Development and Psychometric Evaluation of the Thai Nurses' Job Satisfaction Scale (TNJSS)

Jarurat Sriratanaprapat

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy in Nursing (International Program)

Prince of Songkla University

2012

Thesis Title Development and Psychometric Evaluation of the Thai Nurses' Job Satisfaction Scale (TNJSS)

Author Mrs. Jarurat Sriratanaprapat

Major Program Nursing (International Program)

Major Advisor:

…….....

(Assoc. Prof. Dr.Aranya Chaowalit)

Co-advisor:

…….....

(Assoc. Prof. Dr.Wandee Suttharangsee)

Examining Committee:

……Chairperson

(Assoc. Prof. Dr.Siriporn Khampalikit)

……

(Assoc. Prof. Dr.Aranya Chaowalit)

……

(Assoc. Prof. Dr.Wandee Suttharangsee)

…..……..……

(Asst. Prof. Dr.Umaporn Boonyasopun)

The Graduate School, Prince of Songkla University, has approved this thesis as partial fulfillment of the requirements for the Doctor of Philosophy Degree in Nursing (International Program).

…….……..

(Prof. Dr.Amornrat Phongdara)

Dean of Graduate School

Thesis Title Development and Psychometric Evaluation of the Thai Nurse's Job Satisfaction Scale (TNJSS)

Author Mrs. Jarurat Sriratanaprapat

Major Program Nursing (International Program)

Academic Year 2011

ABSTRACT

Purpose: The purpose of this research was to develop the Job Satisfaction Scale for Thai nurses and determine its psychometric properties.

Methods: The TNJSS was developed based on in-depth interview of Thai nurses and extensive literature review. Participants comprised 963 nurses from 12 government general hospitals representing six regions of Thailand. Due to Thai cultural context, the Social Desirability Scale-17 (SDS-17) was distributed along with the TNJSS to subjects. The validity was examined by measuring content validity and construct validity using exploratory factor analysis and hypothesis testing. The reliability was determined by testing internal consistency using Cronbach's alpha coefficient and stability using test-retest method.

Results: The 107-item TNJSS comprised eight factors: incentives, professional autonomy and recognition, nursing supervisor, social aspect, workload, work environment, nursing policy and system, and assertiveness in confronting difficulties. Low magnitude of correlation found between the total score of SDS-17 and the total score of TNJSS (r=.12, p<.01). Both types of construct validity yielded respectable outcomes. The internal consistency reliability of the scale was .98 in and test-retest reliability revealed satisfactory results (r=.83, p<.01).

Conclusion: The TNJSS is psychometrically valid and reliable measure for evaluating nurses' job satisfaction in Thailand; and maybe, in other similar cultural context countries. It can be appropriately utilized in nursing research, healthcare organizations, and nursing education. Suggestions on future research are to refine the instrument and assess its applicability to other hospital settings or other Asian countries.
Keywords: job satisfaction, psychometric evaluation, Thai nurses, and scale development

บทคัดย่อ

วัตถุประสงค์ การวิจัยครั้งนี้มีวัตถุประสงค์เพื่อพัฒนาและประเมินคุณสมบัติเครื่องมือวัดความพึงพอใจในการทำงานของพยาบาลไทย

วิธีการ เครื่องมือนี้สร้างจากการสัมภาษณ์เชิงลึกจากพยาบาลไทยและการทบทวนวรรณกรรมอย่างลึกซึ้ง กลุ่มตัวอย่างประกอบด้วยพยาบาล 963 คนจากโรงพยาบาลทั่วไป 12 โรงพยาบาลซึ่งเป็นตัวแทนจาก 6 ภูมิภาคของประเทศไทย และเนื่องจากวัฒนธรรมไทยโดยเฉพาะเรื่องความแตกต่างของชนชั้นและความเกรงใจ ผู้วิจัยจึงใช้การแจกแบบสอบถามความต้องการเป็นที่พึงพอใจของสังคมควบคู่ไปด้วย โดยการวัดตรวจสอบคุณภาพของเครื่องมือโดยความตรงตามเนื้อหาและความตรงตามโครงสร้าง ซึ่งความตรงตามโครงสร้างนี้ได้ใช้การวิเคราะห์องค์ประกอบและการทดสอบสมมุติฐาน ส่วนการวัดความเที่ยงทำโดยการวัดความคงที่ภายในโดยการคำนวณค่าสัมประสิทธิ์แอลฟาของครอนบาคและความคงเส้นคงวาโดยการทดสอบซ้ำ

ผลการวิจัย เครื่องมือประกอบไปด้วย 107 ข้อคำถาม 8 องค์ประกอบคือ ผลตอบแทน การมีเอกสิทธิและการได้รับการยอมรับทางวิชาชีพ หัวหน้าทางการพยาบาล ลักษณะสังคม ภาระงาน สิ่งแวดล้อมที่ทำงาน นโยบายและระบบทางการพยาบาล และการแสดงออกที่เหมาะสมเมื่อเผชิญกับสถานการณ์ลำบากใจ ส่วนความสัมพันธ์ระหว่างคะแนนรวมจากแบบสอบถามความต้องการเป็นที่พึงพอใจของสังคมกับคะแนนรวมจากเครื่องมือวิจัยนี้พบว่า อยู่ในระดับน้อยมากอย่างมีนัยสำคัญ (r=.12, p<.01) ผลการทดสอบความตรงตามโครงสร้างทั้งสองวิธีให้ผลเป็นที่น่าเชื่อถือ และค่าสัมประสิทธิ์แอลฟาของการวัดความคงที่ภายในคือ .98 และความคงเส้นคงวานั้นให้ผลเป็นที่น่าพอใจ (r=.83, p<.01)

สรุป เครื่องมือวิจัยนี้มีความเที่ยงและความตรงเพียงพอที่จะใช้ในการประเมินความพึงพอใจในการทำงานของพยาบาลไทยและอาจจะใช้ได้ในประเทศอื่นที่มีวัฒนธรรมคล้ายคลึงกัน เครื่องมือนี้สามารถนำมาใช้ในงานวิจัย องค์กรบริการสุขภาพ และสถานศึกษาทางการพยาบาลได้อย่างเหมาะสม ข้อเสนอแนะในการทำวิจัยในอนาคตคือการปรับปรุงเครื่องมือให้ดีขึ้นและประเมินการนำไปใช้ในโรงพยาบาลประเภทอื่น หรือประเทศอื่นในเอเชีย

คำสำคัญ ความพึงพอใจในการทำงาน การประเมินคุณสมบัติเครื่องมือวิจัย พยาบาลไทย และ การพัฒนาเครื่องมือวิจัย

ACKNOWLEDGEMENT

First of all, the author would like to thank God for His blessings throughout this work. My sincere gratitude and much appreciation go to Associate Professor Dr. Aranya Chaowalit (advisor) and Associate Professor Dr. Wandee Suttharangsee (co-advisor), for their wisdom and guidance. Certainly, I thank and appreciate my family and friends very much for have been there to support and encourage me. My thankfulness extends to the Faculty of Nursing for their support and resources and Graduate School for direct funding of this research and publication. Lastly, special gratitude is given to the directors of nursing, research coordinators, and professional nurses of all 13 hospitals, along with experts who enthusiastically participated in this study.

