction Scale (1990) were used in this study. Findings from the study showed that nurses who perceived more job conflict reported less job satisfaction.

In nursing education, Fain (1987) studied the relationship among role conflict, role ambiguity, and job satisfaction of 285 nursing faculty in 27 National League for Nursing (NLN) accredited baccalaureate programs of nursing across six New England states. The instruments used were the Role Questionnaire (Rizzo et al., 1970) and the JDI (Smith et al., 1969). The results of this study indicated a significant correlation among the three variables which suggests that the faculty members who reported high role conflict and role ambiguity also reported a lower level of job satisfaction.

Another similar study was conducted by Acorn (1991), who investigated the relationship of role conflict and role ambiguity to selected job dimensions among 113 faculty members who were joint appointees from five schools of nursing. The results showed that role conflict and role ambiguity were significantly correlated with job satisfaction and the desire to leave the job. Faculty members who perceived role conflict and role ambiguity had a tendency to leave the job.

As stated previously, one type of conflict in an organization is role conflict. Role ambiguity can increase role conflict; therefore, the findings from these studies imply that there is a negative relationship between conflict and job satisfaction. Thus, conflict could be one of the factors that contributes to job satisfaction or dissatisfaction.

Intent to Stay

Intent to stay is "the likelihood perceived by the individual of continued participation in the organization. It refers to individual perception rather than to individual behavior or it is the internal orientation of nurses and not what they do" (Price & Mueller, 1981, p. 10). Researchers have found a negative relationship between intent to stay and turnover and a positive relationship between intent to stay and job satisfaction (Hinshaw, Smeltzer, & Atwood, 1987; Price & Mueller, 1981; Vroom, 1964). Intent to stay is a sensitive product of turnover (Porter & Steer, 1973). Further, intent to leave the current position is inversely related to job satisfaction (Behling & Kosmo, 1971). Mobley (1977) proposed a process that an individual uses in making the decision to leave or stay as follows:

Step 1 Evaluating individual's existing job.

Step 2 Evaluating job satisfaction and dissatisfaction.

Step 3 Thinking of leaving the job.

Step 4 Weighing the benefits of leaving and the availability of another job.

Step 5 Pursuing alternatives and considering other factors.

Step 6 Searching for a job, evaluating the current job, and exhibiting negative job behaviors.

Step 7 Evaluating and synthesizing the alternative.

Step 8 Comparing the current job with the alternatives.

Step 9 Making a decision of intent to leave or stay.

Step 10 Leaving or staying.

Studies of intent to stay or intent to leave the organization have been conducted over a long period of time. Many studies used intent to stay/intent to leave as both dependent and predictive variables. One of the earliest studies of intent to stay was conducted by Nichols (1971), who studied job satisfaction and intent to remain with or to leave an organization. The subjects were 181 Army nurses. A researcher-developed questionnaire consisted of four subscales: the movement subscale (degree of difficulty in moving from Army into civilian life), the important subscale (format of the value of selected aspects in the working or living situation), the satisfaction subscale (positive evaluation of selected aspects in working and living situation), and the format of the alternative subscales (an evaluation in working and living situation available in the other organization). The response rate was 69%. The reported internal consistency reliabilities of these four subscales ranged between .68 to .93; the validity coefficient of the index was .82 to .96. The findings showed that 76% of the respondents intended to leave military service after fulfilling their obligated tours, 17% intended to remain, and

7% were undecided. Further, it was revealed that the stayers in the organization had a higher satisfaction than the leavers, and turnover of nurses was associated with dissatisfaction due to shortage of staff.

Mobley, Horner, and Hollingsworth (1978) studied an evaluation of precursors of hospital employee turnover in 203 full-time employees from service, technical, clerical, and nursing services who worked in a medium-sized southwestern U.S. urban hospital. The instruments used for this study were the Index of Job Satisfaction (Brayfield & Rothe, 1951), the JDI (Smith et al., 1969), and a researcher-developed verbally-anchored scale used to measure thinking of quitting, probability of finding an acceptable alternative, and intent to quit. The response rate was 90%. The findings showed that the correlation between intent to quit and actual turnover within 1 year was significantly stronger than the correlation between satisfaction and actual turnover. Also, an individual who was satisfied with the job had a greater correlation with only thinking of quitting or intending to quit rather than actually quitting.

A similar study of intent to leave was conducted by Weisman et al. (1981), who investigated the determinants of nurse turnover among 1,259 nurses employed in two university-affiliated hospitals in the U.S.. This study used a longitudinal design, and the response rate was 97.7%. The data sources came from structured personal interviews in which the subjects' demographic data, their perception of their jobs and job satisfaction, and their intentions to stay were obtained. Additional data were obtained from the reports made by head nurses about the types of nursing care and structure features of the unit, as well as from hospital documents that measured unit size, workload, and staffing patterns. The instruments used were the Quality of Employment

Survey (Quinn & Shepard, 1974), the JDI (Smith et al., 1969), and a researcher-developed questionnaire. The results revealed that length of employment and intent to leave had a significant direct relationship to turnover. Moreover, job satisfaction had a strong direct negative relationship to intent to leave, and autonomy was the strongest predictor of job satisfaction. Further, they found that nurses who had a higher position had a lower level of job satisfaction.

In 1981, Price and Mueller studied professional turnover in 1,101 registered nurses (770 diploma, 140 associate, and 174 baccalaureate nurses) who worked in seven U.S. hospitals. The instrument was developed and the convergent validity, discriminant validity, and face validity were tested. The internal consistency reliabilities ranged from .74 to .93. The findings showed that six determinants of job satisfaction were routinization, instrumental communication, promotional opportunity, participation, kinship responsibility, and pay. Also, intent to stay was positively related to job satisfaction, kinship responsibility, instrumental communication, participation, age, and length of service. Nurses who were satisfied with their jobs, who had kinship responsibility, who were informed about their jobs, who actually participated in making decisions, who were older, and who had high seniority indicated an intent to remain in their jobs. On the other hand, intent to stay was negatively related to general training and promotional opportunity. In other words, nurses with the most general type of training or who held baccalaureate degrees and who had promotional opportunities were likely to leave a hospital. Moreover, the findings showed that job satisfaction was the strongest determinant of intent to stay, but intent to stay is more strongly related to turnover than to job satisfaction.

The results and the model developed from the study of Price and Mueller (1981) study were disseminated and utilized by several authors. One of the most recent studies of intent to stay was conducted by Lucas, Atwood, and Hagaman (1993). This study is a replication of the anticipated turnover model based on Price and Mueller. The subjects were 385 full-time nurses in two public and two private hospitals. The instruments used in this study were the Group Cohesion Scale (Good & Nelson, 1973), the Job Stress Instrument (Atwood & Hinshaw, 1981), the Professional Job Satisfaction Scale adapted from the Job Satisfaction Index of Brayfield and Rothe (1951), the Organizational Work Satisfaction Scale (Hinshaw & Atwood, 1985) and the Anticipated Turnover Scale (Hinshaw & Atwood, 1980). The internal consistency reliabilities ranged from .85 to .91. The results showed that group cohesion and job satisfaction were the effective predictors of anticipated turnover, while anticipated turnover was a good predictor of actual turnover. Moreover, the clinical area was correlated with the job satisfaction level as medical/surgical nurses experienced higher job stress which might have affected their job satisfaction.

Mueller and Price (1990) furthered their earlier study (Price & Mueller, 1981) about turnover by using a longitudinal design and adding the economic, psychological, and sociological determinants of voluntary turnover. The subjects were 135 registered nurses who held diploma, associate, baccalaureate, or master's degrees and were employed by a large midwestern U.S. hospital. The survey was administered at the initial time of employment, then again at both 6 months and 12 months. Instruments used were the Job Characteristics Inventory (cited in Mueller and Price), the Job Satisfaction Index (Brayfield & Rothe, 1951), the Commitment Scale (Mowday, Steers

& Porter, 1979), the Work Motivation Scale (Hackman & Oldham, 1975), and a researcher-developed instrument to measure intent to stay and demographic variables. Internal consistency reliabilities of these instruments ranged from .49 to .92. The response rate was 78%. The findings showed that job satisfaction was positively affected by group cohesion, task identity, and work motivation. The level of job satisfaction was decreased when nurses perceived outside job opportunities and high pay. Intent to stay was related to external opportunity and general training. Nurses who perceived outside job opportunities, who had general training (or who held baccalaureate degrees), and who perceived greater opportunities were less likely to have an intent to stay. Furthermore, work group cohesion and work motivation had a positive effect on intent to stay but were mediated by satisfaction. Moreover, explicitness of the employers when making work-related decisions had a positive effect on intent to stay but was mediated by commitment.

In addition, Parasuraman's (1989) investigation using the model of nursing turnover in 307 nurses employed full time in a large metropolitan U.S. hospital produced similar findings. The response rate was 84%. The instruments used in this study were the Job Diagnostic Survey (Hackman & Oldham, 1975), the Role Conflict Scale (Rizzo et al., 1970), the Work Overload and the Felt Stress Scale (Parasuraman, Drake, & Zammuto, 1982), the Leadership Attention Scale (Dansereau, 1972), the Job Satisfaction Scale (Hoppock, 1935), the Organizational Commitment Questionnaire (Porter, cited in Parasuraman), and a researcher-developed scale to measure demographic data, intent to leave, and turnover. The internal consistency reliabilities of these instruments were .78 to .94. The findings showed that intent to leave was the most immediate variable

determining actual turnover. Also, personal, organizational, and job experience variables were found to influence voluntary turnover only indirectly through their effects on felt stress, job satisfaction, organizational commitment, and intent to leave. Further, the results showed that when the time interval between expressed intentions and turnover behavior increased, the strength of the relationship between intent to leave and turnover was decreased.

Stichler (1990) studied 188 female registered nurses employed in six acute care hospitals in southern California. The response rate was 53%. The Index of Work Satisfaction (Stamps & Piedmonte, 1986), the Anticipated Turnover Scale (Hinshaw & Atwood, 1980), a researcher-developed questionnaire, and another four instruments were used. The findings showed that day and night shift nurses reported a higher mean satisfaction score than evening nurses. Furthermore, evening shift nurses reported a higher mean score for anticipated turnover than those from day and night shift nurses. Age was not significantly correlated with job satisfaction. Anticipated turnover was directly influenced by job satisfaction and nurse collaborative behavior.

Another study conducted by Leahy (1990) included 235 nurse subjects: 112 from a psychiatric setting and 123 from an acute care setting. The instruments used in this study were the Work Environment Scale (WES; Moos, 1981) and the JDI (Smith et al., 1985.) The internal consistency of the WES ranged from .53 to .78 while the internal consistency of the JDI ranged from .75 to .91. The findings showed that age was positively correlated with the promotion opportunities while time working in the present job was inversely correlated with the work facet of job satisfaction. Moreover, psychiatric nurses were negatively related to the supervision facet of job satisfaction,

while acute care nurses were positively related to promotion opportunities facet of job satisfaction.

However, a longitudinal study conducted by Hinshaw et al. in 1987 produced slightly different results. The sample included 1,597 diploma and baccalaureate nurses in seven urban and eight rural U.S. hospitals. The questionnaires were administered 1 year apart. The initial survey's response rate was 82%, and at the end of 1 year, 16% of the sample had resigned. The instruments used in this study were a researcher-developed Anticipated Turnover questionnaire, the Byrne's Group Cohesion Scale (Good & Nelson, 1973), the Job Stress Scale (Bailey & Claus, 1977), the Control Over Practice Scale (Horsley & Pelz, 1976), the Organization Work Satisfaction (Slavitt et al., 1978), and the Nurse Job Satisfaction Scale adapted from the Brayfield and Rothe (1951) scale. The internal consistency reliabilities ranged between .73 and .88, and construct validity was moderate to strong. The findings showed that actual turnover was weakly predicted by anticipated turnover. Further, anticipated turnover was moderately predicted by organization and professional job satisfaction, group cohesion, and initial expectations of tenure. In addition, organizational job satisfaction was strongly influenced by group cohesion, job stress, control over practice, evaluation and modification, and autonomy. Professional job satisfaction was strongly predicted by job stress, group cohesiveness, autonomy, and experience in the agency. In baccalaureate nurses, group cohesion was more important to professional job satisfaction and anticipated turnover than those of the diploma nurses. The most influential factors for diploma nurses were organizational job satisfaction and the ability to control their practice through involvement in committees and access to ideas. The other findings

showed that organizational job satisfaction, group cohesion, and initial expectations of tenure influenced actual turnover in critical care nurses. In contrast, actual turnover was predicted by anticipated turnover for medical/surgical nurses while anticipated turnover was influenced by organizational and professional job satisfaction.

Summary

By examining all of the studies cited in the literature review, this investigator found that several studies demonstrated conflicting findings between and among the use of conflict management style and demographic variables, job satisfaction, intent to stay or leave the present position, and demographic variables. However, the results in relation to the style of conflict management used by nurses showed that avoidance is used most frequently. Using avoidance reflects a low concern for both the relationship and the outcome of conflict, as it indicates that one party is attempting to deny the interdependency and the importance of the relationship in order to avoid expected hostility or difficulties in resolving conflict (Wolfe & Bushardt, 1985). Avoidance or withdrawal from conflict in working situations might contribute to a decrease in the level of job satisfaction among nurses or even a withdrawal from a job or profession.

The findings regarding job satisfaction and intent to stay among nurses both in the United States and Thailand showed that the sources and predictive factors of job satisfaction and intent to stay included demographic variables such as age, educational preparation, kinship responsibilities, clinical area, length of service, and position. However, no study could be located in the literature in which the relationships among conflict management styles, job satisfaction, intent to stay, and demographic variables have been investigated.

Furthermore, several researchers did not report the reliability and validity of the instruments. The response rate in some studies was not reported, and others had a low response rate. As stated by Polit and Hungler (1991), a 60% or higher response rate is acceptable because there is high risk of response bias in the low response rate. Also, the theoretical framework was presented explicitly in many studies as well as the sample size, but few studies reported sampling methods. Thus, further investigation in this field is needed to confirm the findings from the previous studies and to determine if there is a relationship between and among these variables. Moreover, the results from this study could be used as a data base in order for nurse administrators to find ways to maintain and enhance job satisfaction as well as the intent to stay, which are very important factors in the retention of nurses in the organization.

CHAPTER III

Methodology

The purposes of this descriptive correlational study are (a) to describe conflict management styles, level of job satisfaction, and intent to stay of professional nurses in Thailand; and (b) to ascertain the relationship among conflict management styles, level of job satisfaction, intent to stay, and specific demographic variables of nurses. The study was conducted in Thailand.

In this study, the specific demographic variables consisted of age, educational background, marital status, number of children, clinical area, shift, position, time working as a nurse, and time working in the present position, all acting as independent variables. Conflict management styles were competition, collaboration, compromise, avoidance, and accommodation, and they acted as both independent variables and dependent variables. Conflict management was examined as a dependent variable when tested for a relationship with the specific demographic variables, and it was examined as an independent variable when used to predict the relationship with the level of job satisfaction and the intent to stay (dependent variables) of Thai professional nurses. Job satisfaction consisted of six facets: work, pay, opportunities for promotion, supervision, co-workers, and job in general. These facets acted as both dependent and independent variables. Job satisfaction acted as a dependent variable when examining the relationship

with specific demographic variables and conflict management and as an independent variable when examining the relationship with intent to stay (dependent variable).

Population and Sample

The population in this study was nurses who were employed full-time by the government-operated regional university hospitals in Thailand. The nurses worked in direct patient care in a variety of units and had worked in those positions for at least 6 months.

The sample consisted of nurses in three regional university hospitals. The sample size for the pilot study and the main study were 20 and 316 subjects, respectively. This sample size of the main study was calculated from a population of 1,800 nurses for 95% of confidence and ± 5 percent accuracy (Levy & Lemeshow, 1980). The investigator increased the number of observations to 384 since the expected overall response rate was approximately 80%.

The proportional stratified random sampling method was used to determine the number of subjects from the three hospitals. Since the number of nurses at Maharaj Nakorn Chiang Mai Hospital was approximately double the number of nurses at Songkla Nakarin Hospital and Srinakarin Hospital (908, 436, and 468, respectively), the number of subjects from Maharaj Nakorn Chiang Mai Hospital was double that of the other two hospitals. Further, the sample was stratified into seven clinical areas or sections (obstetric and gynecological, surgical, medical, pediatric, private ward, out patient and emergency, and general nursing sections) and position (staff nurse and head nurse); thus, the subjects in each strata were homogenous. An equal number of subjects from the two hospitals that are similar in number of nurses and double that of Maharaj Nakorn Chiang

Mai Hospital were drawn randomly from each strata. Subjects were obtained by using a simple random sampling technique. A table of random numbers and a list of the names of nurses with chronological numbers beginning with 01 in each section of each hospital were developed. A starting place in the table of random numbers was chosen, and going down that list of numbers, subjects whose assigned number matched the random number were selected. This process continued until the required number of subjects was chosen. Ninety-six subjects were selected from each of the two hospitals that employed 436 and 468 nurses, and 192 subjects were selected from the third hospital that employed 908 nurses. Sample selection of the main study excluded the subjects of the pilot study in order to avoid testing bias due to repeated measurement.

Setting

The settings for the main study were seven nursing sections of each of the three regional university hospitals in Thailand. These three hospitals are the only government-operated regional university hospitals located in Thailand: Maharaj Nakorn Chaing Mai Hospital in the north, Songkla Nakarin Hospital in the south, and Srinakarin Hospital in the northeast. The reasons for choosing these three hospitals and excluding the university hospitals located in the capital of Thailand were that the nurses were more homogenous and the hospital types were similar. Moreover, the structure and line organization of the hospitals and the organization of the sections and clinical area of specialties in nursing service were similar. Furthermore, the findings from this study could be used as representative of the entire population of the regional university hospitals.

Protection of Human Subjects

Prior to data collection, to assure the protection of human subjects, an expedited form was submitted to the Institutional Review Board of the University of Alabama at Birmingham as well as to each hospital in Thailand. Confidentiality and anonymity of individual responses were guaranteed by a statement included in the cover letter. Code number(s) were used only for questionnaire follow-up in case there was no response from a subject. Otherwise, the code number(s) was deleted before analyzing the data in order to prevent the possibility of identifying individual responses. As no names were requested, the data were treated as group data. Information provided by the subjects was used only for the purposes of the study and remained confidential.

Instrumentation

Three questionnaires were used to collect the data: (a) the Thomas-Kilmann Conflict MODE Instrument (Thomas & Kilmann, 1974), (b) the JDI and the JIG (Smith et al., 1985), and (c) a researcher-developed demographic and intent to stay survey. The instruments were selected based on the conceptual framework, validity, and reliability in measuring the variables of interest. The investigator requested permission from the original authors before translating the first two instruments into the Thai language so they could be used in this study.

The Management of Differences Exercise (MODE) Instrument

The Thomas-Kilmann Conflict MODE instrument (Thomas & Kilmann, 1974) was utilized to evaluate the conflict management style of nurses in terms of competition, collaboration, compromise, avoidance, and accommodation. The instrument consists of 30 pairs of statements in which the five conflict-handling modes are paired with each

other three times to check for consistent responses. Each pair consists of two ways in which the subject might respond to differences in opinion or desires between the subject and other persons. The instrument was designed to minimize the effect of social desirability response bias (Kilmann & Thomas, 1977). The subjects were asked to indicate which statement in each pair was most characteristic of their behaviors when differences arise. The subjects' scores on each of the five conflict management styles were determined by the number of times statements representing the styles were selected over other statements. Since each mode was paired with another mode three times, each individual score for a given mode can range from 0 to 12. The frequency of use of each style was determined by adding the responses. The subject's conflict management style was determined by the style that had the highest score. If a tie occurred, the mode with the highest percentile was considered the preferred mode. The scoring system is ipsative; that is, the sum of the mode score would always total 30. Ipsative scoring also implies that the higher a score on one mode, the lower a score on the other mode.

