



JOB STRESS AND JOB SATISFACTION AMONG NURSES IN PRIVATE
HOSPITALS IN METROPOLITAN BANGKOK

ANANTREE POTHAPHUN

A Thesis Submitted in Partial Fulfillment
of the Requirements for the Degree of

MASTER OF SCIENCE IN COUNSELING PSYCHOLOGY

Graduate School of Psychology

ASSUMPTION UNIVERSITY

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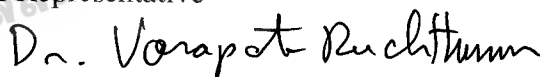
November 2005

This study was conducted to examine the dynamics of job stress and job satisfaction as well as the relationship between them among nurses in private hospitals in Metropolitan Bangkok.

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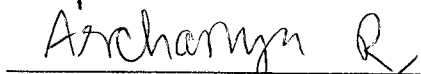


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The present study aimed to examine the differences in the degree of perception of factors affecting job-related stress and the differences in the degree of perception of perceived determinants of job satisfaction among nurses in private hospitals in Metropolitan Bangkok in relation to gender, age, educational background, job position, and years of nursing work. Moreover, the study sought to examine the relationship between job stress and job satisfaction of these nurses.

The population of the study consisted of 9,869 nurses. A total of 385 respondents were used in this study. The research instrument consisted of three parts, namely: demographic questionnaire, Nursing Stress Scale (NSS), and Job Satisfaction Survey (JSS). Descriptive statistics, t-test, ANOVA, and Pearson r correlation coefficient were employed in data analysis.

The major findings were as follows:

1. There were no significant gender differences in the perceived factors affecting job-related stress. Likewise, there were no significant job position differences in the perceived factors affecting job-related stress. And neither were there significant years of nursing work differences in the perceived factor affecting job-related stress. There was,

however, a significant age difference in the perceived factor of conflict with other nurses as well as a significant educational background difference in the perceived factor of conflict with physicians.

2. There were significant gender differences in the perceived determinants of job satisfaction in terms of promotion, supervision, and co-worker. There were significant age differences relative to the perceived determinants of pay, promotion, supervision, and nature of work. Likewise, there were significant job position differences in the perceived determinants of operating procedure, co-worker and, nature of work. There was a significant years of nursing work difference only in the perceived determinant of nature of work. However, there was no significant educational background difference in the perceived determinants of job satisfaction.

3. Through the application of the Pearson r correlation coefficient among a total of sixteen variables, forty-seven significant negative relationships were found to exist between the given variables. There is, therefore, a significant negative relationship between job-related stress and job satisfaction among nurses working in private hospitals in Metropolitan Bangkok.



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CHAPTER 1

The Problem and Its Background

Introduction

Over the past ten years, many changes have occurred in the Thai health care industry which have had direct impact on the work of nurses, including the present researcher. The early part of the 1990s saw changes in how hospitals and other service delivery organizations were reimbursed by state and federal governments, as well as private insurance companies, for the services they provide. The mid-1990s marked the rapid expansion of managed care policies in Thailand that resulted in declining reimbursement rates and changes in the location of patient care services from hospital in-patient units to ambulatory care settings and community-based agencies. According to Kittidilokkul and Tangcharoensathien (2004), towards the end of the last decade, patient care inside our hospitals continued to intensify as patients admitted to the hospital became sicker, and patient stays became shorter. Despite the said expansion, however, the volume of patients did not decrease, and in many areas of the state, patient volumes have increased steadily. An increasing patient population, a growing volume of administrative duties, weakness in multidisciplinary team working and a mismatch between the skills learned in training and those now required by the current work environment has been identified as posing particular problems for nursing staff.

The quality of life of Thai people is emphasized by promoting health both physically and mentally. The physical and mental needs of the people, particular local needs, are attended to by many levels in the health care system. Nursing services are planned to integrate basic health service with primary health care to obtain optimal health

conditions for the people and to achieve the goal of “health for all and all for health.” The self-care and home-health care constructs are stressed to strengthen management and implementation of national nursing services. Nursing roles are focused on teaching and counseling to support education, patient responsibility, and public empowerment within the health system.

In late 2001, the Royal Thai Government, through the Ministry of Public Health, implemented the national health care program called “30 Baht Health Insurance” or “30 Baht for the Cure of Every Disease,” to reduce the cost of health care and to provide a health guarantee for the people of all economic levels (Sressthaputra & Indaratna, 2001). Under this program, a patient who does not have any type of healthcare insurance coverage is eligible to visit a hospital within their neighborhood for a treatment of sickness at a fixed fee of 30 Baht (approximately \$0.70) per visit. When this policy came out in the newspapers, everybody thought it would be a good policy to make all Thai people get better health care service. However, the volume of patients did not decrease; instead, it increased steadily. There are approximately 20 million Thais not covered by any type of healthcare insurance, who are eligible under this program. This national healthcare program does not, however, cover cosmetic surgery, dialysis, and human immuno-deficiency virus or HIV treatment. The hospitals under this program will receive an annual capitalization funding from the Ministry of Public Health of 1, 200 Baht (approximately \$29) per registered patient. As a result of this program, most hospitals faced a budget management crisis as the government almost completely cut its budgeting support and let the hospitals run on the fixed fee and the capitalization received from the Ministry of Public Health. This also resulted in very limited investment of new medical devices and equipment, especially those requiring major capital investments. A lot of hospitals did not get enough money and yet they used their limited funds to run the

policy. However, that was not enough so they discharged some of their health care workers or decreased salary payments. This situation has since affected doctors, nurses, and other health care workers (BBC News Online, 2002). To date, this policy is still in use and under discussion.

Occupational stress has been an important issue in the nursing profession because it appears to be related to nurses' intention to leave the profession, nursing shortages, and quality of care provided by nurses. Though every occupation is susceptible to stress, the nursing professional seems to be particularly vulnerable to a chronic build-up of stress from emotionally-demanding situations like dealing with dying patients. In addition, work stress among nurses is strongly related to absenteeism, turnover, injury, low job performance and morale (Gebhardt & Crump, 1990).

In an Internet article (BBC News, 2000), Carol Bannister, occupational health adviser for the Royal College of Nursing described 'suicide risk' for both doctors and nurses and revealed that the average suicide rate for nurses has been 0.11 deaths per 1,000. Two thirds of nurses who suffer from overwork, stress, and depression blame work for their condition. Munro (as cited in Kreyer, 2003) reported that the suicide rate for female nurses in the USA was significantly higher than the national average. In Germany, in 1997 and 1998, the DAK-BGW view in 2000 (as cited in Kreyer, 2003) showed that numbers of staff absence were above average in health care professions due to back pain and psychiatric diseases. The study also showed that caregivers with high work-induced stress had a higher risk to experience work accidents.

In the periodical *Nursing*, a survey by Perry et al. (2004) got to the point about preventable injuries of nurses. A total of 498 nurses responded to the questions in "a needle stick-and-sharp safety survey." The survey results showed that 58% of injuries occurred while the nurse was giving an intramuscular (I.M.), intravenous (I.V.) or

subcutaneous injection and that 85% of respondents who didn't receive post exposure prophylaxis (PEP) used the sharp device on an HIV-positive patient. Although most of these exposures were in the low risk category, all HIV exposures should be thoroughly evaluated and followed up. In 2001, Ed Fraunheim in the periodical, Nurse Week, reported that Lynda Arnold, Registered Nurse (RN), contracted HIV from an IV needle stick after a patient moved whilst she was administering an injection in 1992; it turned her life upside down. In 1998, National Institute for Occupational Safety and Health (NIOSH) investigators published a study of hospital admissions for mental health disorders among 130 major occupational categories. Colligan (as cited in NIOSH, 1998) reported that, of the 22 occupations with the highest admission rates for mental disorders, six were health care occupations—health technologists, practical nurses, clinical laboratory technicians, nurses' aides, health aides registered nurses, and dental assistants. In effect, hospital work often requires coping with some of the most stressful situations found in any workplace. Hospital workers must deal with life-threatening injuries and illnesses complicated by overwork, understaffing, tight schedules, paperwork, intricate or malfunctioning equipment, complex hierarchies of authority and skills, dependent and demanding patients, and patient deaths; all of these contribute to stress.

In a constantly changing healthcare environment, another related and equally important issue to address is the matter of nurses' job satisfaction. Job satisfaction is considered a critical factor in health care settings for several reasons. There is strong empirical evidence to support a causal relationship between job satisfaction, staff turnover, and absenteeism (Parsons, as cited in Cowin, 2002). The evidence suggests that when nurses' job satisfaction is low, retention of staff is also low and staff turnover and absenteeism increases. This combination of events can cause significantly lower standards in health care delivery. In addition, the costs of recruitment can be measured in

both financial and productivity terms. Klinefelter (as cited in Cowin, 2002) suggests that interest in nurses' job satisfaction is often motivated solely by the organization's cost effectiveness rather than by any concern for the individual or the nursing profession. When new nursing staff needed to be continually recruited as a result of poor staff retention evolving from low job satisfaction, other areas such as budget and cost containment become problematic. Again, the long-term effect may be a spiraling downturn in standards of healthcare delivery as a result of short-term mismatches in time and care management. In addition, being short-staffed is in itself likely to lower job satisfaction which further compounds the difficulties of retaining nursing staff. This difficulty in replacing and retaining nursing staff is not a localized phenomenon; rather, it is a worldwide issue as the cycle of available nursing staff reaches a new low point (Cowin, 2002). Staff shortages that evolve from low job satisfaction cannot be easily remedied when the available pool of recruits declines. Those who have left nursing as a result of low job satisfaction may be difficult to entice back into the profession because of their prior experience with dissatisfaction. As such, the evidence from nursing research suggests that job satisfaction continues to play a pivotal role in retaining nursing staff. If nursing work is understood by potential new recruits as offering little in the way of job satisfaction then recruitment strategies must address this critical factor (Cowin, 2002).

In view of recent events and studies relative to job stress and job satisfaction of individuals in the nursing profession, this researcher, who is herself a nurse, has taken up the challenge of looking further into the dynamics of job stress and job satisfaction as well as the relationship between these two constructs among nurses working in private hospitals in Metropolitan Bangkok. This study was conducted with the ultimate aim of raising overall awareness of the risks and occupational hazards faced by nurses in an effort to find alternative solutions to identified problems in Thai nurses' domain. In

addition, this study is envisioned to provide empirical data, conclusions, and recommendations that would enlighten nurses and help them adjust successfully to the demands of their profession, and more importantly, to provide recommendations to corporate and governmental policy makers who are in a position to act as catalysts of change for the betterment of all in the nursing profession.

Research Objectives

The main purpose of this research is to examine the dynamics of job stress and job satisfaction as well as the relationship between them among nurses working in private hospitals in Metropolitan Bangkok. More specifically, the research objectives of the study are as follows:

1. To examine how nurses working in private hospitals in Metropolitan Bangkok perceive the factors affecting job-related stress in relation to their demographic variables: gender, age, educational background, job position, and years of nursing work.
2. To examine how the same nurses perceive the determinants of job satisfaction in relation to the given demographic variables.
3. To examine the relationship between job stress and job satisfaction among the said nurses.

Statement of the Problem

In line with the research objectives, this study aimed to answer and clarify the following research problems:

1. Are there significant differences in the nurses' perception of the factors affecting job-related stress as a function of the following demographic variables: gender, age, educational background, job position, and years of nursing work?
2. Are there significant differences in the nurses' perception of the determinants of job satisfaction as a function of the following demographic variables: gender, age, educational background, job position, and years of nursing work?
3. Is there a significant relationship between the factors affecting job-related stress and the determinants of job satisfaction among nurses working in private hospitals?

Research Hypotheses

In the light of the study's objectives and problem statements, the following hypotheses were generated:

1. There are significant differences in the nurses' perception of the factors affecting job-related stress as a function of the following demographic variables: gender, age, educational background, job position, and years of nursing work.
2. There are significant differences in the nurses' perception of the determinants of job satisfaction as a function of the following demographic variables: gender, age, educational background, job position, and years of nursing work.
3. There is a significant relationship between the factors affecting job related-stress and the determinants of job satisfaction among nurses working in private hospitals.

Significance of the Study

The potential significance of this study is that it could provide insight into how job stress and job satisfaction might relate to nurses' job-related circumstances. Knowing the relationship between job stress and job satisfaction may lead to mechanisms aimed at improving nurses' job performance and reducing the problem regarding high turnover rate.

At the present time, there is a dearth of literature that deals with job stress and job satisfaction among nurses in Thailand. In view of this, the researcher envisages that this study will be of profound benefit to particular individuals and groups in the following ways:

1. The participants of the study themselves and other nurses will be aware of and acknowledge the perceived factors or causes and effect of work-related stress and will have tentative intentions to disclose themselves to others. Gaining social support may pave the way for the respondents to access guidance and information to help relieve them of occupational stress.
2. The study and its implications will provide hospital administrators as well as student nurses useful information in terms of identifying potential sources of occupational stress and which strategies are effective for coping with particular kinds of stress.
3. The findings of the study can be used by educational institutions and training organizations for specialized nurses, registered nurses, or interested individuals who want to become nurses. By learning about the causes of stress, these organizations could set up policies or strategies to prevent job stress and/or create development programs on how to manage stress and ultimately promote job satisfaction.

4. Likewise, the results of the study would benefit hospital administrators who hold positions directly above hospital ward nurses in the organizational hierarchy. The director of the hospital can use the findings of this study to determine ways to help hospital staff deal with stress and enhance job satisfaction. The hospital administrators can learn to recognize staff that avoid stress by using negative palliative coping and focus on positive coping methods which combine relaxation and problem solving to prevent stress. And in this sense, hospital administrators may seriously consider putting counseling mechanisms in place not only for nurses but also for other medical and non-medical staff.
5. Researchers interested in the same key variables may use this study for reference purposes. This study makes a direct contribution in terms of research findings, data base information, and literature associated with job stress and job satisfaction which may help future researchers expand the scope and nature of the research investigation.

Scope and Limitation of the Study

In this study, the demographic characteristics selected for research purposes included only gender, age, educational background, job position, and years of nursing work. This implies that any other demographic characteristics of nurses fall beyond the scope of this study.

The translation of the instrument from the original English version into Thai, especially in sections about job satisfaction, may have been composed of some double negative statements which needed reverse scoring. Some participants expressed confusion with double negative sentences which are not familiar to Thais in general; and these may lead to data which may not fully reflect the respondents' perceptions.

Definition of Terms

Several key terms referred to throughout the study are described below in their operational sense.

1) Job Stress

As used in the study, job stress refers to the following stress-inducing situations encountered by nurses in their profession: death and dying, conflict with physicians, conflict with other nurses, inadequate preparation, lack of support, workload, and uncertainty concerning treatment (Nursing Stress Scale or NSS; as cited in Kreyer, 2003).

2) Job Satisfaction

In this study, job satisfaction is measured in terms of nine sub-scales, namely: pay, promotion, supervision, fringe benefits, contingent rewards, operating procedures, co-workers, nature of work, and communication (Job Satisfaction Survey or JSS; as cited in Spector, 1997).

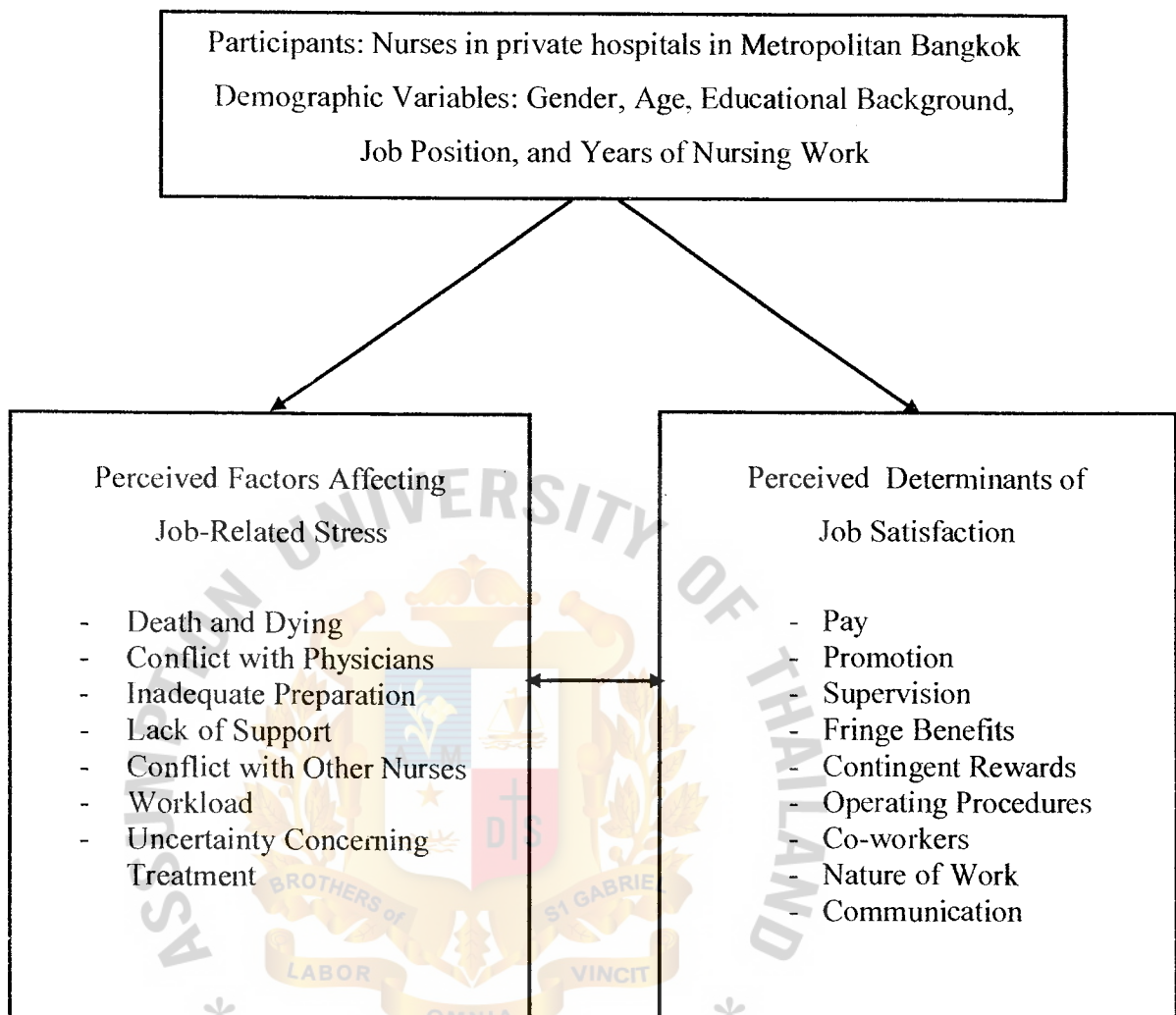
3) Nurses

Operationally, the term refers to the professional nurses working full time at private hospitals in Metropolitan Bangkok.

4) Private Hospital

As used in this study, a private hospital is an institution for the care of the sick, for medical treatments, or for care and treatment, maintained by private endowment in Metropolitan Bangkok.

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Conceptual Framework

This study, as schematically represented in the given conceptual framework, is premised on the psychological constructs of job stress and job satisfaction. Specifically, the study aimed to examine the differences in the degree of perception of the factors affecting job-related stress and the differences in the degree of perception of perceived determinants of job satisfaction among nurses working in private hospitals in Metropolitan Bangkok, in relation to the selected demographic variables of gender, age, educational background, job position, and years of nursing work.

Job stress was measured in terms of the Nursing Stress Scale (NSS), a 29-item self-reported instrument with seven sub-scales, namely: death and dying, conflict with physicians, conflict with other nurses, inadequate preparation, lack of support, workload, and uncertainty concerning treatment. Job satisfaction, on the other hand, was measured in terms of the Job Satisfaction Survey (JSS), a 36-item self-reported instrument with nine sub-scales, namely: pay, promotion, supervision, fringe benefits, contingent rewards, operating procedures, co-workers, nature of work, and communication.

The study also sought to establish the relationship between the key variables job stress and job satisfaction.



CHAPTER II

Review of Related Literature

This study is supported by a volume of relevant information, models, theories, and related studies both in Thailand and in other countries, presented in the following order:

1. Health Care and the Nursing Professional in Thailand
2. Concept of Job Stress
 - 2.1 Views about Job Stress
 - 2.2 Job Stress in Health Care Service
 - 2.3 Theories Related to Job Stress
3. Concept of Job Satisfaction
 - 3.1 Views about Job Satisfaction
 - 3.2 Theories Related to Job Satisfaction
4. Related Research on the Interrelationships between Variables
 - 4.1 Relationship between Demographic Variables and Job Stress and Job Satisfaction
 - 4.2 Related Foreign Research on the Relationship between Job Stress and Job Satisfaction
 - 4.3 Related Local Research on the Relationship between Job Stress and Job Satisfaction

1. Health Care and the Nursing Professional in Thailand

Health care is organized and provided in Thailand by the public and private sectors. The Ministry of Public Health is the major provider of public health services. Public health services are also provided in medical school hospitals under the Ministry of University Affairs, the Ministry of Interior, the Ministry of Defense, and the Bangkok Metropolitan Administration. Private clinics and hospitals, pharmacies, or drugstores also take part in health services. There is a distinct difference in the standard of health care between Bangkok and the provinces. In many ways, health care in Bangkok matches the standards of health care in Western cities, at least for those who can afford it. The Thai public health service has undergone successive evolutions. In the past, the people depended on each other and used local wisdom to cure illnesses; however, today's public health service depends on modern medicine. However, the use of modern medical technology, especially high-tech medical equipment, is confined primarily to big cities and the private hospitals, rather than the public hospitals. Thailand now has 1,345 hospitals nationwide. In Bangkok, there are 53 public hospitals and 100 private hospitals, as a result of the private hospital industry boom which stimulated great demand for specialists, nurses, pharmacists and others (Medical Registration Division; Department of Health Service Support, Ministry of Public Health, 2001, online). In spite of this industrial upsurge, the volume of patients did not decrease; on the contrary, and in many areas of the state, patient volumes have increased steadily. Correspondingly, the duties of nurses did not decrease; instead, their responsibility to patients and to their work escalated.

Registered Nurses (RNs) work to promote health, prevent disease, and help patients cope with illness. They are advocates and health educators for patients, families, and communities. When providing direct patient care, they observe, assess, and record

symptoms, reactions, and progress in patients; assist physicians during surgeries, treatments, and examinations; administer medications; and assist in convalescence and rehabilitation. RNs also develop and manage nursing care plans, instruct patients and their families in proper care, and help individuals and groups take steps to improve or maintain their health. RNs also may be on call—available to work on short notice. While State laws govern the tasks that RNs may perform, it is usually the work setting that determines their daily job duties. Nursing has its hazards, especially in hospitals, nursing care facilities, and clinics, in all three of which nurses may care for individuals with infectious diseases. Nurses must observe rigid standardized guidelines to guard against disease and other dangers, such as those posed by radiation, accidental needle sticks, chemicals used to sterilize instruments, and anesthetics. In addition, they are vulnerable to back injury when moving patients, shocks from electrical equipment, and hazards posed by compressed gases (Bureau of Labor Statistics, 2004, online).