Jarurat Sriratanaprapat

TABLE OF CONTENTS

TABLE OF CONTENTS (CONTINUED)

TABLE OF CONTENTS (CONTINUED)

TABLE OF CONTENTS (CONTINUED)

TABLE OF CONTENTS (CONTINUED)

LIST OF TABLES

LIST OF TABLES (CONTINUED)

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

Background and Significance of the Study

The nursing profession is facing the challenge of nursing shortage everywhere around the world. Data from both developed and developing countries are more likely to indicate that nursing recruitment and retention are serious issues. Vacancies are reported in many countries.

In Thailand, the change of economics and the health care delivery system impact the healthcare workforce. Thailand established Social Security Health Insurance in 1990s and universal coverage of health care policy in 2001 (Jongudomsuk, 2008). The rapid policy implementation has threatened the health system and health personnel. A report shows an increase in outpatient visits from 3 to 3.5 times per person in all age groups per year during 2003-2009; likewise, an increase in admission charges from 70,590 to 81,016 million Baht in all age groups per year during 2007-2009 (Bundhamcharoen, Patcharanarumol, & Tangcharoensathien, 2011). The public expenditure on the health care system following the implementation of these two systems led to the emergence of cost containment; at the same time, higher quality of care is required in order to meet the national standard of quality assurance and higher expectation from customers. Consequently, nurses have been adjusting with pressures of new systems, coping with increased paper work, limited resources, perceived lowering of standards of customer care, and responding to high demand from both nursing roles and customers.

Inevitably, the shortage of health personal persists (Bundhamcharoen et al., 2011). Many nurses transferred out and resigned because of exhaustion, becoming bored, unhappy, and job dissatisfaction (Boonthong, 2000b). Studies demonstrated that significant relationship exists between low job satisfaction and staff turn over (Irvine & Evans, 1995; Lance, 1991). It is impossible to retain nurses in the profession long term, while nurses receive little more pay than they did years ago in both the public and private sectors (Tyson & Pongruengphant, 2004).

Not surprisingly, Thailand was still short of 25,505 professional nurses according to the survey in 2005 (Saenadisai, 2007). Besides, another study revealed that additional professional nurses required for geriatric care alone was 23,888 nurses in 2010 and 33,880 nurses in 2020 (Bundhamcharoen et al., 2011). Therefore, many more additional nurses are needed to care for all types of patients.

Inadequate nurse numbers draws attention not only Thailand but also internationally. Countries in Europe joined the "NEXT (Nurse Early Exit Study)" to study and follow-up 77,000 nurses from 10 countries with the purpose to learn about the living style, reasons of leaving the nursing profession, working environment, and influencing factors of early resignation of nurses. The result found health problem, stress, and job dissatisfaction are the contributing factors to the problems (Hasselhorn, Tackenberg, & Muller, 2003) which seem to be similar to Thailand.

Hence, Health Care Organizations (HCOs) and administrators are challenged as never before to improve the work environment to enhance nurses' retention, ensuring quality of client care. The higher job satisfaction results in higher performance at work, decreased absenteeism and tardiness (Borhas, 1979; Freeman, 1978; Hamermesh, 1977; Lawler & Porter, 1967; L. A. Locke, 1969). Therefore,

assessing nurses' job satisfaction accurately is essential; however, it requires the tool that has suitable components within the cultural context of where nurses belong.

The tools that hospital administrators used were mostly obtained from Western countries years ago. They were either translated or modified or both for utilization (Chairatana, 1995; Pongruengphant & Tyson, 2000; P. D. Tyson & Pongruengphant, 2004; Vichitrakarn, Vaicheeta, & Hanucharurnkul, 1995) . However, there was either none or incomplete information demonstrating their translation processes and validity testing which are very important for validity of the tools. Some researchers also constructed their own tools. However, most of these tools were tested for only one type of reliability using Cronbach alpha which are still not adequate for the standard psychometric properties because reliability often is possible and desirable to use more than one approach (Polit & Hungler, 1995). Furthermore, testing validity should be performed from more than one type and the method depends on the aim or purpose of the measure (C. F. Waltz, Strickland, Lenz, & Soeken, 2005). Therefore, many tools demonstrated inadequacy in confirming their validity and reliability (Chairatana, 1995; Charuluxananan, Kyokong, & Tamdee, 2002; Suwanpibul, 1998; Wacharobol, 2006).

Other than inadequacy of psychometric property of tools, the time and circumstances when a tool was developed is another problem. For instance, Minnesota Satisfaction Questionnaire (MSQ) was developed in 1967 by Weiss and his colleagues in USA measuring work satisfaction and it has been utilized by social and health science researchers until today. During that time, the Social Security Health Care Program in USA was amended and launched in 1963-1967 (Lassey, Lassey, & Jinks, 1997). The situation of the health care delivery system in USA 42 years ago might be similar to Thailand for the past 10 years; however, time, places, and people are

changing continuously. The culture, beliefs, values, languages, social, economics, politics, and environment all play important roles of the way people think and carry on their lives differently. Therefore, it remains unclear whether components of job satisfaction tool which was developed in Western countries can be utilized suitably in Thailand in order to assess job satisfaction of Thai nurses since job satisfaction is influenced by the culture to which people adhere (Chu, Hsu, & Price, 2003). From literature review, there is no existing instrument to measure job satisfaction for Thai nurses that was constructed in the Thai context and has demonstrated its standard psychometric property. Hence, it is essential to construct a new job satisfaction tool for the Thai nurse.

In developing the Thai Nurses' Job Satisfaction Scale (TNJSS), the investigator will examine the definition, describe the concept and components, depict its psychometric properties, and elicit a proper Thai nurses' job satisfaction measuring tool for utilization in Thai HCOs. The investigator trusts this newly constructed job satisfaction tool can be beneficial for utilization extensively in many areas of nursing discipline in the near future.