Concurrent validity was determined by Thomas and Kilmann (1978) by comparing this instrument with three other conflict management instruments (Blake & Mouton, 1964; Hall, 1969; Lawrence & Lorsch, 1967) on each of the five modes. Since the modest size of some of the intercorrelations among the three instruments was partially due to limited reliabilities, the correlations were corrected for attenuation to provide an estimation for the overlap between the nonerror portion of these scores (Nunnally, 1967). The results showed that each subscale of the instrument significantly correlated with the corresponding score on the Hall (1969) instrument. Structure validity found that the five

styles in the MODE instrument were mutually exclusive and exhaustive (Kilmann & Thomas, 1977).

Internal consistency reliabilities were determined by administering the MODE instrument to 86 graduate students. Reliabilities were found to be in the moderate range except those for the accommodation style. The mean alpha coefficient for the instrument was .60; the internal consistency reliabilities of each style compared to the other instruments are shown in Table 1.

Test-retest reliability was conducted with 76 graduate students and was found to be high and consistent across the five styles of conflict management. The mean test-retest reliability was .64. The test-retest reliability coefficients for each style of conflict management MODE instrument compared with the other three instruments are shown in Table 2.

This instrument has been used in many studies both in the United States and in other countries. In a study of cultural influences on styles of handling interpersonal conflicts in Jordanian, Turkish, and U.S. managers, Kozan (1989) presented the internal consistency coefficients (Cronbach alpha) of competition, collaboration, compromise, avoidance, and accomodation as .71, .73, .65, .65, and .73, respectively,for Turkish and .79, .77, .85. .50, and .77, respectively, for Jordanian.

The Job Descriptive Index and the Job in General

The JDI was utilized to measure job satisfaction of nurses. The first version of the JDI was developed in 1969 by Smith et al., who viewed job satisfaction as a multidimensional construct. The original instrument was developed by listing adjectives which these authors felt could be used to describe the five aspects of job satisfaction. These included the type of work, pay, opportunities for promotion, supervision, and

Table 1

Internal Consistency Reliabilities for Three Conflict Management Instruments

Mode of handling conflict	Instruments		
	Lawrence-Lorsch (1967)	Hall (1969)	Thomas-Kilmann (1974)
Competition	.37	.61	.71
Collaboration	.40	.73	.65
Compromise	.46	.45	.58
Avoidance	.45	.39	.62
Accommodation	.59	.57	.43
Mean	.45	.55	.60

Table 2

Test-Retest Reliabilities of Four Conflict Managing Instruments

Mode of handling conflict	Instruments			
	Blake & Moulton (1964)	Lawrence & Lorsch (1967)	Hall (1969)	Thomas & Kilmann (1974)
Competition	.27	.59	.66	.61
Collaboration	.57	.53	.54	.63
Compromise	.14	.33	.41	.66
Avoidance	.47	.42	.61	.68
Accommodation	.49	.63	.53	.62
Mean	.39	.50	.55	.64

co-workers. The pilot was conducted by asking the subjects to respond to the adjective checklist from three perspectives: the present job, the best job, and the worst job. The first version of JDI consisted of 72 items.

The JDI was revised in 1985 (Balzer & Smith, 1990.) The five subscales remained the same; however, some items were replaced by others which were believed to be more discriminating in nonmanufacturing situations since the original one was utilized widely in manufacturing situations. For the revised instrument, a JIG scale was added to measure overall job satisfaction. Smith et al. (1985) maintained that the JIG scale was a sixth facet of the JDI. The subscales of work, supervision, co-worker, and the JIG consist of 18 items each while the subscales of pay and opportunity subscales consist of 9 items each, for a total of 90 items. Forty-seven items are positively worded, and 43 items are negatively worded.

In administration of the JDI, the subjects were asked to indicate "Y" for yes if it described how they felt about the item, "N" for no if it was not how they felt, and "?" if they were unsure or could not decide about the item. A response of "Yes" to a positive item and "No" to a negative item received three points. A response of "No" to a positive item or "Yes" to a negative item did not receive a point. A response of a "?" to any item was scored one point. Omitted responses were scored one point. For the pay and the opportunities for promotion subscales, the scores were multiplied by 2 to be more comparable with other subscales score. The subjects' scores of each subscale ranged from 0 to 54. The higher the score on this instrument, the more the person was satisfied with his/her job. However, Balzer and Smith (1990) proposed that to determine the absolute level of job satisfaction of the subjects, the ranges of obtained scores should

be compared to the median score on the JDI subscale of each and to the JDI with the neutral point (a feeling of ambivalence or a balance of negative and positive feelings) that is equal to 27. Thus, the scores above 27 indicated satisfaction while the scores below indicated dissatisfaction. In practice, however, scores of 32 or above indicated satisfaction while those of 22 or below indicated dissatisfaction, and scores ranged between 22-32 indicated neutral feeling.

To determine the convergent and discriminant validity of the JDI, cluster analysis and principal component analysis were used in four studies. Smith et al. (1969) indicated that this instrument possessed convergent and discriminant validity. The validity of the JDI had been supported by several studies including Christian (1986), Evans (1969), Perry (1977), and Schneider and Dachler (1978). Moreover, Jung, Dalessio, and Johnson (1986) reported mean congruence coefficients of JDI (Smith et al., 1969) ranging from .86 to .95, and standard deviations ranging from .01 to .05. These showed the stability of the traditional five-factor structure across groups of subjects. Ironson, Smith, Brannick, Gibson, and Paul (1989) found that the JIG (Smith et al., 1985) had discriminant validity, and the convergent validity correlations ranged from .67 to .80 with four other general scales of job satisfaction. The internal consistency reliabilities of the JDI were reported by Smith et al. (1969), using split half method, as .73, .67, .75, .77, and .78, for work, pay, promotion, supervision, and co-worker, respectively. The corrected, full-length Spearman Brown formula yielded values of .84, .80, .86, .87, .88, respectively. Cronbach alpha reliability coefficients have ranged between .80 to .90 for many studies (Christian, 1986). Moreover, Moody (1991) found the Cronbach alpha reliability coefficients of the revised JDI in nurse educators were .83 to .91 and was .90

for the JIG. Further, Ironson et al. (1989) reported that the Coefficient alpha of the JIG in the two groups of samples ranged from .91 to .95.

The JDI instrument has been used in a variety of disciplines, including nursing. Further, it has been used successfully to measure the level of job satisfaction in the U.S. and in other countries such as China, France, Japan, and Great Britain (Christian, 1986; Donohue, 1986; Fain 1987). Moreover, Guidry (1991) used this instrument by translating it into Hebrew in her study of job satisfaction of Israeli nursing faculty. She reported an average reliability of .66.

Demographic and Intent to Stay Survey

The demographic and intent to stay survey form was developed by the investigator and consists of two sections. The first section asks questions about the demographic variables in this study such as age, educational preparation, marital status, number of children, clinical area, shift, position, time working as a nurse, and time working in present position. These variables were selected for this study since they were found to be correlated to conflict management, job satisfaction, or intent to stay (Arrington, 1990; Blegen & Mueller, 1987; Hightower, 1986; Lucas et al., 1993; Lynn, 1990; Mueller & Price, 1990; Price & Mueller, 1981; Redland, 1982; Washington, 1990). The second section of the questionnaire contained two items about intent to stay. A dichotomous response option was provided; a response of "Yes" scored 1 while a response of "No" scored 0.

Validity and Reliability of the Instruments

The Thomas-Kilman Conflict MODE instrument (1974) and the JDI and the JIG (Smith, 1985) were translated into the Thai language by utilizing asymmetrical translation

which emphasizes loyalty to one language, usually the source (original) language (Werner & Campbell, 1970). This approach is the most appropriate way for cross-cultural studies with operational goals (Jone & Kay, 1992). The translation procedure in this study was initially conducted by two bilingual persons. The first bilingual person translated the questionnaires into Thai, and then the other person translated them back into English. Thereafter, the translated instruments were refined by the investigator and were sent to three Thai experts in nursing administration to determine the validity of the translation and content validity of the instruments. The instruments were refined a second time as suggested by experts. Testing of the translated instrument with members of the pilot sample also served as a quality check of translation as well as practical aspects of test administration (Jone & Kay, 1992). Content validity was measured by using the Index of Content Validity (CVI) (Waltz, Strickland, & Lenz, 1991). The CVI of the two instruments calculated from the three experts was 1.00. This means that the content of the items was relevant to the objectives and that the items on the instruments adequately represented the content or behaviors in conflict management and job satisfaction of Thai professional nurses. The internal consistency reliabilities of the two translated instruments, Thomas-Kilman Conflict Mode Instrument and JDI and JIG, were determined by using Cronbach's alpha of each subscale. The reason for evaluating the reliabilities of the subscale scores without a total score evaluation was because the item statements on the Thomas-Kilman Conflict MODE instrument alternate between items A and B throughout the questionnaire. This was done to control the selection bias of the respondents. Therefore, the evaluation of the total score was unsound. This method is supported by Knapp (1990), who proposed that Coefficient alpha is commonly used to

estimate the reliability of subscale scores either instead of or in addition to the reliability of a total test score. In addition, if the instrument has more than one dimension, a total score reliability will not be very useful. For this reason, the JDI and the JIG were also examined in the subscale of each. In the pilot study, the internal consistency reliabilities of the Thomas-Kilman Conflict MODE instrument of the competition, collaboration, compromise, avoidance, and accommodation subscales were .75, .29, .25, .43, and .51, respectively, with an average of .45. The Cronbach's alpha coefficient for the JDI and JIG of work, pay, opportunity for advancement, co-workers, supervision, and JIG subscale were .74, .59, .71, .85, .89, and .84, respectively, with an average of .77. Furthermore, in the main study, the internal consistency reliabilities for the Thomas-Kilmann Conflict MODE of the competition, collaboration, compromise, avoidance, and accommodation subscales were .43, .26, .20, .29, and .54, respectively, with .34 the average. Moreover, the JDI and JIG showed the Cronbach's alpha to be .80, .80, .75, .90, .91, and .87, for work, pay, opportunity for advancement, coworkers, supervision, and the job in general, respectively, with an average of .84.

Pilot Study

The pilot study was conducted after being approved by the Institutional Review Board of the University of Alabama at Birmingham and the director of Maharaj Nakorn Chiang Mai Hospital. The purposes of the pilot study were to assess the feasibility of conducting this study, to minimize the possibility of major difficulties, and to determine the reliability of the translated instrument.

A convenience sample of 20 nurses was chosen from seven nursing sections of the Maharaj Nakorn Chiang Mai Hospital, located in the northern region of Thailand.

Subjects were solicited by a representative of the investigator, who distributed and collected the instruments. All 20 nurses agreed to participate.

The internal consistency reliabilities of each subscale of the translated Thomas-Kilmann Conflict MODE Instrument and the JDI and the JIG were determined by using Cronbach's alpha. The Thomas-Kilmann Conflict Mode Instrument (1974) showed an average reliability of .45 while the JDI and the JIG showed an average reliability of .77. The low reliabilities of the instrument may have been due to the homogeneity of the hospital (Waltz et al., 1991). The instruments were refined again by adding one more question in the intent to stay survey part to ask the respondents about the intent to stay in the next 5 years. Further, the investigator also added the open-ended questions to both questions in this part of the questionnaire so that the respondents could present their opinions or their reasons for intent to stay or to leave their present jobs. Demographic questions, such as sex, marital status, and number of children, were also added in the Demographic Survey questionnaire to describe the characteristics of the subjects.

Data Collection Procedures

After receiving approval from the Institutional Review Board of the University of Alabama at Birmingham to conduct the research, a letter including the purposes of the study, a request for permission to collect data, a request for the list of names of nurses, and a copy of the questionnaires in both English and Thai were sent to the Deans of Faculty of Medicine and the nursing service directors of the three selected university hospitals in Thailand. Further, the investigator met with the supervisors in each department at Maharaj Nakorn Chiang Mai Hospital to explain the purposes of the study,

the time frame for completion of the questionnaires, and to ask them to distribute the questionnaires to the selected subjects. Attached to the questionnaires was a letter explaining the purposes of the study, time frame for completion of the questionnaires, and assurance of confidentiality and anonymity. The subjects returned the completed questionnaires to the investigator, research assistants, or the head of the nursing department by using a self-address envelope.

Data Analysis Procedures

The data were analyzed using descriptive and inferential statistics. The statistical package for the SPSS for Windows Release 6.0 (Norusis, 1993) and the SYSTAT (Steinberg & Colla, 1991) programs were utilized in data analysis, and the procedures used were dictated by the purposes of the study, the nature of the data, and the level of measurement of the variables. Descriptive statistics, including the mean, standard deviation, frequency distributions, and percentages were used to describe conflict management styles, level of job satisfaction, and the intent to stay of nurses in research questions 1 to 3. To answer research questions 4 to 7, stepwise multiple regression, multinomial logit, and multiple logistic regression were used to analyze the data.

The data were analyzed four times. The first analysis ascertained the relationship between and among the specific demographic variables and conflict management styles. The specific demographic variables acted as the explanatory variables while conflict management styles acted as dependent variables. The second analysis determined the relationship among conflict management, job satisfaction, and specific demographic variables. The specific demographic variables and conflict management acted as the explanatory variables while job satisfaction acted as dependent variable. For these two

analyses, stepwise multiple regression was used since it is a method by which all potential predictive variables can be considered simultaneously and through which the combination of variables providing the most predictive power can be chosen (Polit & Hungler, 1991). Dummy variable tables were created for the categorical variables of educational preparation, marital status, clinical area, and shift. The coding method chosen was the dummy variables of 0 for "no" and 1 for "yes."

The third analysis ascertained the relationships among conflict management, job satisfaction, intent to stay, and specific demographic variables. At this point, specific demographic variables, conflict management, and job satisfaction acted as explanatory variables and intent to stay acted as a dependent variable. Multinomial logit was used to analyze the data since this analysis is appropriate for a dependent variable with more than two levels (Agresti, cited in Steinberg & Colla, 1991.)

The fourth analysis ascertained the relationship among conflict management, job satisfaction, intent to stay for 1 year and for the next 5 years, and specific demographic variables. Multiple logistic regression was used to analyze the data; this analysis is appropriate for a binary or dichotomous dependent variable since intent to stay for the next year and for the next 5 years was measured by dichotomous questions. Moreover, logistic regression analysis is "an extremely flexible and easily used function and it lends itself to meaningful interpretation" (Hosmer & Lemeshow, 1990, p. 6).

The supplementary analyses were performed using different methods of analysis. The preferred style of conflict management was used in both explanatory variables and dependent variables instead of a raw score as in the main study.

The underlying assumptions of multiple regression--linearity, hemoscedascity, normality, and independence--were evaluated. The investigator set the significance level at .15 for all analyses.

CHAPTER IV

Findings

This chapter includes the findings from a descriptive correlational study which was designed to answer seven research questions. The SPSS for Windows Release 6.0 (Norusis, 1993) and the SYSTAT (Steinberg & Colla, 1991) programs were used for data analysis. The findings are organized into three sections: (a) sample and description of subjects, (b) findings from research questions and hypothesis testing, and (c) supplementary analyses.

Sample and Description of Subjects

A total of 384 questionnaires were distributed to a stratified proportional random sample of professional nurses in three regional university hospitals in Thailand: Maharaj Nakorn Chiang Mai Hospital, Songkla Nakarin Hospital, and Srinakarin Hospital. There was a 97.6% response rate with 375 questionnaires returned and analyzed. Of the 375 subjects, 188 (50.14 %) were employed in Maharaj Nakorn Chiang Mai Hospital; 92 (24.53%) were employed in Songkla Nakarin Hospital; and 95 (25.33%) were employed in Srinakarin Hospital, as shown in Table 3.

The age of the subjects ranged from 22 to 50 years with a mean age of 30.59 years and a standard deviation of 5.43. The majority of subjects were female (96.80%) and had earned a bachelor's degree in nursing (94.13%). Eleven(2.93%) subjects held a diploma in nursing, while 10 (2.67%) subjects held a master's degree in nursing. Only

one (0.27%) subject held the master's degree in educational psychology as the highest credential. Marital status was nearly equal between never married (56.53%) and married (42.40%). Four (1.07%) subjects were divorced. The data showed that the number of children ranged from 0-4. The subjects were fairly equally divided (13.33 to 15.20%) among seven different nursing sections. Half of the subjects worked on the rotating shift (50.93%); followed by day shift (32.80%); evening shift (6.93%); day and evening shift, or evening and night shift, or day and night shift (5.87%); and night shift (3.20%). About 87% were staff nurses, while the others were head nurses.

Table 3

Frequencies and Percentage of Subjects in Each Hospital

Hospital	N	%
Maharaj Nakorn Chiang Mai	188	50.14
Songkla Nakarin	92	24.53
Srinakarin	95	25.33

The number of years the subjects had worked as nurses ranged from 6 months to 25.33 years, with a mean of 7.97 and a standard deviation of 5.10. In addition, the number of years the subjects had been working in the present position ranged from 6 months to 23.17 years, with a mean of 6.40 years and a standard deviation of 3.73. (See Table 4 for complete listing of demographic characteristics.)

Table 4

Demographic Characteristics of the Subjects

Variable	N	Mean	SD	Range	%
Age (years)	374	30.59	5.43	22-50	99.73
Sex	375				100
Female	363				96.80
Male	12				3.20
Education level 375				100	
Diploma in nursing	11				2.93
Bachelors in nursing	353				94.13
Masters in nursing	10				2.67
Masters in education	1				.27
Marital status	375				100
Never married	212				56.53
Married	159				42.40
Separated	-				-
Divorced	4				1.07
Widowed	-				-
Number of children	375	.53	.84	0-4	100
Clinical area	375				100
Obstetric and gynecology	53				14.13
Medical	57				15.20
Surgical	54				14.40
Pediatric	55				14.67
Private ward	50				13.33
Out patient and emergency	52				13.87
General	54				14.40
Position	373				99.47
Staff nurse	325				86.67
Head nurse	48				12.80
Shift	374				99.73
Day	123				32.80
Evening	26				6.93
Night	12				3.20
Rotating	191				50.93
Others (D&E, E&N, D&N)	22				5.87
Year(s) working as a nurse	374	7.97	5.10	.5-25.33	99.73
Year(s) working in present pos.	374	6.40	3.73	.5-23.17	99.73

Findings by Research Questions and Hypotheses

Seven research questions and four research hypotheses were identified for this investigation. The findings related to demographic variables, conflict management styles, job satisfaction, and intent to stay were addressed. Different analytical methods were used to conduct supplementary analyses for Research Questions 4, 5, and 7.

Research Question One: What are the Conflict Management Styles of Nurses?

The preferred conflict management style of the subjects was determined by the style that had the highest score. The results showed that 166 subjects (45.98%) used the accommodation style most frequently to manage conflict, followed by 97 subjects (26.87%) who used compromise. Seventy subjects (19.39%) used avoidance, 22 subjects (6.09%) used collaboration, and 6 subjects (1.67%) used competition most frequently to manage conflict (see Table 5).

Table 5

Subjects' Preferred Styles of Conflict Management

Preferred style of conflict management	N	%
Accommodation	166	45.98
Compromise	97	26.87
Avoidance	70	19.39
Collaboration	22	6.09
Competition	6	1.67

Using the raw score of each style of conflict management, the range, mean, standard deviation, and mode are presented in Table 6. The possible range of each style of conflict management was from 0 to 12.

Table 6

Descriptions of Conflict Management Styles of the Subjects

Conflict management style	N	%	Mean	SD	Range	Mode	Skewness
Competition	370	98.67	3.12	1.94	1-10	2.00	.72
Collaboration	370	98.67	5.41	1.71	1-12	4.00	.31
Compromise	370	98.67	7.36	1.75	0-11	8.00	-.50
Avoidance	370	98.67	6.75	1.66	1-11	7.00	-.40
Accommodation	369	98.40	7.32	2.03	1-12	6.00	-.22

In the competition style of conflict management, the score ranged from 0-10 with a mean of 3.12, standard deviation of 1.94, mode of 2.0, and skewness of .72. Based upon the skewness index, most of the subjects had a low score on this style of conflict management. The next style was collaboration, with a range from 1-12, mean score of 5.41, standard deviation of 1.71, mode of 4.00, and skewness of .31. Based upon the skewness index, most of the subjects had a low score on this style. The score of the compromise style ranged from 0-11, mean score of 7.36, standard deviation of 1.75, mode of 8.00, and a skewness of -.50. The score of the avoidance style ranged from 1-11, mean score of 6.75, standard deviation of 1.66, mode of 7.00, and skewness of -.40. For the last style, accommodation, the score ranged from 1-12, mean score of 7.32, standard deviation of 2.03, mode of 6.00, and skewness of -.22. Based upon the skewness index, most subjects had a high score on the last three styles of conflict management.