A 2001 census on nursing manpower in Thailand reported that there were 74,438 active RNs (119 RNs to 100,000 population). Most RNs are clustered in Metropolitan Bangkok and the Central Region. Nursing services in the hospitals comprise 3 shifts: day shift (8:00 a.m. - 4:00 p.m.), evening shift (4:00 p.m.-12:00 p.m.) and night shift (12:00p.m.-8:00 a.m.). Thailand's population and number of Registered Nurses are shown in Table 1.

Table 1

Thailand's Population and Number of Registered Nurses

	Total Populations	Population in Bangkok	Population in other provinces	Total RNs	RNs in Bangkok	RNs in other provinces
1995	59,460,382	5,570,743	53,889,639	54,262	16,089	38,173
1996	60,116,182	5,584,963	54,531,219	54,207	15,972	38,235
1997	60,816,227	5,604,772	55,211,455	56,366	15,190	41,176
1998	61,466,178	5,647,799	55,818,379	63,708	18,105	45,603
1999	61,661,701	5,662,499	55,999,202	68,008	18,543	49,465
2000	61,878,746	5,680,380	56,198,366	70,978	18,338	52,640
2001	62,308,887	5,726,203	56,582,684	74,438	21,587*	52,851*

*Estimated data

Source: Department of Provincial Administration, 2004. <http://www.dopa.go.th>,
 Bangkok Metropolitan Administration, 2004. <http://www.bma.go.th/bmaeng/>

2. Concept of Job Stress

Psychologists are concerned about stress in the workplace. Stress on the job is reflected in a lower productive efficiency in the organization. Nowadays, everyone seems to be talking about stress at work. Stress has become an important factor of life in the work place. Stress is difficult to define partly because it means different things to different people. Some see stress as any external stimulus that causes wear and tear, such as the pressure to perform at work. Competitive pressure, the uncertainties of modern life, job insecurity-all these factors have made life increasingly stressful. Stress has been defined in many ways and is believed to be caused by a stimulus that can be either physical or psychological and that the individual responds to the stimulus in some way. A growing amount of research over the past few decades has provided of evidence that unfavorable job conditions can affect employee health and well being (Cooper & Cartwright, as cited in Spector, 2003).

2.1 Views about Job Stress

Foreign literature on job stress.

“Stress is actually a natural and necessary response experienced by both humans and animals. To put it simply, stress is a state of readiness. It can be positive, as in the form of excitement, or negative, as in the form of nervousness and worry. Unfortunately, our modern society provides too many opportunities to heighten stress and too few to deal with it. Unpleasant effects of the natural stress response develop when a person experiences stress all the time” (Ross, 2001).

The National Institute of Occupational Safety and Health in the United States (as cited in Stephen, 2003) defined job stress as the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, and needs of the worker.

European Agency for Safety and Health at Work (2000) described stress as the harmful emotional and physical reactions resulting from the interactions between the worker and her/his work environment where the demands of the job exceed the worker's capabilities and resources.

According to the Health and Safety Executive based in the United Kingdom (2001), stress is the adverse reaction people have to excessive pressures or other types of demand placed on them.

Lazarus and Folkman (as cited in Schwarzer, 2004), interpreted stress as a particular relationship between the person and the environment that is appraised by the person as exceeding his or her personal and social resources and endangering his or her well-being. Stress experiences and coping results bring along immediate effects, such as affects or physiological changes and long-term results concerning psychological well-being, somatic health, and social functioning.

Schwarzer (2004) claimed that the behavioral effects of an over-stressed lifestyle are easy to explain. For instance, when under pressure, some people are more likely to drink heavily or smoke as a way of getting immediate chemical relief from stress. Others may have so much work to do that they do not exercise or eat properly. They may cut down on sleep, or may worry so much that they sleep badly. Stress is also associated with mental health problems and, in particular, anxiety and depression. The relationship is fairly clear that the negative thinking that is associated with stress also contributes to these.

Sauter et al. (1999) explained that mood and sleep disturbances, upset stomach and headache, and disturbed relationships with family and friends are examples of stress-related problems that are quick to develop and are commonly seen in studies. The early signs of job stress are usually easy to recognize. But the effects of job stress on chronic diseases are more difficult to see because chronic diseases take a long time to develop and can be influenced by many factors other than stress. Nonetheless, evidence is rapidly accumulating to suggest that stress plays an important role in several types of chronic health problems-especially cardiovascular disease, musculoskeletal disorders, and psychological disorders.

Ellis (2003) asserted that stress has a significant negative impact on the well-being of both the individual and the organization. Links have been demonstrated between stress and the incidence of heart disease, alcoholism, mental breakdowns, job dissatisfaction, accidents, family problems, and certain forms of cancer. The consequences of exposure to long-term stress can impact directly physiological damage to body, or with harmful behavioral effects of performance in work-related situations.

The previously mentioned views on job stress were all of foreign origin. To present a more balanced of literature on the nature and impart of job stress, considering

that this study was conducted in Thailand, a few more views specifically derived from Thai writers are included in the following segment.

Local literature on job stress.

Job-related stress may occur as a result of the following factors; unrealistic expectations, deadlines or job relocation; too much responsibilities with little or no authority; inadequate time to complete job responsibilities; and poor working environment (lighting, noise) (Santiwong, 1999).

Naravee (2000), explained job stress in terms of working condition, role conflict, role ambiguity, and work overload in the following manner; 1) working condition includes aspects such as the layout of offices, noise levels, lighting, air, and arrangements of working hours, etc.; 2) role conflict exists when a job function contains roles, duties, or responsibilities that may conflict with one another and includes the experience of being pulled in several directions by people with different expectations of how one should behave; 3) role ambiguity may be caused by many factors such as unclear work objectives, confusion surrounding responsibility, unclear working procedures, confusion about what others expect, and lack of feedback or uncertainty surrounding job performance; and 5) work overload refers to an overload of work, too much work and too little time to do the work.

Yousuk (1990) characterized job stress as a psychological response to some aspect of the environment which an individual perceives as exceeding personal resources.

Summing up the given views on job stress, this researcher observed that a key notion concerning job stress is that people perceive the situation as taxing or as beyond their resources or control for responding appropriately. It was also noted that, in effect, there are many sources of stress in the organization such as workload, excessive time

demands, deadlines, unpredictable schedule, ambiguity regarding work tasks, territory, role conflict with immediate supervisor or colleague, negative competition, detrimental environmental conditions of lighting, ventilation, noise, and personal privacy.

All these stress-provoking situations and concerns are not uncommon in the nurse's workplace. Hence, the following section highlights job stress within the domain of healthcare service including nursing care.

2.2 Job Stress in Health Care Service

As maintained by Kreyer (2003), work-induced stress was reported to be highest in populations of fire workers, rescue workers, sky guides, and nurses; particularly in nursing, the incidence of burnout has shown to be high. Many stress-related conditions are connected with one's job and it is well known that some kinds of employment are highly stressful, whereas others are considered relatively stress-free. High work stress in health organization professions has been related to several factors. These include the complicated diagnostic process based on complex medical technology, fragmented medical treatment, short length of hospital stay, critically ill patients, patients' death, and low salary associated with high responsibility (Donley & Flahertz, 1990). The nursing profession is often considered a stressful one; a conclusion supported by high rates of staff turnover and psychiatric out-patient consultations (Cherniss, 1980). Nurses as a professional group are often described as "angels of mercy." The one characteristic that most nurses have in common is that of "dedication and caring." This despite the fact that, for the most part, nurses are over-worked, under paid and must tolerate long irregular hours compared to the rest of society.

The following classification of nurses' stressors were identified by Humphrey (1992) as; patients, under-staffing, administration, co-workers, time, physicians,

compensation, supplies, and equipment. These sources of occupational stress generally are related to: (1) workload pressures due to insufficient time and resources to complete nursing tasks; (2) organization pressures due to nurses' lack of involvement in planning and decision making; (3) pressures dealing with patients and relatives especially when patients are dying; (4) pressures due to conflicting demands of work, home; and finally, (5) pressures due to role ambiguity and coping with changing responsibilities. Under this circumstance, understanding the sources of nurses' stress in the modern public and private hospitals is important to facilitate the delivery of quality nursing care in Thailand.

According to DAK-GBW (as cited in Kreyer, 2003), three typical sources of stress in health care have been identified: 1) workload according to organization of work, like high time pressure, frequent disturbances, few information, and overload; 2) low task diversity and few decision latitude; 3) lack of support by supervisor or co-workers. Gray-Toft (as cited in Kreyer, 2003) identified three different sources of stress: the physical environment (workload), the psychological environment (death and dying; uncertainty concerning treatment; inadequate preparation of nurses; lack of support), and the social environment (conflict with physicians; conflict with nurses).

Another considerable source of work stress was found in the interaction with patient problems (psychological, social, and/or physical). In the view of Maslach, Schaufeli, and Leiter (2001), this interaction is believed to account for higher levels of chronic stress in human service workers. Stressors that were positively associated with burnout were job strain, lack of social support, conflicts with other nurses, conflicts with physicians, presence of stressors related to private life, job insecurity, full-time vs. part-time status, low level of perceived job control, hierarchical level, death and dying of patients, and feeling unprotected against occupational hazards (Stordeur, as cited in Kreyer, 2003).

A specific stress reaction is the burnout syndrome, which is characterized by emotional exhaustion, depersonalization, and a reduced feeling of self-efficacy (Maslach, Schaufeli, & Leiter, 2001). The burnout syndrome has been shown to be highly correlated with workload, time pressure, and role conflicts. Particularly, conflicts with physicians were highly associated with burnout (Watson, as cited in Kreyer, 2003). The so-called “professional burnout syndrome” includes symptoms such as cynicism and reduced personal accomplishments, headaches and disturbed sleep patterns, non-specific pain, reduced attention span, feelings of meaninglessness, apathy, or detachment from work (Constantini, as cited in Kreyer, 2003). Burnout has been frequently observed in caregivers, e.g., social service employees, nurses, or hospital staff (Kilfedder, 2001; Garrett, 2001; Edwards, 2000).

One of the most stressful areas of the hospital is the intensive care unit (ICU) which is for complex disease states, treatments, emergencies, attempts to prolong life, and sudden death (Kreyer, 2003); another place is emergency room and burn unit. Working in these units is highly stressful. Stress is triggered by a number of factors including unexpected numbers of patients at any time, unexpected rapid changes in patients' situations, and response to distressing or traumatic incidents such as sudden death, patient violence, inappropriate attendees, and physical or verbal abuse on a daily basis (Yang et al., 2002). Working in a burn unit, in particular, has been described as a stressful occupation (Steenkamp & Merwe, 1998). Every nurse who cares for a burn victim knows that stress is a part of working in this field. Some authors have emphasized that these nurses experience dealing with self-inflicted burns, uncooperative patients, inter-staff conflicts and dying patients on a daily basis (Lewis, Poppe, Twomey, & Peltier, as cited in Rafii, Oskouie, & Nikraves, 2004).

Health problems/ physiological stress response.

Stress leads to an activation of the autonomous nervous system, the immune system, and the endocrine system, particularly hormone release from the hypothalamus-pituitary-adrenal axis (HPA axis) (McEwen, Birbaumer, as cited in Kreyer, 2003). Specialized areas in the brain associated with the human stress response include parts of the neocortex, limbic system, and brain stem. These include physical or somatic outcomes such as coronary heart disease, social outcomes such as a loss of a job, and psychological outcomes such as psychological well-being, life satisfaction, and mental health (Wong, Leung, So, & Lam, 2001). Stress has been associated with loss of appetite, ulcers, mental disorder, migraines, difficulty in sleeping emotional instability, disruption of social and family life, and the increased use of cigarettes, alcohol, and drugs (Schanll as cited in Kreyer 2003).

A long-term high level of stress can lead to burnout (Toscano, 1998). Burnout is a descriptive rather than a medical term, but when it occurs, you may experience a variety of symptoms (Maslach, Jackson & Leiter, 1996). These include trouble concentrating, constant feeling of fatigue, irritability and insomnia. Long-term stress affects the entire body, causing such problems as headaches, skin irritations, diarrhea, ulcers, indigestion, muscle pain, irritable bowel and many others (Toscano, 1998). You may also be at risk for later developing heart disease, high blood pressure, diabetes or immune system problems (Ross, 2001). In addition to stress and overwork, nurses cited a disabling back injury (60%) followed by contracting HIV or hepatitis from a needle stick injury (45%) among their top three healths and safety concerns. Other concerns were the possibilities of being infected with tuberculosis or another disease (37%), an on-the-job assault (25%), developing a latex allergy (21%) and a fatigue-related car accident after a shift (18.8%) (The American Nurses Association, 2001, online).

Mental problems/ psychological stress response.

Mental health as a psychological outcome has been widely explored. According to Singh (as cited in Wong, Leung, So, & Lam, 2001), employees who experienced high-role stress manifested more symptoms of free-floating anxiety, obsessive-neurotic depression, hysterical neurosis, phobic anxiety, and somatic concomitants of anxiety. Excessive paperwork, lack of involvement in decision-making, lack of feedback from supervisors regarding job performance, meeting the perceived demands of immediate supervisors, and conflict with other health care providers was also identified as sources of anxiety (Bailey & Walker, as cited in Wong, Leung, So, & Lam, D., 2001). The long-term effects of stress include dissatisfaction, resignation, psychosocial disorders, and impairments, e.g., depression and reduced self-confidence (Baumann & Schwarzer; as cited in Kreyer, 2003).

Behavioral problems/ behavioral stress response.

Stress also may alter the individual's behavior. As a consequence of deranged action regulation, fluctuation of performance with higher error rate and increased danger of accidents can be observed (Ostell, Green, as cited in Kreyer, 2003). Other short-term reactions on stress are aggression and withdrawal behavior. Other stress-related reactions to stress include increased tobacco consumption, altered alcohol intake, and changes in diet (Baumann & Schwarzer; as cited in Kreyer, 2003). Finally, individuals may attempt to escape the stressful situation. With respect to the latter, job turnover is viewed as one possible "behavior" to escape work-related stress. Employee turnover contributes to shortage of nurses at an organizational level. Turnover and high absence rates are costly and result in decreased standards of patient care. Additionally, they may cause increased pressure on those left on the job. However, there are multiple other reasons to quit a job,

and it remains unknown to what extent work-related stress contributes to the variance in job turnover rates (Kreyer, 2003).

Table 2 presents a summary of the stress reactions in adaptation to stress. It can be seen that these are a number of physiological, psychological, and behavioral stress reactions as forms of adaptation to stressful factors situations.

Table 2
Stress Reactions in Adaptation to Stress

Stress reactions	Short term	Medium to long-term	Long term Successions
Physiological	<ul style="list-style-type: none">▪ alterations in autonomic nervous system (increased pulse rate and blood pressure; more adrenaline secretion; higher muscle tension)▪ alterations in neuroendocrine systems (activation of the HPA axis)▪ alterations of immune functions	<ul style="list-style-type: none">▪ psychosomatic complaints▪ cardiovascular disease	<ul style="list-style-type: none">▪ atrophy
Psychological	<ul style="list-style-type: none">▪ strain▪ disappointment▪ anger▪ anxiety▪ exhaustion▪ feeling of monotony	<ul style="list-style-type: none">▪ dissatisfaction; resignation▪ depression▪ burnout▪ anticipatory anxiety▪ not being able to relax after work	

Behavioral	<i>Individual:</i>	<i>Individual:</i>
	<ul style="list-style-type: none"> fluctuation in performance; errors to omit controlling actions 	<ul style="list-style-type: none"> higher consumption of nicotine, alcohol and medicaments
	<i>Social:</i>	<i>Social:</i>
	<ul style="list-style-type: none"> conflicts quarrels aggression, withdrawal 	<ul style="list-style-type: none"> higher absence rate turnover passive spare time

Source: McEwen B.S. (as cited in Kreyer, 2003), Endocrine Stress Responses in Critical Care Nurses: A possible relation to job turnover?

This chapter on related literature would not be complete if there were no mention of supporting theories. Theories are useful for guiding research as they propose to explain dynamics and relationships among phenomena, in the case of this study, job stress and job satisfaction. The following theories are deemed essential in synthesizing information, organizing it into logical components, and guiding this researcher's efforts in the empirical analysis of job stress and, in a separate section, that of job satisfaction.

2.3 Theories Related to Job Stress

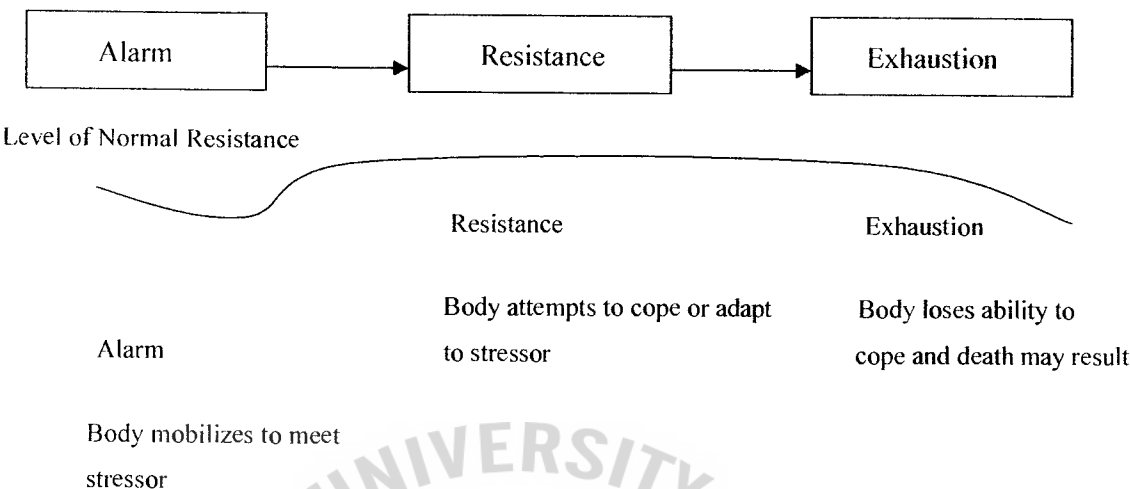
General adaptation syndrome (Selye's Theory of Stress).

Hans Selye was the first scientist to try to figure out how external stressors get "under the skin" to make us ill (Wade & Tavris, 2003). He coined the term "stress" as a nonspecific response of the body to any demand, producing the general adaptation syndrome (GAS). There are three stages to the GAS response: Stage One: the alarm reaction stage, when the adrenal glands are activated; Stage Two: the stage of resistance, in which readjustment occurs; and Stage Three: if the readjustment is not complete, the stage of exhaustion may follow, leading to sickness and possible death" (Fox, as cited in

Perry, 2002). According to McFarland (as cited in Perry, 2002), during Stage One, norepinephrine and epinephrine are released, which causes vasoconstriction (i.e., tightening of the arteries) and an increase in blood pressure and pulse. Hormone levels also rise. Psychosocial changes are also occurring, such as increased levels in alertness, anxiety, and task- and defense-oriented behaviors. Stage Two is when a person adapts optimally to the stress within his or her individual capabilities. This is indicative of the readjustment of hormone levels and a reduction in activity. During this time, a person increases his or her use of coping devices and may have an affinity to rely on defense-oriented behavior. Stage Three occurs when a person loses the “ability to resist stress because of depletion of body resources”. He or she may have a decreased immune system and perhaps even experience weight loss. Prolonged exposure to the stressor may even lead to death. Psychosocial changes reflect the physical changes just mentioned. An individual who has reached this level of response may experience disorganized thinking, personality adjustment, hallucinations and delusions, as well as exhibit violent tendencies. Selye estimated that the inability to adjust successfully to life situations and stress is at “the very root of the disease producing conflict (i.e., improper reactions to life situations)” (Wiley, 2000). Suffice to say, stage three is not a desirable level to reach when dealing with stressors. The general adaptation syndrome reflects Selye’s belief that an “ever increasing proportion of people die from the so-called “wear and tear” diseases, diseases of civilization, or degenerative diseases, which are primarily stress” (Wiley, 2000). Figure 1 shows Selye’s original diagrammatic representation of the GAS.

Figure 1

General Model of Stress: The General Adaptation Syndrome



Source: Selye (1973), *The Stress of Life*, page 485.

Type A and type B personality theory.

Personality types vary, but there are enough basic similarities that led two American cardiologists, Dr. Meyer Friedman and Dr. Ray Rosenman, to discover and categorize different “personality types.” There are some people who can take all that life throws them with a grain of salt (Type B) and there are some people who can’t (Type A). From the research of Friedman and Rosenman, they observed two different behavior types among their patients. Type A: these people are very competitive, like to do many things in a very short period and they are less likely to ask for help, if needed. Type A people are more prone to heart disease, high blood pressure, gastric ulcer, diabetes, etc. Type A people like to be in control of their environment and if anything threatens that, they get stressed. These people tend to ignore the symptoms of illnesses and by the time they see their doctor, it is often too late. The development of type A behavior may be linked to parents. It was found that the parents of type A children encourage them to do their best, even when they do well, still they give them a few positive comments and this

results in them wanting to do much better and being competitive. Type B people consist of even temper, patience, and knowing one’s limits. They may be ambitious as well; however, they don’t push themselves to the limit. Type B people are not prone to heart disease or high blood pressure, illnesses related to stress (Bandini, 2005). Table 3 shows a comparison between Type A and Type B behavior characteristics.

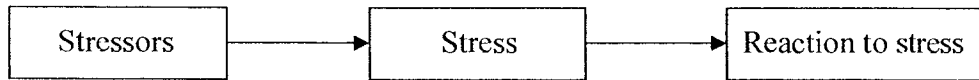
Table 3
Distinguishing Characteristics of the Two Types of Behavior

Type A	Type B
Moves quickly	Moves unhurriedly
Eats fast	Eats peacefully
Speaks rapidly	Speaks slowly
Frequently feels impatient	Patient
Aggressive and competitive at work	Cooperative and collaborative at work
Very time-conscious	Not time driven, sometimes late
Easily upset or angered	Easy-going manner
Highly motivated to achieve	Generally satisfied
Perceived as strong and forceful	Soft spoken, laid back
Feel restless during periods of inactivity	Appreciate leisure and beauty
Frequently tries to do multiple tasks at once	Does one task at a time

Model of job stress.