Objective

To develop the Job Satisfaction Scale for Thai nurses and determine its psychometric properties

Research Questions

1. What are the components of the job satisfaction scale for Thai nurses?
2. How valid and reliable is the new job satisfaction scale for Thai nurses?

Conceptual Framework

The conceptual framework of this research study is composed of four main aspects: (1) theories related to job satisfaction, (2) a concept of job satisfaction, (3) Thai cultural context, and (4) a norm-referenced framework**.**

1. Theories related to job satisfaction

1.1 Herzberg: Motivation theory

Herzberg's theory is mostly utilized by researchers in studies relating job satisfaction. His theory explains the two factors influencing people's job satisfaction (F. Herzberg, 2008).

1.1.1 Motivator Factors (intrinsic) are achievement, recognition, work itself, responsibility, promotion, and growth that keep people satisfied.

1.1.2 Hygiene Factors (extrinsic) are pay and benefits, company policy and administration, relationships with co-workers, physical environment, supervision, position, and job security that can bring people satisfaction.

Each factor contains small facets which are all influencing job satisfaction. Employers need to keep both motivating and hygiene factors at a high level in order to keep employees satisfied and prevent dissatisfaction respectively. Herzberg Motivation Theory is suitable in utilizing for this study because the theory can explain

most of components in the TNJSS such as work environment, administration, social aspect, professional status, and incentive component.

Vroom's Expectancy Theory

The theory focuses on outcomes. He proposed that employees in an organization will be motivated when they believe: (1) more effort will create better job performance, (2) better job performance will bring increased organizational rewards, such as more pay or benefits, (3) the rewards are valued by need of the employee, and (4) the desire to satisfy the need is strong enough to make effort worthwhile (Vroom, 1964)

The model is based on three concepts in the following (Vroom, 1964)

1.2.1 Valence. It refers to emotional orientation which people hold to respect with outcome (rewards) which are extrinsic (money, promotion, vacation, benefits) or intrinsic (satisfaction) reward.

1.2.2 Instrumentality. Employees have different expectation and level of confidence about their capabilities. Management must discover what resources, training, or supervision the employees need.

1.2.3 Expectancy. The perception of employee whether they will actually receive what they desire, even if it has been promised by the manager.

The outcome of these concepts is the motivation. In order to motivate employees' on their performance, rewarding system is required. However, improving the performance needs training and belief that increased effort brings better performance. This theory is useful in explaining the relationship between effort of employees and the outcome that employees expect which is very important in explaining workload which is one of the most important components of the TNJSS.

Furthermore, the three concepts can clarify the meaning of social aspect, autonomy, professional status, and the incentive component.

2. A concept of job satisfaction

Job satisfaction can be defined as "the positive affection, feeling employees have toward their job and employment which occurs when one's need is met. The positive feeling toward their job can be more specific to job components and characteristics of both individual and job" (Adams & Bond, 2000; Blegen & Mueller, 1987; Fung-Kam, 1998; Guleryuz, Guney, Aydin, & Asan, 2008; Larson, Lee, Brown, & Et, 1984; C. J. Lin, Wang, Li, & Huang, 2007; E. A. Locke, 1976; Mueller & McClosky, 1990; Price, 2001; Tovey & Adams, 1999).

Components of the TNJSS are based on job satisfaction concept analysis in conjunction with interviews conducted by the investigator. Seven components of job satisfaction will be proposed for this study.

2.1 Workload. Workload is the responsibility given to the employees. The more effort employees put into work; it will make the better job performance which will receive organizational rewards, such as more pay or benefits, as an outcome. Higher outcome motivates employee to work more or put more effort into their work (Vroom, 1964). According to literature review, workload is the most cited component affecting job satisfaction.

2.2 Work environment. Work environment involves natural and physical environment. The environment is considered a hygiene factor. It is important to maintain nurses' comfortable in their work environment because it affects work attitude (F. Herzberg, 2008) and satisfaction.

2.3 Administration. Administration includes administrators and the policy/system that govern an organization. Administration is an extrinsic or hygiene factor that is needed to be maintained well because it prevents employee from dissatisfaction (F. Herzberg, 2008).

2.4 Social aspect. Social in this situation is the relationship and support that nurses given each other at work. Relationship with others at work is a hygiene factor or extrinsic factor that keeps the employee from dissatisfaction (Herzberg, 2008). Good relationship leads to good support from others. According to the expectancy concept in Vroom's expectancy theory, the employer must discover what resources, training, or supervision an employee needs and support them. Support can be coming from colleagues, seniors, managers, administrators, and an organization (Vroom, 1964).

2.5 Autonomy. According to the expectancy concept, employees have different expectation and level of confidence about what they are capable of (Vroom, 1964). Building employees' self confidence is to give training that enables them to make decisions within the scope of their responsibility and improve their performance.

2.6 Professional status. Professional status is how others recognize nurses. It is considered an intrinsic factor or a motivating factor that makes employees satisfied (Herzberg, 2008). Furthermore, according to Vroom's expectancy valence concept, it refers to emotional orientation which nurses hold in respect to intrinsic rewards such as recognition and acceptance (Vroom, 1964).

2.7 Incentive. According to both Herzberg's Motivation Theory and Vroom's Expectancy Theory, incentive is considered an outcome because it gives motivation to employees. Incentive composes of pay/benefits, continuing education, and promotion.

Firstly, pay/benefits are extrinsic or a hygiene factor that employers need to maintain it well in order to keep nurses from dissatisfaction (Herzberg, 2008). In addition, according to the valence concept in Vroom's expectancy theory, pay/benefits are valued by the employee and reward their need. Both of them are referred by emotional orientation of the employee. Employees weigh these rewards whether pay and benefits are worthwhile for them to continue to put effort or increase placing effort into their work (Vroom, 1964). Secondly, continuing education is an intrinsic or motivating factor that maintains satisfaction of nurses (Herzberg, 2008). Furthermore, an expectancy concept of Vroom's expectancy theory explained that employees have different levels of confidence about what they are capable of doing. Therefore, the employer needs to provide support in knowledge and training that supplies employee's need in order for them to function well. Thirdly, promotion is an intrinsic or motivator factor that creates satisfaction for nurses; therefore, employer needs to maintain it well (Herzberg, 2008). Promotion is one kind of rewards or outcome of effort that employees put in according to valence concept. It gives motivation to the employee; therefore, a rewarding system is required (Vroom, 1964).