Research Question Two: What is the Level of Job Satisfaction of Nurses?

To present the absolute level of job satisfaction of nurses, the ranges of scores, means, and medians of six facets of job satisfaction (work, pay, opportunities for promotion, supervision, co-workers, and the JIG) are shown in Figure 3. The possible range of scores was from 0 to 54.

The Profile of the JDI and the JIG showed the highest score of all facets of job satisfaction as 54, except the score of the work facet which was 51. The lowest score of all facets was 0, except the supervision facet score which was 3. The average scores of supervision, co-workers, and the JIG were 34.77, 32.78, and 36.27, respectively. These average scores placed in the satisfaction area (the score was higher than 32). The average scores of work and pay were 25.44 and 28.27, respectively. These two average scores placed in the neutral region, which is the area between the score of 22-32. Moreover, the average score of opportunity for advancement or for promotion was 19.38, placing the score in the dissatisfaction area (the score was lower than 22). On the average, nurses were most satisfied with their job in general, followed by satisfaction with supervision and co-workers. Nurses were neither satisfied nor dissatisfied with their work and present pay; thus, they were in the neutral area. In contrast, they were dissatisfied with promotion opportunities.

The median scores of each facet of job satisfaction were used to compare the subjects' relative levels of job satisfaction with three groups: the norm group, nurse faculty in the United States (Moody, 1991), and nurse faculty in Israel (Guidry, 1991)

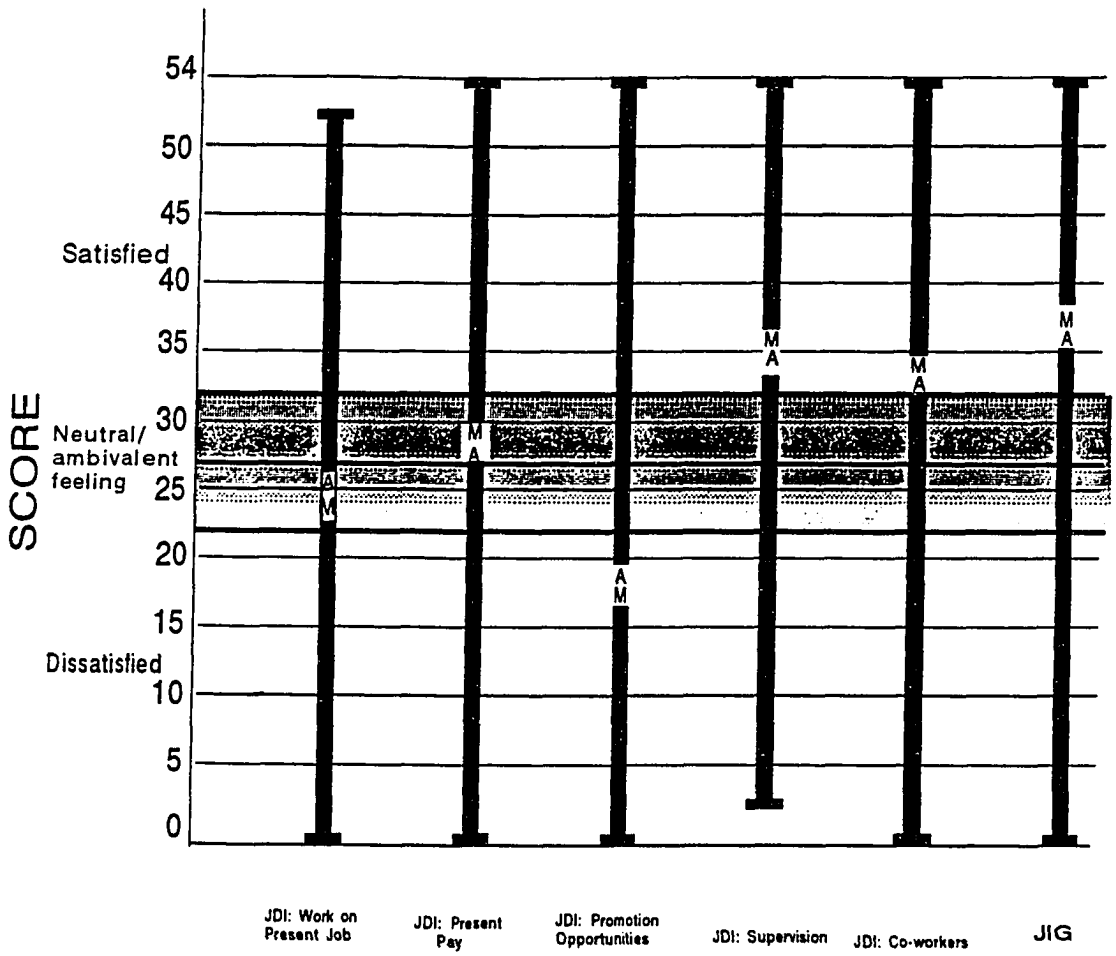

Figure 3. Profile of Subjects' Absolute Level of Job Satisfaction on the JDI and the JIG

A: average subject score

B: median subject score

I: range (lowest and highest of subject scores)

(see Table 7). The reason for using the median scores instead of the mean scores was because the distribution of the sample's JDI score may make the mean scale score a biased index of sample satisfaction (Balzer & Smith, 1990). Many previous studies using the JDI and the JIG to measure the level of job satisfaction reported only a mean score, so the investigator could not determine whether these observed differences were statistically significant. The scores at the 25th and 75th percentile were also used so they could provide some indication of the variability of employee satisfaction scores.

Table 7

Comparison of the Median Scores of the Current Study to the Three Previous Studies

Job Satisfaction facet		Median score			
		Current study	Norm group	Moody (1991)	Guidry (1991)
JDI	- Work	25	40	33	33
	- Pay	29	34	24	12
	- Promotion opportunities	18	18	22	14
	- Supervision	36	42	42	33
	- Co-workers	33	42	46	32
JIG		37	-	-	32

The data showed that the median scores of all subscales of the JDI fell between the 25th and the 75th percentiles of the Norm Group, with the exception of the work facet. All subscales of the JDI for this sample had lower median scores than the Norm Group with the exception of promotion opportunities, which was equal to the Norm Group. In comparison, all median scores of the JDI in the current study were below the

median score in Moody's (1991) study with the exception of the pay score. In contrast, the median scores of pay, promotion opportunities, supervision, co-workers, and the JIG in this study were higher than the median scores of the JDI and the JIG from Guidry's (1991) study. Work was the only facet in Guidry's study that had a higher median score than the median score of this study. Guidry's sample consisted of nurse faculty in Israel while Moody's sample consisted of nurse faculty in the United States. The current study consisted of professional nurses working in the regional university hospitals in Thailand.

In summary, most of the current subjects' levels of job satisfaction facets (work, promotion opportunities, supervision, and co-workers) were lower than those in the Norm Group and in Moody's study. The median scores of pay in this study were midway (29) between the Norm Group (34) and Moody's study (24). In contrast, the subjects' levels of job satisfaction of pay, promotion opportunities, supervision, co-workers, and the JIG facets were higher than those in Guidry's study. Only the median score of work in Guidry's study was higher than that in the current study.

Research Question Three: What is the Intent to Stay of Nurses?

The range of possible scores for intent to stay was from 0 to 2. These scores (0, 1, and 2) were designated as A, B, or C (see Table 8). Subjects in Group A reported a low intent to stay in the present job or a high intent to leave their present jobs. Subjects in Group B reported a medium level or cannot decide, and subjects in Group C reported a high intent to stay in their present jobs. Almost two-thirds (63.88%) of the 335 subjects reported a high intent to stay, while a small percent (9.55%) reported a low intent to stay or high intent to leave.

Table 8

Frequencies and Percentage of the Intent to Stay in the Present Job

Score	Group	N	%
0	A	32	9.55
1	B	89	26.57
2	C	214	63.88

(N = 335)

As a part of the intent to stay, subjects were asked how long they intended to stay and were given two choices: 1 year and 5 years. The majority of the subjects (91.08%) indicated that they planned to stay in their present jobs during the next year. However, the willingness to stay in the present job for the next 5 years decreased to 64.18%. Table 9 shows the intent to stay in the present job the next year and the next 5 years.

Subjects were queried as to the reasons for choosing to stay or not to stay in the present job. Their responses are listed in Table 10.

Table 9

Frequencies and Percentage of Intent to Stay in 1 year and 5 years

Intent to stay		N	%
1 year	- Yes	337	91.08
	- No	33	8.92
		(N = 370)	
5 years	- Yes	215	64.18
	- No	120	35.88
		(N = 335)	

Table 10

Reasons of Intent to Stay or Not to Stay in the Present Job

Reasons to stay	Reasons not to stay
Pleasant, challenge, enjoyable, worthwhile, secure/stable job	Boring job
Good working conditions, no new job	Risky job/ HIV infection
Need to adapt to new job	Job disliked
All jobs are alike	Night and weekend work
Good rewards, salary, and benefit program	Discrepancy between salary and responsibility, high workload
Good opportunities for promotion	Insufficient respect from others
Family reasons	Low salary
Good location and reputation of the hospital	Low opportunities for promotion and advancement
Old age	Fewer continuing education opportunities
Wait for pension	Inappropriate organizational structure
Government contracts after study leave	
Seek for educational fund	Obsolete working system
Want to work in the government hospital	Family reasons about the location of the hospital

Research Question Four: How Much Variability in Conflict Management Styles Can be Explained by Specific Demographic Variables?

Five multiple regression analyses were performed since there were five styles of conflict management: competition, collaboration, compromise, avoidance, and accommodation. These analyses were conducted to determine the current variability in conflict management styles that could be explained by specific demographic variables.

Each conflict management style was treated as the dependent variable and specific demographic variables were treated as independent variables in each analyses. Results of the multiple regression analysis showed the strength and direction of the relationships between the independent variables and the dependent variable.

The first analysis was performed using competition as the dependent variable and specific demographic variables as the independent variables. The results showed that only a specific demographic variable, time2 (time working in the present position), entered this regression model. The null hypothesis of $\underline{R}^2 = 0$ was tested using the F statistic. The value of F was 5.472 ($\underline{df} = 1, 368, \underline{p} = .020$) for the regression equation. The null hypothesis was rejected; thus, the regression coefficient was significantly different from 0. Thus, the only independent variable in this equation was time2. In other words, as the subjects' time working in the present position increased, the score of the competition style of conflict management increased. The $\underline{R}^2$ of this regression model regression was .014, so the variable time2 accounted for about 1% of the variance in competition score (see Table 11).

The multiple regression equation for predicting the competition style of conflict management style can be written as

$$Y = 2.721 + .064 \text{ Time2.}$$

The second multiple regression analysis was performed using the collaboration style of conflict management as the dependent variable and specific demographic variables as the independent variables. Results of multiple regression analysis showed that clinical area (clin) and time2 entered this regression model.

Table 11

Results of the Regression Analysis for the Competition Style of Conflict Management

Variable	B	SE(B)	Beta	F	p
Constant	2.721	.199	.000	13.648	.00
Time2	.064	.027	.121	2.339	.02

R^2 = .014

	df	SS	MS	F	p
Regression	1	20.368	20.368	5.472	.020
Residual	368	1369.913	3.723		

Table 12 shows that the null hypothesis testing of $R^2 = 0$ was rejected ($F = 1.940$, $df = 7, 362$, $p < .05$), so the regression coefficient was significantly different from 0. Thus, the independent variables that entered this equation were clinical areas and time2. In other words, surgical, medical, and pediatric nurses were positively correlated with collaboration while obstetric and gynecological, private ward, and outpatient and emergency were negatively correlated with the collaboration style of managing conflict. Moreover, when the time working in the present position increased, the use of the collaboration style of conflict management of the subject increased.

The R^2 of this regression model regression was .034, so these two variables accounted for about 3% of the variance in the collaboration score. The multiple regression equation for predicting the collaboration style of conflict management can be written as

Table 12

Results of the Regression Analysis for the Collaboration Style of Conflict Management

Variable	B	SE(B)	Beta	F	p
Constant	4.986				
Clin				1.855	.088
- Clin1	-.240				
- Clin2	1.418				
- Clin3	.232				
- Clin4	.076				
- Clin5	-.946				
- Clin6	-.654				
Time2	.093	.059	.085	2.533	.112
R^2 = .034					
	df	SS	MS	F	p
Regression	7	225.528	32.218	1.940	.05
Residual	362	5982.335	16.526		

$$Y = 4.986 - .240\ Clin1 + 1.418\ Clin2 + .232\ Clin3 + .076\ Clin4 - .946\ Clin5 - .654\ Clin6 + .093\ Time2.$$

The third multiple regression analysis was performed using the compromise style of conflict management as the dependent variable and the specific demographic variables as the independent variables. Results of multiple regression analysis showed that the independent variables that entered this regression model were educational preparation and

time2. The null hypothesis of $\underline{R}^2 = 0$ was tested using the $\underline{F}$ statistic. The value of $\underline{F}$ was 2.367 ($\underline{df}$ = 4, 365, $\underline{p} < .025$) for the regression equation.

The null hypothesis was rejected; thus, the regression coefficient was significantly different from 0. The independent variables in this equation were educational preparation and time2. In other words, subjects with a diploma or a bachelor's degree tended to use compromise to manage conflict while master's degree nurses did not. In addition, as the time working in the present position increased, the use of the compromise style of conflict management of the subjects decreased. The $\underline{R}^2$ of this regression model regression was .025, so these two variables, education and time2, accounted for about 3% of the variance in the compromise score (see Table 13).

The multiple regression equation for predicting the compromise style of conflict management style can be written as

$$Y = 7.492 + .956\ Edu1 + 0.173\ Edu2 - .940\ Edu3 - .047\ Time2.$$

The fourth multiple regression was performed using the avoidance style of conflict management as the dependent variable and specific demographic variables as the independent variables. Table 14 shows the result of this analysis. Age was the only variable entered in this regression model. The null hypothesis of $\underline{R}^2 = 0$ was tested using the $\underline{F}$ statistic. The value of $\underline{F}$ was 3.203 ($\underline{df}$ = 1, 368, $\underline{p}$ = .074) for the regression equation. The null hypothesis was rejected; thus, the regression coefficient was significantly different from zero. The only independent variable in this equation was age. In other words, as age increased, the use of avoidance increased. The $\underline{R}^2$ of this regression model regression was .009, so age accounted for about 1% of the variance in the avoidance score.

Table 13

Results of the Regression Analysis for the Compromise Style of Conflict Management

Variable	B	SE(B)	Beta	F	p
Constant	7.492				
Education				2.122	.097
- Edu1	.956				
- Edu2	.173				
- Edu3	-.940				
Time2	-.047	-.024	-.099	3.663	.056
R^2 = .025					
	df	SS	MS	F	p
Regression	4	30.042	7.105	2.367	<.025
Residual	365	1095.300	3.001		

The multiple regression equation for predicting the avoidance style of conflict management style can be written as

$$Y = 5.878 + .029 \text{ Age.}$$

The fifth analysis was performed using the accommodation style of conflict management as the dependent variable and specific demographic variables as independent variables. The results showed that time1 (time working as a nurse) was the only specific demographic variable that entered this regression model. The null hypothesis of $R^2 = 0$ was tested using the F statistic. The F was 27.247 (df = 1, 367, p = .000) for the regression equation (see Table 15). The null hypothesis was rejected; thus, the regression

Table 14

Results of the Regression Analysis for the Avoidance Style of Conflict Management

Variable	B	SE(B)	Beta	F	p
Constant	5.878	.494	.000	11.904	.000
Age	.029	.016	.093	1.790	.070

R^2 = .009

	df	SS	MS	F	p
Regression	1	8.781	8.781	3.203	.074
Residual	368	2.741			

Table 15

Results of the Regression Analysis for the Accommodation Style of Conflict Management

Variable	B	SE(B)	Beta	F	p
Constant	8.131	.189	.000	42.939	.000
Time1	-.105	.020	-.263	-5.220	.000

R^2 = .069

	df	SS	MS	F	p
Regression	1	104.718	104.718	27.247	.000
Residual	367	1420.491	3.843		

coefficient was significantly different from 0. Time1 was the only independent variable in this equation. In other words, as the length of time working as a nurse increased, the use of the accommodation style decreased. The R^2 of this regression model regression was .069, so age accounted for about 7% of the variance in accommodation score.

The multiple regression for predicting the accommodation style of conflict management style can be written as

$$Y = 8.131 - .105 \text{ Time1}.$$

Research Question Five: How Much Variability in the Level of Job Satisfaction Can be Explained by Conflict Management and Specific Demographic Variables?

To answer this research question, the multiple regression analysis was performed six times, developing six different models. One of the six facets (work, pay, opportunities for promotion, supervision, co-workers, and the JIG) of job satisfaction was used as the dependent variable at each time of the analysis. The independent variables in these six analyses were the five subscales of conflict management (competition, collaboration, compromise, avoidance, and accommodation) and specific demographic variables (age, education, marital status, number of children, clinical area, position, shift, time working as a nurse, and time working in the present position).

The results of the first analysis showed that three conflict management styles (compromise, avoidance, and accommodation) and three specific demographic variables (marital status, clinical area, and position) entered this regression model. Table 16 shows that the null hypothesis testing of $R^2 = 0$ was rejected ($F = 4.498$, $df = 12, 354$, $p < 000$), so the regression coefficient was significantly different from 0. Thus, the independent variables that entered this equation were compromise, avoidance, accommodation, marital status, clinical area, and position (see Table 16).

In other words, nurses who had a high score for compromise and accommodation styles of conflict management tended to be more satisfied in the work facet than those who had a high score in avoidance styles of conflict management. Further, marital status

was positively correlated with the work facet of job satisfaction. In addition, nurses working in pediatric and outpatient and emergency areas were positively correlated with the work facet of job satisfaction while nurses working in obstetric and gynecology, surgical, medical, and private ward areas were negatively correlated with the work facet of job satisfaction. Moreover, head nurses were more satisfied with work than staff nurses. The $\underline{R}^2$ of this regression model regression was .135, so these 12 variables accounted for about 14% of the variance in work score.

The multiple regression equation for predicting the work facet of job satisfaction can be written as

$$Y = 13.168 + .529 \text{ Compromise} - .915 \text{ Avoid} + .767 \text{ Accommodation} + 2.003 \text{ MS1} + 5.086 \text{ MS2} - .828 \text{ Clin1} - .122 \text{ Clin2} - 1.000 \text{ Clin3} + 2.584 \text{ Clin4} - 1.603 \text{ Clin5} + 2.164 \text{ Clin6} + 4.772 \text{ Position}.$$

The results of the second analysis using conflict management styles and specific demographic variables as predictors of the pay facet are shown in Table 17. The variables that entered this regression model were age, marital status, and time1. The result showed that the null hypothesis testing of $\underline{R}^2 = 0$ was rejected ($\underline{F} = 4.482$, $\underline{df} = 4, 369$, $\underline{p} < .005$), so the regression coefficient was significantly different from 0. Thus, the independent variables that entered this equation were age, marital status, and time2. In other words, as age increased, the score of pay facet decreased. Moreover, single nurses were positively related to the pay facet of job satisfaction while married nurses were negatively related to the pay facet of job satisfaction. In addition, the longer the time working as a nurse, the higher the satisfaction with pay. The $\underline{R}^2$ of

Table 16

Results of the Regression Analysis for the Work Facet of Job Satisfaction

Variable	B	SE(B)	Beta	F	p
Constant	13.168			6.689	.001
Compromise	.529	.295	.090	3.209	.074
Avoidance	-.915	.304	-.154	9.043	.003
Accommodation	.767	.259	.157	8.743	.003
Marital status				1.661	.130
- MS1	2.003				
- MS2	5.086				
Clin				1.855	.088
- Clin1	-.828				
- Clin2	-.122				
- Clin3	-1.000				
- Clin4	2.584				
- Clin5	-1.603				
- Clin6	2.164				
Position	4.772	1.537	.161	9.641	.002
R^2 = .135					
	df	SS	MS	F	p
Regression	12	4755.125	16.260	4.498	.000
Residual	354	31182.954	88.087		

Table 17

Results of the Regression Analysis for the Pay Facet of Job Satisfaction

Variable	B	SE(B)	Beta	F	p
Constant	38.623				
Age	-.589	.357	-.241	2.720	.100
Marital status				4.498	.012
- MS1	2.841				
- MS2	-1.597				
Time1	.906	.370	.349	5.990	.015
R^2 = .042					
	df	SS	MS	F	p
Regression	4	3011.990	752.997	4.482	<.005
Residual	369	61990.052	167.995		

this regression model regression was .042, so these four variables accounted for about 4% of the variance in pay score.