Micheal and Jemings (1997) found that in all aspects of work as well as in situations away from work such as those associated with family life, the common categories of work-related stressors included task demands, physical demands, physical work environment, role conflict, role ambiguity and shift work. Stress is the result of stressors. A stressor is the external agent that disturbs the individual’s equilibrium. Figure 2 shows the model of job stress, according to Micheal and Jemings.

Figure 2

Model of Job Stress

Source: Micheal C. R. & Jemings D.F. (1997), *Fundamentals of organization behavior*, page 142.

3. Concept of Job Satisfaction

3.1 Views about Job Satisfaction

Foreign literature on job satisfaction.

Job satisfaction refers to the collection of feelings and beliefs that people have about their current jobs and it is one of the most important and well-researched work attitudes in organizational behavior (George & Johnes, 2002).

Bruce and Blackburn (as cited in Murray, 1999) wrote; "Satisfied employees are more likely to experience high internal work motivation, give high quality work performance, and have low absenteeism and turnover."

Job satisfaction is often defined in terms of extrinsic and intrinsic values or rewards (Prothero, Marshall, & Fosbinder, 1999). Extrinsic values include tangible aspects such as wages, work benefits, networks, and bonuses. Intrinsic values include status, a sense of achievement, the ability to interact with others, self-worth, self-esteem, accumulation of knowledge/skills, and the ability to utilize and express creativity.

Robbins (2001) characterized job satisfaction as an individual's general attitude toward his or her job. He added that jobs require interaction with co-workers and bosses, following organizational rules and policies, meeting performance standards, living with working conditions that are often less than ideal, and the like. This means that an

employee's assessment of how satisfied or dissatisfied he or she is with his or her work is a complex summation of a number of discrete job elements.

Job satisfaction may also be expressed as a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences (Locke, as cited in Kapoor, 2000). Thus, job satisfaction is often regarded as a work-related attitude with potential antecedent conditions leading to it (such as autonomy and pay), and potential consequences resulting from it (such as absenteeism and job performance).

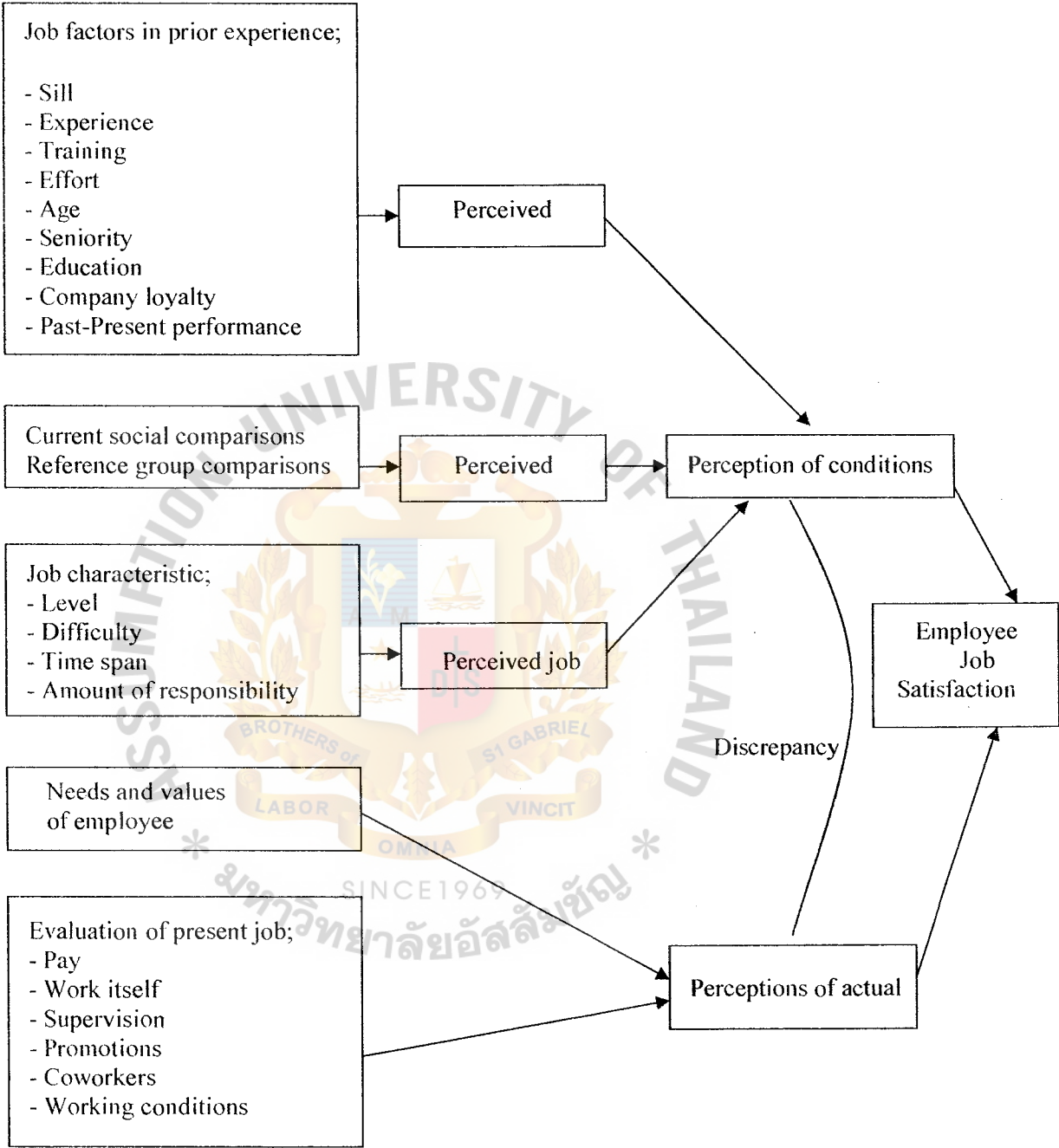
Mueller and McCloskey (as cited in Cowin, 2002) viewed job satisfaction as the degree of positive affective orientation toward employment. They wrote "we are meant to feel good for a job well done and we aim to feel satisfied with all aspects of our job."

Furthermore, job satisfaction or dissatisfaction depends on a large number of factors. It is reasonable to assume that a high level of satisfaction is directly related to positive behavior on the job, high performance, low turnover, and low absenteeism. Organization leaders thought that increasing job satisfaction would result in greater productivity (Schultz & Schultz, 1990).

Job satisfaction is one of the most important concepts in the study of organizational behavior along with absenteeism, productivity, and turnover. Many researchers and industrial psychologists are interested in finding factors that increase job satisfaction because it is related to job behaviors like performance. Motivation and satisfaction are complex and dynamic constructs that have led to a huge array of studies in the past 50 years (Spector, 1997). Figure 3 shows the path framework that incorporates motivational forces in work organizations and how they lead towards employee job satisfaction.

Figure 3

Motivation in Work Organization



Source: Feldman, D.C., Amold, H.J. (1983), Management Individual and Group Behavior in Organizations.

Local literature on job satisfaction.

Taosuwanjinda (1992) defined job satisfaction as the individual's assessment of the extent to which the job meets the individual's needs and expectations.

Lauhanan (1998) stated that job satisfaction is an attitude of man's internal thinking. If the person has satisfaction in his job, he will perform his job effectively and efficiently and the productivity will be higher and the profit will also be high.

Job satisfaction, according to Attamana (1999) is an affective or emotional reaction to a job that results from the employee's comparing actual outcomes to desired, expected, or deserved outcomes. There is a relation between job satisfaction and several determinants which will help administrators predict which group of employees will have negative or positive behavior related to job satisfaction.

Theories on what motivates and satisfies people at work and the components or factors in job attitudes have rapidly multiplied in the last century. Most of these theories relate directly to the inability of one theory to encapsulate the huge variety of possibilities when explaining human behavior in the workplace. As earlier indicated, related literature would not be complete without including some relevant theories that guided the researcher in the conduct of the study. In the following section, theories related to job satisfaction which are pertinent to the direction of this present study are included.

3.2 Theories Related to Job Satisfaction

Two-factor theory.

Psychologist Frederick Herzberg developed a content theory known as the two-factor theory of motivation. The two factors are called the hygiene-motivator factors or, alternatively, the extrinsic-intrinsic factors, depending on the discussant of the theory. The original research that led to the theory gave rise to two specific conclusions.

First, there is a set of *extrinsic* conditions, the job context which result in dissatisfaction among employee when the conditions are not present. If these conditions are present, this does not necessarily motivate employees. These conditions are the *dissatisfiers* or *hygiene factors*, since they are needed to maintain at least a level of “no dissatisfaction” (Ivancevich & Matteson, 1999). They include:

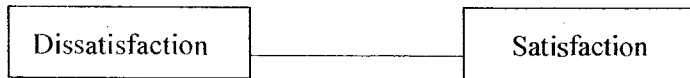
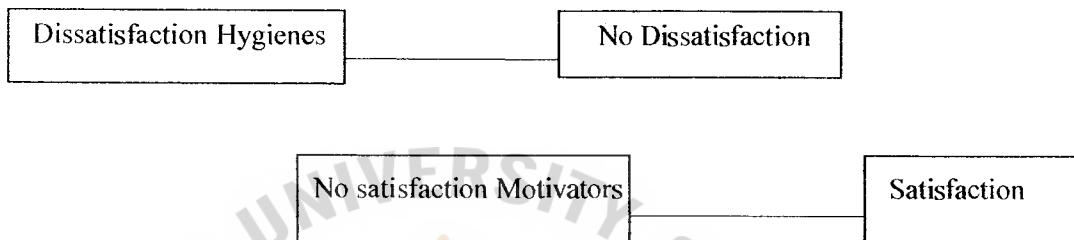
- | | |
|---|-----------------------|
| 1. Administration policies and practices | 6. Salary |
| 2. Supervision-technical | 7. Working conditions |
| 3. Interpersonal relations with supervisors | 8. Status |
| 4. Interpersonal relation with peers | 9. Job security |
| 5. Interpersonal relation with subordinates | 10. Personal life |

Second, a set of *intrinsic* conditions, the job content which when present in the job, builds strong levels of motivation that can result in a good job performance. If these conditions are not present, they do not prove highly satisfying. The factors in this set are called the satisfiers or motivators and include;

- | | |
|-------------------|------------------------------|
| 1. Achievement | 4. Advancement |
| 2. Recognition | 5. The work itself |
| 3. Responsibility | 6. The possibility of growth |

These motivators are directly related to the nature of the job or task itself. When present, they contribute to satisfaction. This, in turn, can result in intrinsic task motivation. Herzberg's theory inherently assumed that dissatisfaction and satisfaction do not represent a single continuum (traditional view). Instead, two separate continua are required to reflect people's dual orientation to work, representing both the hygiene and motivator factors, as seen in Figure 4.

Figure 4

*Herzberg's Two-Factor Theory*Traditional ViewHerzberg's Two-Factor Theory

Source: Champoux, J. E. (as cited in Kapoor, 2000), Franchisee and Small Business Satisfaction.

Value discrepancy theory.

According to Locke (as cited in George & Johnes, 1999) two factors operate to cause differences in job satisfaction even when jobs are identical. First, workers may differ in their beliefs about the job in question; that is, they may differ in their perceptions concerning the actual nature of the job. Secondly, even if individuals perceive their jobs as equivalent, they may differ in what they want in the job. This point of view concerning the causes of job satisfaction is called the value discrepancy theory of satisfaction. This theory holds that satisfaction is a function of discrepancy between the job outcomes a person wants and the outcomes that are perceived to be obtained. This theory suggests that a person's job satisfaction comes from what they feel is important rather than the fulfillment or unfulfillment of their needs. A person's importance rating of a variable is referred to "how much" of something is wanted. Discrepancy theory suggests that dissatisfaction will occur when a person receives less than what they want. Locke thought

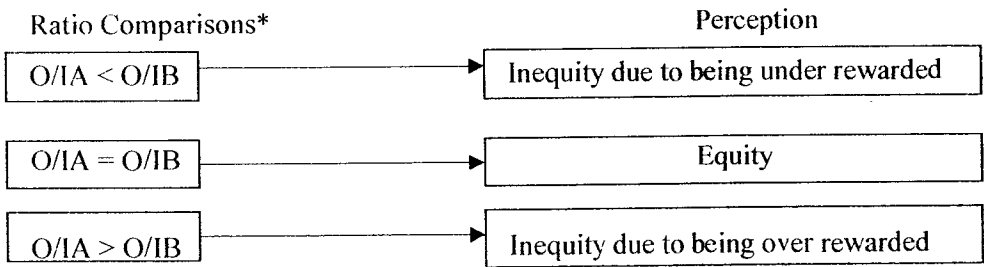
that satisfaction is likely to result from the fulfillment of wants or desires than from the fulfillment of deprived needs. That is, what a person considers important or valuable has stronger effects on his or her satisfaction. This hypothesis describes how values operate on satisfaction. Satisfaction with a job factor will depend on the importance of the factor and on the difference between what is desired and how much is received. When a job factor is very important, a discrepancy matters more and leads to greater dissatisfaction than when the factor is not important.

Discrepancy theory is useful because it takes into account that people often take a comparative approach to evaluation. Managers need to recognize this comparative approach and should ask workers what they want their jobs to be like. This information can help managers make meaningful changes to the work situation and raise subordinates' levels of job satisfaction (George & Johnes, 1999).

Equity theory.

Adam's Equity theory assumes that individuals value and seek social justice in how they are rewarded for their productivity and work quality. The author explained that employees make comparisons of their job inputs (i.e. effort, experience, education and competence) and outcomes (i.e. salary levels, raises, and recognition) relative to those they put into it (inputs) and then the outcome-input ratio with outcome-input ratio of relevant others is compared (Robbins, 2001). Figure 5 presents a schematic representation of the key constructs of the theory.

Figure 5
Equity Theory



*Where O/IA represents the employee, and O/IB represents relevant others.

* Note: O is outcome, and I is input.

Source: Robbins & Stephen P. (2001), Value, Attitudes and Job satisfaction; Organizational behavior (9th edition), New Jersey: Prentice-Hall International, Inc., p.76.

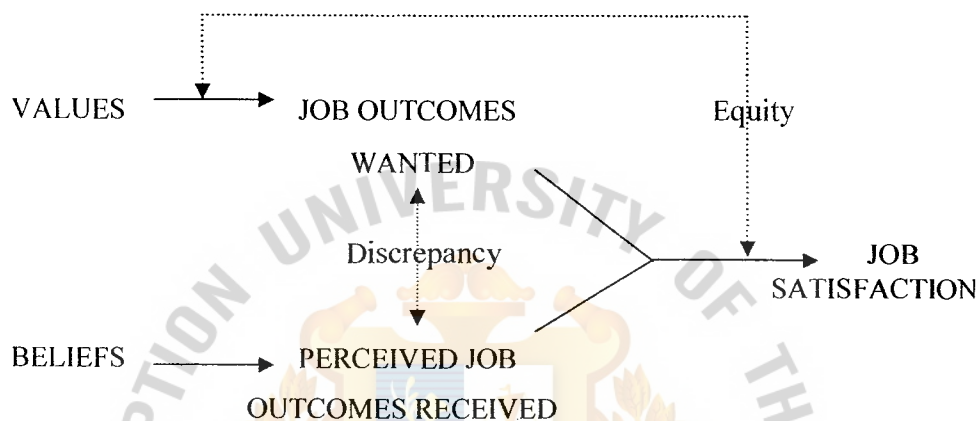
Employees might compare themselves to friends, neighbors, co-workers, and colleagues in other organizations, or past jobs they themselves have had. Which referent an employee chooses will be influenced by the information the employee holds about referents as well as by attractiveness of the referent. This has led to focusing on four moderating variables: gender, length of tenure, level in the organization, and amount of education or professionalism.

Figure 6 summarizes what has been said thus far about the last two theories of job satisfaction: the discrepancy and the equity theory. To recapitulate, satisfaction is a function of the discrepancy between the job outcomes a person wants and the outcomes that are perceived to be received. More specifically, greater satisfaction will be experienced to the extent that that these outcomes are met or exceeded and to the extent that they are perceived as equitable compared to the other outcomes received. The outcomes people want from a job are a function of their personal value systems, moderated by equitable considerations. The outcomes that people perceive themselves

receiving from the job represent their beliefs about the nature of that job. Again, the note of job satisfaction represents a set of attitudes about the job stemming from the beliefs and values of the worker (John & Gray, 1983).

Figure 6

How Discrepancy and Equity Affect to Job Satisfaction



Source: John & Gray (1983), *Organization Behavior; Understanding Life at Work Company*, page 106-120, 177-197.

Smith, Kendall, and Hulin's theory.

According to the theory of Smith, Kendall, and Hulin (1969), they had suggested that job satisfaction represented several related attitudes. It contained five dimensions that represented the most important characteristics of the job about which people had affective response toward job satisfaction, as follows:

1. The work itself; the extent to which the job provided the individual with interesting tasks, opportunities for learning, and the chance to accept responsibility.
2. Pay; the amount of financial remuneration that was received and the degree to which this was viewed as equitable to others in the organization.
3. Promotion opportunities; the chance of advancement in the hierarchy.

4. Supervision; the abilities of the superior to provide technical assistance and behavioral support.
5. Co-worker; the degree to which fellow workers were technically proficient and socially supportive.

Each of the given theories on job satisfaction has, in one way or another, expounded on work-related psychological constructs which are deemed relevant to the present study. The Equity Theory, in particular, focused on four moderating variables which matched four of the five demographic variables of this study: gender, years of nursing work, job position, and educational background. Herzberg's theory and that of Smith, Kendall, and Hulin likewise included specific work factors that are highly linked with some of the sub-scales of the research instruments of this study, such as: pay, promotion, supervision, co-workers, and nature of work.

The fourth section of this chapter presents a number of related studies arranged in the following order: relationships between demographic variables and job stress and job satisfaction, related foreign research on the relationship between job stress and job satisfaction, and, finally, related local research on the relationship between job stress and job satisfaction.

4. Related Research on the Interrelationships between Variables

4.1 Relationship between Demographic Variables and Job Stress and Job Satisfaction

Gender and age.

According to Devaney and Chen (2003), studies have shown that age and gender have important effects on job satisfaction. Older workers, for example, are more likely to be satisfied than younger workers. Among nurses in psychiatric institutions and general hospitals, Stuart and Laraia (2001) found that depression syndrome was rather common,

and was found more in the younger-age nurse. Women have higher incidence of affective and anxiety disorders and that later age of onset of schizophrenia was higher in women than in men. However, the effects of gender on job satisfaction vary with the level at which an individual works. A study by Shapiro and Stern, (as cited in Devaney and Chen, 2003), for example, found that professional women such as clinical psychologists, social workers, and medical workers experienced lower levels of job satisfaction than their male counterparts. Among nonprofessionals, on the other hand, the reverse was true. These differing results for job satisfaction among men and women depending on their occupational level are further supported. In a study conducted by Garnett et al. (as cited in Devaney and Chen, 2003), it was found that at higher occupational levels, men expressed more satisfaction than women in terms of pay and opportunities for advancement. In addition, Chiu (1998) found that female lawyers had significantly lower job satisfaction than male lawyers, and that the reason for the difference was that women feel they have fewer opportunities for promotion than men. On the other hand, Alexander et al. (1998) found that women have higher levels of organizational commitment and are, therefore, less likely to express intent to leave the job than men. Chandraiah, Agrawal, Marimuthu and Manoharan (2003) investigated the effect of age on occupational stress and job satisfaction among managers of different age groups. The findings of the study revealed higher levels of job stress and less job satisfaction among managers of 25-35 years of age than their counterparts in the middle age (36-45 years) and the old age groups (46-55 years). The study also found that age negatively correlated with occupational stress and positively with job satisfaction.

Educational background.

Registered Nurses (RNs) educated at the doctoral level reported significantly greater job autonomy, on average, than RNs educated at the master's level and, likewise, master's level RNs reported significantly greater job autonomy than RNs with bachelor's degrees, associate degrees, or diplomas (Duncan-Poitier, 2003). Nurses with tertiary education tended to have better mental health, fewer depressive symptoms, more positive coping strategies, and were better able to use help-seeking coping than nurses with secondary education. They also were better able to utilize help-seeking strategies than the ones with secondary school education (excluding the professional nursing training). One possible explanation is that nurses with tertiary education are more equipped with the knowledge and skills to provide direct patient care to patients (Wong, Leung, So, & Lam, 2001). On the other hand, Cao, Yu, and An (2000) reported that nurses with different educational levels and different lengths of clinical work had different mean scores for job satisfaction. As educational level and length of clinical work increased, the mean score of job satisfaction decreased. In the same token, Yin and Yang (2002) reported that those who have a lower educational level are likely to be more satisfied and stayed longer on their jobs.

Job position and work experience.

More experienced Registered Nurses (RNs) reported higher levels of job satisfaction than do less experienced RNs (Duncan-Poitier, 2003). Nurses in supervisory roles have also reported job-related stress. Leatt and Schneck (as cited in Wong, Leung, So, & Lam, 2001), found that head nurses suffered from the difficulties of handling their dual role as clinicians and managers. They also complained of lacking the specialized

training that would enable them to feel more able and confident in their management roles.

4.2 Related Foreign Research on the Relationship between Job Stress and Job Satisfaction.

Gowell and Boverie (1992), studied about job stress and job satisfaction as a result of shift and number of hours worked. The authors examined the relationship between job satisfaction and job stress and hours worked per shift. Nurses (n=84) from a 176-bed private non-profit community hospital in the US were surveyed. Instruments used included the Nursing Stress Scale (NSS), the Index of Work Satisfaction (IWS), and a self-report questionnaire.

The findings showed that workload was the major stress for nurses in all units except for those working in the Post Anesthesia Care Unit (PACU); dealing with death and dying was rated second except in the areas of PACU and operation room (OR); and conflict with physicians was rated third. PACU and pediatric nurses had the highest IWS scores, while maternal/child and medical/oncology nurses experienced the lowest IWS scores. Nurses who worked 12-hour shifts had greater stress and were less satisfied with their jobs compared to those who worked 8-or 10-hour shifts. However, the findings from this study are limited by the small sample size.

Bratt, Broome, Kelber, and Lostocco (2000) studied about the influence of stress and nursing leadership on job satisfaction of pediatric intensive care unit nurses. The objective of this study was to explore the influence of nurses' attributes, unit characteristics, and elements of the work environment on the job satisfaction of nurses in Pediatric Critical Care Units (PCCUs). Subjects were 1,973 staff nurses in PCCUs in the USA and Canada. Job stress (negative association) and nursing leadership (positive

association) were found to be the most influential variables in the explanation of job satisfaction. Retention efforts were targeted towards management strategies that empowered staff to provide quality care and approaches to help diminish stress.