The components from literature review were developed into questions for conducting interviews. Then, the combined data from both literature review and interviews will be integrated into tool's components. These seven components of a job satisfaction scale are developed because they were the most mentioned in literature review and interview data.

3. Thai cultural context

In conducting the TNJSS, there is a possibility of difference in components and items of measures from Western countries since Asian values, attitudes, and behaviors do not affect work in the same ways as in the West (Kim, Triandis, Choi, & Yoon, 1994). Hence, it is essential to include Thai cultural aspect in developing the tool which derives from literature review and Thai nurses' interviews. The Thai cultural practices are: (1) collectivism is actions or feelings involving every member of the group (Sinclair, 2006); (2) Nam Jai is giving courtesy and kindness to others, (3) large power distance is an acceptance of unequal power and privileges in hierarchical systems (Ralston, Hallinger, Egri, & Naothinsuhk, 2005), (4) connections are the people who you know especially when they are in position to help you (Sinclair, 2006), (5) humbleness is not being proud and does not believe that they are better than others (Sinclair, 2006), (6) Kreng Jai is to be considerate, not to cause any discomfort or inconvenience to others (Komin, 1991), and (7) Mai Phen Rai (Never mind) is an attitude easily adjusted and flexible to the situation and people. These cultural practices have influence over tool's components; and yet, the reflection of them demonstrates in item development.

4. A norm-referenced framework

Measurement framework is important in guiding the research design and interpretation of the measurement. To construct the TNJSS, a norm-referenced framework is used. The framework is used when the interest is in evaluating the performance of a subject relative to the performance of other subjects in some well-defined comparison or norm group. This framework is normally utilized to construct a

tool or a method to measure a specific characteristic which can maximally discriminate among subjects possessing different amounts of the characteristic (C.F. Waltz, Strickland, & Lenz, 2005). Therefore, the scores of Thai nurses from taking TNJSS are compared among nurse subjects.

The conceptual framework for TNJSS is demonstrated in Figure 1.

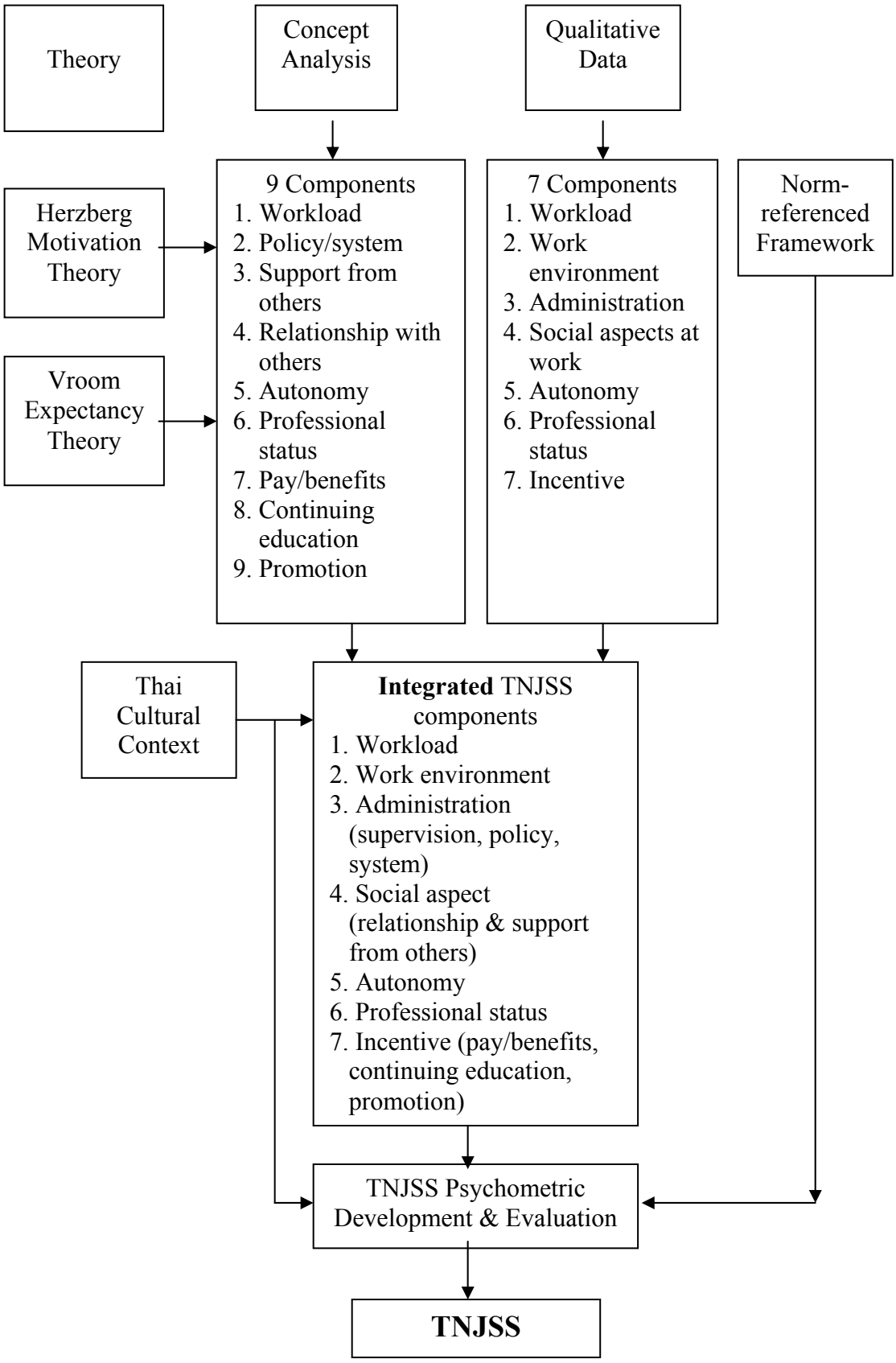

Figure 1. Conceptual framework of the TNJSS.

Definition of Terms

Job satisfaction can be defined as the positive affection and feeling Thai nurses have toward their job which occurs when their needs are met. The positive feeling toward their job can be more specific to job components and characteristics of both the individual and job. The job satisfaction scale is developed from literature review and interviews which consist of seven components as followings:

1. Workload is the amount of work that has to be done by Thai nurses. How much satisfaction Thai nurses have toward hours of work per week, levels of difficulty of their work, energy consuming, and scheduling are measured by their scores on the workload subscale of the TNJSS.

2. Work environment is particular natural and physical surroundings that influence nurses' work. How much satisfaction Thai nurses have toward the natural and physical environment is measured by their scores on the work environment subscale of the TNJSS.