The multiple regression equation for predicting the pay facet of job satisfaction can be written as

$$Y = 38.623 - .607\ \text{Age} + 2.841\text{MS1} - 1.597\ \text{MS2} - .919\ \text{Time1}.$$

The third multiple regression analysis was performed using promotion opportunities as the dependent variable and specific demographic variables and conflict management as independent variables. The variables of age, shift, position, collaboration, compromise, and accommodation entered this regression equation.

The results showed that the null hypothesis testing of $\underline{R}^2 = 0$ was rejected ($\underline{F}$ = 3.997, $\underline{df}$ = 9, 357, $\underline{p}$ = 000), so the regression coefficient was significantly different from 0. Thus, the independent variables that entered this equation were collaboration, compromise, accommodation, age, shift, and position. In other words, nurses who used collaboration, compromise, and accommodation to manage conflict were satisfied with promotion opportunities. In addition, as age increased, satisfaction with promotion opportunities decreased. Moreover, night shift nurses were negatively correlated with promotion opportunities while those who worked on the other shifts were positively correlated with promotion opportunities. Further, head nurses were more satisfied than staff nurses. The $\underline{R}^2$ of this regression model regression was .070, so these nine variables accounted for about 7% of the variance in opportunities for promotion score (see Table 18). The multiple regression equation for predicting the opportunities for promotion facet of job satisfaction can be written as

$$Y = 10.115 + .212 \text{ Collaboration} + .936 \text{ Compromise} + .737$$
$$\text{Accommodation} - .370 \text{ Age} + 3.039 \text{ Shift1} + .081 \text{ Shift2}$$
$$- 5.907 \text{ Shift3} + .002 \text{ Shift4} + 5.520 \text{ Position}.$$

The fourth multiple regression analysis was performed using supervision as the dependent variable and conflict management and specific demographic variables as independent variables. The results of this multiple regression analysis showed that avoidance, marital status, clinical area, time1, and position entered this regression model.

Table 18

Results of the Regression Analysis for the Promotion Opportunities Facet of Job Satisfaction

Variable	B	SE(B)	Beta	F	p
Constant	10.115				
Collaboration	.212	.146	.078	2.89	.149
Compromise	.936	.344	.145	7.411	.007
Accommodation	.737	.313	.134	5.550	.019
Age	-.370	.151	-.179	6.020	.015
Shift				2.133	.076
- Shift1	3.039				
- Shift2	.081				
- Shift3	-5.907				
- Shift4	.002				
Position	5.520	2.186	.165	6.375	.012
R^2 = .070					
	df	SS	MS	F	p
Regression	9	4293.173	477.019	3.997	.000
Residual	357	42601.776	119.333		

Table 19 shows that the null hypothesis testing of $R^2 = 0$ was rejected ($F = 3.791$, $df = 11, 356$, $p < 000$), so the regression coefficient was significantly different from 0. Thus, the independent variables that entered this equation were avoidance, marital status, clinical area, time1, and position. In other words, nurses who used

Table 19

Results of the Regression Analysis for the Supervision Facet of Job Satisfaction

Variable	B	SE(B)	Beta	F	p
Constant	34.116				
Avoidance	-.682	.402	-.087	2.876	.091
Marital status				2.654	.072
- MS1	4.876				
- MS2	5.045				
Clin				3.407	.003
- Clin1	-4.679				
- Clin2	3.482				
- Clin3	3.482				
- Clin4	-2.900				
- Clin5	-1.292				
- Clin6	.788				
Position	4.675	2.660	.119	3.088	.080
Time1	-.591	.185	-.229	10.159	.002
R^2 = .104					
	df	SS	MS	F	p
Regresion	11	6641.251	603.750	3.791	.000
Residual	356	56683.120	159.222		

avoidance were negatively related to satisfaction with supervision. Further, single and married subjects were positively correlated with the supervision facet of job satisfaction. Surgical, medical, and outpatient and emergency nurses were positively correlated with supervision facet while obstetric and gynecology, pediatric, and private ward nurses were negatively correlated with supervision. Moreover, head nurses were more satisfied with supervision than staff nurses. The $\underline{R}^2$ of this regression model was .104, so these 11 variables accounted for about 10% of the variance in work score.

The multiple regression equation for predicting the supervision facet of job satisfaction can be written as

$$Y = 34.116 - .682\ \text{Avoid} + 4.876\ \text{MS1} + 5.045\ \text{MS2} - 4.679\ \text{Clin1} + 3.482\ \text{Clin2} - 2.900\ \text{Clin3} - 1.292\ \text{Clin4} - .788\ \text{Clin5} + 3.898\ \text{Clin6} - .591\ \text{Time1} + 4.559\ \text{Position}.$$

The fifth analysis was to ascertain whether the co-workers facet could be predicted by conflict management styles and specific demographic variables. The results of this analysis showed that position and time2 entered the regression model.

Table 20 shows that the null hypothesis testing of $\underline{R}^2 = 0$ was rejected ($\underline{F} = 7.388$, $\underline{df} = 2, 368$, $\underline{p} = 001$), so the regression coefficient was significantly different from 0. Thus, the independent variables that entered this equation were position and time2. In other words, head nurses were more satisfied with co-workers than staff nurses. Furthermore, the longer the time working in the present position, the lower the satisfaction in the co-workers facet. The $\underline{R}^2$ of this regression model was .039, so these two variables accounted for about 4% of the variance in the co-workers score.

The multiple regression equation for predicting the co-workers facet of job satisfaction can be written as

$$Y = 33.014 + 3.311 \text{ Position} - .622 \text{ Time2}.$$

The results of the last analysis for this research question, using conflict management styles and specific demographic variables as predictors of the JIG, are shown in Table 21. The variables that entered this regression model were avoidance, accommodation, and marital status. Table 21 also shows that the null hypothesis testing

Table 20

Results of the Regression Analysis for the Co-workers Facet of Job Satisfaction

Variable	B	SE(B)	Beta	F	p
Constant	33.014	2.544	.000	12.975	.000
Position	3.311	1.969	.086	1.681	.090
Time2	-.622	.177	-.180	-3.517	.000
R^2 = .039					
	df	SS	MS	F	p
Regression	2	2391.620	1195.810	7.388	.001
Residual	368	59566.256	161.865		

of $R^2 = 0$ was rejected ($F = 7.418$, $df = 4, 363$, $p < 000$), so the regression coefficient was significantly different from 0. Thus, the independent variables that entered this equation were avoidance, accommodation, and marital status. In other words, nurses who had a high score in avoidance were less satisfied with the JIG. In contrast, nurses who had a high score in accommodation were satisfied in the JIG.

Furthermore, married and single nurses were satisfied with the JIG. The R^2 of this regression model was .077, so these four variables accounted for about 8% of the variance in the JIG score.

The multiple regression equation for predicting the JIG facet of job satisfaction can be written as

Y = 38.918 - 1.277 Avoidance + 419 Accommodation + 2.003 MS1 + 4.479 MS2.

Table 21

Results of the Regression Analysis for the Job in General Facet of Job Satisfaction

Variable	B	SE(B)	Beta	F	p
Constant	38.913				
Avoidance	-1.272	.307	-.211	17.120	.000
Accommodation	.403	.255	.082	2.507	.114
Marital status				4.713	.010
- MS1	2.003				
- MS2	4.479				
R^2 = .077					
	df	SS	MS	F	p
Regression	4	2757.715	689.428	7.418	<.000
Residual	363	33732.774	92.928		

In each analysis, the assumptions of multiple regression (continuous variable, linearity, homoscedascity, normality, and collinearity) were measured. In this study, some of the specific demographic variables (educational preparation, marital status,

clinical area, and shift) were categorical variables so that dummy variables were created to make these independent variables meaningful.

The assumption, linearity, was tested by plotting the residuals against the independent variables. The scatterplots showed horizon bands of residual so the assumptions of linearity and homoscedascity were met (Norusis, 1993). The other assumption, collinearity, was measured by using the tolerance of a variable which is equal to $1\text{-}Ri^2$ (i was variable), while Ri is the multiple correlation coefficient, and the i th independent variable is predicted from the other independent variables. The small value of the tolerance of a variable means it is almost correlated with the other independent variables (Norusis, 1993). In addition, the variance inflation factor (VIF) [$VIF = 1/(1\text{-}Ri^2)$], the reciprocal of the tolerance, was also measured. So the higher the VIF, the more the variance of the regression coefficient. This assumption was met because stepwise multiple regression will stop the process of entering independent variables automatically when the tolerance value is too low or the variance inflation factor is too high.

Research Question Six: How Much Variability in the Intent to Stay Can Be Explained by Conflict Management Style, Job Satisfaction, and Specific Demographic Variables?

To answer this question, multinomial logit was performed to calculate the nurse's intent to stay in the present job. The results of this analysis are shown in Table 22. The predictors of intent to stay in the present job were the work facet of job satisfaction and the demographic variable of age.

The null hypothesis of the coefficients was tested using the change in the log likelihood. Moreover, for assessing the goodness of fit of the model, - 2 times the log

of the likelihood (-2LL) was used to measure how well the estimated model fit the data. The results showed the current model had a small value for log likelihood when compared with the base model (model when the variable selection begins) (see Table 23).

Table 22

Predictor Variables on Intent to Stay

Predictor	Regression coefficient (B)	Standard error SE (B)	Odd ratio
Constant	7.222	17051.357	
Work	-.048	.032	.952
Age	-.476	.196	.621

Table 23

The Goodness of Fit of the Model of Intent to Stay

	Base model	Current model	
Log likelihood	-240.937	-284.573	
	Log likelihood	df	Significant
	87.271	42	.000

To test the hypothesis for the goodness of fit with all variables, the model chi-square was used to test the null hypothesis that the coefficients for all of the variables in the current model, except the constant, were equal to 0. This model performed well in multinomial logit model.

To evaluate the probabilities of the intent to stay of nurses that would change in response to the change in value of the independent variables, derivative test was used (see Table 24).

Table 24

Individual Variable Derivatives of Intent to Stay of Subjects

Parameter	1	2	3
Work	-.004	.002	.002
Age	-.028	-.036	.063

As age increased by one unit, the probability of nurses who had a high intent to stay increased by .063, but nurses who were in the low and medium group decreased by .028 and .036, respectively. Further, as the score of work facet of job satisfaction increased by one unit, the probability of nurses who had high and medium intent to stay increased by .002, but nurses who were in a low intent to stay group decreased by .004.

The multinomial logit equations for predicting intent to stay in the present job can be written as

$$Z = 7.222 - .476 \text{ Age} - .048 \text{ Work}.$$

Research Question Seven: How Much Variability in the Intent to Stay in the Present Position During the Next Year and the Next 5 Years Can Be Explained by Conflict Management Style, Job Satisfaction, and Specific Demographic Variables?

To answer this question, multiple logistic regression, forward stepwise, was performed to calculate separately the nurse's intent to stay in the present job during the next year and during the next 5 years. The results of the first analysis are shown in Table 25.

The strongest predictor of intent to stay in the present job during the next year was surgical clinical area, which increased the odds of value of surgical nurses by the factor of 839.647. The other strong predictors were age (Exp B = 1.34), the conflict management style of compromise score (Exp B = 1.25), and the work score of job satisfaction (Exp B = 1.04). Further, clinical areas and time worked in the present job were the other predictors. In other words, when compromise style and work score, and age increased, the likelihood of the intent to stay during the next year increased. On the other hand, the longer the time worked in the present position, the less the intent to stay during the next year. Surgical nurses tended to stay in the present job for the next 5 years more than nurses in other clinical areas. The null hypothesis concerning the coefficients was tested using the change in the log likelihood. Moreover, for assessing the goodness of fit of the model, - 2 times the log of the likelihood (-2LL) was used to measure how well the estimated model fit the data. The results showed the current model had a small value for -2LL when compared with the base model (model when the variable selection begins) (see Table 26).

To test the hypothesis for the goodness of fit with all variables, the model chi-square was used to test the null hypothesis that the coefficients for all of the variables in the current model, except the constant, were equal to 0. Similarly, the change in -2LL between the successive step of building a model, improvement, was performed to test the null hypothesis that the coefficients for the variables added at the last step were equal to 0. This process was compared only between the first and the last step. The results in Table 27 show that all hypothesis testings were rejected, Chi-square = 43.483, $\underline{df}$ = 10, $\underline{p}$ = .000 and improvement = 5.298, $\underline{df}$ = 1, $\underline{p}$ = .021. In other words, the

Table 25

Predictor Variables on Intent to Stay in the Present Job for the Next Year

Predictor	Regression coefficient (B)	Standard error (sB)	Change in odds (Exp B)
Constant	-5.934	4.042	
Compromise	.222	.108	1.248
Work	.041	.021	1.042
Age	.291	.119	1.337
Clin			
- Clin1	-1.578	2.959	
- Clin2	6.733	17.583	839.649
- Clin3	-1.734	2.955	.176
- Clin4	-.128	3.000	.879
- Clin5	-1.309	2.961	.269
- Clin6	-.300	3.007	.740
Time2	-.273	.139	.760

Table 26

The Goodness of Fit of the Model of Intent to Stay for the Next Year

	Base Model	Current Model
-2 log likelihood	213.693	177.683
Goodness of fit	367.121	292.884

coefficient of all the variables in the model were not equal to 0, and this model performed well in the logistic model.

Table 27

Statistics for Model Containing Independent Variables of Intent to Stay for the Next Year

	Chi-Square	df	Significant
Model Chi-Square	43.483	10	.000
Improvement	5.298	1	.021

The logistic regression equation for prediction of intent to stay in the present job during the next 5 years can be written as

$$Z = -5.934 + .291 \text{ Age } -1.578 \text{ Clin1 } +6.733 \text{ Clin2 } - 1.734 \text{ Clin3 } - .128 \text{ Clin4 } - 1.309 \text{ Clin5 } - .300 \text{ Clin6 } + .222 \text{ Compromise } - .273 \text{ Time2 } + .041 \text{ Work.}$$

The next attempt was to ascertain whether intent to stay in the present job during the next 5 years could be predicted by the specific demographic variables, conflict management, and job satisfaction. Multiple logistic regression was also used to analyze the data. The results are presented in Table 28.

The best predictor of intent to stay in the present job during the next 5 years was the night shift, which increases the odds of value of the night shift by the factor of 3.025. In addition, the day shift, age, job in general, and supervision were the other strong predictors (Change in odds = 1.376, 1.249, 1.034 and 1.022, respectively). The other predictors were rotating shift, time working in the present position, and the evening shift. Thus, nurses who worked on the day shift and night shift tended to stay in the present job while those who worked on the evening shift and a rotating shift tended not to stay

in the present jobs. Further, as the value of age, the job in general and supervision score increased, the higher the intent to stay during the next 5 years. In contrast, the longer the time worked in the present job, the lower the intent to stay during the next 5 years.

Table 28

Predictor Variables on the Intent to Stay in the Present Job for the Next 5 Years

Predictor	Regression coefficient (B)	Standard error (sB)	Change in odds (Exp B)
Constant	-7.129	1.438	
Supervision	.022	.108	1.022
JIG	.034	.014	1.034
Age	.222	.052	1.249
Shift			
- Shift1	.319	.338	1.376
- Shift2	-.828	.436	.436
- Shift3	1.107	.632	3.025
- Shift4	-.141	.247	.868
Time2	-.146	.061	-.096

The model chi-square and improvement were used to test the null hypothesis concerning the coefficients and the goodness of fit of the model. The results showed that the coefficients were not equal to 0. This model also performed well in the logistic model (see Tables 29 and 30).

The logistic regression equation for predicting intent to stay in the present job during the next 5 years can be written as

$$Z = -7.129 + .022 \text{ Supervision} + .034 \text{ JIG} + .222 \text{ Age} + .319 \text{ Shift1} - .828 \text{ Shift2} + 1.107 \text{ Shift3} - .141 \text{ Shift4} - .146 \text{ Time2}.$$

Table 29

The Goodness of Fit of the Model of Intent to Stay for the Next 5 Years

	Base model	Current model
-2 log likelihood	395.296	364.279
Goodness of fit	329.150	307.095

Table 30

Statistics for Model Containing Independent Variables of Intent to Stay for the Next 5 Years

	Chi-Square	df	Significant
Model chi-square	65.161	8	.000
Improvement	7.863	4	.096

Supplementary Analyses

Supplementary analyses were carried out to answer research questions 4, 5, and 7 by using different methods of analysis. In research question 4, multiple logistic regression was performed in the supplementary analysis. The dependent variables used were five preferred conflict management styles derived from the highest score rather than using the raw score of each style of conflict management as in the previous analysis. The scoring of each style of conflict management was coded as 0 and 1, so it acted as

a binary dependent variable. The specific demographic variables acted as the independent variables in these five analyses. All results of these five analyses are shown in Appendix E.

The results of the first analysis showed that position was the only variable that entered this logistic model. In other words, head nurses used competition to manage conflict more frequently than staff nurses. In the second analysis, the results showed that the variable that entered the logistic model was age. Thus, the higher the age, the higher the use of collaboration. The result of the third analysis showed that no one variable entered the logistic model. In other words, there was no specific demographic variable that could predict the use of the compromise style of conflict management. In the fourth and the final analysis, the results showed that time working as a nurse was the only predictor of both the avoidance and accommodation styles. In other words, the longer the time the subjects had worked as a nurse, the more frequently the subjects would use avoidance and accommodation to manage conflict. In all five analyses, the null hypotheses concerning the coefficients were tested using the change in the log likelihood. Moreover, for assessing the goodness of fit of these models, - 2 times the log of the likelihood (-2LL) was used to measure how well the estimated models fit the data. The results showed that the five current models had small values for -2LL when compared with the base models. The hypotheses testings showed that all of these models performed well in the logistic model.

In the other supplementary analyses, multiple regression was performed for research questions 5 and 7. The subjects' preferred styles of conflict management were used as the independent variable instead of using the raw score of each style of conflict

management as in the main analysis. Specific demographic variables also acted as other independent variables, while the intent to stay was the dependent variable. The details of the results of these analysis are shown in Appendix E.

The results of the first analysis showed that marital status, clinical area, position, and conflict management styles entered the regression model. The null hypothesis testing of $\underline{R}^2 = 0$ was rejected ($\underline{F} = 3.418$, $\underline{df} = 13, 353$, $\underline{p} < 000$), so the regression coefficient was significantly different from 0. Thus, the independent variables that entered this equation were conflict management styles, marital status, clinical area, and position. The $\underline{R}^2$ of this regression model regression was .114, so these 13 variables accounted for about 11% of the variance in work score. The results of the second analysis, using pay as the dependent variable, showed that the variables that entered into this regression model were age, marital status, and time1. The null hypothesis testing of $\underline{R}^2 = 0$ was rejected ($\underline{F} = 4.482$, $\underline{df} = 4, 369$, $\underline{p} < 000$), so the regression coefficient was significantly different from 0. Thus, the independent variables that entered this equation were age, marital status, and time2. Since the $\underline{R}^2$ was equal to .042, these four variables accounted for about 4% of the variance in pay score.