Flanagan and Flanagan (2002) examined the relationship between job satisfaction and job stress in correctional nurses. This study was conducted to examine the sources and relationship of job satisfaction and job stress of nurses working in a correctional setting. Nurses ($n=287$) within a state prison system in the Southwestern US were surveyed. Instruments included the Index of Work Satisfaction (IWS) and the Nurse Stress Index (NSI). Interaction, professional status, and autonomy were rated highest in relation to job satisfaction. Workload on the job, perceived lack of understanding and support from organizational superiors, and time pressures were highly rated as sources of job stress for these nurses. The authors recommended that further research needs to be done to understand job satisfaction and job stress experienced by this population of nurses and all nurses.

Kalliath and Morris (2002) focused on job satisfaction among nurses as a predictor of burnout levels. The authors examined the impact of different levels of job satisfaction on burnout among nurses. Subjects included 203 nurses employed at a community hospital in Midwestern United States. Instruments used were the Maslach Burnout Inventory (MBI), and Katzell's Job Satisfaction Scale (JSS). Kalliath and Morris reported that job satisfaction is a significant predictor of burnout in nurses. Their results also suggested that job satisfaction of nurses is important to consider when attempting to reduce nurse burnout and increase nurse retention. It was also reported that in other studies, burnout was viewed as predicting job satisfaction. Finally, the authors claimed that in stressful environments, higher levels of job satisfaction may ameliorate the extent to which nurses experience burnout.

Lu, Wu, Hsieh, and Chang (2002) studied the relationship between turnover intentions, professional commitment, and job satisfaction of hospital nurses. The participants of their study were Registered Nurses in Taiwan. The RNs (n=2197) responded to a self-administered survey. Results showed a negative correlation between professional commitment and turnover intentions, and between job satisfaction and turnover intentions. On the other hand, a positive correlation was found between job satisfaction and professional commitment. According to the authors, findings are similar to many Canadian and US studies. Enhancing job satisfaction for nurses may create benefits for both nurses and their organizations.

Pinikahana and Happell (2004) conducted a study on stress, burnout and job satisfaction in rural psychiatric nurses in Victoria, Australia. The study was undertaken with rural psychiatric nurses (n = 136) in two rural mental health services in Victoria. The study was designed to measure their level of stress, burnout, and job satisfaction using the Maslach Burnout Inventory (MBI), the Nursing Stress Scale (NSS), and Job Satisfaction Survey (JSS). The findings indicated that a low number of rural psychiatric nurses suffered from 'high' level of burnout and the majority of nurses reported 'low level' of emotional exhaustion and depersonalization scores. On the personal accomplishment subscale, only 11% recorded a 'high' score and 87% recorded 'low' score. On the Nursing Stress Scale, the 'workload' was the highest perceived stressor followed by 'inadequate preparation.'

Synopsis of related foreign research.

The given foreign research were included in this chapter as each of them directly connected with the present study in a number of ways. The study of Gowell et al., Flanagan et al., Kalliath et al., Lu et al., and Pinikahana et al. supported this present study

in terms of the following elements: key variables of job stress and/or job satisfaction, research instruments NSS and/or JSS, participants' occupation (nurses), and purpose (to examine the relationship between job stress and job satisfaction). The recommendation of Flanagan et al. gave further impetus to the present study.

4.3 Related Local Research on the Relationship between Job Stress and Job Satisfaction.

There have been some studies in Thailand during the last ten years that explored job stress and job satisfaction and the relationship between them among nurses.

Tunkuntha (1997) conducted a study on the job stress and job satisfaction of professional nurses practicing with psychiatric patients. The purpose of the said study was to describe the levels of job stress and job satisfaction as well as to examine the relationship between the two. The sample was 199 professional nurses working in psychiatric hospitals under the Department of Mental Health. The sample population was obtained by using the stratified random sampling method. One of the instruments used in this study was the Job Stress Scale, modified from the Psychiatric Nurse's Occupational Stress Scale of Dawkins, Depp, and Selzer, developed in 1985. Its internal consistency coefficient was 0.91. A Job Satisfaction Survey was also used, modified from the Job Satisfaction of Head Nurses Scale devised by Kulkissada in 1996. Its internal consistency coefficient was 0.93. Statistical methods used in this study were percentage distribution, the mean, standard deviation, and Pearson's Product Moment Correlation Coefficient. The results of the study were as follows;

1. Most subjects, generally, had a moderate level of job stress. Subjects also had a moderate level of job stress in six categories. These categories were limited to: resources, negative characteristics of the patient, administration/ organization issues, staff conflicts, staff performance, and scheduling issues.

2. Most subjects had a moderate level of job satisfaction. Subjects also had a high level of job satisfaction in the specific factors of the need for achievement and the need for affiliation, and a moderate level of job satisfaction with regard to need for power.

3. There was no relationship between job stress and job satisfaction.

Suthivong (2002) sought to determine the relationships between personal factors, organizational factors, environmental factors, and work stress in staff nurses in governmental hospitals in Bangkok Metropolis. The purposes of the said research were to study the levels of work stress as well as to study the correlation between personal factors, organizational factors, environmental factors, and work stress among staff nurses. The sample consisted of 384 staff nurses working in government hospitals who were selected through stratified random sampling. Research instruments consisted of personal factors questionnaire, organizational factors questionnaire, environmental factors questionnaire, and work stress questionnaire. The instruments were tested for content validity and reliability. Data analysis methods included the mean, standard deviation, Pearson's Product Moment Correlation Coefficient, and stepwise multiple regression analysis. The major findings were as follows:

1. The mean score of work stress of staff nurses working in government hospitals in Bangkok Metropolis was at a low level.

2. Personal factors including age, family responsibility, and personality; organizational factors including nursing role, professional relationship, and environmental factors were significantly and moderately correlated with work stress.

3. Variables which significantly predicted work stress of staff nurses were age, family responsibility, personality, professional relationship, and environmental factors.

Sanpornchaipong (2002) examined the relationships between personal factors, work environment, and work satisfaction of staff nurses in in-patient departments of community hospitals, central region. The objectives of the study were to examine work satisfaction of staff nurses, to analyze relationships between personal factors, work environment, and work satisfaction, and to determine predictors of work satisfaction of staff nurses in in-patient departments of community hospitals. The subjects consisted of 303 staff nurses who were selected by multi-stage sampling. Research instruments included personal factor, work environment, and work satisfaction questionnaires. These questionnaires were tested for content validity and reliability. Frequency distribution, mean, standard deviation, Pearson's product moment correlation coefficient, and stepwise multiple regression were used to analyze data. The major findings were as follows:

1. The mean score of work satisfaction as perceived by staff nurses was 4.07 (ranking from 1 - 7).
2. The overall work environment by dimensions, including relationship dimension, personal growth dimension, and system maintenance and change dimension, were significantly related to work satisfaction of staff nurses.
3. The multiple regression analysis revealed that 56.0 percent of variance in the work satisfaction of staff nurses was predicted by personal growth dimension, relationship dimension, and system maintenance and change dimension.

Synopsis of related local research.

The studies of Tunkuntha, Suthivong, and Sanpornchaipong were cited as related local research on account of basic points of affinity with this present study, such as similarity in terms of participants (nurses), research instrument (job satisfaction questionnaire), research objective (to determine the relationship between job stress and

job satisfaction), and statistical treatment of data (descriptive statistics and the Pearson r correlation coefficient).

The main point of difference, however, is that, apart from using a different job stress scale and job satisfaction survey in terms of originators, it must be pointed out that the present study focused on nurses working in private hospitals. Related studies in Thailand mostly involved nurses working in various government settings. It was indicated earlier in the chapter that there is a difference between private hospitals and their governmental counterparts particularly with regard to availability of and/or accessibility to modern medical technology. High-tech medical equipment and their contingent complications are confined to private hospitals. In this regard, the experiences and probably even frustrations of nursing staff in private hospitals who are required to use these sophisticated apparatuses would be uniquely different from other nurses who are not familiar with the said new technologies.

A related catalyst that helped to initiate the conduct of this study was the paradoxical situation where, despite the private hospital industry boom, duties of nurses did not decrease. On the contrary, work responsibilities escalated, accompanied by greater feelings of stress in the workplace. Hence, a study about job stress and job satisfaction among nurses in private hospitals in Metropolitan Bangkok is deemed necessary to fill in some knowledge gap and may well prove to be socially and topically relevant to the current state of the nursing profession in Thailand.

Chapter Conclusion

In general, job stress has been viewed as an antecedent of job satisfaction, and the two constructs have been treated as related yet distinct (Stanton et al., 2002). The salience of job stress as a research topic has been due in part to the magnitude of its effects. In

addition to being associated with a variety of physical diseases including hypertension (O'Connor et al., 2000), high levels of job stress can have a negative effect on emotional well-being (Brewer, 2003). On the organizational level, high levels of job stress have been linked to low levels of productivity (Gandham, 2000). Stress can have very negative effects on organization behavior, especially job satisfaction (Narayanan, Menon & Spector, 1999). The negative indicators of organizational commitment include absenteeism, sabotage, and violence. These factors obviously indicate low commitment towards the organization and low job satisfaction. Most studies investigating turnover intention and work related stress found significant associations between both (Consolvo, as cited in Kreyer, 2003), particularly in connection with work satisfaction (Shader et al., 2001). On the other hand, stress is positively related to absenteeism and turnover. Job stress has been shown to be influential in the explanation of job satisfaction (Bratt, Broome, Kelber & Lostocco, 2000), which in turn, is positively linked with the intent to stay (Boyle 1999). Job related stress can cause job dissatisfaction (Robbins, 2001). Job satisfaction is an important variable to consider when evaluating an organization's success. In order for an organization to be productive, the employees' concerns should be met. The factors of stress might come from working conditions, harsh supervision, or unreasonable working hours. The effects of stress on the individual's perception of reaction to work may reduce satisfaction in the job, causing job dissatisfaction. Employees who are highly stressed tend to have a more negative outlook on various aspects of their job and the organization and are more likely to have low job satisfaction (George & Johnes, 2002).

This chapter discussed, in essence, the dynamic factors underlying job stress and job satisfaction and the relationship between them, based on related literature and related studies, both foreign and local. A number of theories were included to serve as

background or supplementary information to support the relevance of the main variables of the study. Also, a number of cited literature as well as differing findings on the main variables set the scene for why the stated research problems needed to be addressed. By describing what others have done, the present researcher has set benchmarks for the current research. To some extent, citing related literature and studies helped justify the use of selected research instruments and other problem solving procedures and quantitative management of data required for this study.



CHAPTER III

Research Methodology

The goal of this study was to examine job stress and job satisfaction and the relationship between them among nurses in private hospitals in Metropolitan Bangkok.

The information in this chapter is presented in four sections, as follows:

1. Subjects of the Study
2. Instruments of the Study
3. Procedure of the Study
4. Statistical Treatment of Data

1. Subjects of the Study

Population

The target respondents of this study were nurses working in private hospitals in Metropolitan Bangkok, Thailand. The population consisted of 9,869 nurses from 100 private hospitals (15,227 beds) in Metropolitan Bangkok (Medical Registration Division; Department of Health Service Support, Ministry of Public Health, 2001, online). Data were collected by measuring the number of beds at each hospital. They were sorted in the order of 10 intervals, as follows:

More than 500 beds - 3 hospitals: Bumrungrad, Phayathai 2, and Krasemrad Bangkae Hospital.

450-499 beds - 1 hospital: Hua-Chiew Hospital.

400-499 beds - 9 hospitals: Vibhavadi, Bangmod, Jaopraya, Thonburi, Vejthani, Yanhee, Bangkok Christian, Samitivej (Srinakarin), and Bangkok Hospital.

350-399 beds - 2 hospitals: Thainakarin, and Phayathai 1 Hospital.

300-349 beds - 5 hospitals: Ramkhamhaeng, Kasemrad Prachachuen, Paolo, Phayathai 3, and Saint Louis Hospital.

250-299 beds - 2 hospitals: Bangprakok, and Samitivej (Sukumvit) Hospital.

200-249 beds - 11 hospitals: Mayo, Mission, Krungthon 1, Central General, Mahaesak, Vichaiyut (North), Kluaynamthai, Deja, Ladprao, Srivichai 2, and Petcharavej Hospital.

150-199 beds - 7 hospitals: Nakornthon, Sikarin, Navamin, Rajburana, Camillian, Viparam, and Praram 9 Hospital.

100-149 beds - 20 hospitals: Phaetphanya, Synphaet, Praram 2, Bangpo, Kluaynamthai (Sukhumvit), Bangna 1, Srisiam, Vichaiyut, Bangpai, Krarunapitak, Krungthon2, Navamin 2, Paolosiam, Prommitr, Sukhumvit, Kasemrad Sukapiban 3, Thainpha, Bangkok Care Medical Center, Mongkutwattana, and Piyavej Hospital.

Less than 99 beds - 40 hospitals (health cares). These hospitals were not included because these are mostly small health care centers for check up.

Sampling Methods

Based on the Table of Sample Size by Yamane at 95% of confidence level, 385 respondents were randomly selected out of a population of 9,869 nurses to serve as the sample size for this study. Owing to the total number of beds (13,891 beds) in hospitals in Metropolitan Bangkok, multi-stage sampling was employed. The process involved three stages:

1) A sampling interval of 10 was set to form the levels of health care or intervals as appropriate from the number of beds data, although the last interval was not included for reasons stated earlier. Selected samples were located at every sampling interval; after

which the researcher made a separate list of all study units within each of the selected interval.

2) The researcher then calculated how many nurses should be selected from each interval wherein the number of nurses depends on how many beds each hospital has. The researcher clarifies the sampling method with a specific example: for hospitals with more than 500 beds, the formula consisted of dividing 500 by the overall total number of beds 13,891 and multiplied by the sample size 385. The product 14 was further multiplied by 3 (number of hospitals with more than 500 beds) to get 42 (number of nurses to approach). At this point, the researcher randomly selected the required number of respondents per level of hospital. The results are presented as follows:

1. More than 500 beds	→ 3 hospitals	→ 42	} 385 respondents
2. 450-499 beds	→ 1 hospital	→ 13	
3. 400-449 beds	→ 9 hospitals	→ 99	
4. 350-399 beds	→ 2 hospitals	→ 18	
5. 300-349 beds	→ 5 hospitals	→ 45	
6. 250-299 beds	→ 2 hospitals	→ 14	
7. 200-249 beds	→ 11 hospitals	→ 66	
8. 150-199 beds	→ 7 hospitals	→ 28	
9. 100-149 beds	→ 20 hospitals	→ 60	

2. Instruments of the Study

The instruments of the study consisted of three main parts, as follows:

Part One: Demographic Questionnaire

This brief researcher-constructed questionnaire gathered background information from the nurses who were working at private hospitals in Metropolitan Bangkok, Thailand at the time of the study. The questions were aimed at deriving details of the selected demographic variables: gender, age, educational background, job position, and years of nursing work.

Part Two: Nursing Stress Scale (NSS) ✓

The Nursing Stress Scale (NSS) was created more than 20 years ago by Gray-Toft and Anderson mainly because there was a lack of instrumentation that specifically measured stress among nurses then. It was originally designed for nurses employed in the hospital setting. This 34-item, self-reported instrument addressed the factors of death and dying, conflict with physicians and other nurses, inadequate preparation, lack of support, and workload. The NSS has been utilized among nurses practicing in a variety of settings like surgery, oncology, hospice care, and home health care. It has been used among nurses holding varying degrees, such as Register Nurses (RNs) with two- and four-year degrees and Licensed Practical Nurses (LPNs), and even Nursing Assistants (Gray-Toft & Anderson, as cited in Perry, 2002). Gray-Toft and Anderson suggested that the Nursing Stress Scale be further utilized in other studies and “other hospital settings with other types of hospital units” that might help demonstrate the connection between stress, job satisfaction, and turnover. Importantly, the NSS has gained increasing recognition among nurse-researchers by being tested and retested as a theoretically valid and reliable instrument (Perry, 2002).

It consisted of 34 items that describe situations that have been identified as causing stress for nurses in the performance of their duties. It provides a total stress score as well as scores on each of seven subscales that measure the frequency of stress experienced by nurses in the hospital environment. For the purposes of this research, this scale was reviewed by an expert nurse in Bangkok who suggested that some test items be discarded due to their irrelevance to nursing practice in Thailand, such as: a physician not being present when a patient dies, feeling inadequately prepared to help with the emotional needs of a patient's family, floating to other units that are short-staffed, too many non-nursing tasks required (such as clerical work), and a physician not being present in a medical emergency. Thus, the original 34-item scale was reduced to 29 items that are applicable to the nurse's line of work in Thailand.

The seven subscales included death and dying, conflict with physicians, conflict with other nurses, inadequate preparation, lack of support, workload, and uncertainty concerning treatment. Participants were asked to indicate their responses using a 5-point Likert scale (1= Never; 2 = Seldom; 3 = Yes, occasionally; 4 = Yes, often; and 5 = Yes, always).

To facilitate the scoring of the questionnaire, the items and directions were arranged, following the guidelines of the instrument originators, according to the following sub-scales:

Factor I: Death and dying.

1. Performing procedures that a patient experiences as painful
8. Feeling helpless in the case of a patient who fails to improve
15. Listening or talking to a patient about his/her approaching death
21. In the death situation of a patient
26. The death of a patient with whom you developed a close relationship

29. Watching a patient suffer

Factor II: Conflict with physicians.

2. Criticism by a physician

9. Conflict with a physician

16. Fear of making a mistake in treating a patient

22. Disagreement concerning the treatment of a patient

27. Making a decision concerning a patient when the physician is unavailable

Factor III: Inadequate preparation.

3. Being asked a question by a patient for which I do not have a satisfactory answer

10. Feeling inadequately prepared to help with the emotional needs of a patient

Factor IV: Lack of support.

4. Lack of an opportunity to talk openly with other unit personnel about problems on the unit

11. Lack of an opportunity to share experiences and feelings with other personnel on the unit

17. Lack of an opportunity to express to other personnel on the unit my negative feelings toward patients

Factor V: Conflict with other nurses.

5. Conflict with a supervisor

12. Difficulty in working with a particular nurse (or nurses) outside the unit

18. Criticism by a supervisor

23. Difficulty in working with a particular nurse (or nurses) on the unit

Factor VI: Workload.

6. Breakdown of computer

- 13. Unpredictable staffing and scheduling
- 19. Not enough time to provide emotional support to a patient
- 24. Not enough time to complete all of my nursing tasks
- 28. Not enough staff to adequately cover the unit

Factor VII: Uncertainty concerning treatment.

- 7. Inadequate information from a physician regarding the medical condition of a patient
- 14. A physician ordering what appears to be inappropriate treatment for a patient
- 20. Not knowing what a patient or a patient's family ought to be told about the patient's condition and its treatment
- 25. Uncertainty regarding the operation and functioning of specialized equipment

Part Three: Job Satisfaction Survey (JSS)

Paul Spector's Job Satisfaction Survey (JSS) was designed in the mid-1980s specifically for workers in nonprofit and human services organizations. The JSS was chosen for the following reasons: first, although it is relatively short, it yields not only an overall measure of job satisfaction, but measures job satisfaction on nine sub-scales as well; second, the JSS is freely available for use for academic studies and the author has published norms to allow comparisons between the sample group and the general population.

The JSS is a 36-item, nine-facet scale to assess employee attitudes about the job and aspects of the job. Each facet is assessed with four items, and a total score is computed from all items. A summated rating scale format is used, with five choices per item with the following range: 1 = Disagree very much; 2 = Disagree; 3 = Neutral; 4 = Agree; and 5 = Agree very much. Items are written in both directions, so about half must

be reverse-scored. The nine facets are pay, promotion, supervision, fringe benefits, contingent rewards (performance-based rewards), operating procedures (required rules and procedures), co-workers, nature of work, and communication. Although the JSS was originally developed for use in human service organizations, it is applicable to all organizations. The norms provided include a wide range of organization types in both private and public sector. Below is the step-by-step procedure for scoring:

1. Responses to the items should be numbered from 1, representing strongest disagreement, to 5, representing strongest agreement with each, or from 1-5, by using 3 = neutral.

2. The negatively-worded items should be reverse-scored. Below are the reversals for the original item score in the left column and reversed item score in the right. The rightmost values should be substituted for the leftmost. This can also be accomplished by subtracting the original values for the internal items from 6.

$$1 = 5 \quad 2 = 4 \quad 3 = 3 \quad 4 = 2 \quad 5 = 1$$

3. Negatively-worded items are 2, 4, 6, 8, 10, 12, 14, 16, 18, 19, 21, 23, 24, 26, 29, 31, 32, 34, and 36. Note the reversals are NOT every other one.

4. Sum responses to 4 items for each facet score and all items for total score after the reversals from step 2. Items go into the subscales as shown below:

Factor I: Pay

Pay is amount and fairness or equity of salary.

1. I feel I am being paid a fair amount for the work I do

10. Raises are too few and far between

19. I feel unappreciated by the organization when I think about what they pay me

28. I feel satisfied with my chances for salary increases

Factor II: Promotion

Promotion is opportunities and fairness of promotions.

- 2. There is really too little chance for promotion on my job
- 11. Those who do well on the job stand a fair chance of being promoted
- 20. People get ahead as fast here as they do in other places
- 33. I am satisfied with my chances for promotion

Factor III: Supervision

Supervision is fairness and competence at managerial tasks by one's supervisor.

- 3. My supervisor is quite competent in doing his/her job
- 12. My supervisor is unfair to me
- 21. My supervisor shows too little interest in the feelings of subordinates
- 30. I like my supervisor

Factor IV: Fringe Benefits

Fringe benefits are insurance, vacation, and other fringe benefits.

- 4. I am not satisfied with the benefits I receive
- 13. The benefits we receive are as good as most other organizations offer
- 22. The benefit package we have is equitable
- 29. There are benefits we do not have which we should have

Factor V: Contingent rewards

Contingent rewards are sense of respect, recognition, and appreciation.

- 5. When I do a good job, I receive the recognition for it that I should receive
- 14. I do not feel that the work I do is appreciated
- 23. There are few rewards for those who work here
- 32. I don't feel my efforts are rewarded the way they should be

Factor VI: Operating procedures

Operating procedures is policies, procedures, rules, perceived red tape.

6. Many of our rules and procedures make doing a good job difficult

15. My efforts to do a good job are seldom blocked by red tape

24. I have too much to do at work

31. I have too much paperwork

Factor VII: Co-workers

Coworkers are perceived competence and pleasantness of one's colleagues.

7. I like the people I work with

16. I find I have to work harder at my job because of the incompetence of people I work with

25. I enjoy my co-workers

34. There is too much bickering and fighting at work

Factor VIII: Nature of work

Nature of work is enjoyment of the actual tasks themselves.