3. Administration is the activities connected with organizing according to policy/system and supervising by the group of administrator in the way that an organization functions. How much satisfaction Thai nurses have regarding this issue is measured by their scores on administration subscale of the TNJSS.

4. Social aspect relates to the activities that Thai nurses are involved in meeting with other employees at work which creates relationships. Relationships are the way other professional personal and co-workers feel and behave toward the nurses in the hospital. Good relationships create good support among each other. Support from others is the help that ones at work give when they agree with ideas or aims of nurses.

How much satisfaction Thai nurses have involving this issue is measured by their scores on the social aspect subscale of the TNJSS.

5. Autonomy is the control and ability to make decisions independently within the scope of practice by Thai nurses about what to do rather than being influenced by others. How much satisfaction Thai nurses have involving autonomy is measured by their scores on the autonomy subscale of the TNJSS.

6. Professional status is the importance and respect that Thai nurses receive from the public or a healthcare group. How much satisfaction Thai nurses have regarding their status is measured by their scores on the professional status subscale of the TNJSS.

7. Incentives which give incites, motivation, or stimulation for Thai nurses to do their work are pay/benefits, continuing education, and promotion. Pay/benefits are money that nurses receive from employer as wages or salary and something that helps them or improves their life. Continuing education is the development and progress of nurses' character such as advanced education and training skills in nursing. Promotion is to give a more important job or rank in the organization that nurses work for. How much satisfaction Thai nurses have about this issue is measured by their scores on incentive subscale of the TNJSS.

Benefits

This research study will be significant and beneficial to administration, research, and education in nursing.

Firstly the administration area, administrators can utilize the TNJSS to assess nurses' job satisfaction and acquire legitimate result. The result which is job satisfaction level in each component can be maintained or improved at satisfied level accordingly. Moreover, since nurses and midwifery personnel comprise 70% of all the health personnel of Thailand's HCOs (Srisuphan, Senaratana, Kunaviktikul, & Tonmukayakul, 2005) and if HCOs can retain them, they will gain many other positive aspects in organizations. Higher provider costs is not likely to occur because of decreasing in recruitment and training of new staff, overtime, and use of temporary agency staff to fill gaps. Literature indicates that the cost associated with nursing shortage which is from recruitment and retention problem are substantial (Zurn, Dolea, & Stilwell, 2005).

Furthermore, when nurses have job satisfaction, resignation from positions is not likely to occur. Adequate nurses on duty will increase quality of care because they have more time to attend customers and assist each other which will definitely decrease mortality rate and increase customer satisfaction. Moreover, as many hospitals in Thailand established Hospital Accreditation (HA), employees' high job satisfaction and low incident of sickness from working are important indicators in achieving one of strategies in Human Resource level.

A good example of organizations that carry on high job satisfaction for their employees and bring success to them is Magnet Hospitals. Many research studies show high rates of nurse job satisfaction in Magnet hospitals also bring lower risk-adjusted hospital mortality, higher rating of quality of care, higher patient satisfaction, and lower rates of nurse burnout (Zurn et al., 2005). Not surprisingly, the rate of job satisfaction is utilized as the superior advantage in attracting and recruiting nurses,

assessing the health of organization, and predicting the turnover rate like what many HCOs and Magnet Hospitals do.

Secondly, researchers can make use of the TNJSS in assessing job satisfaction in their studies and get the justifiable results. Consequently, more knowledge will be explored and it can be utilized increasingly in this area. Furthermore, the TNJSS can be used as a guideline for other new job satisfaction tool development and redefined if it is necessary in the future.

Thirdly, educators can use job satisfaction components integrated into study lessons and nursing curriculum in addition to the knowledge in nursing. For instance, "relationship with others" component can be enhanced by teaching communication to nursing students because communication breakdown is the leading cause for relationship problem. Leadership is another area that is needed to be emphasized because it will assist students in gaining role confidence and making decision within their scope of practice which creates autonomy. Furthermore, professional commitment and value can be established in nursing students so they will stay longer in nursing profession. Moreover, educators can embed life long learning skill for students by integrating the skill into teaching style; in turn, students will embed the skill throughout their life. Subsequently, nurses pay good attention to continuing professional education and utilize the knowledge and skill learnt in providing services to the society.

Summary

The two main purposes of this study are focusing on exploring job satisfaction components for Thai nurses and developing a reliable and valid instrument to assess job satisfaction of nurses in Thailand. Two research questions are addressed: (1) what are the components of a job satisfaction scale for the Thai nurse? , and (2) how valid and reliable is the newly constructed job satisfaction scale?

Since there was no previous instrument measuring nurses' job satisfaction in Thai context developed, the creation of the TNJSS is essential.

The TNJSS is developed under the framework of: Herzberg Motivation Theory and Vroom's Motivation Theory; concept analysis; qualitative data from interview; Thai cultural context, and norm-referenced framework. Currently, the components of the TNJSS are an integration of component content from both literature review and interview data.

Expectedly, this tool will enable health care administrators to assess job satisfaction and use the result from each job satisfaction component to improve nurses' job satisfaction. Nursing educators can integrate this issue into course content that is suitable for students' learning needs. Researchers can utilize this tool in any studies relating to job satisfaction issues in the hospital setting and for other studies in the future.

CHAPTER 2

LITERATURE REVIEW

Introduction

Although job satisfaction research has been carried out for more than 40 years (Quarstein, McAfee, & Classman, 1992), it was not done extensively in Asia. Literature review is an important way to examine the extensive empirical literature regarding nurses' job satisfaction and its influencing factors which will assist in utilization of all available evidence explaining the phenomena during this age. To construct the TNJSS, the review will cover five topics: (1) philosophy and theories related to job satisfaction, (2) concept of job satisfaction, (3) measurement theories, framework, and procedures, (4) job satisfaction tools, (5) social desirability, and (6) stress and job satisfaction.

1. Philosophy and Theories Related to Job Satisfaction
    1.1 Philosophy Underpinning the TNJSS
    1.2 Theories Related to Job Satisfaction
        1.2.1 Maslow's Hierarchy of Needs
        1.2.2 Herzberg Motivation Theory
        1.2.3 Vroom's Expectancy Theory
        1.2.4 Motivational Needs Theory
        1.2.5 Adam's Equity Theory
2. Concept of Job Satisfaction
    2.1 Definition

1. Philosophy and Theories Related to Job Satisfaction

1.1 Philosophy Underpinning the TNJSS

Job satisfaction concept is a complex mental formulation of experience. The concept is both empiric and abstract concept. It is empiric because it is formed

from perceptions of Thai nurses about their work for job satisfaction experience. It is also an abstract concept because it is mental images of satisfaction experience. Assessment of this concept depends on inferring indirectly by using a network of sub-concepts or components of the tool.