Multiple regression analysis was performed using promotion opportunities as the dependent variable and specific demographic variables and the subject's preferred conflict management styles as the independent variables. The results showed that conflict management styles, age, shift, and position entered this regression equation. The results also showed that the null hypothesis testing of $\underline{R}^2 = 0$ was rejected ($\underline{F} = 2.8425$, $\underline{df} = 10, 356$, $\underline{p} = 005$), so the regression coefficient was significantly different from 0. Thus, the independent variables entering this equation were conflict maagement styles,

age, shift, and position. The $\underline{R}^2$ of this regression model regression was .064, so these 10 variables accounted for about 6% of the variance in promotion opportunities score.

The fourth multiple regression analysis was performed using supervision as the dependent variable with the same independent variables as in the previous analysis. The null hypothesis testing of $\underline{R}^2 = 0$ was rejected ($\underline{F} = 3.824$, $\underline{df} = 14, 352$, $\underline{p} < 000$), so the regression coefficient was significantly different from 0. Thus, the independent variables that entered this equation were conflict management, marital status, clinical area, time1, and position. The $\underline{R}^2$ of this regression model regression was .127, so these 14 variables accounted for about 13% of the variance in work score.

The fifth analysis was to ascertain whether the co-workers score can be predicted by conflict management and specific demographic variables. The result of this analysis showed that position and time2 entered the regression model. This result was confirmed by testing the null hypothesis of $\underline{R}^2 = 0$. Since the null hypothesis was rejected ($\underline{F} = 7.388$, $\underline{df} = 2,368$, $\underline{p} = .001$), the $\underline{R}^2$ was significantly different from 0. The $\underline{R}^2$ of this regression model regression was .039, so these two variables accounted for about 4% of the variance in the co-worker's score.

The results of the last analysis for this research question used specific demographic variables and conflict management styles as predictors of the JIG. These results are shown in Appendix E. The null hypothesis was rejected ($\underline{F} = 4.482$, $\underline{df} = 4, 363$, $\underline{p} < 000$), so the regression coefficient was significantly different from 0. Thus, the independent variables that entered this equation were five conflict management styles and marital status. The $\underline{R}^2$ of this regression model regression was .072, so these six variables accounted for about 8% of the variance in the JIG score.

In research question 7, multiple logistic regression was performed using the subjects' preferred styles of conflict management as the independent variable rather than the raw score of conflict management styles. The other independent variables were the specific demographic variables, and the dependent variables were the intent to stay in the next year and the next 5 years.

The results of the first analysis showed that the variables of work facet of job satisfaction, age, clinical area, and time working in the present position entered this logistic model. This result was similar to the analysis of research question 7 in the main analysis, except for the compromise style which did not enter this model. Thus, the intent to stay in the next year can be predicted by work score, age, clinical area, and time working in the present position.

In the second analysis, intent to stay for the next 5 years was the dependent variable. Results showed that supervision score, JIG, age, shift, and time working in the present position entered into this logistic model. In other words, the predictors of intent to stay in the present job were supervision score, JIG, age, shift, and time worked in the present position. This result and the logistic regression equation for prediction of intent to stay for the next 5 years were exactly the findings from the main analysis where the conflict management score was used as one of the independent variables.

In these two analyses, the null hypothesis concerning the coefficients were tested using the change in the log likelihood. Moreover, for assessing the goodness of fit of these two models, - 2 times the log of the likelihood (-2LL) was used to measure how well the estimated model fit the data. The results showed that the current models had a small value for -2LL when compared with the base models (see Appendix E). All

predicting equations are also shown in Appendix E. The hypothesis testings showed that these two models performed well in the logistic model.

Summary

The findings from data analyses, the investigation of seven research questions, and the supplementary analyses were presented in this chapter. The sample in this study consisted of 375 professional nurses who worked in seven different nursing sections of three regional university hospitals in Thailand. The age of the subjects ranged from 22 to 50 years old. The majority of subjects were female staff nurses and had earned a bachelor's degree in nursing. The number of years that the subjects worked as a nurse ranged from 6 months to 25 years, and the time worked in the present position ranged from 6 months to 23 years. The majority of subjects used accommodation to manage conflict most frequently, followed in order by compromise, avoidance, collaboration, and competition. Subjects were mostly satisfied with the job in general, followed by satisfaction with supervision and co-workers. Further, the subjects were neither satisfied nor dissatisfied with work and present pay. On the other hand, the subjects were dissatisfied with promotion opportunities. A majority of the subjects had a high intent to stay in their present jobs during the next year; however, the intent to stay in the next 5 years decreased tremendously.

Using multiple regression analysis for testing hypotheses showed that the only predictor for the competition score of conflict management was time worked in the present position, and clinical area and time worked in the present position were the predictors of the collaboration score. Further, the highest educational level and time worked in the present position predicted the compromise score, and age was the only

predictor of the avoidance score. Moreover, the accommodation score was predicted by the length of time working as a nurse. These findings demonstrated that about 1 to 7% of conflict management style score variability can be explained by these predictors.

A multiple regression analysis was also used to determine how much variability in the level of job satisfaction can be explained by the specific demographic variables and conflict management. The results of the hypothesis testing showed that marital status, clinical area, position, compromise score, avoidance score, and accommodation score were the predictors of the work facet of job satisfaction. The predictors of the pay facet were age, marital status, and time worked as a nurse while age, shift, position, collaboration score, compromise score, and accommodation score predicted the promotion opportunities facet. Moreover, marital status, clinical area, position, and avoidance score predicted the supervision facet. Furthermore, position and time working in the present position predicted the co-workers score, and the JDI score was predicted by marital status, avoidance score, and accommodation score. These six models demonstrated that from 4 to 14% of the variability of the job satisfaction facet score could be explained by these predictors.

The multinomial logit was used to ascertain the relationships among conflict management, job satisfaction, and intent to stay in present job. The results showed that work scores and age were the predictors of intent to stay. The multiple logistic regression was performed to determine the predictors of the intent to stay in the next year and the next 5 years. The results showed that conflict management style compromise score, work facet, age, clinical area, and time working in the present position predicted

the intent to stay for the next year. In addition, supervision, JIG, age, shift, and time working in the present position predicted the intent to stay for the next 5 years.

The supplementary analyses, using different methods, demonstrated both the same and different results when compared with the main analysis. The major difference was found in the first supplementary analysis using multiple logistic regression rather than the multiple regression analysis as in the main study. Position was a predictor of the competition style of conflict management, and age was a predictor of collaboration. There was no one predictor of compromise style. In addition, time working as a nurse was a predictor of both the avoidance and the accommodation styles. In the second and third supplementary analyses, all results were similar to the main study, except the independent variables that entered the multiple regression included every conflict management style instead of some styles of conflict management as shown in the main study.

CHAPTER V

Discussion, Conclusions, Implications, and Recommendations

The purposes of this descriptive correlational study were (a) to describe conflict management styles, level of job satisfaction, and intent to stay of nurses, and (b) to ascertain the relationship among conflict management styles, level of job satisfaction, intent to stay, and specific demographic variables of nurses. The sample included 375 professional nurses employed in three government-operated regional university hospitals in Thailand. The instruments used in this study were the Thomas-Kilmann Conflict MODE (Thomas & Kilmann, 1974), the JDI and the JIG (Smith et al., 1985), and a researcher-developed Demographic and Intent to Stay Survey. Organization system theory, conflict management theory, and the concepts of job satisfaction and intent to stay provided the conceptual framework for the study. Descriptive statistics, multiple linear regression, multinomial logit, and multiple logistic regression under the SPSS for Windows Release 6.0 (Norusis, 1993) and the SYSTAT (Steinberg & Colla, 1991) program were used to analyze the data and test the hypotheses. This chapter includes a discussion of the findings organized by each of the seven research questions that are directly related to the two purposes of the study, conclusions, implications, and recommendations.

Discussion of Findings

The findings from the seven research questions and the supplementary analyses are discussed. Research questions 1 to 3 are related to the first purpose while research questions 4 to 7 are related to the second purpose of the study.

Research Question 1

"What are the conflict management styles of nurses?" Findings showed that the majority of subjects used accommodation most frequently to manage conflict, followed by compromise, avoidance, collaboration, and competition, respectively. Thomas (1978) proposed five conflict management strategies which are based on a two-dimensional model that compares the degree to which individuals satisfy their own concerns and needs (assertive) with the degree to which individuals attempt to satisfy the concerns of others (cooperative). Based on these two dimensions, accommodation is unassertive and cooperative, compromise is intermediate between cooperative and assertive, avoidance is uncooperative and unassertive, collaboration is both assertive and cooperative, and competition is uncooperative and assertive.

The findings from this study imply that professional nurses in government-operated regional university in Thailand would use accommodation most frequently. These findings could reflect the cultural patterns of Thai society, which is known as an affiliation society. In the past, Thai society was quite strict and adhered to the old discipline of bureaucracy. This system, known as "Sak-di-na" in Thai, was formally abandoned by Thai society about 1900; however, vestiges of these expectations and behaviors still remain (Benedict, 1963). Hierarchic relations seem to be at the heart of Thai society, and the distinction between superior and inferior positions is very clear.

Commoner officials are given ranks to indicate their status or degree of dignity; thus, one will show respect to those who are in a high position or social order. In return, the superordinate will protect, lead, and help the subordinate (Moerman, cited in Mortlock, 1989). The basic hierarchical pattern is described as younger-elder, child-parent, peasant-official, and others.

Religion and the hierachial pattern of relationships could contribute to the use of accommodation as the choice style of conflict management. Buddhism is the religion of approximately 90% of Thai people and has as its doctrine and practice politeness, modesty, respect, obedience, and gratitude to parents, elders, and dependent siblings. Peacefulness, nonviolence, and nonaggression are admirable traits, and self-reliance, serenity, and moderation are ideals (Kesten, 1988). People usually do not express their feelings when there is a dispute; instead, they will accept the other person's view because someone might be hurt as a result of the disputation. Thai individuals attempt to suppress their feelings rather than overtly express them; thus, they do not express extreme emotion whether it is positive or negative. They also have a tendency to neutralize all emotions even in a happy situation (Hank & Phillips, cited in Phillips, 1970; Mortlock, 1989). The expectation is to be friendly, pleasant, and polite with other people, not too involved, yet not too distant.

Socialization is a process by which children learn to share in varying degrees the values of their society by the time they are adults. The culture is transmitted from generation to generation through socialization that provides children with a set of readymade ways of behaving and expectations of internalizing norms of behavior. A typical pattern of child rearing in Thai society is for parents to protect their children by

taking care of everything and for the children to follow the advice of their elders. Therefore, juveniles have few opportunities to make their own decisions. Respecting elders is the main doctrine within the family and in school, and children are expected to obey and to show gratitude to their parents and elders. Thai children are not taught to think independently or to develop individual characteristics different from those of others around them. Moreover, they are not taught to share contrasting views or to challenge another's thought, especially if that person is a teacher or someone in a senior position. Thus, Thai students tend to respect whatever the teacher says (Mortlock, 1989).

In the past, the Thai man was considered to be a leader while the Thai woman was considered to be a follower. The man was taught to be free, strong, and independent while, in contrast, the woman was taught to be obedient, gentle, and dependent. The ideal woman was depicted as one who works at home and who was respectful, obedient, and helpful to her husband and would provide him with children. She had to manage the family purse and was strictly religious (Kesten, 1988). These deeply ingrained cultural patterns may partially or fully explain the basis for the unassertive behavior in Thai society (Wichianchot, 1970). Moreover, cooperative behavior may be explained by the expectation of maintaining group harmony among Thai people (Mortlock, 1989). At the present, western civilization is begining to influence and to cause change in Thai society. For example, Thai people are becoming less reverent and the pattern of child rearing is changing. In school, there are more opportunities for students to demonstrate their abilities and express their opinions. Women are breaking the tradition of being confined to the environment of their home and are assuming equally supportive roles as men. Women are performing dynamic roles and

are becoming more assertive in enabling society to advance towards development and prosperity. Poakprasert's (1986) study supports these changes. In a sample of physical education students in Thailand, 14% perceived themselves to be high on exhibiting assertive behavior, while 73% perceived themselves to be medium, and 13% perceived themselves to be low.

The current study shows that most Thai nurses perceive themselves to have low assertive behavior in managing conflict. It is clear that the subjects are in a transition period between the traditional Thai culture and a changing culture. The low assertive behavior could be explained by the gender (female) of the subjects in this study, combined with the type of person who is usually attracted to the nursing profession. Adams (1971) characterized the type of person who comes to nursing as one who think of others first, who is humble and never brags, who listens and tries to understand, and who never complains. According to the results of this study, accommodation was the most preferred style of managing conflict. Using too much accommodation might lead to excess suppression of one's needs and the resulting feeling that one's concerns are not being heard.

Compromise, behavior lying intermediate between cooperative and assertive, was the second most frequently used conflict management style by the subjects in this research study. Compromisers yield more than accommodators but less than competitors. Using compromise most of the time leads to a cynical climate of gamesmanship; thus, the important issues may be lost.

Avoidance, uncooperative and unassertive, was used as the third most frequent style. If avoidance is used too often, the problem cannot be solved, and the important decisions may be reached by default.

The fourth preferred style chosen by the subjects was collaboration, that is, assertive and cooperative behavior. By using this style of conflict management, satisfaction is expected to emerge through participation.

The fifth style, competing, was used least frequently to manage conflict. Using this style, individuals are often forced to comply (Thomas, 1978).

In comparison to research findings from studies conducted in the United States, the results from the current study supported some findings and refuted others. Redland (1982) found that avoidance and accommodation were used most frequently by nurses in the U.S. during patient care situations. However, the present study focused on conflict management, including general interpersonal conflict, in the total work situation rather than conflict that occurred only during the actual delivering of patient care.

Several studies showed that avoidance was most frequently used by nurses and nurse managers (Cavanagh, 1991; Hightower, 1986; M. A. Jones, 1990; Washington, 1990). In addition, the two studies of Marriner (1982) and Marriner-Tomey and Poletti (1991) showed that collaboration and compromise were used most frequently in effective outcomes. In contrast, avoidance and competition were used most frequently in ineffective outcomes. The differences in the results between the current study and previous studies could be due to the differences in time, place, sample, or environment. Furthermore, the cultural differences between the two countries, the U.S. and Thailand, are significant and seem to provide a rational explanation for the differences in findings

among the U.S. and Thai subjects. Phillips (1970) compared the differences between the two societies: for Americans, the problem of dependency polarizes around the degree to which they can learn to make individual decisions, accept responsibility for their own acts, take their own risks, and accept their own gains and losses. Thai beliefs are contrary to the above description. Moreover, Mortlock (1989) described the differences in social structure between the two countries by saying that "American children are taught to think independently and to distinguish themselves from the crowd while Thai children are taught not to present contrasting views or challenge another's thoughts" (p. 33).

The current findings do not support the previous study of conflict among Thai nurses that showed the most frequent style of conflict management used by head nurses was problem solving, forcing, and compromising, followed by the combination of compromising and problem solving (Sangpolasit, 1990). These differences might be due to the sample for each study. Sangpolasit's subjects were head nurses who have a certain amount of authority and power to manage conflict in work situations, whereas the current study had subjects who were mostly staff nurses. Moreover, subjects from these two studies were employed in different hospitals in different regions of Thailand. Sangpolasit's subjects were nurses who worked in the central part of the country while in the current study, subjects worked in the northern, the northeast, and the southern regions of the country.

Research Question 2

"What is the level of job satisfaction of nurses?" Results from the current study are expressed as average scores in each of six facets of job satisfaction. Subjects were

most satisfied with the job in general (JIG), followed by the supervision and the co-workers facets, respectively. They were neutral or did not indicate satisfaction or dissatisfaction in the work and the pay facets. Finally, subjects indicated dissatisfaction in the promotion opportunities facet. The greatest satisfaction in the JIG facet could be due to the fact that the nursing profession in Thailand is quite highly respected and is perceived by the public as an ideal profession. It is an even more desirable profession since a nursing shortage has started to occur and the demand for nurses is greater. Thus, subjects may sense the importance and value attributed to the nursing profession, making them highly satisfied with the job in general.

The second source of greatest satisfaction was supervision. One explanation for this finding could be due to the customary respect that Thai people have for elders or for persons in higher positions than they are. The Thai belief that "bosses have to be respected" (Phillips, 1970, p. 100) may be another reason for the high score in this job satisfaction facet.

The third source of satisfaction was with co-workers. This finding could be supported by the traditional characteristic of viewing others in a positive way. Another reason may be that the subjects avoid criticizing their co-workers since it may cause problems in the long run.

The neutral findings about pay and work are most probably attributable to the characteristics of the employer. All subjects worked for the government, and the pay scales were determined by government policy which mandates that salaries must be based on the number of years required to earn the degree for the profession. The position classification is set for each profession in the government agency; thus, whenever one

chooses to work for the government, one accepts this system. The salary of nurses in Thailand is in the middle range when compared to other professions; thus, the subjects feel that their salaries are not very low and are comparable to their achievements in relation to other professions. These findings, however, were contrary to the three previous studies which found that Thai nurses were not satisfied with their salaries (Chitpakdee, 1993; Lauchachinda, 1976; Preuksaraj et al., 1991). For the work facet, the subjects may be satisfied in some aspects but dissatisfied in other aspects, so the average score indicated neutral feelings for this facet.

Subjects were dissatisfied with promotion opportunities. Since there are a limited number of higher positions, subjects have little chance of being promoted. Moreover, the opportunities for further education are limited for nurses who work in nursing service settings compared to nurse faculty who work in schools of nursing. The quota system and senior priority selection provide little chance for young nurses to further their education. Inservice education and short training courses do not seem to be enough for nurses. This result is similar to the results of earlier studies by Pfaff (1987), Lauchachinda (1976), and Preuksaraj et al. (1991) which found that nurses perceived that they had few opportunities for promotion and have low recognition.

In comparison to previous studies of nurses' job satisfaction, using the JDI and the JIG, it is difficult to explain the higher and lower levels of job satisfaction because of the limitation of the median scores reported for subjects in each facet of job satisfaction. Many previous studies reported mean scores rather than median scores, making it difficult to determine whether the observed differences are statistically significant. One purpose for determining the importance of each facet of job satisfaction

was to compare the rankings of importance of the facets with level of job satisfaction. Subjects in the current study indicated a similar general pattern of job satisfaction score rankings as was true for previous studies (Gordon, 1989; Moody, 1991; Roedel & Nystrom, 1988). The rankings from highest to lowest level of job satisfaction in the current study were the JIG, supervision, co-workers, work, pay, and promotion opportunities, respectively. Promotion opportunities were also ranked as the lowest satisfied facet in the three studies by Gordon, Moody, and Roedel and Nystrom, as well as in the current study. Thus, the perception of satisfaction in promotional opportunities of nurses in both the U.S. and in Thailand was low.

Compared to two previous studies by Guidry (1991) and Moody (1991), the level of job satisfaction in the current study fell between these two. That is, the level of job satisfaction of the U.S. nurse faculty in Moody's study was the highest, followed by the level of job satisfaction of Thai professional nurses in the current study, and lastly, the level of job satisfaction of Israeli nurse faculty subjects in Guidry's study. It must be noted that the subjects in the two other studies were nurse faculty, whereas the subjects in this study were mostly staff nurses. The differences of level of job satisfaction among these three studies could result from the differences in type of subjects, cultural patterns, demographic variables, work assignments, work pattern, pay, and socioeconomic situation in each society.

Research Question 3

"What is the intent to stay of nurses?" About two-thirds of the subjects in the present study indicated a high intent to stay in the present job while only a small number indicated a low intent to stay. The high intent to stay could be a result of the perception

of Thai employees that a government job is more secure and more beneficial for both one's self and family than other jobs. Historically, since there has been little chance to change jobs, nurses, like other professions, have tended to work in the same job all of their life or until retirement. In addition, the reasons for intent to stay are explained in Table 10. These reasons can be categorized into work, salary and benefits, opportunities for advancement and promotion, organizational management, and personal reasons.