8. I sometimes feel my job is meaningless

17. I like doing the things I do at work

27. I feel a sense of pride in doing my job

35. My job is enjoyable

Factor IX: Communication

9. Communications seem good within this organization

18. The goals of this organization are not clear to me

26. I often feel that I do not know what is going on with the organization

36. Work assignments are not fully explained

5. If some items are missing, adjustments must be made; otherwise, the score will be too low. The best procedure is to compute the mean score per item for the individual, and substitute that mean for missing items. For example, if a person does not make a response to 1 item, take the total from step 4, divide by the number answered or 3 for a facet or 35 for total, and substitute this number for the missing item by adding it to the total from step 4. An easier but less accurate procedure is to substitute a middle response for each of the missing items. Since the center of the scale is between 3 and 4, either number could be used. One should alternate the two numbers as missing items occur.

Translation of Instruments

The Nursing Stress Scale (NSS) and the Job Satisfaction Survey (JSS) were translated into Thai by the researcher. The translated instruments were cross-validated by two individuals who are bilingual in English and Thai. Their back translations, focusing on the items of each scales, are accurate in a clear way within a cross-cultural context.

Reliability of the Instrument Components

The survey was pretested by giving it to nurses for review. These pre-test respondents confirmed that the survey questions were, for the most part, clearly phrased and would be easily answerable by members of the research sample. The 29 items were written to represent the questions of the Nursing Stress Scale (NSS) in order to test the reliability of those items. Results showed a reliability coefficient of 29 items, $\alpha = .8696$ and the standardized item $\alpha = .8783$.

Reliability analysis was carried out to test the reliability of the 36 items of Job Satisfaction Survey (JSS). It can be concluded from the results that the 36 items have high internal consistency with Cronbach's $\alpha .8152$ and standardized item $\alpha = .8186$. Details of the reliability analyses of both instruments are shown in Appendix E.

3. Procedure of the Study /

The participants of the study were asked to respond to a 70-item questionnaire which consisted of three parts: background personal information (5 items), the Nursing Stress Scale (29 items), and Job Satisfaction Survey (36 items). In order to compensate for possible delayed responses or refusals, the researcher actually distributed 450 copies, instead of just 385, of the three-part questionnaire. The procedure of the study consisted of the following steps:

1. Before distributing the questionnaires to the respondents, the researcher sent a letter asking for permission from the hospitals' top administrators.
 2. When permission was confirmed, the samples were selected, and the questionnaires were distributed via their personal workplace.
 3. Respondents were advised to send back the completed questionnaires within one week. In case of delayed responses, the researcher sent a reminder to the respondents.
- A total of 305 completed questionnaires were returned to the researcher. All 305 were found to be valid and this was the final number used for statistical analysis.

4. Statistical Treatment of Data

The data gathered from the respondents were recorded, classified, tabulated, and interpreted by the researcher using a computer software package, the Statistical Package for the Social Sciences version 11.5 (SPSS). All the hypotheses were tested at 0.05 level of significance. The research used the following statistical tools to answer the research questions:

1. Descriptive Statistics which included the mean, standard deviation, frequency distribution, percentages and range to describe the demographic profile variables (gender, age, educational background, job position, and years of nursing work).

2. T-test and ANOVA were employed to test the differences in the respondents' perceptions of the factors affecting job stress as well as determinants of job satisfaction between the particular groups as a function of the demographic variables of gender, age, educational background, job position and years of nursing work.
3. Pearson Product Moment correlation coefficient was utilized to determine the relationship between job stress and job satisfaction.



CHAPTER IV

Presentation of the Findings

This chapter presents the research findings obtained through analysis and interpretation of data derived from the three-part questionnaire that was used to examine job stress and job satisfaction among nurses in private hospitals in Metropolitan Bangkok. The findings of the study are reported in the following sequence:

1. Analysis of the demographic characteristics of the participants
2. Research Question One (on differences in perception of the factors affecting job-related stress as a function of the selected demographic variables)
3. Research Question Two (on differences in perception of the determinants of job satisfaction as a function of the selected demographic variables)
4. Research Question Three (on the relationship between job stress and job satisfaction)

1. Analysis of the Demographic Characteristics of the Participants

The demographic characteristics of the participants were described in terms of gender, age, educational background, job position, and years of nursing work, as shown in Table 4.

Table 4
Demographic Characteristics of the Participants

Characteristics	f	(%)
Gender		
Male	13	4.3
Female	292	95.7
Age		
Under 26 years old	121	39.7
26-35 years old	131	43.0
36-45 years old	48	15.7
Over 45 years old	5	1.6
Educational Background		
Bachelor' Degree	285	93.4
Master' Degree	20	6.6
Job Position		
General Nurse	225	73.8
Specialize Nurse	47	15.4
Head Nurse / Ward	29	9.5
Supervisor	4	1.3
Others	-	-
Years of Nursing Work		
Less than 5 years	166	54.4
5-10 years	76	24.9
11-15 years	35	11.5
16-20 years	18	5.9
Over 20 years	10	3.3
Total	305	-

Legend: f=frequency; %= percentage

The demographic characteristics of the participants were described in terms of gender, age, educational background, job position and years of nursing work, as shown in Table 4. A final total of 305 nurses in private hospitals in Metropolitan Bangkok

served as participants in this study, out of the projected 385, for reasons stated in the procedure of the study.

Based on a total of 305 valid questionnaires (N=305), in terms of gender, 13 (4.3%) were males and 292 (95.7%) were females. This means that majority of the participants are female.

According to the age of participants which was grouped into four categories, the majority of participants in this study were between 26-35 years of age with a frequency of 131 or 43.0%, followed by the under 26 years of age group with a frequency of 121 or 39.7%. This is followed by the group aged 36-45 years with a frequency 48 or 15.7%. Only 5 (1.6%) comprised the age group over 45 years old.

Educational background of participants was grouped into 2 categories. The majority group of participants were Bachelor's degree-holders which numbered 285 (93.4%), while 20 (6.6%) reported having a Master's degree.

Job position was grouped into 5 categories. The majority of participants in this study belonged to the general nurse position which was represented by 225 or 73.8%, followed by specialized nurses with frequency of 47 or 15.4%. This was followed by the head nurse /ward position with a frequency of 29 or 9.5%; there were only 4 or 1.3% who held the supervisor's position. For the last category (others), there was no inclusion in this group.

Years of nursing work was broken down into 5 categories. The majority group of participants worked as nurses for less than 5 years with a frequency of 166 (54.4%), while 76 (24.9%) worked as nurses for 5-10 years. This was followed by the group 11-15 years with a frequency of 35 (11.5%), then by the group 16-20 years with a frequency of 18 (5.9%) and lastly by the 20 years group who numbered only 10 (3.3%).

2. Research Question One

The first research question was stated as such: Are there significant differences in the nurses’ perception of the factors affecting job-related stress as a function of the following demographic variables: gender, age, educational background, job position, and years of nursing work? It was hypothesized that there are significant differences in the nurses’ perception of the factors affecting job-related stress as a function of the following demographic variables: gender, age, educational background, job position, and years of nursing work. The results are shown in Table 5.

Table 5
T-tests of Gender Differences in the Nurses’ Perception of the Factors Affecting Job-Related Stress

		Mean	SD	T-test	df	P-value
Death and Dying	Male (13)	2.4487	.68172	-.857	303	.392
	Female (292)	2.6050	.64217			
Conflict with-Physicians	Male (13)	2.1385	.51241	-.849	303	.396
	Female (292)	2.2496	.50279			
Inadequate-Preparation	Male (13)	2.2308	.83205	.256	303	.798
	Female (292)	2.1849	.62181			
Lack of Support	Male (13)	2.2821	.62132	-.330	303	.741
	Female (292)	2.3436	.65881			
Conflict with Other-Nurses	Male (13)	2.1923	.67819	.628	303	.531
	Female (292)	2.0848	.60130			

Workload	Male (13)	2.4154	.46520	-1.552	303	.122
	Female (292)	2.6466	.52774			
Uncertainty- Concerning- Treatment	Male (13)	2.0577	.52195	-.907	303	.365
	Female (292)	2.1961	.53915			

As revealed in Table 5, an Independent–Samples T-test showed no significant difference between males and females for perceived factors affecting job-related stress.

Table 6
ANOVA tests of Age Differences in the Nurses’ Perception of the Factors Affecting Job-Related Stress

		SS	df	MS	F	P-value
Death and Dying	Between Groups	1.935	3	.645	1.566	.198
	Within Groups	123.948	301	.412		
Conflict with- Physicians	Between Groups	1.950	3	.650	2.610	.052
	Within Groups	74.947	301	.249		
Inadequate- Preparation	Between Groups	.311	3	.104	.259	.855
	Within Groups	120.536	301	.400		
Lack of Support	Between Groups	.734	3	.245	.566	.638
	Within Groups	130.248	301	.433		
Conflict with Other- Nurses	Between Groups	6.071	3	2.024	5.812	.001**
	Within Groups	104.806	301	.348		
Workload	Between Groups	.730	3	.243	.876	.454
	Within Groups	83.579	301	.278		

Uncertainty- Concerning- Treatment	Between Groups	.454	3	.151	.520	.669
	Within Groups	87.641	301	.291		

p* < .05; p**< .01

The differences in the perception of factors affecting job-related stress in relation to age were tested by conducting an ANOVA test. As shown in Table 6, there was a statistically significant age difference only with regard to conflict with other nurses ($F(3,301) = 5.812, p < .01$).

Table 7

T-tests of Age Differences in the Nurses' Perceived Conflict with Other Nurses

		Mean	SD	T-test	df	P-value
Age	Under 26 years old (121)	1.9256	.56793	-3.835	250	0.00**
	26-35 years old (131)	2.2099	.60591			
Age	Under 26 years old (121)	1.9256	.56793	-2.135	167	.034*
	36-45 years old (48)	2.1302	.54575			
Age	Under 26 years old (121)	1.9256	.56793	-2.135	124	.035*
	Over 45 years old (5)	2.5000	1.04583			

p* < .05; p**< .01

As age differences existed on the perceived factor of conflict with other nurses, the analysis of T-test revealed a significant age difference between participants under 26 years and those in the age group 26-35 years, where $t = -3.835, p < .01$; between participants aged under 26 years and these in the range 36-45 years, $t = -2.135, p < .05$; and between the participants aged under 26 years and these over 45 years, $t = -2.135, p < .05$.

.05, as shown in Table 7. The participants aged under 26 years reported lower levels of the perception of conflict with other nurses than those aged 26-35 years, with $M = 1.9256$, $SD = .56793$ and $M = 2.2099$, $SD = .60591$, respectively. The participants with ages under 26 years reported lower levels of the perception of conflict with other nurses than those aged 36-45 years, with $M = 1.9256$, $SD = .56793$ and $M = 2.1302$, $SD = .54575$, respectively. Moreover, the participants with ages under 26 years reported lower scores on the perceived conflict with other nurses than those aged over 45 years, with $M = 1.9256$, $SD = .56793$ and $M = 2.5000$, $SD = 1.04583$, respectively.

As shown in Table 8 below, there was a statistically significant educational background difference only with respect to conflict with physicians. The analysis of T-test revealed a significant difference between the participants who obtained a bachelor's degree and those with a master degree, where $t = -2.843$, $p < .01$. This indicated that participants with a bachelor's degree reported lower scores on the perception of conflict with physicians than those who have obtained a master's degree, with $M = 2.2330$, $SD = .49380$ and $M = 2.5600$, $SD = .54522$, respectively.

Table 8

T-tests of Educational Background Differences in the Nurses' Perception of the Factors Affecting Job-Related Stress

		Mean	SD	T-test	df	P-value
Death and Dying	Bachelor Degree (285)	2.5971	.64892	-.131	303	.896
	Master Degree (20)	2.6167	.57507			
Conflict with-Physicians	Bachelor Degree (285)	2.2330	.49380	-2.843	303	.005**
	Master Degree (20)	2.5600	.54522			
Inadequate-Preparation	Bachelor Degree (285)	2.1930	.63879	.637	303	.525
	Master Degree (20)	2.1000	.50262			
Lack of Support	Bachelor Degree (285)	2.3509	.66849	.994	303	.321
	Master Degree (20)	2.2000	.43796			
Conflict with Other-Nurses	Bachelor Degree (285)	2.0825	.59543	-.751	303	.453
	Master Degree (20)	2.1875	.72491			
Workload	Bachelor Degree (285)	2.6323	.52549	-.555	303	.579
	Master Degree (20)	2.7000	.55251			
Uncertainty-Concerning-Treatment	Bachelor Degree (285)	2.1860	.53781	-.514	303	.608
	Master Degree (20)	2.2500	.55607			

p**<.01

Table 9

ANOVA tests of Job Position Differences in the Nurses' Perception of the Factors Affecting Job- Related Stress

		SS	df	MS	F	P-value
Death and dying	Between Groups	1.243	3	.414	1.001	.393
	Within Groups	124.639	301	.414		
Conflict with-Physicians	Between Groups	.358	3	.119	.470	.704
	Within Groups	76.538	301	.254		
Inadequate-Preparation	Between Groups	.766	3	.255	.640	.590
	Within Groups	120.081	301	.399		
Lack of Support	Between Groups	.304	3	.101	.233	.873
	Within Groups	130.678	301	.434		
Conflict with other-Nurses	Between Groups	.927	3	.309	.846	.470
	Within Groups	109.951	301	.365		
Workload	Between Groups	1.935	3	.645	2.357	.072
	Within Groups	82.373	301	.274		
Uncertainty-Concerning-Treatment	Between Groups	.736	3	.245	.845	.470
	Within Groups	87.360	301	.290		

The differences in the perception of factors affecting job-related stress, according to the participants' job position, were tested by conducting an ANOVA test. As shown in Table 9, there were no statistically significant job position differences in the factors perceived to affect job-related stress.

Table 10

ANOVA tests of Years of Nursing Work Differences in the Nurses' Perception of the Factors Affecting Job-Related Stress

		SS	df	MS	F	P-value
Death and dying	Between Groups	1.117	4	.279	.672	.612
	Within Groups	124.765	300	.416		
Conflict with-Physicians	Between Groups	1.859	4	.465	1.858	.118
	Within Groups	75.038	300	.250		
Inadequate-Preparation	Between Groups	.609	4	.152	.380	.823
	Within Groups	120.238	300	.401		
Lack of Support	Between Groups	.753	4	.188	.433	.784
	Within Groups	130.230	300	.434		
Conflict with other-Nurses	Between Groups	1.958	4	.489	1.348	.252
	Within Groups	108.920	300	.363		
Workload	Between Groups	.833	4	.208	.479	.560
	Within Groups	83.476	300	.278		
Uncertainty-Concerning - Treatment	Between Groups	1.378	4	.344	1.192	.314
	Within Groups	86.718	300	.289		

As revealed in Table 10, there were no statistically significant years of nursing work differences in the perceived factors affecting job-related stress.

Table 11

Respondents' Overall Perception of the Factors Affecting of Job-Related Stress

Factors affecting Job-related Stress	N	Min	Max	M	S.D.
Death & Dying	305	1.00	4.17	2.5984	.64350
Conflict with Physicians	305	1.00	3.80	2.2544	.50294
Inadequate Preparation	305	1.00	4.00	2.1869	.63050
Lack of Support	305	1.00	4.00	2.3410	.65640
Conflict with other Nurses	305	1.00	4.00	2.0893	.60393
Workload	305	1.20	4.00	2.6367	.52662
Uncertainty Concerning Treatment	305	1.00	3.50	2.1902	.53832

Table 11 shows statistical data on the respondents' overall perception of factors affecting job-related stress. The highest mean was workload which is $M = 2.6367$ and $SD = .52662$; followed by death and dying with $M = 2.5984$ and $SD = .64350$; lack of support with $M = 2.3410$ and $SD = .65640$; conflict with physicians with $M = 2.2544$ and $SD = .50294$; uncertainly concerning treatment with $M = 2.1902$ and $SD = .53832$; inadequate preparation with $M = 2.1869$ and $SD = .63050$; and lastly conflict with other nurses with $M = 2.0893$ and $SD = .60393$.

The findings, therefore, showed that workload was perceived as the most major stress factor for nurses working in private hospitals; dealing with death and dying was rated second; and lack of support was rated third.

3. Research Question Two

The second research question was stated thus: Are there significant differences in the nurses' perception of the determinants of job satisfaction as a function of the following demographic variables: gender, age, educational background, job position, and years of nursing work? It was hypothesized that there are significant differences in the nurses' perception of the determinants of job satisfaction as a function of the following demographic variables: gender, age, educational background, job position and years of nursing work. The results are shown in Tables 12 to 24, consecutively.

Table 12

T-tests of Gender Differences in the Nurses' Perception of the Determinants of Job Satisfaction

		Mean	SD.	T-test	df	P-value
Pay	Male (13)	2.5769	.58081	-1.580	303	.115
	Female (292)	2.8887	.70041			
Promotion	Male (13)	3.5192	2.10768	2.951	303	.003**
	Female (292)	2.9315	.57513			
Supervision	Male (13)	2.9615	.48783	-2.973	303	.003**
	Female (292)	3.3348	.44098			
Fringe Benefits	Male (13)	2.7500	.54962	.098	303	.922
	Female (292)	2.7303	.71544			
Contingent Rewards	Male (13)	2.9038	.38916	-.977	303	.329
	Female (292)	3.0411	.49959			

Operating- Procedure	Male (13)	2.6731	.62404	-.421	303	.674
	Female (292)	2.7286	.45711			
Co-workers	Male (13)	3.1538	.49517	-2.902	303	.004**
	Female (292)	3.5942	.53698			
Nature of Work	Male (13)	3.4808	.38813	-.545	303	.586
	Female (292)	3.5908	.72236			
Communication	Male (13)	2.9808	.63296	-1.554	303	.121
	Female (292)	3.2312	.56577			

$p^{**} < .01$

T-test analysis revealed statistically significant differences between males and females for perceived determinants of job satisfaction in terms of promotion, supervision, and co-workers, as shown in Table 12. In terms of promotion, males reported higher perceived job satisfaction than females, $t = 2.951$, $p < .01$, with $M = 3.5192$, $SD = 2.10768$ and $M = 2.9315$, $SD = .57513$, respectively. This was followed by females reporting higher perceived job satisfaction in terms of supervision than males, $t = -2.973$, $p < .01$, with $M = 3.3348$, $SD = .44098$ and $M = 2.9615$, $SD = .48783$, respectively. Lastly, in terms of co-workers, the female respondents reported higher perceived job satisfaction than their male counterparts, where $t = -2.902$, $p < .01$, with $M = 3.5942$, $SD = .53698$ and $M = 3.1538$, $SD = .49517$, respectively.

Table 13

ANOVA tests of Age Differences in the Nurses' Perception of the Determinants of Job Satisfaction

		SS	df	MS	F	P-value
Pay	Between Groups	4.016	3	1.339	2.798	.04*
	Within Groups	143.999	301	.478		
Promotion	Between Groups	4.455	3	1.485	2.992	.031*
	Within Groups	149.407	301	.496		
Supervision	Between Groups	1.607	3	.536	2.706	.046*
	Within Groups	59.572	301	.198		
Fringe Benefits	Between Groups	1.040	3	.347	.688	.560
	Within Groups	151.539	301	.503		
Contingent Rewards	Between Groups	.930	3	.310	1.265	.287
	Within Groups	73.754	301	.245		
Operating-Procedure	Between Groups	.769	3	.256	1.192	.313
	Within Groups	64.746	301	.215		
Co-workers	Between Groups	1.483	3	.494	1.696	.168
	Within Groups	87.782	301	.292		
Nature of Work	Between Groups	5.346	3	1.782	3.613	.014*
	Within Groups	148.457	301	.493		
Communication	Between Groups	.244	3	.081	.248	.863
	Within Groups	98.491	301	.327		

$p^* < .05$

The differences in the perception of the determinants of job satisfaction, according to age, were tested by conducting an ANOVA test. As indicated in Table 13, the results showed statistically significant differences in the determinants pay ($F(3, 301) = 2.798, p < .05$); promotion ($F(3, 301) = 2.992, p < .05$); supervision ($F(3, 301) = 2.706, p < .05$); and nature of work ($F(3, 301) = 3.613, p < .05$).

Table 14
T-tests of Age Differences in the Nurses' Perceived Determinant: Pay

	Mean	SD	T-test	df	P-value
Age					
Under 26 years old (121)	2.7645	.63571	-2.339	250	.02*
26-35 years old (131)	2.968	.69923			

$p^* < .05$

Table 14 revealed a significant difference between the participants aged under 26 years and those aged 26-35 years, with $t = -2.339, p < .05$. The participants aged between 26-35 years reported higher scores on the perception of pay as a determinant of job satisfaction than those whose ages fall under 26 years, with $M = 2.968, SD = .69923$ and $M = 2.7645, SD = .63571$, respectively.

Table 15
T-tests of Age Differences in the Nurses' Perceived Determinant: Promotion

	Mean	SD	T-test	df	P-value
Age					
Under 26 years old (121)	2.8368	.47949	-2.574	250	.011*
26-35 years old (131)	3.0649	.85911			

$p^* < .05$

As seen in Table 15, there is a significant difference between participants aged below 26 years and those within the age group 26-35 years, $t = -2.574$, $p < .05$. In effect, participants whose ages fall between 26-35 years reported higher scores on the perception of promotion as a determinant of job satisfaction than those whose ages fall under 26 years, with $M = 3.0649$, $SD = .85911$ and $M = 2.8368$, $SD = .47949$, respectively.

Table 16

T-tests of Age Differences in the Nurses' Perceived Determinant: Supervision

	Mean	SD	T-test	df	P-value
Age					
Under 26 years old (121)	3.3636	.42081	2.675	124	.008**
Over 45 years old (5)	2.8500	.41833			
Age					
26-35 years old (131)	3.3225	.48585	2.143	134	.034*
Over 45 years old (5)	2.8500	.41833			
Age					
36-45 years old (121)	3.2448	.38416	2.171	51	.035*
Over 45 years old (5)	2.8500	.41833			

$p^* < .05$; $p^{**} < .01$

Based on T-test analysis, as exhibited in Table 16, results showed statistically significant differences in respondents' perception of supervision as a determinant of job satisfaction, as a function of age. Respondents aged under 26 years reported higher scores on the determinant supervision than those aged over 45 years, $t = 2.675$, $p < .01$, with $M = 3.3636$, $SD = .42081$ and $M = 2.8500$, $SD = .41833$, respectively. This was followed by those between 26-35 years reporting higher scores on the determinant supervision than those aged over 45 years, $t = 2.143$, $p < .05$, with $M = 3.3225$, $SD = .48585$ and $M =$

2.8500, SD = .41833, respectively. Lastly, those aged between 36-45 years reported higher scores on the determinant supervision than those whose ages are over 45 years, $t = 2.171$, $p < .05$, with $M = 3.2448$, $SD = .38416$ and $M = 2.8500$, $SD = .41833$, respectively.