The TNJSS is a study requiring knowledge from both Thai nurses' experience in job satisfaction and examination of the knowledge in scientific processes prior to the utilization of the scale. The feelings, values and attitudes are inner processes that are associated with the experiences. They vary with the range of nurses' feelings association with cultural and societal heritages depending on the context of usage. The knowledge inquiry is required in one of the initial parts of the processes.

On the other hand, scientific inquiry for the truth of job satisfaction that is discovered through methods which promote freedom from preconception is necessary in constructing the TNJSS. The research that embraces a form of this scientific inquiry embedded in positivism. Hence, this section will explain the ontology, epistemology, and methodology of constructivism and positivism which are the philosophy underpinning this study.

Ontology

Positivist research is quantitative and carefully controlled so as to minimize the influence from values or biases (Young, Taylor, & Renpenning, 2001). Positivism reality of knowledge derives from positive affirmation of theories through strict scientific methods and all things are ultimately measurable (V. A. Lambert, 2008). Furthermore, the reality of this belief focuses on a linguistic or numerical set of statement which can be examined clearly.

Moreover, some period of time during positivism development, the belief in human's right was originated (V. A. Lambert, 2008). The most relevant phases to this study are the metaphysical phase and the positive phase. They involve universal rights of humanity which should not, cannot be taken away and must be respected. Individual rights are more important than rule of any one person. This belief in positivism which is the first research paradigm influences the way scholars conduct all type of research studies in human subjects' right protection aspect.

Epistemology

Positivism was developed by Auguste Comte in the middle of the 19th century. The foundation belief in positivism is that a discoverable reality exists (Guba & Lincoln, 1994). It has three different phases in its quest which are: the theological phase, the metaphysical phase, and the positive phase (V. A. Lambert, 2008). The most relevant between the beliefs in each phase and research methodology of TNJSS are the metaphysical phase and the positive phase because they involve human's right.

Methodology

The goal of the in-depth interviews was to document and interpret the job satisfaction that was being measured from nurses and their references. The investigator asked questions in a broader context and performed a private interview in hospitals or convenient places where natural settings were. Purposive sampling was used to select nurses from a variety of backgrounds, age ranges, and cultural environments to maximize the discovering of the essences of job satisfaction phenomena across groups (Streubert, 1991). This method is an inductive process; specific and concrete observations build more general or abstract ideas (Young et al., 2001). This part of knowledge inquiry is rich in data, more holistic, and remains interpretable as more

information becomes known. Other parts of this method include literature review to create semi-structured interview using open-ended questions; observation of nurses and others around them; content analysis; identify common themes in order to generate data. Then, the investigator can use the data to create items reflecting Thai cultural context for Thai nurses.

Then the investigator can quantify job satisfaction and elicit the psychometric properties of the TNJSS through methods of positivist scientific discovery. The method verifies experiences of job satisfaction objectively and uses reductive approaches. At first, the approach begins with abstract concept of job satisfaction derived from qualitative data, Herzberg's Motivation theory, Vroom's Expectancy theory, Thai cultural context, and norm-reference framework. The items that are generated from qualitative data and literature review are placed in six-point Likert-like scale format. Second, the investigator moves toward a more specific scientific process of testing psychometric properties. They are the testing of reliability such as internal consistency, test-retest and validity such as content validity, constructed validity, and hypothesis testing prior to the tool's application. They require comprehensive understanding of concept, language in the tests, and ability to capture the meaning and interpretation of tests mathematically. The evaluation of the linguistic and numerical set of data, which is a focus of Positivism, is needed to be established concurrently using these methods through representativeness of the Thai nurses' sample.

Nevertheless, the principle practice occurring during the metaphysical phase and positive phase of Positivism are also carried on in both parts of this study. Human's right is respected and confidentiality is maintained.

Therefore, the utilization of Positivism and Constructivism philosophy in research methodology is crucial in conducting the TNJSS even though they are totally different schools of thought. However, the principle of Constructivism generates the fullest and richest information of job satisfaction from Thai nurses by using interview for this qualitative measurement part. The data then is combined with proposed TNJSS components from literature review. Themes and items are developed. When these components are built into this assessment tool, they act as indicators for job satisfaction concept. The score obtained is considered to be a measurement constructed as and empiric indicator (Chinn & Kramer, 2008).

In order to ensure reliability and validity of the scale as well as avoid bias, strict scientific method using quantitative method is required for the measurement. Positivist philosophy is an original belief system of this method with the focus on linguistic and numerical set of statement in conducting this scale. They need to be testable, verified, and confirmed by the empirical observation of reality before the utilization of the tool. Finally, the investigator believes the combination of both belief systems result in a fine quality of job satisfaction tool for Thai nurses.

1.2 Theories Related to Job Satisfaction

The most used theories explaining job satisfaction are Maslow's hierarchy of needs and Herzberg Motivation theory. However, other theories related to job satisfaction will also be discussed.

1.2.1 Maslow's Hierarchy of Needs

The theory is one of the most frequently used theories laying down foundation and framework to understand job satisfaction. It was developed by

Abraham Maslow in 1940-50's (Chapman, 2008). As all of us are motivated by needs, this theory helps researchers to understand human drive, organization preparation, and personal advancement which are related mainly to the top level of needs; self-actualization. It is the employers' responsibility to promote self-actualization or the special potential of employees; otherwise, it will cause stress or dissatisfaction. Therefore, employers and organizations are currently trying to support their employees to reach their special potential. In return, no matter what kind of special training or knowledge advancement the employees take, they will transfer the knowledge and skills to use at work directly and indirectly. According to Maslow, there are five needs ranking from the bottom to the top: biological and physiological needs, safety needs, belongingness and love needs, esteem needs, and self-actualization needs.

Most elements of biological and physiological needs, safety needs, and parts of belongingness and love needs can not be used to explain the TNJSS's components; therefore, this theory is not suitable for utilization in this study.

1.2.2 Herzberg Motivation theory

Herzberg proposed the Motivation-Hygiene Theory, also known as the two factor theory of job satisfaction (F. I. Herzberg, Mausner, & Snyderman, 1959). According to his theory, people are influenced by two factors (Wikipedia, 2008b):

(1) Motivator Factors which are achievement, recognition, work itself, responsibility, promotion, and growth, can make people satisfied.