When considering the intent to stay for the next year and for the next 5 years, data showed that subjects had a high intent to stay for the next year. The intent to stay becomes lower during the next 5 years. This could be due to the fact that the subjects in this study are from geographical areas that do not present a lot of choices for employment; thus, it would take longer to make a decision to leave and to relocate family and personal possessions. Over a 5-year period, subjects are more likely to find a new job due to the increased knowledge and skills gained from a longer period of experiences and due to having a longer period of time for making a decision about leaving and relocating family and personal possessions. As the nursing shortage increases, there will be more opportunities for nurses to choose from several jobs. Additionally, there are more new private hospitals that want to recruit and hire experienced nurses and who offer high salary and benefits. For these reasons, it seems plausible that subjects would have a high expectation that they may leave their jobs in the next 5 years.

In comparison to the previous study conducted in Thailand by Preuksaraj et al. (1991), similar results found that 85% of the subjects considered resigning. Moreover, Charoenyooth (1992) found that 9% of nurse subjects wanted to resign or transfer within 1 year while 31% wanted to resign or transfer within 5 years. The high percentage of

intent to leave is very important for nurse administrators to be aware of since the result of Parasuraman's (1989) study indicated that intent to leave was the best predictor of turnover of nurses.

Research Question 4

"How much variability in conflict management style can be explained by specific demographic variables?" To answer this research question, the first research hypothesis of this study was tested using multiple regression analysis. The research hypothesis was supported in part by the results of the study. Some independent variables, that is, specific demographic variables, did explain a significant amount of variance of the conflict management styles (competition, collaboration, compromise, avoidance, and accommodation). The amount of explained variance ranged from 1 to 7% for these five conflict management styles. Avoidance resulted in the lowest amount of explained variance while accommodation resulted in the highest.

Comparison of the results of previous research conducted in Thailand to the research findings of this study was not possible because of the limitation of previous research in this area. Thus, the comparisons were made with the findings from research conducted in the United States.

Interestingly, the results showed that as the age of the nurses increased, the use of avoidance increased. Diploma and bachelor's degree nurses were positively related to compromise. Furthermore, surgical, medical, and pediatric nurses were positively related to the collaboration score while obstetrics and gynecology, private ward, out patient and emergency, and general nurses were negatively related to the collaboration score. As the total time working as a nurse increased, the use of accommodation

decreased. However, as time working in the present position increased, the use of competition and collaboration increased, but the score of compromise decreased.

One probable explanation for these mixed findings is that the subjects in this study were in the transition period between old Thai customs and changing customs; thus, older subjects tended to not be as assertive as young subjects. Another important factor is that when one becomes older, one learns techniques and strategies that have worked in previous experiences and situations. Since avoidance is a viable option when the other person has power and chooses not to listen (Kuipers et al., 1989), it is assumed that older nurses have more experience and may have found that avoiding conflict is the most effective method to use in order to get the necessary work done on the unit. These findings were similar to Washington's (1990) results that RNs ages 36 to 65 used avoidance while RNs ages 21 to 35 used compromise most frequently.

When time working as a nurse increased, the use of accommodation decreased, that is, unassertive and cooperative behaviors. This could be the result of subjects learning about more effective styles to manage conflict since accommodation is concerned with other people rather than with themselves and could be interpreted as somewhat of a "self sacrificing" style (Saulo, 1987). Moreover, using accommodation all the time might result in uncomfortable feelings or frustration; thus, accommodation might not be a preferred style anymore. In addition, "accommodation is appropriate when someone wants to build social credit for more important future issues" (Saulo, 1987, p. 15). Since older subjects already had social credit, they might choose other methods to manage conflict.

When time working in present position increased, the use of competition (uncooperative and assertive) and collaboration (assertive and cooperative) increased. After nurses have enough experience in a particular position and have progressed beyond the novice phase, they are able to devote more attention to the interpersonal and interactive dimensions of the position. Thus, they have a greater knowledge base and are more secure in the application of their professional knowledge and skills in the patient care situation and are able to move into another level of professional behavior. Collaboration and competition are both assertive styles, and collaboration is a win-win, effective problem-solving style where both parties are satisfied (Marriner, 1982).

In relation to educational preparation, diploma and bachelor's degree nurses used compromise more frequently. The result of using this style of conflict management soothes both parties or gives both parties equal advantages (Jones et al., 1990). These results did not support those of Hightower (1986), which showed that nurses with a degree higher than a master's degree used compromise most frequently. Moreover, Redland's (1982) study found that diploma nurses used accommodation while baccalaureate nurses used collaboration most frequently. These varied differences in results among the three studies are unexplainable; however, one Thai group and one U.S. group (Hightower, 1986) both used compromise to manage conflict although the educational preparation was different for the two groups. The subjects in the Thai group and the second U.S. group (Redland, 1982) had the same educational preparation but used a different style of conflict management.

Clinical areas were the other predictors of collaboration. Nurses working in surgical, medical, and pediatric areas were found to be positively correlated with the

collaboration score while nurses working in OB-GYN, private ward, and out patient department and emergency areas were negatively correlated with the collaboration score. These findings were also difficult to explain. Perhaps, the differences in each nursing unit, that is types of patients, co-workers, supervision, and others, result in different styles of conflict management.

Research Question 5

"How much variability in the level of job satisfaction can be explained by conflict management style and specific demographic variables?" The second research hypothesis was tested using multiple regression to answer this research question. The hypothesis was supported in part by the results of this study. Twelve of the 14 independent variables, that is four of the five conflict management styles (collaboration, compromise, avoidance, and accommodation), and seven of nine specific demographic variables (age, marital status, clinical area, position, shift, time working as a nurse, time working in the present position), did explain a significant amount of variance in the six facets of job satisfaction (work, pay, promotion opportunities, supervision, co-workers, and JIG). However, the variables of competition style, number of children, and educational preparation cannot explain the level of job satisfaction. The amount of explained variance ranged from 4 to 14% for these 14 variables in these six analyses. Pay facet resulted in the lowest amount of explained variance while work facet resulted in the highest.

Findings from this study showed that those subjects who used collaboration most frequently perceived more promotion opportunities than those who used other styles of conflict management. Since collaboration is considered to be the most effective style of

conflict management in general, these nurses could be functioning with a high degree of success and confidence; therefore, promotion opportunities could actually be available more for them. A participative climate could make subjects more satisfied with the promotion opportunities. These findings were similar to Blake and Mouton's (1964) in that those who used collaboration had a very high level of job satisfaction.

Subjects who used compromise most frequently indicated high satisfaction in work and promotion opportunities. Compromise is a style that is intermediate between cooperative and assertive behaviors; thus, subjects may have used compromise to make everyone happy and to prevent disruption in the work environment or the subjects could have learned through experience that compromise was the proper style to use in order to maintain stability in working relationships. The same explanation could be applied to the facet of satisfaction in promotion opportunities.

As one may expect, subjects who used avoidance most frequently were less satisfied in work, supervision, and job in general. Avoidance is manifested through an uncooperative and unassertive style of behavior to manage conflict and does not solve the problem. This strategy is a lose-lose situation; thus, subjects who used this style to manage conflict avoided confronting issues for resolution in the work environment. By so doing, the issue remains and may escalate into a much greater issue. The finding indicates that the avoidance behavior characterizes the employee-superior relationships rather than a relationship with co-workers. The power discrepancy between the employee and superior would be one reason for using avoidance behavior if it is used by the employee. If the avoidance behavior is used by the superior, an administrative development program concerning conflict management would be helpful. This finding

was supported by Blake and Mouton (1964) who described individuals who used avoidance as least satisfied with their jobs.

It is interesting to note that subjects who used accommodation as a preferred style had high satisfaction in work, promotional opportunities, and job in general. The subjects may have used this unassertive and cooperative style to gain social credit or be liked by others. Moreover, it might be possible that Thai custom values the ability and behavior of soothing other people and creating harmony among individuals and groups.

As the demographic variable of age increased, there was a decrease in satisfaction with pay and promotion opportunities. This could be possible because whenever age increases, social expenditures increase; thus, there is a shortfall in available funds to support the individual or family. Further, as one's age increases, so does one's expectation of advancement (Leahy, 1990). Proportionately, there was a limited number of higher level positions available compared to the number of nurses in each hospital, so the older subjects may have had expectations for advancement but the opportunities were not available. Moreover, nurses in Thailand are required to take an entrance examination to be admitted to master's programs or doctoral programs. Since the number of admissions is limited, the older subjects may perceive little chance to further their education and a lesser chance than new graduate nurses. Previous studies showed that job satisfaction was correlated directly with age (Lauchachinda, 1976; Sarathapanth, 1989). These results, however, were contrary to Leahy's (1990) study. She found that older subjects tended to be satisfied with promotion opportunities. In addition, various studies showed that the level of job satisfaction was higher in older nurses (Blegen & Mueller, 1987; Chitpakdee, 1993; Dunham, 1990; Laupanguananun, 1990).

Married and single nurses were positively correlated to the satisfaction with work, supervision, and JIG facets. However, married nurses were negatively correlated to the pay facet of job satisfaction. This could be because married nurses spend more money for family expenditures, such as rent or a house payment, while most single nurses live in nursing dorms provided by the hospitals.

Interestingly, nurses in different clinical areas indicated different levels of job satisfaction with the work and supervision facets. Pediatric and outpatient and emergency nurses were positively correlated with the work facet of job satisfaction while obstetric and gynecology, surgical, medical, and private ward nurses were negatively correlated with the work facet of job satisfaction. Further, surgical, medical, and outpatient and emergency nurses were positively correlated with the supervision facet of job satisfaction while obstetric and gynecology, pediatric, and private ward nurses were negatively correlated with it. These could be explained by nursing unit differences in work responsibilities, work load, work setting, assigned task, or unit management, as well as the differences in supervision style and supervisor. Many previous studies supported the relationship between area of specialty and job satisfaction (Cronin-Stubbs & Brophy, 1985; Leahy, 1990; Lucas et al., 1993; Simpson, 1985). For example, Leahy found that nurses who worked in clinical areas other than psychiatry showed a positive relationship with the supervision and promotion opportunities facet of job satisfaction while the psychiatric nurses had a negative relationship with these two facets.

In the current study, it was obvious that head nurses were more satisfied in work, promotion opportunities, supervision, and co-workers facets than staff nurses. The challenge of the position, the freedom to make decisions, and the responsibility and

accountability inherent in the position could explain the satisfaction of the head nurses. Also, the head nurses probably feel they are in control of the work situation to a greater extent than staff nurses. Furthermore, high satisfaction with co-workers may emanate from the positive feelings that head nurses have about their subordinates. The results of this study were similar to the findings of Blegen and Mueller (1987), Chitpakdee (1993), Hemindra (1981), and Tantisirin (1977) in that head nurses, supervisors, associates or heads of nursing departments, and higher position nurses were more satisfied than staff nurses. However, Silapapiput's (1975) findings showed that there was no statistically significant difference in job satisfaction of head nurses and staff nurses.

As expected, night shift nurses were less satisfied in promotion opportunities while day shift nurses were most satisfied with this facet. Night shift nurses are not in the mainstream of the hospital's activities; thus, these nurses may not be as visible for others to judge their readiness for a higher position. In addition, the night shift nurses may not be aware of promotional opportunities since the sleep and waking cycle is opposite that of the average life cycle. Usually, the majority of young nurses worked on the evening and night shifts while senior nurses worked on the day shift. Moreover, night shift nurses often had to spend their own offtime or sleep time attending meetings or inservice education while day shift nurses could use their regular day time work hours on these unit activities. The study conducted by Sleightholm-Cairns and Cragg (1987) showed that shift work was a major source of dissatisfaction among those nurses.

As number of years spent working as a nurse increased, subjects experienced an increase in satisfaction with pay and supervision. Usually salary increases annually with experience; thus, it would be logical to find a positive relationship between time worked

and increase in pay. Satisfaction with supervision could result from the nurse's decreased need for dependence on supervision as one gains more experience in the role. A feeling of growth and career development would lead to greater confidence in oneself and greater independence or interdependence rather than dependence on the supervision facet. The results from this study were similar to the results of Price and Mueller (1981) in that as the length of service increased, or working time was more than 16 years (Chitpakdee, 1993), the level of job satisfaction increased. In contrast, as the number of years working in the present position increased, the score of satisfaction with co-workers decreased. This is difficult to explain; however, it might be possible that the longer the time working with co-workers, the more stagnant the work environment becomes. Rather than having new ideas with new co-workers, the work situation becomes less motivating. Thus, subjects perceived that co-workers were not stimulating or helpful. This situation may be different from when one was a novice and was helped by co-workers.

The findings of the second research hypothesis were both similar and contrary to results of previous studies. The contrary results might be due to differences in work environments, nurse expectation, salaries, sample, instruments used, cultures, management policies, or several other factors. It must be noted that the current research was conducted in a different culture with subjects who are living in a transition period from a structural and changing culture to one that is assuming some characteristics of western culture.

Research Question 6

"How much variability in the intent to stay in the present job can be explained by conflict management styles, level of job satisfaction, and specific demographic variables?" To answer this research question, the third research hypothesis was tested using multinomail logit analysis. This research hypothesis was supported in part by the results of this study. The work facet of job satisfaction and demographic variables of age were the predictors of subjects' intent to stay in the present jobs. However, there were some findings that differed among the three intent to stay groups: low, medium, and high intent to stay. In the low intent to stay group, the work score was negatively related to intent to stay. In other words, the higher the work score of the low intent to stay nurses, the lower the intent to stay. It is possible that subjects in this group thought about leaving their jobs most of the time, so they intended to leave their jobs even though they were satisfied with their work. In contrast, work scores were positively related to intent to stay in their present jobs for nurses who were in the medium and high intent to stay groups. This finding would be expected. It could be assumed that as these nurses were satisfied with their work, they wanted to stay because they enjoyed working in their present jobs.

The demographic variable of age was predicted differently among the three groups: low, medium, and high intent to stay. As age of low and medium intent to stay nurses increased, intent to stay decreased. It is possible that as age increased, job opportunities increased due to the additional experiences they had gained, as well as a greater awareness of other choices of jobs. On the other hand, as age of the high intent to stay group of nurses increased, intent to stay increased. This finding may be

explained by the fact that some private hospitals may prefer hiring only young nurses rather than older nurses; therefore, subjects placed a greater value on the current job.

In comparison to the similarities and differences between the results of the current study and the previous studies, research questions 6 and 7 were compared and were discussed together since these two reserch questions were similar in the variables studied. The analyses were performed using the same independent variables (conflict management, job satisfaction, and specific demographic variables) and the three dependent variables (intent to stay, intent to stay for the next year, and intent to stay for the next 5 years). Thus, the results of these three analyses could be compared with the same previous studies' results.

Research Question 7

"How much variability in the intent to stay in the next year and the next 5 years can be explained by conflict management styles, level of job satisfaction, and specific demographic variables?" To answer this research question, the fourth research hypothesis was tested using multiple logistic regression analysis. This research hypothesis was supported in part by the results of this study. The compromise style of conflict management, work facet of job satisfaction, demographic variables of age, clinical areas, and time working in the present position explained a significant amount of variance in nurses' intents to stay for the next year. Furthermore, the supervision and the JIG facets of job satisfaction and the demographic variables of age, shift, and time working in the present position explained a significant amount of variance in nurses' intent to stay for the next 5 years. The variables that cannot explain the intent to stay for the next year and intent to stay for the next 5 years were competition, collaboration,

avoidance, accommodation, pay, promotion opportunities, co-workers, education preparation, marital status, and time working as a nurse.

Nurses who used compromise most frequently for managing conflict and who intended to stay for the next year may be willing to make a commitment for 1 year but are not satisfied to the extent that they would be willing to commit for a longer period of time. Compromise is characterized by intermediate behavior between assertive and cooperative. It divides the gains and concessions between the two parties. Thus, subjects who use this style of conflict management most frequently may feel comfortable that no one is hurt. This finding of intent to stay for 1 year was contrary to Ashmore's (1979) findings in that the previous study results showed that there is no statistically significant relationship between conflict management styles of main superintendents and intent to stay of superintendents.

It is not surprising that subjects who were satisfied with the work facet intended to stay in the present job for the next year while subjects who were satisfied with supervision and job in general intended to stay in the present job for the next 5 years. These results were supported by numerous studies of job satisfaction and intent to stay (Behling & Kosmo, 1971; Hinshaw et al., 1987; Lucas et al, 1993; Mobley et al, 1978; Price & Mueller, 1981; Weisman et al., 1981; Parasuraman, 1989).

The demographic variable of age was a predictor of intent to stay for the next year and next 5 years. As age increased, intent to stay increased. It is possible that as age increased, the job opportunities decreased due to the fact that some private hospitals may want to hire only young nurses rather than older nurses so subjects placed a greater value on the current job. Studies by Choi, Jameson, Brekke, Anderson, and Podratz

(1989) and Stitchler (1990) supported this finding that younger nurses had a higher anticipated turnover than older nurses. In addition, Price and Mueller (1981) found that older, high seniority nurses had high intent to stay in their jobs.

When time working in the present position increased, intent to stay for the next year increased but intent to stay for the next 5 years decreased. The inverse relationships between time worked in the present position and intent to stay for next 5 years could be attributed to the feeling that one's knowledge and skills are more marketable as experience increases; therefore, one is open to more attractive options that may become available.

The demographic variables of clinical area and intent to stay showed that surgical nurses had a higher intent to stay in the present job for the next year than did nurses in other clinical areas. One possible explanation for this finding is that, in general, surgical patients have their surgery, recuperate, and are discharged in a fairly predictable time frame. To observe the patient's recuperation and returning to activities of daily living could affect the satisfaction of the nurse in a positive sense, thus, contributing to the desire to remain in the position. In contrast, patients in other clinical areas such as medical nursing may have patients with prolonged illnesses who may not recuperate as rapidly or as completely as surgical patients. In other words, the severity and chronicity of the patient could have an effect on the nurses' willingness to remain in the same position. This result was supported by Arrington's (1990) study in that nursing specialty was correlated with employment intent and surgical nurses constituted the largest group of nurses who planned to stay until retirement. In contrast, Stichler (1990) showed that clinical assignment cannot predict anticipated turnover.

Day shift nurses and night shift nurses were positively correlated with the intent to stay for the next 5 years. In contrast, evening and rotation shift nurses were negatively correlated with intent to stay for the next 5 years. In other words, night shift nurses tended to stay in the present job while evening and rotation shift nurses intended to leave the present job within the next 5 years. This finding was similar to Stichler's (1990) results that evening shift nurses reported higher mean score for anticipated turnover than those from day and night shift nurses.

Supplementary Analyses Discussion

In the first supplementary analysis, the multiple logistic regression was used to test the first research hypothesis and to answer research question 4. The results showed that head nurses used competition to manage conflict more than staff nurses. Older nurses preferred collaboration more than younger nurses. The longer the time the subjects had worked as nurses, the more frequently the subjects would use avoidance and less frequently the subjects would use accommodation to manage conflict. These results could have been because head nurses have more formal authority and power in their units than staff nurses. Thus, they can use competition, assertive, and uncooperative styles to manage conflict in the work situation since interpersonal conflict may arise between nurse and nurse, nurse and physician, nurse and other co-workers, or even nurse and client. Prescott and Bowen's (1985) study showed that nurses used competition most frequently to manage conflict that occurred between nurses and physicians. The results were contrary to Cavanagh's (1991) study which found that head nurses used compromise and avoidance most frequently.

The preference of collaboration in managing conflict among older subjects might be due to subjects learning how to manage conflict more effectively as age increases, and presumably, life experiences increase and become more stabilized. It is possible that they learn from past experiences that successful results of managing conflict come from the cooperative participation of both sides. Moreover, they may have more confidence, more assertiveness, and more concern for others, as well as concern about others.