Table 17
T-tests of Age Differences in the Nurses' Perceived Determinant: Nature of Work

	Mean	SD	T-test	df	P-value
Age					
Under 26 years old (121)	3.4277	.74052	-3.148	250	.002**
26-35 years old (131)	3.7099	.68277			

$p^{**} < .01$

As can be seen in Table 17, the analysis of T-test revealed a significant difference between the perceptions of participants who are aged under 26 years and those aged 26-35 years, $t = -3.148$, $p < .01$. The participants aged between 26-35 years reported higher scores on the perception of nature of work as a determinant of job satisfaction than those aged under 26 years, with $M = 3.7099$, $SD = .68277$ and $M = 3.4277$, $SD = .74052$, respectively.

Table 18

T-tests of Educational Background Differences in the Nurses' Perception of the Determinants of Job Satisfaction

		Mean	SD	T-test	df	P-value
Pay	Bachelor 'Degree (285)	2.8798	.69282	.417	303	.677
	Master' Degree (20)	2.8125	.78168			
Promotion	Bachelor 'Degree (285)	2.9456	.54315	-1.014	303	.311
	Master' Degree (20)	3.1125	1.91338			
Supervision	Bachelor 'Degree (285)	3.3132	.45187	-.836	303	.404
	Master' Degree (20)	3.4000	.40066			
Fringe Benefits	Bachelor 'Degree (285)	2.7351	.69865	.366	303	.715
	Master' Degree (20)	2.6750	.85494			
Contingent-Rewards	Bachelor 'Degree (285)	3.0307	.48948	-.604	303	.546
	Master' Degree (20)	3.1000	.58714			
Operating Procedure	Bachelor 'Degree (285)	2.7272	.46526	.137	303	.891
	Master' Degree (20)	2.7125	.46080			
Co-workers	Bachelor 'Degree (285)	3.5711	.54546	-.529	303	.597
	Master' Degree (20)	3.6375	.49653			
Nature of Work	Bachelor 'Degree (285)	3.5816	.71155	-.415	303	.678
	Master' Degree (20)	3.6500	.72275			
Communication	Bachelor 'Degree (285)	3.2237	.56075	.369	303	.713
	Master' Degree (20)	3.1750	.70291			

Table 18 revealed no statistically significant educational background differences in respondents' perceptions of the determinants of job satisfaction.

Table 19

ANOVA tests of Job Position Differences in the Nurses' Perception of the Determinants of Job Satisfaction

		SS	df	MS	F	P-value
Pay	Between Groups	.672	3	.224	.457	.712
	Within Groups	147.344	301	.490		
Promotion	Between Groups	1.820	3	.607	1.201	.310
	Within Groups	152.042	301	.505		
Supervision	Between Groups	.023	3	.008	.038	.990
	Within Groups	61.156	301	.203		
Fringe Benefits	Between Groups	1.332	3	.444	.884	.450
	Within Groups	151.247	301	.502		
Contingent Rewards	Between Groups	.913	3	.304	1.245	.295
	Within Groups	73.770	301	.245		
Operating-Procedure	Between Groups	1.893	3	.631	2.985	.031*
	Within Groups	63.622	301	.211		
Co-workers	Between Groups	2.304	3	.768	2.658	.048*
	Within Groups	86.962	301	.289		
Nature of Work	Between Groups	6.016	3	2.005	4.084	.007**
	Within Groups	147.787	301	.491		
Communication	Between Groups	.423	3	.141	.431	.731
	Within Groups	98.312	301	.327		

p* < .05; p** < .01

Differences in the perception of the determinants of job satisfaction were tested by conducting an ANOVA test. The results in Table 19 showed statistically significant differences in the following perceived determinants of job satisfaction: operating procedure ($F(3, 301) = 2.985, p < .05$); co-workers ($F(3, 301) = 2.658, p < .05$); and nature of work ($F(3, 301) = 4.084, p < .01$).

Table 20

T-tests of Job Position Differences in the Nurses' Perceived Determinant: Operating Procedure

	Mean	SD	T-test	df	P-value
Position					
General Nurse (225)	2.7344	.45535	2.464	252	.014*
Head Nurse / Ward (29)	2.5172	.37160			
Position					
26-35 years old (131)	2.8298	.53697	2.751	74	.007**
Over 45 years old (5)	2.5172	.37160			

$p^* < .05$; $p^{**} < .01$

The results of the T-test analysis, as shown in Table 20, showed statistically significant differences in the perceived determinant of job satisfaction: operating procedure. Respondents holding a general nurse position reported higher scores on the perceived determinant operating procedure than those holding a head nurse/ward position, $t = 2.464, p < .05$, with $M = 2.7344, SD = .45535$ and $M = 2.5172, SD = .37160$, respectively. This was followed by specialized nurse position holders reporting higher scores on perceived determinant operating procedure than head nurse/ward position holders, $t = 2.751, p < .01$, with $M = 2.8298, SD = .53697$ and $M = 2.5172, SD = .37160$, respectively.

Table 21
T-tests of Job Position Differences in the Nurses' Perceived Determinant: Co-Workers

		Mean	SD	T-test	df	P-value
Position	General Nurse (225)	3.5267	.56632	-2.464	270	.014*
	Specialize Nurse (47)	3.7394	.37575			

p* < .05

As shown in Table 21, results showed a statistically significant difference in the perceived determinant co-workers. Respondents holding the general nurse position reported lower scores on the perceived determinant co-workers than those specialized nurse position holders, t = -2.464, p < .05, with M = 3.5267, SD = .37575 and M = 3.7394, SD = .37575, respectively.

Table 22
T-tests of Job Position Differences in the Nurses' Perceived Determinant: Nature of Work

		Mean	SD	T-test	df	P-value
Position	General Nurse (225)	3.5044	.73039	-3.206	270	.002**
	Specialize Nurse (47)	3.8670	.56590			

p** < .01

Result showed a statistically significant difference in the perceived determinant nature of work as shown in Table 22. General nurse position holders reported lower scores on the perceived determinant nature of work than those with specialized nurse job position, t = -3.206, p < .01, with M = 3.5044, SD = .73039 and M = 3.8670, SD = .56590, respectively.

Table 23

ANOVA tests of Years of Nursing Work Differences in the Nurses' Perception of the Determinants of Job Satisfaction

		SS	df	MS	F	P-value
Pay	Between Groups	3.245	4	.811	1.681	.154
	Within Groups	144.770	300	.483		
Promotion	Between Groups	3.904	4	.976	1.953	.102
	Within Groups	149.958	300	.500		
Supervision	Between Groups	1.865	4	.466	2.358	.054
	Within Groups	59.314	300	.198		
Fringe Benefits	Between Groups	.894	4	.224	.442	.778
	Within Groups	151.685	300	.506		
Contingent Rewards	Between Groups	2.194	4	.548	2.270	.062
	Within Groups	72.490	300	.242		
Operating-Procedure	Between Groups	.887	4	.222	1.029	.392
	Within Groups	64.628	300	.215		
Co-workers	Between Groups	1.921	4	.480	1.650	.162
	Within Groups	87.344	300	.291		
Nature of Work	Between Groups	4.954	4	1.239	2.496	.043*
	Within Groups	148.849	300	.496		
Communication	Between Groups	2.322	4	.580	1.806	.128
	Within Groups	96.413	300	.321		

p* < .05

Table 23 presents the differences in the nurses’ perception of the determinants of job satisfaction as a function of the participants’ years of nursing work. An ANOVA test revealed a statistically significant difference in years of nursing work only in the perceived determinant nature of work ($F(4, 300) = 2.496, p < .05$).

Table 24

T-tests of Years of Nursing Work Differences in the Nurses’ Perceived Determinant: Nature of Work

		Mean	SD	T-test	df	P-value
Years of Nursing - Work	Less than 5 years (166)	3.5044	.73039	-3.206	270	.002**
	5-10 years (76)	3.8670	.56590			

$p^{**} < .01$

T-test analysis results showed a statistically significant difference in the perceived determinant nature of work, as revealed in Table 24. Those who worked less than 5 years reported lower scores on the perceived determinant nature of work than those who have work between 5-10 years, $t = -2.715, p < .01$, with $M = 3.4774, SD = .74051$ and $M = 3.7500, SD = .65701$, respectively.

Table 25

Respondents' Overall Perception of the Determinants of Job Satisfaction

Determinants of Job Satisfaction	N	Min	Max	M	S.D.
Pay	305	1.00	4.75	2.8754	.69778
Promotion	305	1.00	10.50	2.9566	.71142
Supervision	305	1.50	5.00	3.3189	.44861
Fringe Benefit	305	1.00	5.00	2.7311	.70845
Contingence Reward	305	2.00	4.25	3.0352	.49565
Operating procedure	305	1.50	3.75	2.7262	.46423
Co-worker	305	2.00	5.00	3.5754	.54188
Nature of work	305	1.25	5.00	3.5861	.71129
Communication	305	1.25	4.75	3.2205	.56990

Table 25 shows the respondents' overall perception of the determinants of job satisfaction. The highest mean registered was on nature of work which is $M = 3.5861$ and $SD = .71129$. This was followed by co-workers with $M = 3.5754$ and $SD = .54188$; supervision with $M = 3.3189$ and $SD = .44861$; communication with $M = 3.2205$ and $SD = .56990$; contingency reward with $M = 3.0352$ and $SD = .49565$; promotion with $M = 2.9566$ and $SD = .71142$; pay with $M = 2.8754$ and $SD = .69778$ and fringe benefit with $M = 2.7311$ and $SD = .70845$. The lowest mean was observed in operating procedure with $M = 2.7262$ and $SD = .46423$, respectively.

Therefore, the overall findings showed that nature of work was the most major perceived determinant of job satisfaction for nurses working in private hospitals; co-workers was rated second; and supervision was rated third.

4. *Research Question Three*

Research question three was stated as: Is there a significant relationship between the factors affecting job-related stress and the determinants of job satisfaction among nurses working in private hospitals? It was hypothesized that there is a significant relationship between the factors affecting job-related stress and the determinants of job satisfaction among nurses working in private hospitals.

The results are shown in Table 26. Factors of job stress and determinants of job satisfaction were coded as follows: Conflict with Physicians (Con Phy.), Inadequate Preparation (Inade Prep.), Lack of Support (Lack of Sup.), Conflict with other nurses (Con Nurses.), Uncertainly Concerning Treatment (Un Treat.), Promo. (Promotion), Super. (Supervision), Con Reward (Contingent Reward), Opera Pro. (Operating Procedures) and Com. (Communication), respectively.



Table 26

Matrix of Pearson Correlation of the Factors Affecting Job-Related Stress and the Determinants of Job Satisfaction

		Pay	Promo.	Super.	Fringe Benefit	Con Reward	Opera Pro.	Co-workers	Nature of Work	Com
Death & Dying	Pearson Corre.	-.216**	-.064	-.034	-.156**	-.218**	-.226**	-.046	-.206**	-.114*
	Sig.	.000	.268	.560	.006	.000	.000	.422	.000	.047
Con Phy.	Pearson Corre.	-.172**	-.040	.039	-.197**	-.192**	-.108	-.175**	-.089	-.256**
	Sig.	.003	.489	.492	.001	.001	.060	.002	.119	.000
Inade Prep.	Pearson Corre.	-.282**	-.145*	.014	-.144*	-.136*	-.187**	-.106	-.305**	-.185**
	Sig.	.000	.011	.808	.012	.018	.001	.064	.000	.001
Lack of Sup.	Pearson Corre.	-.231**	-.130*	.020	-.023	-.088	-.082	-.157**	-.161**	-.127*
	Sig.	.000	.023	.733	.686	.127	.152	.006	.005	.027
Con Nurses	Pearson Corre.	-.221**	-.129*	-.195**	-.232**	-.241**	-.190**	-.254**	-.211**	-.250**
	Sig.	.000	.025	.001	.000	.000	.001	.000	.000	.000
Work-load	Pearson Corre.	-.324**	-.129*	-.029	-.272**	-.260**	-.287**	-.103	-.295**	-.231**
	Sig.	.000	.024	.616	.000	.000	.000	.074	.000	.000
Un Treat.	Pearson Corre.	-.251**	-.121*	.011	-.176**	-.199**	-.189**	-.247**	-.327**	-.273**
	Sig.	.000	.034	.846	.002	.000	.001	.000	.000	.000

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

The matrix of Pearson Product Moment Correlation Coefficient of the factors affecting job-related stress and the determinants of job satisfaction are shown in Table 26, where forty-seven significant negative relationships were found to exist between the given variables. The results are summarily listed as follows:

1. The factor death and dying, perceived to affect job-related stress, had six significant negative relationships. These were with the following determinants of pay (alpha = -.216, $p < .01$), fringe benefit (alpha = -.156, $p < .01$), contingency reward (alpha

= -.218, $p < .01$), operating procedures ($\alpha = -.226$, $p < .01$), nature of work ($\alpha = -.206$, $p < .01$), and communication ($\alpha = -.114$, $p < .05$).

2. The factor conflict with physicians, perceived to affect job-related stress, had five significant negative relationships. These were with the following determinants of pay ($\alpha = -.172$, $p < .01$), fringe benefit ($\alpha = -.197$, $p < .01$), contingency reward ($\alpha = -.192$, $p < .01$), co-workers ($\alpha = -.175$, $p < .01$), and communication ($\alpha = -.256$, $p < .01$).

3. The factor inadequate preparation, perceived to affect job-related stress, had seven significant negative relationships. These were with the following determinants of pay ($\alpha = -.282$, $p < .01$), promotion ($\alpha = -.145$, $p < .05$), fringe benefit ($\alpha = -.144$, $p < .05$), contingency reward ($\alpha = -.241$, $p < .01$), operating procedures ($\alpha = -.190$, $p < .01$), nature of work ($\alpha = -.305$, $p < .01$), and communication ($\alpha = -.185$, $p < .01$).

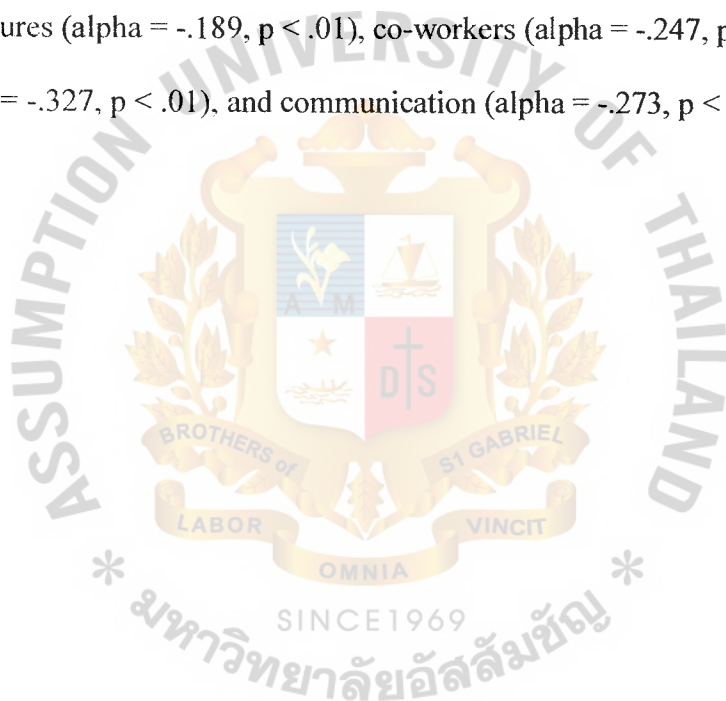
4. The factor lack of support, perceived to affect job-related stress, had five significant negative relationships. These were with the following determinants of pay ($\alpha = -.231$, $p < .01$), promotion ($\alpha = -.130$, $p < .05$), co-workers ($\alpha = -.157$, $p < .01$), nature of work ($\alpha = -.161$, $p < .01$), and communication ($\alpha = -.127$, $p < .05$).

5. The factor conflict with other nurses, perceived to affect job-related stress, had nine significant negative relationships. These were with the following determinant of pay ($\alpha = -.221$, $p < .01$), promotion ($\alpha = -.129$, $p < .05$), supervision ($\alpha = -.195$, $p < .01$), fringe benefit ($\alpha = -.232$, $p < .01$), contingency reward ($\alpha = -.195$, $p < .01$), operating procedures ($\alpha = -.187$, $p < .01$), co-workers ($\alpha = -.254$, $p < .01$), nature of work ($\alpha = -.211$, $p < .01$), and communication ($\alpha = -.250$, $p < .01$).

6. The factor workload, perceived to affect job-related stress, had seven significant negative relationships. These were with the following determinants of pay

($\alpha = -.324, p < .01$), promotion ($\alpha = -.129, p < .05$), fringe benefit ($\alpha = -.272, p < .01$), contingency reward ($\alpha = -.260, p < .01$), operating procedures ($\alpha = -.287, p < .01$), nature of work ($\alpha = -.295, p < .01$), and communication ($\alpha = -.231, p < .01$).

7. Lastly, the factor uncertainty concerning treatment, perceived to affect job-related stress, had eight significant negative relationships. These were with the following determinants of pay ($\alpha = -.251, p < .01$), promotion ($\alpha = -.121, p < .05$), fringe benefit ($\alpha = -.176, p < .01$), contingency reward ($\alpha = -.199, p < .01$), operating procedures ($\alpha = -.189, p < .01$), co-workers ($\alpha = -.247, p < .01$), nature of work ($\alpha = -.327, p < .01$), and communication ($\alpha = -.273, p < .01$).



CHAPTER V

Summary and Discussion of Findings, Conclusions, and Recommendations

The study of “Job Stress and Job Satisfaction among Nurses in Private Hospitals in Metropolitan Bangkok,” firstly, aimed to examine the differences in the nurses’ perceived factors affecting job-related stress in relation to the nurses’ demographic variables: gender, age, educational background, job position, and years of nursing work. Secondly, the study aimed to examine the differences in the nurses’ perception of the determinants of job satisfaction in relation to the same demographic characteristics. Lastly, the study aimed to find out the relationship between job stress and job satisfaction among nurses working in private hospitals.

This chapter presents the summary and discussion of findings, conclusions, and recommendations of the study. The order of presentation is as follows:

1. Summary of Findings
2. Discussion of Findings
3. Conclusions
4. Recommendations

1. Summary of Findings

1.1 Demographic Characteristics of the Participants

The findings of the study are summarized below:

Gender.

Of the 305 final participants, 292 or 95.7% were females and 13 or 4.3% were males. This means that the majority of participants were female.

Age.

The age of participants was grouped into four categories. The majority of participants in this study were nurses aged between 26-35 years with a frequency of 131 or 43.0%; followed by those aged under 26 years of age with frequency of 121 or 39.7%. This was followed by the group with the aged range between 36-45 years with frequency of 48 or 15.7%. There were 5 or 1.6% who composed the age group of over 45 years old. In effect, most of the nurses who participated belonged to the two youngest age groups.

Educational background.

The educational background of the participants was grouped into two categories. The most number of participants were holders of the Bachelor's degree with a frequency of 285 or 93.4 %, while 20 or 6.6% had obtained the Master's degree.

Job position.

Job position was grouped into five categories. The majority of participants in this study belonged to the position level of general nurses represented by a frequency of 225 or 73.8%; followed by specialized nurses with a frequency of 47 or 15.4%. This was followed by the position level of head nurse/ward represented by a frequency of 29 or 9.5%. Only 4 respondents (1.3%) composed the position category of supervisor. There were no representations for the category 'others.'

Years of nursing work.

The years of nursing work of participants was grouped into 5 categories. Most of the participants reported working as nurses for less than 5 years, represented by a frequency of 166 or 54.4%. Seventy-six (76) or 24.9% reported having worked between 5-10 years. This was followed by 35 or 11.5% of nurses who have worked for 11-15

years. A frequency of 18 or 5.9% was found for the group with 16-20 years of nursing work. The least number of participants belonged to the category of over 20 years of nursing work, with a frequency of 10 or 3.3%.

1.2 Factors Affecting Job-Related Stress

Referring to Research Question One: It was hypothesized that there are significant differences in the nurses' perception of the factors affecting job-related stress as a function of the following demographic variables: gender, age, educational background, job position, and years of nursing work. The results showed no significant difference in accordance with participants' gender: male and female participants similarly perceived the factors affecting job-related stress. Likewise, no significant job position difference was found in the nurses' perception of the factors affecting job-related stress. Moreover, no significant years of nursing work difference was found in the nurses' perception of the factors affecting job-related stress. However, with regard to specific factors, there was a statistically significant age difference only in the factor of perceived conflict with other nurses; in the same taken, there was a statistically significant educational background difference only in relation to perceived conflict with physicians.

1.3 Determinants of Job Satisfaction

Referring to Research Question Two: It was hypothesized that there are significant differences in the nurses' perception of the determinants of job satisfaction as a function of the following demographic variables: gender, age, educational background, job position, and years of nursing work. Data analysis showed statistically significant gender differences in the following perceived determinants: promotion, supervision and co-workers. Likewise, statistically significant age differences were found in relation to

pay, promotion, supervision, and nature of work. Moreover, the results also showed statistically significant job position differences in relation to the following perceived determinants: operating procedure, co-workers and nature of work. Lastly, data analysis indicated that significant years of nursing work difference existed only in relation to nature of work. In contrast, data analyses revealed that no significant educational background differences existed in the respondents' perceived determinants of job satisfaction.

1.4 Relationship between Job Stress and Job Satisfaction

Referring to Research Question Three: It was hypothesized that there is a significant relationship between the factors affecting job-related stress and the determinants of job satisfaction among nurses working in private hospitals. According to the results of the Pearson Correlation method used on sixteen variables, the hypothesis gained support in that forty-seven significant negative relationships were found to exist between the given variables.

In summary, the results pertaining to the relationship between job stress and job satisfaction are listed as such: death and dying had six significant negative relationships with the following determinants of job satisfaction: pay, fringe benefit, contingency reward, operating procedures, nature of work, and communication.

Second, the job stress factor of conflict with physicians had five significant negative relationships with the following determinants of job satisfaction: the perceived pay, fringe benefit, contingency reward, co-workers, and communication.

Third, the job stress factor of inadequate preparation had seven significant negative relationships with the following determinants of job satisfaction: pay,

promotion, fringe benefit, contingency reward, operating procedures, nature of work, and communication.

Fourth, the job stress factor of lack of support had five significant negative relationships with the following determinants of job satisfaction: pay, promotion, co-workers, nature of work, and communication.

Fifth, the job stress factor of conflict with other nurses had nine significant negative relationships with the following determinants of job satisfaction: pay, promotion, supervision, fringe benefit, contingency reward, operating procedures, co-worker, nature of work, and communication.