(2) Hygiene Factors which are pay and benefits, company policy and administration, relationships with co-workers, physical environment, supervision, status, and job security, can make people dissatisfied.

Herzberg called it “hygiene” because it is needed to be maintained to avoid dissatisfaction but hygiene itself doesn’t give satisfaction. Employers need to keep hygiene factors at high level due to their affects on job attitudes, primarily satisfaction and dissatisfaction. The prevention of dissatisfaction is just as important as encouragement of motivator satisfaction. An individual can be highly motivated in his work and be dissatisfied with his work environment. All hygiene factors are equally important, although their frequency of occurrence differs considerably. They function as incentives which are extrinsic to make people satisfied for the short term unlike motivating factors which are intrinsic to the job directly (Wikipedia, 2008b). Therefore, this theory works well when employers keep hygiene factors well to avoid dissatisfaction and keep motivator factors at acceptable level to give satisfaction. However, the debate was whether or not job satisfaction guaranteed productivity and job motivation comes from the person inside not from factors.

Herzberg Motivation Theory can be utilized in explaining most of the components in job satisfaction of this study such as work environment, administration, social aspect, professional status, and incentives. The usage of these two theories is illustrated in Table 1.

Table 1

Comparison between the Utilization of Herzberg Motivation Theory and Maslow's Hierarchy of Needs as Cited by Researchers and Their Related Issues

Theory	Related Issues and Authors
Herzberg	The meditating effect of JS between emotional intelligence and organizational commitment of RNs (Guleryuz et al., 2008)
	Casual modeling of self-concept, JS and retention of nurses (Cowin, Johnson, Rhonda, & Marcsh, 2008)
	JS among NPs (Miller, Apold, Bass, Berner, & Levien-Brill, 2005)
	JS: Putting theory into practice (Syptak, Marsland, & Ulmer, 1999)
	JS among RNs (Kekana, Rand, & Wyk, 2007)
	JS, intention to leave organization and nursing profession of RNs at Ramathibudi Hospital (Vichitrakarn et al., 1995)
	Evaluation of happiness and JS of RNs at Srisakate Hospital (Wacharobol, 2006)
Herzberg & Maslow	Development of Index of Work Satisfaction Tool (Taunton et al., 2004)
Maslow	Development of a measure of JS for use in monitoring the morale of community nurses in four trusts (Traynor & Wade, 1993)
Maslow	Home Healthcare Nurses JS Scale (Ellenbecker & Byleckie, 2005) Refinement and psychometric testing

Note. Abbreviation: JS, Job Satisfaction; NPs, Nurses Practitioner; RNs, Registered Nurses.

From Table 1, the use of both Maslow's and Herzberg theory is still present today; however, the numbers of utilization have been decreasing. From the review of 42 research articles regarding job satisfaction from western and eastern countries, only eight and three articles were using Herzberg's theory and Maslow's theory respectively and two articles used other theories. The rest of the studies did not

mention the usage of any theory; in other words, 71.43% of 42 articles did not clearly identify theories usage. The table demonstrated the usage of theories as follows: Herzbert's theory 16.66%, Maslow's theory 4.76%, both theories 2.38%, and other theories 4.76%. It is possible, but not limited to, that researchers are more inclined to rely on literature review rather than using theory in conducting their studies.

1.2.3 Vroom's Expectancy Theory

The expectancy theory of motivation is suggested by Victor Vroom (1964) focusing on outcomes. He proposed that employees in an organization will be motivated when they believe: (1) more effort will get better job performance, (2) better job performance will receive organizational rewards, such as more pay or benefits, (3) the rewards are valued by the employee and need (Wikipedia, 2008a) and (4) the desire to satisfy the need is strong enough to make effort worthwhile (12manage, 2008; Vroom, 1964). Moreover, Vroom realized that an employee's performance is based on individual factors such as personality; skills, knowledge, experience and abilities. People have different goals but can be motivated if they have certain expectancy.

Vroom's model is based on three concepts as follows (Vroom, 1964):

(1) Valence. It refers to emotional orientation which people hold to respect with outcome (rewards) and the depth of the want to extrinsic (money, promotion, vacation, benefits) or intrinsic (satisfaction) reward. Management must discover what employees appreciate.

(2) Instrumentality. Employees have different expectation and level of confidence about their capabilities. A manager must discover what resources, training, or supervision the employees need.

(3) Expectancy. The concept is about the perception of the employee as to whether they will actually receive what they desire, even if it has been promised by manager. Management must ensure that the promise of reward is fulfilled and the employees are aware of that.

The outcome of these concepts is the motivation. In order to motivate employees' on their performance, a rewarding system is required. However, improving the performance needs training and belief that increased effort brings better performance.

This theory is useful in explaining the relationship between effort of employees and the outcome that employees expect. It is a very important theory in explaining workload since it is one of the most important components of job satisfaction for Thai nurses. Furthermore, the three concepts: valence, expectancy, and instrumentality can clarify the meaning of job satisfaction components such as social aspect, autonomy, professional status, and incentive component.

1.2.4 Motivational Needs Theory

McClelland proposes that each person has three fundamental needs presenting in different balances which affect both how we are motivated and how we try to motivate others.

These fundamental needs are (Droar, 2004):

(1) n-ach: Need for achievement is accomplished by seeking achievement, attaining of goals and advancement. Maintaining strong need for feedback, sense of accomplishment and progress are also important.

(2) n-affil: Need for affiliation such as need for friendships, interaction and to be liked by others are essential.

(3) n-pow: Need for power is believed to be used by authority because authority motivates influence and make an impact. A person will have strong need to lead and to increase personal status and prestige.

It seems that some people have a very strong need to achieve, even though the majority of people are not motivated in this way. Achievement motivated people set goals where they feel that they can influence the outcome and ensure that those goals are balanced between challenge and realism. They see a goal as the reward; it is more satisfying than praise or monetary reward. Money can be a reward and it is seen as a measure of their achievement. Feedback is reflected information used for the improvement of their achievement. Importantly, an individual should compare their achievement against others and think how things could be improved. n-ach people can suffer even though they are good business leaders and have good management style, they expect everyone to be motivated in the same way as themselves.

This theory stresses on outcome especially money that employees receive in return. The emphasis is suitable more to westerners because pay is the most cited factor influencing job satisfaction. Furthermore, this theory can not explain many components of job satisfaction in this study such as workload, administration, and professional status. Moreover in this theory, in order to achieve anything, employees' need to always compare their rewards with others which does not always the case that happens to Thai nurses.