These results are contrary to those found in the main study, in that as age increased, subjects used avoidance more frequently. This could be due to the different method of analysis of each study; multiple regression analysis was used in the main study while logistic regression was used in the supplementary analysis. However, as the time working as a nurse increased, the use of avoidance increased. This result is similar to the result in the main study that as age increased, the use of avoidance increased. Possibly, this could be the result of the positive correlation between age and time spent working as a nurse.

In the second and third supplementary analyses, the multiple regression and multiple logistic analysis were used to test research hypotheses 2 and 4. The subjects' preferred styles of conflict management were used as the independent variable instead of the raw score of conflict management styles used in the main study. Similar results were obtained in both the main study and the supplementary analysis in relation to the predictors of levels of job satisfaction and of intent to stay for the next year and next 5 years. The only differences found were the value of regression coefficients of each predictor, the value of the constants, and the methods of entering the equations. In the main study, only some conflict management styles entered the model in predicting the

levels of job satisfaction and of intent to stay in the next year and in the next 5 years. In contrast, the supplementary analysis showed that all of the conflict management styles entered the model if they were not found to be statistically significant or none were entered if none were found to be statistically significant. The amount of explained variance was similar in that the main study ranged from 4 to 14% while the supplementary study ranged from 4 to 13%. These similarities and differences, however, are reasonable for this study since these results are supported by those from some previous studies. The different statistical approaches, multiple regression and multiple logistic regression, data entering, programs used, SPSS and SYSTAT, were also other reasons for these differences since mathematical structures, functions, and/or assumptions underlie each statistical procedure.

Relationships of Results to the Conceptual Framework

The Harrison (1987) organizational system model, conflict management theory (Thomas, 1978), and concepts of job satisfaction and of intent to stay were used to guide this study. As the overall guiding framework, these theories and concepts were very useful. Harrison's model provided a general guide for conceptualizing part of the organizational characteristics, that is, input, behavior or process, and outcome. Furthermore, conflict management theory, the concepts of job satisfaction and intent to stay, provided the direction for selecting specific demographic variables and the explanation of the relationships among these variables. The findings from both the main study and the supplementary analyses indicated that some specific demographic variables (input or human resources), age, education, clinical area, position, time working in the present position, and time working as a nurse can predict the five conflict management

styles of nurses (behavior or process). Another three specific demographic variables that cannot predict conflict management styles in this study were number of children, marital status, and shift. These results indicated the relationship between input or human resources and behavior in nursing organizations. Furthermore, human resources (age, clinical area, shift, position, time working as a nurse, and time working in the present position) and behavior (conflict management styles) can predict the level of job satisfaction. The variables that cannot predict the level of job satisfaction were number of children and educational preparation. In addition, human resources (age, clinical area, shift, and time working as a nurse), behavior (compromise style of conflict management), and output (work, supervision, and JIG facets of job satisfaction) can predict other output (intent to stay in the present job). The variables that cannot predict the intent to stay were educational preparation, marital status, time working as a nurse (human resources); conflict management styles of competition, collaboration, avoidance, and accommodation (behavior); and pay, promotion opportunities, and co-workers facets of job satisfaction (output).

The explanatory power of the model gained from using multiple regression analysis was not high. Findings demonstrated that about 1 to 14% of the variability of the independent variables score can be explained by these predictors of all models. From these results, it is probable that there were other variables that could explain the dependent variables in this study. This could be possible because this study used parts of Harrison's (1987) model to guide the study, while the whole organizational model consisted of other variables, including input, behavior, output, purpose, culture, technology, structure, and environment parts.

Conclusions

On the basis of the findings of this study, the following can be concluded:

1. The majority of subjects used accommodation to manage conflict most frequently followed by compromise, avoidance, collaboration, and competition, respectively.

2. Subjects were mostly satisfied with the job in general, followed by satisfaction with supervision and co-workers, respectively. Subjects were neither satisfied nor dissatisfied with work and present pay but were dissatisfied with promotion opportunities.

3. The majority of subjects had a high intent to stay in their present jobs and intent to stay for 1 year, but intent to stay for the next 5 years decreased tremendously.

4. The use of conflict management styles of subjects can be explained by the demographic variables of age, education, clinical area, position, time working as a nurse, and time working in the present position.

5. Level of job satisfaction of subjects can be explained by selected variables of age, marital status, clinical area, position, shift, time working as a nurse, time working in the present position, and conflict management styles.

6. Intent to stay in the present job can be explained by the variables of age and the work facet of job satisfaction.

7. Intent to stay for the next year and for the next 5 years can be explained by selected variables of age, clinical area, shift, time working in the present position, compromise style of conflict management, work, supervision, and JIG facets of job satisfaction.

8. Due to the amount of explained variance found in this research, there may be

variables other than those used in this study that may influence conflict management styles, level of job satisfaction, and intent to stay of subjects.

9. The two translated instruments, the Thomas-Kilmann Conflict MODE and the JDI and the JIG, and the researcher-developed demographic and intent to stay survey, provided valuable research results even though the internal consistency reliabilities of the first instrument were not high.

10. Harrison's (1987) organization system model, Thomas's (1978) conflict management theory, and the concepts of job satisfaction and of intent to stay were used effectively in guiding this study as shown in the research results that there is a relationship among these variables; however, the amounts of explained variance found were not high.

Implications

The results of this study provide the implications for nursing practice, nursing education, and nursing research. Each of these implications is discussed.

Nursing Practice

As the majority of nurse subjects in this study used accommodation (unassertive and cooperative) most frequently to manage conflict and only a few subjects used collaboration (assertive and cooperative), it is evident that nurses need to know how to develop more effective styles for managing conflict. Furthermore, the relationships among conflict management, job satisfaction, intent to stay, and specific demographic variables show the importance of these variables in nursing practice. Avoidance was found to be inversely related to work, supervision, and job in general facets of job satisfaction. Low levels of job satisfaction or dissatisfaction may lead to low intent to

stay and/or turnover of nurses. These results suggest that nurse administrators would benefit their organizations and the nurses by providing staff development in conflict management theory and training courses for both staff nurses and nurse managers. Nurse managers need the expertise themselves to assist the staff nurses in problem solving and trouble shooting. In addition, the importance of collaborative or participative behaviors in order to affect job satisfaction and intent to stay should be delineated. Encouraging participation in sharing ideas, problem solving, and management may help nurses to enhance or gain assertive and cooperative behaviors.

Dissatisfaction with promotion opportunities for nurses in the practice setting indicates that there is a need on the part of nurse administrators to explore alternative strategies for promoting nurses. The relationships among conflict management, job satisfaction, intent to stay, and specific demographic variables provide the information for nurse administrators to be aware of the impact of these important variables. For example, the night shift was inversely related to level of job satisfaction while the day and evening shifts were positively related to the level of job satisfaction. Thus, to be aware of these relationships could provide important information for strategies to be developed to reduce the negative effects of the night shift.

The relationships among the variables in this study imply that patient care may be affected directly or indirectly. Conflict management styles and specific demographic variables correlated with job satisfaction and intent to stay. Nurses who manage conflict effectively and who are satisfied in their jobs should provide a higher quality of care than those who reported ineffective conflict management and lower levels of satisfaction. To

be satisfied with one's job enables one to give more of oneself to others; therefore, both the patients and other workers benefit from the satisfied employee.

Nursing Education

The relationships among conflict management, job satisfaction, intent to stay, and specific demographic variables signal that nurse educators should provide the opportunities for student nurses to gain the knowledge and have an experience that will be useful in developing a successful career. Increased educational emphasis should be placed on organization theory, group psychology, assertiveness training, conflict management training, problem solving, and participative or collaborative relationships with co-workers and others. Assertiveness training should be an integral part of all nursing curricula for Thai students. The school should also provide workshops or continuing education programs available for nurses already out of school.

Furthermore, joint appointments between nursing education and nursing service would be helpful to enhance the theoretical knowledge gained in nursing education and clinical application gained in practice. A partnership between education and practice should result in a higher quality of education for nursing students and a higher quality of care for patients. This will balance the empirical knowledge base of nurse educators to teach student nurses.

Nursing Research

Additional research is needed to provide an adequate understanding of the variables in this study as well as other issues believed to contribute to the nursing shortage and turnover situation. Also, a longitudinal study adding other variables such as turnover would be more helpful in gaining new knowledge to reduce the gradually

increasing turnover rate in Thailand. Other instruments and samples may be used in future studies to compare the results with this study. Further, other variables in the nursing organization should be examined to gain more knowledge about the variables affecting satisfaction, intent to stay, or turnover of nurses using the framework of input, behaviors, and outcomes. The results can also be used to evaluate the conceptual framework.

Recommendations

The following recommendations for research are offered:

1. Investigate the relationships among conflict management styles, job satisfaction, and turnover of nurses or nurse faculty, using both longitudinal and cross-sectional studies.

2. Study the actual observation of subjects' conflict management styles since it may provide more information to understand the conflict situations and the successful or unsuccessful style of conflict management.

3. Replicate the study to support the results of this study and use different population or sample, and instruments to measure the same variables.

4. Study the need for a staff development program in conflict management styles, and conduct a follow-up study after the development program has been used.

5. Investigate other organizational and environmental variables in nursing organizations that may affect job satisfaction, intent to stay, and turnover.

6. Study the use of collaboration of nurses in different clinical areas.

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APPENDIX A

The Thomas-Kilmann Conflict Management Difference Exercise Instrument, the Job Satisfaction Index and the Job in General Instrument, and a Researcher-Developed Demographic and Intent to Stay survey

MANAGEMENT-OF-DIFFERENCES EXERCISE *

INSTRUCTIONS: Consider situations in which you find that your wishes differ from the wishes of another person. How do you usually respond to such situations?

On the following pages are several pairs of statements describing possible behavioral responses. For each pair, please circle the "A" or "B" statement depending on which is most characteristic of your own behavior. That is, please indicate which of those two responses is more typical of your behavior in situations where you find that your wishes differ from someone else's wishes.
In many cases, neither the "A" nor the "B" statement may be very typical of your behavior; but please select the response which you would be more likely to use.

THOMAS-KILMANN CONFLICT MODE INSTRUMENT

Please circle the letter A or B of each statement that best corresponds with your management of conflict in working situations.

1. A. There are times when I let others take responsibility for solving the problem.
   B. Rather than negotiate the things on which we disagree, I try to stress those things upon which we both agree.

2. A. I try to find a compromise solution.
   B. I attempt to deal with all of his/her and my concerns.

3. A. I am usually firm in pursuing my goals.
   B. I might try to soothe the other's feelings and preserve our relationship.

4. A. I try to find a compromise solution.
   B. I sometimes sacrifice my own wishes for the wishes of the other person.

5. A. I consistently seek the other's help in working out a solution.
   B. I try to do what is necessary to avoid useless tensions.

6. A. I try to avoid creating unpleasantness for myself.
   B. I try to win my position.

7. A. I try to postpone the issue until I have had some time to think it over.
   B. I give up some points in exchange for others.

8. A. I am usually firm in pursuing my goals.
   B. I attempt to get all concerns and issues immediately out in the open.

9. A. I feel that differences are not always worth worrying about.
   B. I make some effort to get my way.

10. A. I am firm in pursuing my goals.
    B. I try to find a compromise solution.

11. A. I attempt to get all concerns and issues immediately out in the open.
    B. I might try to soothe the other's feelings and preserve our relationship.

12. A. I sometimes avoid taking positions which would create controversy.
    B. I will let the other person have some of his/her positions if he/she lets me have some of mine.

13. A. I propose a middle-ground.
B. I press to get my points made.

14. A. I tell the other person my ideas and ask for his/ hers.
B. I try to show the other person the logic and benefits of my position.

15. A. I might try to soothe the other's feeling and preserve our relationship.
B. I try to do what is necessary to avoid tensions.

16. A. I try not to hurt the other's feelings.
B. I try to convince the other person of the merits of my position.

17. A. I am usually firm in pursuing my goals.
B. I try to do what is necessary to avoid useless tensions.

18. A. If it makes other people happy, I might let them maintain their views.
B. I will let other people have some of their positions if they let me have some of mine.

19. A. I attempt to get all concerns and issues immediately out in the open.
B. I try to postpone the issue until I have had some time to think it over.

20. A. I attempt to immediately work through our differences.
B. I try to find a fair combination of gains and losses for both of us.

21. A. In approaching negotiations, I try to be considerate of the other person's wishes.
B. I always lean toward a direct discussion of the problem.

22. A. I try to find a position that is intermediate between his/hers and mine.
B. I assert my wishes.

23. A. I am very often concerned with satisfying all our wishes.
B. There are times when I let others take responsibility for solving the problem.

24. A. If the other's position seems very important to him/her, I would try to meet his/her wishes.
B. I try to get the other person to settle for a compromise.

25. A. I try to show the other person the logic and benefits of my position.
B. In approaching negotiations, I try to be considerate of the other person's wish.

26. A. I propose a middle ground.
B. I am nearly always concerned with satisfying all our wishes.

27. A. I sometimes avoid taking positions that would create controversy.
B. If it makes other people happy, I might let them maintain their views.

28. A. I am usually firm in pursuing my goals.
B. I usually seek the other's help in working out a solution.

29. A. I propose a middle ground.
B. I feel that differences are not always worth worrying about.

30. A. I try not to hurt the other's feelings.
B. I always share the problem with the other person so that we can work it out.

THE JOB DESCRIPTIVE INDEX (JDI)

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

Y for "YES" if it describes your work
N for "NO" if it does NOT describe your work
? if you cannot decide

WORK ON PRESENT JOB

____ Fascinating
____ Routine
____ Boring
____ Good
____ Creative
____ Respected
____ Uncomfortable
____ Pleasant
____ Gives sense of accomplishment
____ Useful
____ Tiring
____ Healthful
____ Challenging
____ Too much to do
____ Frustrating
____ Simple
____ Repetitive

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

Y for "YES" if it describes your pay
N for "NO" if it does NOT describe your pay
? if you cannot decide

PRESENT PAY

____ Income adequate for normal expenses
____ Fair
____ Barely live on income
____ Bad
____ Incomes provide luxuries
____ Insecure
____ Less than I deserve
____ Well paid
____ Underpaid

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

Y for "YES" if it describes your promotion opportunities
N for "NO" if it does not describe your promotion opportunities
? if you cannot decide

OPPORTUNITIES FOR PROMOTION

____ Good opportunities for promotion
____ Opportunities somewhat limited
____ Promotion on ability
____ Dead-end job
____ Good chance for promotion
____ Unfair promotion policy
____ Infrequent promotions
____ Regular promotions
____ Fairly good chance for promotion

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

Y for "YES" if it describes the supervision you get on your job
N for " NO" if it does NOT describe the supervision you get on your job
? if you cannot decide

SUPERVISION ON PRESENT JOB

____ Asks my advice
____ Hard to please
____ Impolite
____ Praise good work
____ Tactful
____ Influential
____ Up-to date
____ Doesn't supervise enough
____ Has favorites
____ Tells me where I stand
____ Annoying
____ Stubborn
____ Knows job well
____ Bad
____ Intelligent
____ Poor planner
____ Around when needed
____ Lazy

Think of the coworkers that you have now. How will does each of the following words or phases describe these? In the blank beside each word below, write

Y for " YES" if it describes your coworkers
N for " NO" if it does NOT describe your coworkers
? if you cannot decide

CO-WORKERS

____ Stimulating
____ Boring
____ Slow
____ Helpful
____ Stupid
____ Responsible
____ Fast
____ Intelligent
____ Easy to make enemies
____ Smart
____ Lazy
____ Unpleasant
____ Gossipy
____ Active
____ Narrow interests
____ Loyal
____ Stubborn
____ Talk too much

Think of the job in general. All in all, what is it like most of the time? In the blank beside each word given below, write

Y for "YES" if it describes your job
N for "NO" if it does NOT describe your job
? if you cannot decide

JOB IN GENERAL

____ Pleasant
____ Bad
____ Ideal
____ Waste of time
____ Good
____ Undesirable
____ Worthwhile
____ Worse than most
____ Acceptable
____ Superior
____ Better than most
____ Disagreeable
____ Makes me content
____ Inadequate
____ Excellent
____ Rotten
____ Enjoyable
____ Poor

DEMOGRAPHIC AND INTENT TO STAY SURVEY

SECTION I DEMOGRAPHIC VARIABLES

Please check one of the answers on each question or fill in the blank for all the questions below.

1. For what hospital do you work at the present time ?
   ( ) Maharaj Nakorn Chiang Mai Hospital
   ( ) Songkla Nakarin Hospital
   ( ) Sri Nakarin Hospital

2. What was your age at your last birthday ?
   _____ years
3. What is your highest education ?
   ( ) Diploma in nursing
   ( ) Bachelors degree in nursing
   ( ) Masters degree or higher degree in nursing
   ( ) Other _____ (please fill in)
4. Sex
   ( ) Male
   ( ) Female
5. Marital Status
   ( ) Never married
   ( ) Married
   ( ) Separated
   ( ) Widowed
   ( ) Divorced
6. Number of children (if any) _____

7. What is your clinical area in nursing ?
   ( ) OB-GYN nursing section
   ( ) Medical nursing section
   ( ) Surgical nursing section
   ( ) Pediatric nursing section
   ( ) Private ward nursing section
   ( ) Outpatient and emergency nursing section
   ( ) General nursing section

8. What shift do you normally work at the present time ? (Check only one)
   ( ) Day shift (8 am.-4 pm.)
   ( ) Evening shift (4 pm.-12 midnight)
   ( ) Night shift (12 midnight-8 am.)
   ( ) Rotation shift
   ( ) Others _____

9. How long have you worked as a nurse ?
_____ year(s) _____ month(s)

10. How long have you been in your present position ?
_____ year(s) _____ month(s)

11. What is the present title of your position ?
( ) Staff nurse
( ) Head nurse

SECTION II INTENT TO STAY

Please check only one answer that fits your case or that comes nearest to it.

12. Do you think you will stay in the present job during the next year?
( ) YES
( ) NO

Please give the major reason(s) for your choosing either item YES or NO

_____
_____
_____
_____

13. Do you think you will stay in your present job during the next five years?
( ) YES
( ) NO

Please give the major reason(s) for your choosing either item YES or NO

_____
_____
_____
_____

THANK YOU VERY MUCH FOR YOUR COOPERATION.

APPENDIX B

Letters of Consent to Use Instruments

XICOM

Stirling Forest Woods Road Tuxedo, New York 10987
914-351-4755 Fax: 914-351-4762

June 17, 1993

Wipada Kunaviktikul
1600 - 9th Avenue South
University Hall #5E
Birmingham, AL 35205

Dear Ms. Kunaviktikul:

This letter is in response to your request to translate and reproduce the Thomas-Kilmann Conflict Mode Instrument into Thai language for use in yur dissertation "Conflict management, job satisfaction, and specific demographic variables of nurses."

Xicom would be pleased to authorize you permission to translate this instrument. In return for providing us with the translation we would give you permission to reproduce 100 copies of the translated instrument at no charge. Any additional copies that you use for your dissertation would be at $1.00 (US dollars), see attached research agreement.

If you agree with the above mentioned terms, please sign the bottom signature block of this letter and return it to us for our files.

Thank you for your interest in our instrument, and much success with your dissertation.

Wipada Kunaviktikul

Gail C. Ryan
Key Account Representative
XICOM, Inc.

Bowling Green State University

Department of Psychology
Bowling Green, Ohio 43403-0228
(419) 372-2301
Fax (419) 372-6013

August 6, 1993

Wipada Kunaviktikul
1600 9th Avenue South Apt. 5E
University Home
Birmingham, AL 35205

Dear Wipada Kunaviktikul:

On behalf of Dr. Patricia C. Smith, thank you for your interest in the Job Descriptive Index (JDI). As you may already know, the JDI and Job in General (JIG) were revised in 1985. I am enclosing copies of two Thai versions of the original JDI (i.e., they contain some original items which were replaced with the 1985 revision) sent to us by (1) Joseph Putti in 1981, and (2) Purachai Piumsombun in 1979. Dr. Putti wrote to us as an associate professor at the School of Management, National University of Singapore, Kent Ridge, Singapore 0511, telephone 7756666. Purachai Piumsombun wrote to us as a doctoral student at the School of Criminology, The Florida State University, Tallahassee, FL 32306. More recently, Somsook Tiloksakulchai (1873 Chulalai Dormitory, Chulalongkorn Hospital, Rama IV Rd., Pathumwan, Bangkok, Thailand), and Professor Jim Craigmile and Mr. Chaloey Pumipuntu (Department of Educational Administration, 214 Hill Hall, College of Education, University of Missouri-Columbia, Columbia, MO 65211) also have expressed interest in the Thai version of the JDI.