Sixth, the job stress factor of workload had seven significant negative relationships with the following determinants of job satisfaction: pay, promotion, fringe benefit, contingency reward, operating procedures, nature of work, and communication.

Lastly, the job stress factor of uncertainty concerning treatment had eight significant negative relationships with the following determinants of job satisfaction: pay, promotion, fringe benefit, contingency reward, operating procedures, co-worker, nature of work, and communication.

2. Discussion of Findings

With reference to *Research Question One*: (Are there significant differences in the nurses' perception of the factors affecting job-related stress as a function of the following demographic variables: gender, age, educational background, job position, and years of nursing work?), the related findings are discussed as follows:

Gender.

There are no significant differences in the nurses' perception of the factors affecting job-related stress as a function of gender. The results of the study do not concur

with the finding of Stuart and Laraia (2001) that women have higher incidence of affective and anxiety disorders than their male counterparts. The findings of the present study revealed that male and female nurses' perceptions of the factors affecting job-related stress are basically similar; that factors such as death and dying, workload, inadequate preparation, and the like, are perceived by both male and female nurses in the same vein, regardless of gender.

Age.

There are significant differences in the nurses' perception of the factors affecting job-related stress as a function of age, but only in the sub-scale 'conflict with other nurses.' Findings showed that the older age group reported a higher level of the perceived factor of 'conflict with other nurses.' This suggests that older nurses, who have more nursing experience, are likely to be more confident and assertive, and this may lead to the occurrence of more work frictions or disagreements with their colleagues who are younger in years, and who may be perceived by older nurses as being less informed and less skilled.

Educational background.

There are significant differences in the nurses' perception of the factors affecting job-related stress as a function of educational background, but only in the sub-scale 'conflict with physicians.' Findings showed that the group with the master's degree reported a higher level of the perceived factor of 'conflict with physicians.' This indicates that those with the master's degree may feel quite self-confident and may be critical of physicians in circumstances concerning the care of their patients. This perceived friction with physicians could be stressful, especially if it happens frequently.

Job position.

There are no significant differences in the nurses' perception of the factors affecting job-related stress as a function of job position. This indicates that the supervisors, head nurses, and nurses in other position levels perceive stressors in basically the same way. This finding does not agree with that of Leatt and Schneck (as cited in Wong, Leung, So, & Lam, 2001), who reported that head nurses suffered from the difficulties of handling their dual role as clinicians and managers. In the present study, even those with dual roles, such as head nurses, perceive stressors such as workload, conflicts at work, or uncertainty concerning treatment, in the same degree as the general nurses, perhaps because of the expectations of physicians, of patients and their families in that nurses, regardless of position level, are there to provide quality nursing care.

Years of nursing work.

There are no significant differences in the nurses' perception of the factors affecting job-related stress as a function of years of nursing work. The findings indicate that, regardless of number of years of nursing work experience, the respondents perceived job stressors in basically the same way. This suggests that job stressors such as workload, inadequate preparation, or death and dying are probably perceived as work pressures by any nurse, however long or brief one's length of experience might be; that each day is a new experience that brings with it new levels of satisfaction as well as stress.

With reference to *Research Question Two*: (Are there significant differences in the nurses' perception of the determinants of job satisfaction as a function of the following demographic variables: gender, age, educational background, job position, and years of nursing work?), the following related findings are discussed as such:

Gender.

There are significant differences in the nurses' perception of the determinants of job satisfaction as a function of gender but only in the sub-scales 'promotion', 'supervision,' and 'co-workers.' In terms of promotion as a function of gender, the results of this study revealed that male nurses perceived promotion as a determinant of job satisfaction more than their female counterparts. This is supported by the finding of Garnett et al. (as cited in DeVaney & Chen, 2003) who reported that men, as a whole, expressed more satisfaction than women in terms of opportunities for advancement. The reason for the difference may probably be that females, in general, feel they have fewer opportunities for promotion than males, as exemplified by the 'glass ceiling' phenomenon seen in many areas of work. Spector (2003) believed that women have more difficulty than men achieving high-level positions in most organizations.

In terms of supervision as a function of gender, the findings of the present study indicated that female nurses perceived supervision as a determinant of job satisfaction more than their male counterparts. According to the job satisfaction instrument designer, Spector (1997), supervision refers to a person's perception of the competence and fairness of one's supervisor. In this study, this translates into the finding that female nurses are more satisfied with their superiors, who are mostly female, than the male nurses. It is possible that males are not so willing to accept orders and instructions from their female supervisors, as a factor of gender role expectations. Spector (2003) pointed out that men are more autocratic and women more democratic in their styles. This may explain further why female nurses, more than male nurses, work well with female supervisors.

In terms of co-workers as a function of gender, the results of the present study showed that female nurses perceived co-workers as a determinant of job satisfaction more

than their male counterparts. Since there are far fewer male nurses than female nurses in the hospitals, it is likely that male nurses do not have that many male peers to relate to for friendship or for support, and this may lead to male nurses perceiving their female co-workers as a rather inconsequential determinant of job satisfaction. Spector (2003) emphasized that it has become important to understand how men and women might differ in their attitudes to other people and towards their job, in relation to job satisfaction.

Age.

There are significant differences in the nurses' perception of the determinants of job satisfaction as a function of age but only in the sub-scales 'pay', 'promotion,' 'supervision', and 'nature of work.' In terms of pay as a function of age, the results of this study revealed that the participants aged between 26-35 years old reported higher scores to pay as a determinant of job satisfaction more than their other age-group counterparts. This result is supported by Chandraiah, Agrawal, Marimuthu, and Manoharan (2003) who found that younger adults (25-35 years old) appeared to be more satisfied on the factor of pay than those in the older age groups. In this study, it is possible that these age groups focus more on their job, are more hardworking and try more to get opportunities for advancement, despite lower salaries compared to their older co-workers.

Likewise, in terms of promotion as a function of age, the findings of the present study indicated that the participants aged between 26-35 years old reported higher scores to promotion as a determinant of job satisfaction than their older age group counterparts. This finding is supported by Siu, Lu, and Cooper (as cited in Spector, 2003) who found that older workers are less concerned with promotions and other aspects of the job than are younger workers. It is this researcher's contention that, as earlier stated, younger workers are likely to be more concerned with opportunities for advancement than older co-workers.

In terms of supervision as a function of age, the findings of the present study showed that the nurses aged between 36-45 years old and those over 45 years perceived supervision as a determinant of job satisfaction more than their younger age-group counterparts. This result is supported by the findings of Chandraiah, Agrawal, Marimuthu, and Manoharan (2003) who reported that the middle aged (36-45 years) and late middle aged (46-55 years) respondents appeared to be more satisfied with supervision than younger adults (26-35 years). Referring back to the results of the present study, it is possible that the younger-aged nurses have not yet adapted fully to their roles as recipients of daily instructions and orders from superiors while older-aged peers, who have worked longer, may see supervisors' directives as a natural course of events in day-to-day work and are less bothered by it.

In terms of nature of work as a function of age, the findings of the present study revealed that the participants aged between 26-35 years old perceived nature of work as a determinant of job satisfaction more than their younger as well as older age-group counterparts. It is likely that nurses who have attained some degree of maturity not only in age but also in terms of work experience appreciate more the value of nursing work and are quite committed. Older-aged nurses may have the tendency to see nursing work as more routine in nature now than before.

Educational background.

There are no significant differences in the nurses' perception of the determinants of job satisfaction as a function of educational background. This indicates that the group of master's degree-holders and the group with the bachelor's degree in Nursing perceive the determinants of job satisfaction in basically the same way. The results of the study do not concur with the findings of Ying, Yanqiu, and Bing (2000), who reported that nurses with different educational levels had different mean scores for job satisfactions; that is, as

educational level increased, the mean score of job satisfaction decreased. In the present study, those with the master's degree, perceive the determinants of job satisfaction, such as fringe benefits, co-workers, or nature of work in the same vein as those with only the bachelor's degree.

Job position.

There are significant differences in the nurses' perception of the determinants of job satisfaction as a function of job position but only in the sub-scales 'operating procedure', 'co-worker', and 'nature of work.' In terms of operating procedure as a function of job position, the findings of the present study revealed that the specialized nurse position-holders have higher satisfaction in terms of operating procedure, co-workers, and nature of work than their other counterpart groups. These results might suggest that specialized nurse position-holders work with specific duties and may feel more able and confident in their management field, leading them to be more satisfied with their job position than those without an area of nursing specialization.

Years of nursing work.

There are significant differences in the nurses' perception of the determinants of job satisfaction as a function of years of nursing work but only in the sub-scales 'nature of work.' The present study revealed that respondents who have done nursing work for more than 5-10 years reported higher indicators of job satisfaction than nurses in the other categories. This result is supported by Duncan-Poitier (2003) who found that more experienced Registered Nurses (RNs) reported higher levels of job satisfaction than do less experienced RNs. In the present study, it may be that the more experienced nurses are likely to be more confident in terms of nursing care management and skills in handling nursing work than those with lesser years of work experience. On the other

hand, those who have worked over 10 years may have the tendency to see nursing work now as more routine than before and may exhibit less enthusiasm than they used to.

With reference to *Research Question Three*: (Is there a significant relationship between the factors affecting job-related stress and the determinants of job satisfaction?) the following related findings are discussed as such:

There is a significant negative relationship between the factors affecting job-related stress, namely: death and dying, conflict with physicians, inadequate preparation, lack of support, conflict with other nurses, workload, and uncertainty concerning treatment and the perceived determinants of job satisfaction which are: pay, promotion, supervision, fringe benefits, contingent rewards, operating procedures, co-workers, nature of work, and communication. In utilizing the Pearson Moment Correlation Coefficient among sixteen variables, the equivalent hypothesis gained partial support in that forty-seven significant negative relationships were found to exist between the given variables, as mentioned in the summary of findings section of the chapter. This particular result of the present study is supported by Bratt, Broome, Kelber, and Lostocco (2000) who examined the influence of stress and nursing leadership on job satisfaction of pediatric intensive care unit nurses. Their findings showed that job stress (negative association) and nursing leadership (positive association) were the most influential variables in the explanation of job satisfaction and that nurses who experienced more stress experienced less satisfaction. The pertinent result of this study, however, turned out to be dissimilar to that of Tunkuntha (1997) whose study examined job stress and job satisfaction of professional nurses practicing with psychiatric patients. The findings of that study showed that most subjects had a moderate level of job stress and job satisfaction, and that there was no relationship between job stress and job satisfaction. In further support of the

present study's final results, Jamal (1990, as cited in Spector, 2003) found significant negative correlations of work stress with the strains of job satisfaction and well-being.

3. Conclusions

Based on the core findings of the study, the following conclusions are drawn:

Workload, death and dying, lack of support, conflict with physicians, inadequate preparation, conflict with other nurses, and uncertainty concerning treatment were all perceived as job-related stress factors by the nurses working in private hospitals in Metropolitan Bangkok in the course of their nursing work. There were some differences, though, in the perception of these factors in relation to the nurses' age, where conflict with other nurses bother older nurses more than younger ones, and in relation to educational background, where master's degree-holders are more vexed by disagreements with physicians than nurses who have not attained the master's degree. On the other hand, these job-related stress factors were all similarly perceived in much the same way by the nurses, regardless of whether they were male or female, whether they held different levels of position in the organization, or whether they've been doing nursing work for a brief or long period of time.

Of all the stress factors given, it appeared that workload, death and dying, and lack of support were the most highly rated perceived sources of stress among the nurses; but above all, workload was perceived as the most stressful. Subsumed under general workload are more specific problems such as lack of staff, too much paper work, inability to take breaks and days off, varying schedules from week to week, and along with emergency cases.

In as much as most of the participants were relatively young and new to the 'real world' of nursing practice, it can be concluded that the less experienced nurses have yet

to adjust further to the distressing scenarios that occur on a regular basis in day-to-day nursing practice, such as witnessing death and dying, voluminous work that is disproportionate to their working hours, and not having enough social support from equally busy peers and superiors in the workplace.

It can also be concluded that the nurses working in private hospitals in Metropolitan Bangkok perceived the following as determinants of job satisfaction: pay, promotion, supervision, fringe benefits, contingent rewards, operating procedures, co-workers, nature of work, and communication. There were some differences, though, in the perception of these determinants as a function of some demographic characteristics, namely, gender, age, job position, and years of nursing work. The researcher likewise concludes that, whether nurses were master's degree-holders or not, they discerned all the said aspects of work as leading to job satisfaction in basically the same way.

Nature of work was the most major perceived determinant of job satisfaction; co-workers were rated second, and supervision was rated third. However, nurses who are strongly dissatisfied with their pay and promotion must decide whether these frustrations outweigh the satisfying aspects of their jobs. It may seem harsh to suggest that nurses who are hopelessly unhappy with their salary and opportunities for promotion look for jobs elsewhere. This is precisely why a study such as this is valuable as it helps identify job satisfiers which should be enhanced as to counterbalance unavoidable job stressors in the nursing profession.

Lastly, it can also be concluded that among nurses in private hospitals in Metropolitan Bangkok, the greater the job stress, the lower the job satisfaction; alternatively, the lower the job stress, the greater the job satisfaction. The implication of the study is that knowing what the job stress sources are can lead hospital administrators and even nurses themselves to develop mechanisms that would reduce job stress as well

as mechanisms that would enhance job satisfaction and probably even greater commitment to nursing work. The researcher clarifies that job stress does not necessarily cause job dissatisfaction, but concludes that where one variable is strong, the other is weak, and vice-versa, a relationship that should be given notice by relevant individuals and groups in the field of nursing who are in a position of power and responsibility, who can be agents of change or catalysts working toward the greater good of all nurses.

4. Recommendations

In the light of the major findings of the study and the conclusions drawn, the following recommendations are offered, primarily directed to hospital administrators and to policy makers at the Thai Ministry of Health:

1. Workload, death and dying, and lack of support were the nurses' most major perceived sources of stress. Further analysis should be undertaken by hospital administrators to determine whether or not these factors are actual or perceived problems among Thai nurses. If it is confirmed that these factors are actual job stressors, then mechanisms aimed at toning down or even eliminating most of these factors should be put in place, such as stress management and time management training courses for nurses. Also, consideration should be given to increasing organizational support in the form of counseling sessions and recreational facilities for nursing staff.

2. Stress caused by shift work may also be reduced. Eliminating shift work completely is impossible, but management could allocate chief nurses on a rotation basis to design schedules on a forward rotating basis to minimize the disruption of body rhythms. Asking for inputs from persons doing shift work can amend this schedule.

3. Hospital administrators, through the endorsement of the Ministry of Health officials, should endeavor to identify specific organizational policies and procedures

relevant to nurse employees. For instance, the organization should set criteria on salary and promotion increase policy and declare these to their personnel. Increasing salary and benefit compensation packages for nursing staff should be considered a priority. The organization should periodically conduct compensation and welfare surveys on nurses and see what they really need. Moreover, the organization should review the pertinent policies and use the said survey results as information in developing more realistic and equitable compensation and welfare policies within the organization.

4. Ensure balance between work and authority with a view to increasing the level of confidence of nurses in their authority figures and not feel as being under their absolute control. Top management or head/ward nurses should try to ensure a balance between work assignment and authority provided to followers, particularly in decision making. Some degree of empowerment would be good for nurses' morale.

5. The organization should be more aware of the aging nursing workforce and aim to retain older nurses, both for their experience and expertise and also to prevent a worsening of an already critical nursing shortage. To assist nurse managers in retaining older RNs, reinforcements such as flexible schedules, portable benefits, innovative work environments that capitalize on their experience, a ban on mandatory overtime, and suchlike should be implemented.

6. The organization should provide adequate and appropriate training on the functioning of specialized equipment, information about new diseases, emerging trends in medical science, and other bare essentials in nursing care and the medical profession with a view to developing nurses' skill and knowledge. The particular problem of uncertainty concerning treatment as well as fear of the unknown would be much reduced or even eliminated.

7. To prepare clinical nurses to take up the changing and expanding roles and responsibilities demanded by patient-centered care, patient management and care delivery training should be given to nurses to help them provide for the emotional needs of patients as well as their families. Specialized courses on psychosocial care of specific patient groups (e.g., terminally ill patients and cancer patients) as well as effective communication skills should be included not only in the nurses' training schedule but that these should be included or integrated within the nursing curriculum itself.

8. Stress management programs for nurses is a must. The number of nurses adversely affected by occupational stress, as inferred from the results of this study as well as other related studies mentioned earlier, suggests the need to develop stress management strategies specifically for nurses. A number of intervention models for stress management have been developed in the West (as cited in Wong, Leung, So, & Lam, 2001), but stress management programs for nurses in Thailand are lacking. Programs to assist nurses to examine and strengthen their positive cognitive coping skills may improve their mental health. Another way is to help nurses engage in positive experiences in problem-solving. Assisting nurses to learn problem-solving skills can also increase positive coping with occupational stress and improve mental health outcomes. Moreover, the organization should consider stress management programs adapted from Eastern meditative/relaxation training or Buddhist relaxation techniques to help buffer the deleterious effects of stress and, in a way, help nurses to become more focused and more satisfied health care workers.

9. In this study, the respondents were all full-time nurses working for an average number of 36 hours per week, with some nurses doing a double shift (16 hours) in one day. It is therefore recommended that nurses be allowed to have the option of working

either part-time or flexi-time (variable hours per week), without prejudice to their employment status, as a possible solution to reducing the impact of job-related stress.

Future Directions

1. The Nursing Stress Scale is presently the standard questionnaire used universally to measure stress among nurses. This instrument, however, is over 20 years old. Therefore, it is recommended that future researchers should develop a more up-to-date instrument to measure nursing stress, with proven validity and reliability.

2. This study focused on the perceived factors affecting job-related stress and perceived determinants of job satisfaction. Future researchers may consider investigating other variables affecting nurses and/or other health workers such as personality traits, coping strategies, job performance, affect balance, hardiness, or locus of control.

3. The demographic characteristics used in this study were: gender, age, educational background, job position, and years of nursing work. It is recommended that future researchers interested in a similar study should consider using other demographic characteristics including marital status, yearly salary range and work status.

4. In this study, there were only a few male nurse respondents, as is the case in most hospitals. Perhaps future researchers interested in examining certain professions should consider focusing on the male perspective in female-dominated work settings such as nursing and elderly care.

5. As there appears to be no definitive relationship between job stress and job satisfaction, in the light of conflicting research findings on the issue, other researchers interested in the same type of respondents should consider replicating this investigation in the form of a cross-sectional study of nurses working in various hospital departments. Other researchers who are interested in the same key variables but in other work settings or other types of organization or human resources may well consider doing a similar but

more exhaustive study using a different set of research instruments with a view to drawing a more conclusive outcome that would help fill the knowledge gap.



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Appendix A

A Letter of Request

คณะจิตวิทยาให้คำปรึกษา มหาวิทยาลัยอัสสัมชัญ
แขวงหัวหมาก เขตบางกะปิ กรุงเทพมหานคร

6 มิถุนายน 2548

เรื่อง ขออนุญาตเก็บรวบรวมข้อมูล
เรียน ผู้อำนวยการ โรงพยาบาล
สิ่งที่แนบมาด้วย แบบสอบถาม

ด้วยดิฉัน นางสาวอนันต์ศรี โปธาพันธ์ พยาบาลวิชาชีพ และกำลังศึกษาต่อในระดับปริญญาโท คณะจิตวิทยาให้คำปรึกษา มหาวิทยาลัยอัสสัมชัญ กำลังทำวิทยานิพนธ์เรื่อง “Job Stress and Job Satisfaction among Nurses in Private Hospitals in Metropolitan Bangkok” โดย Dr. Maria Bella C. Bamforth เป็นอาจารย์ที่ปรึกษา

ซึ่งในการทำวิทยานิพนธ์ดังกล่าว กลุ่มตัวอย่างที่ใช้ ได้แก่ พยาบาลประจำการของโรงพยาบาลเอกชนในจังหวัดกรุงเทพมหานคร ดิฉันใคร่ขออนุญาตเก็บรวบรวมข้อมูลจากพยาบาลซึ่งอยู่ในบังคับบัญชาของท่าน คำตอบของพยาบาลทุกคนจะถูกปิดเป็นความลับ และจะนำมาใช้ในวิทยานิพนธ์เท่านั้น ผลการวิจัยจะเสนอภาพรวมของความคิดเห็นของพยาบาล ซึ่งจะเป็นประโยชน์ในการพัฒนาอาชีพการพยาบาลในโอกาสต่อไป

จึงเรียนมาเพื่อโปรดพิจารณาอนุญาตให้เก็บรวบรวมข้อมูลจากพยาบาลในโรงพยาบาลของท่านต่อไป หวังเป็นอย่างยิ่งว่าจะได้รับความอนุเคราะห์จากท่าน ขอขอบพระคุณเป็นอย่างยิ่งมา ณ โอกาสนี้ด้วย

ขอแสดงความนับถือ

(นางสาวอนันต์ศรี โปธาพันธ์)
ผู้จัดทำวิทยานิพนธ์

(Dr. Maria Bella C. Bamforth)
อาจารย์ที่ปรึกษา

(ดร. วรพจน์ รักธรรม)
คณบดี คณะจิตวิทยาให้คำปรึกษา



Part I: Please indicate the item which is true for you by placing a check/tick (/) in front of the following items:

1. Gender

- _____ 1. Male
_____ 2. Female

2. Age

- _____ 1. Under 26 years old
_____ 2. 26-35 years old
_____ 3. 36-45 years old
_____ 4. Over 45 years old

3. Educational background

- _____ 1. Bachelor's Degree
_____ 2. Master's Degree
_____ 3. Doctorate Degree

4. Job position

- _____ 1. General Nurse
_____ 2. Specialize Nurse
_____ 3. Head Nurse / Ward
_____ 4. Supervisor
_____ 5. Other, please specify:

5. Years of nursing work

- _____ 1. Less than 5 years
_____ 2. 5-10 years
_____ 3. 11-15 years
_____ 4. 16-20 years
_____ 5. Over 20 years

Part II: Please choose only one scale in each statement that describes best your opinion and feeling by placing a check/tick (/) in the appropriate column.

	Statement	Ne- ver 1	Sel- dom 2	Yes, occasionally 3	Yes, often 4	Yes, always 5
1	Performing procedures that patients experience as painful.					
2	Criticism by a physician.					
3	Being asked a question by a patient for whom I do not have a satisfactory answer.					
4	Lack of an opportunity to talk openly with other unit personnel about problems on the unit.					
5	Conflict with a supervisor.					
6	Breakdown of computer.					
7	Inadequate information from a physician regarding the medical condition of a patient.					
8	Feeling helpless in the case of a patient who fails to improve.					
9	Conflict with a physician.					
10	Feeling inadequately prepared to help with the emotional needs of a patient.					
11	Lack of an opportunity to share experiences and feelings with other personnel on the unit.					
12	Difficulty in working with a particular nurse (or nurses) outside the unit.					
13	Unpredictable staffing and scheduling.					
14	A physician ordering what appears to be inappropriate treatment for a patient.					
15	Listening or talking to a patient about his/her approaching death.					