In response to your request, you are hereby granted permission to translate the revised JDI and the JIG into Thai provided:

1. We receive a copy of the translations, and

2. Notation "Copyright Bowling Green State University, 1975, 1985" is included on each copy.

Enclosed you will also find a copy of the revised JDI and JIG, as well as cost and ordering information. Please note that pricing will be based on the number of copies you distribute in your survey. The scoring information will be sent to you with your order. Please note that these materials cannot be copied and must be returned to us if you decide not to use the JDI and JIG scales.

We are very interested in research using translated versions of the JDI and JIG. To encourage your cooperation, we would like to offer you the opportunity to participate in our rebate plan. The plan consists of an agreement to give you a 100% rebate on the cost of our tests in exchange for the return of the data you collect using the foreign language version of our scales (i.e., you pay for the use of our tests and receive your money back when we receive your data). In particular, we would request the following:

a) A brief description of the translation and back-translation procedures (i.e., how many translators, whether the translation was back-translated into English by independent translators to check for problems, etc.);

b) The item level data (i.e., individual responses to each item) you collect using the translated instrument, along with demographic information for each subject. Typically, the JDI and JIG are accompanied by questions about job level, sex, tenure in organization, tenure in specific job, occupation, age, pay, education, and race; and,

c) Anything else you consider relevant to the translation process.

The enclosed sample forms for the Rebate Plan and Return Information Requested contain more specific information on the requirements of our rebate plan. We hope you are interested in this opportunity and we look forward to hearing from you soon.

Sincerely,

Luis Fernando Parra
JDI Research Group

Enclosures

APPENDIX C

Institutional Board Request and Approval of Application

THE UNIVERSITY OF ALABAMA AT BIRMINGHAM
Office of the Institutional Review Board for Human Use

FORM 4: IDENTIFICATION AND CERTIFICATION OF RESEARCH PROJECTS INVOLVING HUMAN SUBJECTS

THE INSTITUTIONAL REVIEW BOARD (IRB) MUST COMPLETE THIS FORM FOR ALL APPLICATIONS FOR RESEARCH AND TRAINING GRANTS, PROGRAM PROJECT AND CENTER GRANTS, DEMONSTRATION GRANTS, FELLOWSHIPS, TRAINEESHIPS, AWARDS, AND OTHER PROPOSALS WHICH MIGHT INVOLVE THE USE OF HUMAN RESEARCH SUBJECTS INDEPENDENT OF SOURCE OF FUNDING.

THIS FORM DOES NOT APPLY TO APPLICATIONS FOR GRANTS LIMITED TO THE SUPPORT OF CONSTRUCTION, ALTERATIONS AND RENOVATIONS, OR RESEARCH RESOURCES.

PRINCIPAL INVESTIGATOR: WIPADA KUNAVIKTIKUL RN, M. ED.

PROJECT TITLE: CONFLICT MANAGEMENT, JOB SATISFACTION, INTENT TO STAY, AND SPECIFIC DEMOGRAPHIC VARIABLES OF PROFESSIONAL NURSES IN THAILAND

____1. THIS IS A TRAINING GRANT. EACH RESEARCH PROJECT INVOLVING HUMAN SUBJECTS PROPOSED BY TRAINEES MUST BE REVIEWED SEPARATELY BY THE INSTITUTIONAL REVIEW BOARD (IRB).

_X_2. THIS APPLICATION INCLUDES RESEARCH INVOLVING HUMAN SUBJECTS. THE IRB HAS REVIEWED AND APPROVED THIS APPLICATION ON 10-1-93 IN ACCORDANCE WITH UAB'S ASSURANCE APPROVED BY THE UNITED STATES PUBLIC HEALTH SERVICE. THE PROJECT WILL BE SUBJECT TO ANNUAL CONTINUING REVIEW AS PROVIDED IN THAT ASSURANCE.

_X_ THIS PROJECT RECEIVED EXPEDITED REVIEW.

____ THIS PROJECT RECEIVED FULL BOARD REVIEW.

____3. THIS APPLICATION MAY INCLUDE RESEARCH INVOLVING HUMAN SUBJECTS. REVIEW IS PENDING BY THE IRB AS PROVIDED BY UAB'S ASSURANCE. COMPLETION OF REVIEW WILL BE CERTIFIED BY ISSUANCE OF ANOTHER FORM 4 AS SOON AS POSSIBLE.

____4. EXEMPTION IS APPROVED BASED ON EXEMPTION CATEGORY NUMBER(S)_____.

DATE: 10-1-93

RUSSELL CUNNINGHAM, M.D.
INTERIM CHAIRMAN OF THE
INSTITUTIONAL REVIEW BOARD

The University of Alabama at Birmingham
212 Mortimer Jordan Hall • 1825 University Boulevard
Birmingham, Alabama 35294-2010 • (205) 934-3789 • FAX (205) 975-5977

APPENDIX D

Cover Letter to Potential Study Subjects

Cover Letter

Dear Professional Nurse:

I am a graduate student in the School of Nursing, University of Alabama at Birmingham. In partial fulfillment of the requirements for the Doctor of Science in Nursing, I am conducting research on conflict management, job satisfaction, intent to stay, and specific demographic variables of nurses. The purposes of this study are to describe the conflict management styles, level of job satisfaction, and intent to stay of nurses; and to ascertain the relationship among conflict management, level of job satisfaction, intent to stay, and specific demographic variables.

In order for the results to accurately reflect the response of professional nurses, it is very important that each questionnaire be completed and returned. Completion of these three questionnaires will take approximately 20 minutes. After completely answering the enclosed questionnaires, please mail them directly back to the researcher in the self addressed envelop provided and give them back to the researcher or the research assisstants (names). Anonymity and confidentiality of your response will be maintained. All information will be reported as group data. Questionnaires will be destroyed after completion of data analysis. Your participation is voluntary. Permission to conduct this research has been obtained from the Institutional Review Boards at the University of Alabama at Birmingham and your hospital. Also, the permission to participate in this study has been obtained from the hospital and nursing service director.

Since there are time constraints, I would appreciate a reply by December 15, 1993/ January 7, 1994. Your replies are crucial to the success of this study and will be valuable in helping nursing practice in Thailand. Thank you very much for your valuable participation in this study.

Sincerely Yours,

Wipada Kunaviktikul, R.N., M.Ed.

APPENDIX E

Supplementary Analyses Tables and Predicting Equations

Supplementary Analysis of Research Question 4

Predicting Variables on Competition Style of Conflict Management (using preferred style as a dependent variable)

Predictor	Regression Coefficient (B)	Standard Error (sB)	Change in Odds (Exp B)
Constant	-5.625	1.239	3.511
Position	1.256	.881	

The Goodness of Fit of the Model

	Base Model	Current Model
2 Log Likelihood	61.265	59.548

Predicting Variables on Collaboration Style of Conflict Management

Predictor	Regression Coefficient (B)	Standard Error (sB)	Change in Odds (Exp B)
Constant	-5.416	1.221	1.088
Age	.084	.037	

The Goodness of Fit of the Model

	Base Model	Current Model
2 Log Likelihood	166.484	161.465

No variable predicted the compromise style.

Predicting Variables on Avoidance Style

Predictor	Regression Coefficient (B)	Standard Error (sB)	Change in Odds (Exp B)
Constant	-1.899	.253	1.0662
Time 1	.064	.024	

The Goodness of Fit of the Model

	Base Model	Current Model
2 Log Likelihood	371.688	364.887

Predicting Variables on Accommodation Style

Predictor	Regression Coefficient (B)	Standard Error (sB)	Change in Odds (Exp B)
Constant	.553	.204	.906
Time 1	-.096	.023	

The Goodness of Fit of the Model

	Base Model	Current Model
2 Log Likelihood	505.427	486.183

Supplementary analysis of Research Question 5
Results of the Regression Analysis for the Work Facet of Job Satisfaction

Variable	B	SE(B)	Beta	F	p
Constant	16.343				
Mode				3.524	.008
- Mode1	2.284				
- Mode2	-2.151				
- Mode3	1.242				
- Mode4	-2.989				
Marital status				5.606	.004
- MS1	1.875				
- MS2	4.726				
Clin				1.855	.088
- Clin1	-.814				
- Clin2	-.026				
- Clin3	-1.407				
- Clin4	2.460				
- Clin5	-1.594				
- Clin6	2.291				
Position	4.793	1.566	.162	9.374	.002

R^2 = .114

	df	SS	MS	F	p
Regression	13	4022.563	309.427	3.418	.000
Residual	353	90.519	88.087		

Results of the Regression Analysis for the Pay Facet of Job Satisfaction

Variable	B	SE(B)	Beta	F	p
Constant	38.623				
Age	-.607	.357	-.241	2.720	.100
Marital status				4.498	.012
- MS1	2.841				
- MS2	-1.597				
Time1	.906	.370	.349	5.990	.015
R^2 = .043					
	df	SS	MS	F	p
Regression	4	3011.990	752.997	4.482	<.005
Residual	369	61990.052	167.995		

Results of the Regression Analysis for the Promotion Opportunities Facet of Job Satisfaction

Variable	B	SE(B)	Beta	F	p
Constant	21.844				
Mode				2.073	.084
- Mode1	-2.110				
- Mode2	-.814				
- Mode3	2.365				
- Mode4	-1.630				
Age	-.371	.152	-.180	5.968	.015
Shift				1.755	.137
- Shift1	2.929				
- Shift2	.180				
- Shift3	-5.752				
- Shift4	.402				
Position	5.893	2.204	.176	7.145	.008

R^2 = .064

	df	SS	MS	F	p
Regression	10	3422.876	342.287	2.842	.005
Residual	356	42868.209	120.416		

Results of the Regression Analysis for the Supervision Facet of Job Satisfaction

Variable	B	SE(B)	Beta	F	p
Constant	30.051				
Mode				3.009	.018
- Mode1	6.136				
- Mode2	-3.498				
- Mode3	1.839				
- Mode4	-4.035				
Marital status				2.323	.099
- MS1	4.575				
- MS2	4.618				
Clin				3.926	.001
- Clin1	-5.003				
- Clin2	3.636				
- Clin3	-2.867				
- Clin4	-1.259				
- Clin5	-1.116				
- Clin6	4.352				
Position	5.009	2.646	.128	3.583	.059
Time1	-.583	.185	-.226	9.941	.002
R^2 = .127					
	df	SS	MS	F	p
Regresion	14	8398.041	599.860	3.824	.000
Residual	352	54983.220	156.202		

Results of the Regression Analysis for the Co-workers Facet of Job Satisfaction

Variable	B	SE(B)	Beta	F	p
Constant	33.014	2.544	.000	12.975	.000
Position	3.311	1.969	.086	1.681	.090
Time2	-.622	.177	-.180	-3.517	.000

R^2 = .039

	df	SS	MS	F	p
Regression	2	2391.620	1195.810	7.388	.001
Residual	368	59566.256	161.865		

Results of the Regression Analysis for the JIG Facet of Job Satisfaction

Variable	B	SE(B)	Beta	F	p
Constant	34.529				
Mode				4.971	.001
- Mode1	7.331				
- Mode2	-2.549				
- Mode3	-.685				
- Mode4	-4.657				
Marital status				4.382	.013
- MS1	1.726				
- MS2	4.221				

R^2 = .049

	df	SS	MS	F	p
Regression	6	2715.801	452.633	4.818	<.000
Residual	361	33908.839	93.930		

Supplementary Analysis of Research Question 7

Predictor Variables on Intent to Stay for 1 Year

Predictor	Regression Coefficient (B)	Standard Error (sB)	Change in Odds (Exp B)
Constant	-4.556	3.976	
Work	.047	.021	1.049
Age	.295	.118	1.344
Clin			
- Clin1	-1.536	2.982	.215
- Clin2	6.680	17.725	796.604
- Clin3	-1.809	2.978	.164
- Clin4	-.124	3.024	.883
- Clin5	-1.262	2.984	.283
- Clin6	-.318	3.029	.727
Time2	-.283	.137	.754

The Goodness of Fit of the Model

	Base Model	Current Model
2 Log Likelihood	221.166	181.919

Predictor Variables on Intent to Stay for 5 Years

Predictor	Regression Coefficient (B)	Standard Error (sB)	Change in Odds (Exp B)
Constant	-7.129	1.438	
Supervision	.022	.011	1.023
JIG	.034	.015	1.035
Age	.223	.053	1.250
Shift			
- Shift1	.319	.339	1.376
- Shift2	-.828	.436	.437
- Shift3	1.107	.633	3.025
- Shift4	-.141	.248	.868
Time2	-.147	.060	.864

The Goodness of Fit of the Model

	Base Model	Current Model
2 Log Likelihood	429.440	364.279

Predicting equations on conflict management styles

Z1 = - 5.625 + 1.255 Position,

Z2 = - 5.416 + .084 Age,

Z3 = - (no predictor)

Z4 = - 1.898 + .064 Time1,

Z5 = .5525 - .095 Time1,

where

Z1 = competition style,

Z2 = collaboration style,

Z3 = compromise style,

Z4 = avoidance style, and

Z5 = accommodation style of conflict management.

Predicting equations on job satisfaction

Y1 = 16.343 + 2.284 Mode1 - 2.151 Mode2 + 1.242 Mode3 - 2.989 Mode4 + 1.875 MS1 + 4.726 MS2 - .814 Clin1 - .026 Clin2 - 1.407 Clin3 + 2.460 Clin4 - 1.594 Clin5 + 2.291 Clin6 + 4.793 Position,

Y2 = 38.623 - .607 Age + 2.841 MS1 - 1.597 MS2 - .906 Time1,

Y3 = 21.844 - .211 Mode1 - .814 Mode2 + 2.365 Mode3 - 1.630 Mode4 - .371 Age + 2.929 Shift1 + .080 Shift2 - 5.752 Shift3 + .402 Shift4 + 5.893 Position,

Y4 = 30.051 + 6.136 Mode1 - 3.498 Mode2 + 1.839 Mode3 - 4.035 Mode4 + 4.575 MS1 + 4.618 MS2 - 5.003 Clin1 + 3.636 Clin2 - 2.867 Clin3 - 1.259 Clin4 - 1.166 Clin5 + 4.352 Clin6 - .583 Time1 + 5.009 Position,

Y5 = 33.014 + 3.311 Position - .622 Time2,

Y6 = 34.529 + 7.331 Model - 2.549 Mode2 - .685 Mode3 - 4.657 Mode4 + 1.726 MS1 + 4.221 MS2,

where

Y1 = the work facet of job satisfaction,

Y2 = the pay facet of job satisfaction,

Y3 = the promotion opportunities facet of job satisfaction,

Y4 = the supervision facet of job satisfaction,

Y5 = the co-workers facet of job satisfaction, and

Y6 = JIG.

Predicting equations on intent to stay for the next year and the next five years

Z1 = - 4.556 + .047 Work + .295 Age - 1.536 Clin1 + 6.680 Clin2 - 1.809 Clin3 - .124 Clin4 - 1.262 Clin5 - .318 Clin6 - .283 Time2,

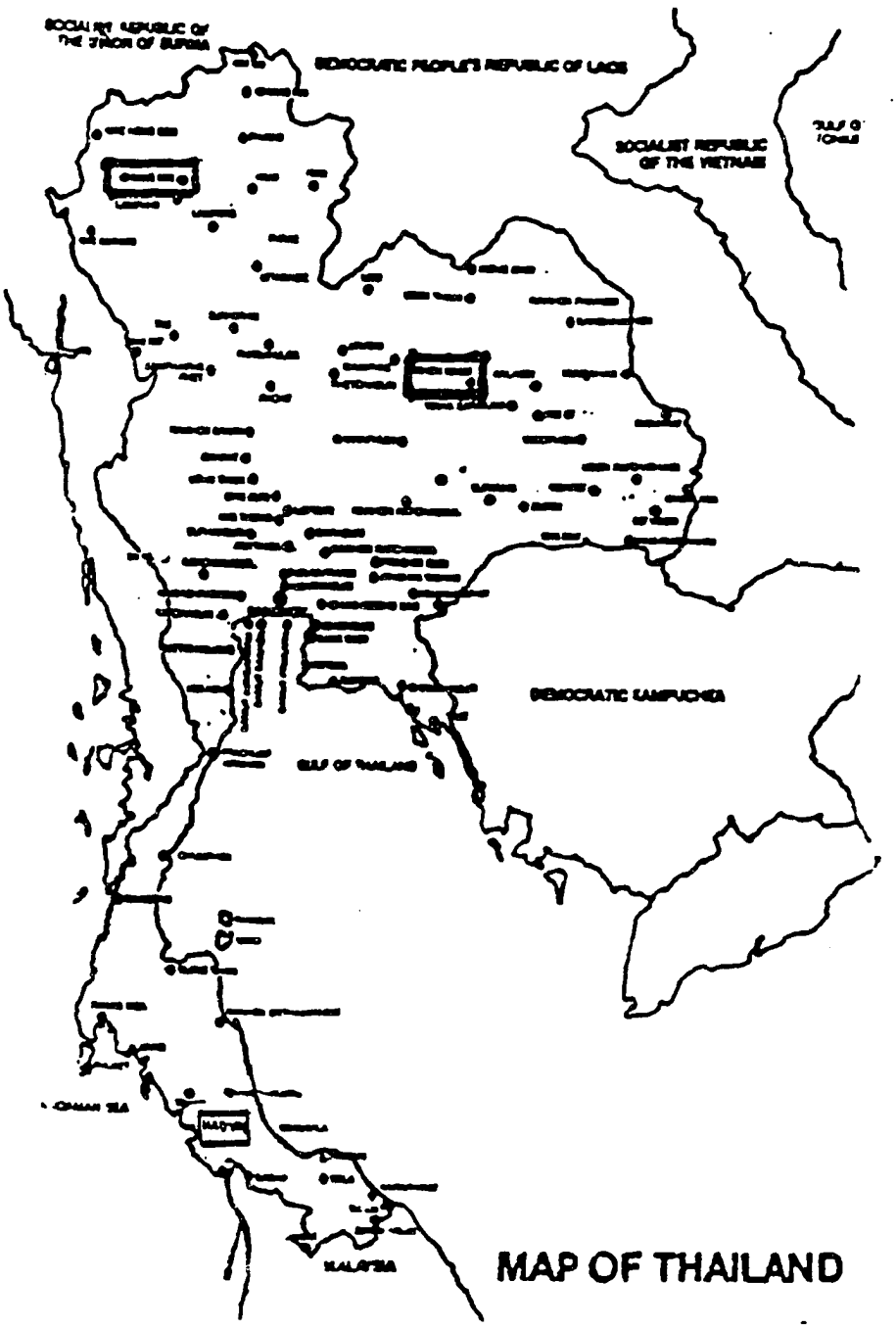
Z2 = -7.129 + .022 Supervis + .034 JIG + .233 Age + .319 Shift1 - .828 Shift2 + 1.107 Shift3 - .141 Shift4 -.147,

where,

Z1 = Intent to stay for the next year and Z2 = Intent to stay in the next five years.

APPENDIX F

Map of Thailand



MAP OF THAILAND

= Study areas for collecting data

GRADUATE SCHOOL
UNIVERSITY OF ALABAMA AT BIRMINGHAM
DISSERTATION APPROVAL FORM

Name of Candidate Wipada Kunaviktikul

Major Subject Nursing Service Administration

Title of Dissertation Conflict Management, Job Satisfaction, Intent to Stay and Specific Demographic Variables of Professional Nurses in Thailand

Dissertation Committee:

Rachel Z. North, Chairman

Director of Graduate Program Elizabeth Shuttenberger

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