	Statement	Never 1	Seldom 2	Yes, occasionally 3	Yes, often 4	Yes, always 5
16	Fear of making a mistake in treating a patient.					
17	Lack of an opportunity to express to other personnel on the unit my negative feelings towards patients.					
18	Criticism by a supervisor.					
19	Not enough time to provide emotional support to patient.					
20	Not knowing what a patient or a patient's family ought to be told about the patient's condition and its treatment.					
21	In the death situation of a patient.					
22	Disagreement concerning the treatment of a patient.					
23	Difficulty in working with a particular nurse (or nurses) on the unit.					
24	Not enough time to complete all of my nursing tasks.					
25	Uncertainty regarding the treatment procedure and functioning of specialized equipment.					
26	The death of a patient with whom you developed a close relationship.					
27	Making a decision concerning a patient when the physician is unavailable.					
28	Not enough staff to adequately cover the unit.					
29	Watching a patient suffer.					

Part III: Please choose only one scale in each statement that describes best your opinion and feeling by placing a check/tick (/) in the appropriate column.

	Statement	Disagree very much 1	Disagree 2	Neutral 3	Agree 4	Agree very much 5
1	I feel I am being paid a fair amount for the work I do.					
2	There is really too little chance for promotion on my job.					
3	My supervisor is quite competent in doing his/her job.					
4	I am not satisfied with the benefits I receive.					
5	When I do a good job, I receive the recognition for it that I should receive.					
6	Many of our rules and procedures make doing a good job difficult.					
7	I like the people I work with.					
8	I sometimes feel my job is meaningless.					
9	Communications seem good within this organization.					
10	Raises are too few and far between.					
11	Those who do well on the job stand a fair chance of being promoted.					
12	My supervisor is unfair to me.					
13	The benefits we receive are as good as most other organizations offer.					
14	I do not feel that the work I do is appreciated.					
15	My efforts to do a good job are seldom blocked by red tape.					
16	I find I have to work harder at my job because of the incompetence of people I work with.					
17	I like doing the things I do at work.					

	Statement	Disagree very much 1	Disagree 2	Neutral 3	Agree 4	Agree very much 5
18	The goals of this organization are not clear to me.					
19	I feel unappreciated by the organization when I think about what they pay me.					
20	People get ahead as fast here as they do in other places.					
21	My supervisor shows too little interest in the feelings of subordinates.					
22	The benefit package we have is equitable.					
23	There are few rewards for those who work here.					
24	I have too much to do at work.					
25	I enjoy my coworkers.					
26	I often feel that I do not know what is going on with the organization.					
27	I feel a sense of pride in doing my job.					
28	I feel satisfied with my chances for salary increases.					
29	There are benefits we do not have which we should have.					
30	I like my supervisor.					
31	I have too much paperwork.					
32	I don't feel my efforts are rewarded the way they should be.					
33	I am satisfied with my chances for promotion.					
34	There is too much bickering and fighting at work.					
35	My job is enjoyable.					
36	Work assignments are not fully explained.					



Appendix C

Questionnaire (in Thai)

การศึกษาเกี่ยวกับภาวะความเครียด และความพึงพอใจในการทำงานของพยาบาลวิชาชีพ โรงพยาบาลเอกชน
ในเขตกรุงเทพมหานคร

เรียน ผู้ตอบแบบสอบถาม

แบบสอบถามฉบับนี้ ได้จัดทำขึ้น โดยมีวัตถุประสงค์ เพื่อใช้ในการศึกษาเกี่ยวกับภาวะความเครียด
และความพึงพอใจในการทำงานของพยาบาลวิชาชีพ โรงพยาบาลเอกชน ในเขตกรุงเทพมหานคร ซึ่งการศึกษา
ดังกล่าว เป็นส่วนหนึ่งของการสำเร็จการศึกษาในระดับปริญญาโท ภาควิชาจิตวิทยาการให้คำปรึกษา
มหาวิทยาลัยอัสสัมชัญ

ทางผู้ทำวิจัยใคร่ขอขอบคุณทุกท่านที่สละเวลาในการตอบแบบสอบถามฉบับนี้ คำตอบที่มีค่าของ
ท่านถือเป็นความลับและจะไม่ถูกเปิดเผย แบบสอบถามนี้จะถูกทำลายทันที หลังจากเสร็จสิ้นผลการวิเคราะห์

ขอแสดงความนับถือ

อนันต์ตรี โปธาพันธ์

ผู้จัดทำ



ตอนที่ 1 คำแนะนำ: โปรดตอบคำถามทุกข้อตามความเป็นจริงโดยใช้เครื่องหมายถูก (/) หน้าคำตอบที่ถูกต้อง

1. เพศ

- _____ 1. ชาย
_____ 2. หญิง

2. อายุ

- _____ 1. ต่ำกว่า 26 ปี
_____ 2. 26-35 ปี
_____ 3. 36-45 ปี
_____ 4. มากกว่า 45 ปี

3. ระดับการศึกษา

- _____ 1. ปริญญาตรี
_____ 2. ปริญญาโท
_____ 3. ปริญญาเอก

4. ตำแหน่งงาน

- _____ 1. พยาบาลทั่วไป
_____ 2. พยาบาลเฉพาะด้าน
_____ 3. หัวหน้าออร์ค
_____ 4. พยาบาลผู้ตรวจการ
_____ 5. อื่น ๆ กรุณาเติม.....

5. ประสบการณ์การทำงาน

- _____ 1. ต่ำกว่า 5 ปี
_____ 2. 5-10 ปี
_____ 3. 11-15 ปี
_____ 4. 16-20 ปี
_____ 5. มากกว่า 20 ปี

ตอนที่ 2 คำแนะนำ; กรุณาเลือกข้อความที่อธิบายความหมายได้ตรงกับความคิดเห็นและความรู้สึกของท่านมากที่สุด โดยใช้เครื่องหมายถูก (/)

		ไม่เคย	นานๆ ครั้ง	บางครั้ง	บ่อยครั้ง	สม่ำเสมอ
		1	2	3	4	5
1	ข้าพเจ้าเคยทำการรักษาใดๆ ที่ทำให้ผู้ป่วยเจ็บปวด					
2	ข้าพเจ้าเคยถูกวิพากษ์วิจารณ์จากแพทย์					
3	ผู้ป่วยเคยถามคำถามที่ข้าพเจ้าไม่สามารถหาคำตอบที่ทำให้ผู้ป่วยพึงพอใจ					
4	ข้าพเจ้าไม่ค่อยมีโอกาที่จะพูดคุยอย่างเปิดอกกับพนักงานแผนกอื่น เกี่ยวกับปัญหาในแผนกของตน					
5	ข้าพเจ้าเคยมีความขัดแย้งกับหัวหน้างาน					
6	คอมพิวเตอร์ที่ใช้ในแผนกเคยทำงานผิดพลาด					
7	ข้าพเจ้าเคยได้รับข้อมูลการรักษาที่ไม่เหมาะสมกับผู้ป่วย จากแพทย์					
8	ข้าพเจ้ารู้สึกว่าไม่สามารถช่วยอะไร ได้ เมื่อผู้ป่วยที่ข้าพเจ้าดูแลมีอาการ ไม่ดีขึ้น					
9	ข้าพเจ้าเคยมีความขัดแย้งกับแพทย์					
10	ข้าพเจ้าเคยรู้สึกว่าไม่สามารถช่วยให้ผู้ป่วยรู้สึกดีขึ้น					
11	ข้าพเจ้าไม่ค่อยมีโอกาที่จะแลกเปลี่ยนประสบการณ์และความรู้สึกกับเพื่อนร่วมงานในแผนก					
12	ข้าพเจ้าเคยประสบปัญหาในการร่วมงานกับพยาบาลแผนกอื่น					
13	ข้าพเจ้าเคยมีลักษณะงานหรือตารางการทำงานที่ไม่สามารถคาดการณ์ได้					
14	แพทย์เคยให้คำสั่งการรักษาที่ไม่เหมาะสมแก่ผู้ป่วย					
15	ข้าพเจ้าเคยได้รับฟังหรือพูดคุยกับผู้ป่วยที่ใกล้จะเสียชีวิต					
16	ข้าพเจ้ากลัวที่จะดูแลผู้ป่วยผิดพลาด					
17	ข้าพเจ้าไม่ค่อยมีโอกาที่จะแสดงความรู้สึกไม่ดีที่มีต่อผู้ป่วยให้ผู้อื่นได้รับรู้					
18	ข้าพเจ้าเคยถูกวิพากษ์วิจารณ์จากหัวหน้างาน					
19	ข้าพเจ้ามีเวลาไม่เพียงพอที่จะให้กำลังใจผู้ป่วย					
20	ข้าพเจ้าไม่ทราบว่า จะแจ้งผู้ป่วยหรือญาติให้ทราบถึงสถานะและวิธีการรักษาของตัวผู้ป่วยอย่างไรดี					
21	ข้าพเจ้าเคยอยู่ในสถานการณ์การเสียชีวิตของผู้ป่วย					
22	ข้าพเจ้าเคยรู้สึกไม่เห็นด้วยกับการดูแลรักษาผู้ป่วย					

		ไม่เคย	นานๆ ครั้ง	บางครั้ง	บ่อยครั้ง	สม่ำเสมอ
		1	2	3	4	5
23	ข้าพเจ้าเคยประสบปัญหาในการร่วมงานกับพยาบาลแผนกเดียวกัน					
24	ข้าพเจ้ามีเวลาไม่เพียงพอที่จะจัดการกับงานที่ได้รับมอบหมายให้แล้วเสร็จ					
25	ข้าพเจ้าไม่แน่ใจเกี่ยวกับขั้นตอนการรักษาและการทำงานของเครื่องมือ					
26	ข้าพเจ้าเคยอยู่ในสถานการณ์การเสียชีวิตของผู้ป่วยที่คุ้นเคยแลใกล้ชีวิต					
27	ข้าพเจ้าเคยตัดสินใจเกี่ยวกับการรักษาผู้ป่วย เมื่อแพทย์ไม่อยู่					
28	ข้าพเจ้าเคยรู้สึกว่ายพยาบาลไม่เพียงพอกับความต้องการของแผนก					
29	ข้าพเจ้าเคยเห็นผู้ป่วยทนทุกข์ทรมาน					



ตอนที่ 3 คำแนะนำ; กรุณาเลือกข้อความที่อธิบายความหมายได้ตรงกับความคิดเห็นและความรู้สึกของท่านมากที่สุด โดยใช้เครื่องหมายถูก (/)

		ไม่เห็นด้วย อย่างยิ่ง	ไม่เห็น ด้วย	ไม่มี ความเห็น	เห็น ด้วย	เห็นด้วย อย่างยิ่ง
		1	2	3	4	5
1	ข้าพเจ้ารู้สึกว่าได้รับค่าจ้างเหมาะสมกับงานที่ทำอยู่					
2	ข้าพเจ้ามีโอกาสน้อยมากที่จะได้เลื่อนตำแหน่ง					
3	หัวหน้างานของข้าพเจ้ามีความสามารถในการทำงาน					
4	ข้าพเจ้ารู้สึกไม่พึงพอใจกับสวัสดิการที่ได้รับ					
5	เมื่อข้าพเจ้าทำงานได้ดี ควรจะได้รับการชมเชยอย่างที่ข้าพเจ้าสมควรได้รับ					
6	กฎ ข้อบังคับและขั้นตอนการทำงาน ทำให้ข้าพเจ้ารู้สึกว่ายากต่อการทำงานให้สำเร็จลุล่วง					
7	ข้าพเจ้าชื่นชมเพื่อนร่วมงานของข้าพเจ้า					
8	บางครั้งข้าพเจ้ารู้สึกว่างานของข้าพเจ้าไม่มีความหมาย					
9	การติดต่อสื่อสารภายในแผนกของข้าพเจ้าเป็นไปอย่างดี					
10	โอกาสที่จะได้รับเงินเดือนเพิ่มของข้าพเจ้านั้นน้อยกว่าที่ควร					
11	โอกาสในการเลื่อนขั้นในองค์กรของข้าพเจ้านั้นมีความเหมาะสม					
12	หัวหน้างานของข้าพเจ้าไม่ยุติธรรมต่อข้าพเจ้า					
13	สวัสดิการที่ข้าพเจ้าได้รับนั้นดีเทียบเท่ากับที่องค์กรอื่นจัดหาให้					
14	ข้าพเจ้ารู้สึกว่าไม่ได้รับการชื่นชมจากงานที่ทำ					
15	ความพยายามที่จะทำงานให้สำเร็จลุล่วงมักจะถูกกีดขวางด้วยการจำกัดสิทธิในด้านต่าง ๆ					
16	ข้าพเจ้าต้องทำงานหนักเพราะว่าเพื่อนร่วมงานของข้าพเจ้าไม่ค่อยมีความสามารถ					
17	ข้าพเจ้าชอบในสิ่งที่ข้าพเจ้ากำลังทำอยู่					
18	เป้าหมายขององค์กรที่ข้าพเจ้าทำอยู่นั้น ไม่มีความชัดเจน					
19	ข้าพเจ้ารู้สึกไม่ประทับใจต่อองค์กร เมื่อคำนึงถึงสิ่งที่องค์กรให้แก่ข้าพเจ้า					
20	บุคคลต่างๆในองค์กรนี้ได้รับการเลื่อนตำแหน่งอย่างรวดเร็วเหมือนองค์กรอื่น					
21	หัวหน้างานของข้าพเจ้าไม่ค่อยจะสนใจความรู้สึกของลูกน้อง					

		ไม่เห็นด้วย อย่างยิ่ง	ไม่เห็น ด้วย	ไม่มี ความเห็น	เห็น ด้วย	เห็นด้วย อย่างยิ่ง
		1	2	3	4	5
22	สวัสดิการที่ข้าพเจ้าได้รับทั้งหมดนั้นมีความยุติธรรม					
23	องค์กรนี้มีรางวัลหรือค่าตอบแทนให้กับพนักงานน้อยมาก					
24	ข้าพเจ้ามีงานที่ต้องทำเยอะมาก					
25	ข้าพเจ้าทำงานร่วมกับเพื่อนร่วมงานอย่างสนุกสนาน					
26	บ่อยครั้งที่ข้าพเจ้าไม่ทราบว่ากำลังเกิดอะไรขึ้นในองค์กร					
27	ข้าพเจ้ารู้สึกได้ว่างานที่ข้าพเจ้าทำเป็นงานที่มีเกียรติ					
28	ข้าพเจ้ารู้สึกพึงพอใจกับโอกาสที่ข้าพเจ้าได้รับจากองค์กร เรื่องการเพิ่มอัตราค่าจ้าง					
29	ข้าพเจ้าไม่ได้รับสวัสดิการบางอย่างที่สมควรจะได้รับ					
30	ข้าพเจ้าชื่นชอบหัวหน้างานของข้าพเจ้า					
31	ข้าพเจ้ามีงานเกี่ยวกับการจัดการด้านเอกสารมากเกินไป					
32	ข้าพเจ้ารู้สึกว่าความพยายามของข้าพเจ้าไม่ได้รับค่าตอบแทน ที่ควรจะเป็น					
33	ข้าพเจ้ารู้สึกพอใจกับโอกาสในการเลื่อนตำแหน่งของข้าพเจ้า					
34	ที่ทำงานของข้าพเจ้ามีเหตุทะเลาะวิวาทและโจรตัก					
35	งานของข้าพเจ้ามีความสนุกสนาน					
36	งานที่ข้าพเจ้าได้รับมอบหมาย ไม่มีการอธิบายให้เข้าใจอย่าง ถ่องแท้					



Appendix D

Table of Sample Size (in Thai)

ขนาด ประชากร	ขนาดของกลุ่มตัวอย่างตามความคลาดเคลื่อน					
	$\pm 1\%$	$\pm 2\%$	$\pm 3\%$	$\pm 4\%$	$\pm 5\%$	$\pm 10\%$
500	b	b	b	b	222	83
1,000	b	b	b	385	268	91
1,500	b	b	638	441	316	94
2,000	b	b	714	476	333	95
2,500	b	1,250	769	500	345	96
3,000	b	1,364	811	517	353	97
3,500	b	1,458	843	530	359	97
4,000	b	1,538	870	541	364	98
4,500	b	1,607	891	549	367	98
5,000	b	1,667	909	556	370	98
6,000	b	1,765	938	566	375	98
7,000	b	1,842	959	574	378	99
8,000	b	1,905	976	580	381	99
9,000	b	1,957	989	584	383	99
10,000	5,000	2,000	1,000	588	385	99
15,000	6,000	2,143	1,034	600	390	99
20,000	6,667	2,222	1,034	606	392	100
25,000	7,143	2,273	1,064	610	394	100
50,000	8,333	2,381	1,087	617	397	100
100,000	9,091	2,439	1,099	621	398	100
α	10,000	2,500	1,111	625	400	100

b คือกรณีนี้ใช้ไม่ได้

(จาก อุทุมพร จามรมาน “การสุ่มตัวอย่างทางการศึกษา”)

<http://classroom.psu.ac.th/users/bpunjapo/520-513/index520-513.htm>



Appendix E

Reliability of the Instrument Components

RELIABILITY ANALYSIS - SCALE (ALPHA)

N of Cases = 305.0

Item-total Statistics

	Mean if Item Deleted	Scale Variance if Item Deleted	Scale Item- Total Correlation	Corrected Squared Multiple Correlation	Alpha if Item Deleted
STRESS1	65.7344	130.9523	.4308	.2717	.8648
STRESS2	66.4361	133.9572	.3790	.4078	.8661
STRESS3	66.2656	132.6431	.5040	.4080	.8635
STRESS4	66.0164	134.4241	.2395	.1819	.8711
STRESS5	66.6918	131.1218	.4960	.5166	.8631
STRESS6	66.0951	132.5929	.4282	.3616	.8649
STRESS7	66.3148	132.7164	.4882	.4614	.8637
STRESS8	66.4262	131.4954	.4981	.4526	.8632
STRESS9	66.6295	131.1353	.5312	.5178	.8625
STRESS10	66.4820	131.8097	.5600	.5167	.8623
STRESS11	66.5410	134.7689	.3371	.3160	.8671
STRESS12	66.3967	132.1612	.4649	.3673	.8640
STRESS13	66.0492	133.7574	.3483	.1921	.8670
STRESS14	66.3574	131.7502	.5469	.5342	.8624
STRESS15	66.1934	131.0644	.4573	.5539	.8641
STRESS16	66.0295	133.8774	.2876	.2691	.8692
STRESS17	66.1016	134.2363	.3059	.2431	.8682
STRESS18	66.4262	133.2190	.4605	.4580	.8644
STRESS19	66.1475	131.8301	.4496	.4127	.8643
STRESS20	66.5016	132.8758	.4003	.4299	.8656
STRESS21	65.8328	132.6858	.3368	.6115	.8677
STRESS22	66.2262	133.6756	.4741	.3820	.8643
STRESS23	66.3705	132.5629	.5423	.3931	.8629
STRESS24	66.1246	131.2015	.5227	.3697	.8626
STRESS25	66.3082	133.8981	.4539	.3962	.8647
STRESS26	66.1475	131.7380	.3709	.6330	.8667
STRESS27	66.2098	134.8571	.2939	.2832	.8684
STRESS28	65.2033	136.8401	.1729	.1878	.8722
STRESS29	65.4393	134.8853	.2716	.3086	.8692

RELIABILITY ANALYSIS - SCALE (ALPHA)

Reliability Coefficients 29 items

Alpha = .8696

Standardized item alpha = .8783

RELIABILITY ANALYSIS - SCALE (ALPHA)

N of Cases = 305.0

Item-total Statistics

	Mean if Item Deleted	Scale Variance if Item Deleted	Scale Item- Total Correlation	Corrected Squared Multiple Correlation	Alpha if Item Deleted
SAT1	109.3869	149.2709	.4034	.3443	.8071
SAT2	109.2852	153.6914	.2861	.2638	.8113
SAT3	108.3574	155.5396	.2237	.3302	.8132
SAT4	109.3803	150.0851	.4068	.4068	.8072
SAT5	108.2459	161.9360	-.0774	.1900	.8204
SAT6	109.1311	152.5156	.3202	.2900	.8102
SAT7	108.3344	157.1181	.2086	.4024	.8135
SAT8	108.4623	149.3810	.4004	.3993	.8072
SAT9	108.6033	154.2730	.2857	.3350	.8114
SAT10	109.4426	151.4120	.3780	.3694	.8083
SAT11	108.9836	149.2004	.1784	.1233	.8237
SAT12	109.6197	168.8220	-.3605	.4604	.8309
SAT13	109.4230	150.8436	.3816	.4550	.8081
SAT14	108.9541	151.4321	.4195	.4362	.8074
SAT15	108.9836	171.6675	-.4804	.3905	.8341
SAT16	108.6656	155.0852	.2302	.2816	.8131
SAT17	108.5803	149.9022	.4364	.4857	.8063
SAT18	108.8262	152.2164	.3585	.3074	.8091
SAT19	109.1049	145.5876	.6212	.5050	.7999
SAT20	109.3180	153.9018	.3282	.2721	.8103
SAT21	108.6328	152.4371	.2980	.4632	.8110
SAT22	109.1934	147.8407	.5448	.4501	.8029
SAT23	109.6164	149.4543	.4581	.4852	.8056
SAT24	109.8197	156.8720	.1617	.3375	.8150
SAT25	108.4459	155.6097	.2785	.3961	.8118
SAT26	109.3738	152.2480	.3574	.2778	.8091
SAT27	108.1967	151.4020	.4146	.4459	.8075
SAT28	108.9705	147.7853	.4355	.4703	.8057
SAT29	109.4852	149.4874	.4586	.4354	.8056
SAT30	108.5213	153.5925	.3394	.5217	.8099
SAT31	109.5672	153.2726	.2710	.3475	.8119
SAT32	109.4492	148.1167	.5189	.4726	.8036
SAT33	108.9934	152.7697	.3737	.4518	.8089
SAT34	108.6590	150.2649	.3770	.3052	.8081
SAT35	108.8230	151.4028	.3543	.4293	.8090
SAT36	108.7213	152.2872	.3561	.3537	.8092

RELIABILITY ANALYSIS - SCALE (ALPHA)

Reliability Coefficients 36 items

Alpha = .8152 Standardized item alpha = .8186