1.2.5 Adam's Equity Theory

John Stacey Adams suggested his Equity Theory on job motivation in 1963. The theory acknowledges that subtle and variable factors affect each individual's assessment and perception of their relationship with their work and

employer. Adams called personal efforts and rewards “inputs” and “outputs”. The terms mean everything people put into their work and everything people receive from their work. People focus intensely on comparison more in this theory than many other earlier motivational models. It incorporates influence and comparison of colleagues and friends’ situations in a sense of what is fair. When people feel fairly or advantageously treated they are more likely to be motivated; when they feel unfairly treated they are highly prone to feelings of disaffection and demotivation. That is why giving one person a promotion or pay-rise can have a demotivating effect on others if others perceive it unfair which creates problems more than solve problems (Chapman, 2007).

Most of the input of this theory is not related to the components of job satisfaction. It emphasizes the comparison of colleagues and friends’ situations in a sense of what is fair. This concept is not very relevant to this study. The input or output can not be applied well in many components of job satisfaction such as policy/system, relationship with others, support from others, and autonomy. Therefore, it is not suitable to be utilized in this study.

2. A concept of job satisfaction for nurses

The concept will be discussed in four main aspects: (1) definition, (2) components of job satisfaction, (3) job satisfaction in Thai cultural context, and (4) other variables of job satisfaction.

2.1 Definition of job satisfaction

The definitions of satisfy in the New American Webster Handy College Dictionary (1961, p. 405) is "(1) gratify completely; supply the needs of, (2) pay fully, (3) convince, (4) fulfill the conditions of, (5) atone for" (Morehead, 1961). Comparing it with 46 years later, satisfaction in The Encarta World English Dictionary, North American Edition (2008), was defined as: (1) gratification: the feeling of pleasure that comes when a need or desire is fulfilled such as job satisfaction, (2) happiness with arrangement: happiness with the way that something has been arranged of done such as thing was organized to her satisfaction, (3) compensation: compensation for an injury or loss such as demanded satisfaction for their mistreatment, (4) fulfillment: the fulfillment of a need, claim, or desire such as the satisfaction of their hunger (Microsoft, 2008). Noticing, the only different of satisfaction definition from these two sources is pay fully in number two of the New American Webster Handy College Dictionary (1961) and compensation in number three in the Encarta World English Dictionary (2008). "Pay fully" was not mentioned in the definition of satisfaction in 2008. This may suggest that either the implication of compensation in 2008 is already included money or money does not always guarantee satisfaction for this generation like it occurred 46 years ago.

According to the Encarta World English Dictionary-Thesaurus (2008), synonyms for satisfaction are: contentment, pleasure, happiness, joy, enjoyment, pride, gratification, consummation, fulfillment, taste, contentment, agreement, and liking (Microsoft, 2008).

The description of job from the Encarta World English Dictionary (2008) is:

(1) paid occupation: an activity such as a trade or profession that somebody does regularly for pay, or a paid position doing this; (2) task: something that remains to be done or dealt with; (3) assignment: an individual piece of work of a particular nature; (4) function: the role that somebody or something fulfills; (5) difficulty: something that is difficult to accomplish; (6) quality of work done: a completed piece of work of a particular quality; (7) particular kind of object: a particular kind of object, especially a manufactured item (informal); (8) crime: a criminal act, especially a robbery (informal); and (9) computer programming task: a computer programming task run as a single application or unit (Microsoft, 2008).

Therefore, the definition of job satisfaction according to dictionaries is a pleasurable emotional state, a happy feeling, good attitude, a positive belief, and fulfillment of needs that one has toward a paid occupation, assignment, or role in function.

However, job satisfaction has been also defined by scholars as demonstrated in the followings:

> (1) A positive affective orientation towards employment (Mueller & McClosky, 1990). The perception that one's job fulfils or allows the fulfillment of one's important job values, providing and to the degree that those values are congruent with one's needs (Traynor & Wade, 1993).
>
> (2) The extent to which people like their jobs (Stamps, 1997).
>
> (3) An affective reaction to a job that results from the comparison of perceived outcomes with those that are desired (Fung-Kam, 1998; Larson et al., 1984; Tovey & Adams, 1999).

(4) The degree of positive affect a person has towards his/her job and its components which is determined by the characteristics of both the individual and the job (Adams & Bond, 2000).

(5) From global approach, the feelings and emotions employees perceive based on their work experiences (Saane, Sluiter, Verbeek, & Friengs-Dresen, 2003).

(6) A pleasurable or positive emotional state resulting from the appraisal of one's job or job experience (C. J. Lin et al., 2007).

(7) The degrees to which employees have a positive affective orientation toward employment by the organization (Guleryuz et al., 2008).

The conclusion of job satisfaction meaning from many scholars can be defined as the positive affection and feeling employees have toward their job which occurs when one's need is met. The positive feeling toward a job can be specific to job components and characteristic of both the individual and the job.

2.2 Components of job satisfaction

Job satisfaction concept was studied in many areas of hospital settings in western countries aiming to understand the components of the concept. Reviewing the literatures from western and eastern countries can reveal the similarities and differences of components and context of job satisfaction which is an important reason and foundation in constructing a tool that will fulfill the legitimate result of assessing job satisfaction for Thai nurses.

As far as the concept usage concerns, job satisfaction can be a crucial indicator of how employees feel about their jobs and a predictor of work behaviors such as

organizational citizenship (Organ & Ryan, 1995), absenteeism (Wegge, Schmidt, Parkes, & Van Dick, 2007), and turnover (Saari & Judge, 2004).

Job satisfaction is conceived as several dimensions of job characteristics (Mueller & McClosky, 1990; Stamps & Peidmont, 1986; Traynor & Wade, 1993). The guideline of Walker and Avant (2005) will be used to determine of defining the attributes. In order to really draw the similarities and differences between job satisfaction between western and eastern countries, review of 7 studies from eastern countries and 7 studies from western countries was an approach. These components are workload, shifting and floating, policy and system, perform physician's function, deal with death and dying, supplies and resources, administration and management, job security, support at work, group cohesiveness, deal with patient and relatives, relationship with people at work, home and work balance, governance, role expectation, autonomy, professional status, commitment to nursing profession, pay and benefits, continual professional education, and promotion.

2.2.1 Workload. Workload is job characteristics predicting job satisfaction (Ellenbecker & Byleckie, 2005; Traynor & Wade, 1993). When there were sufficient numbers of skilled staff and they were organized appropriately, nurses' satisfaction was great (Adams & Bond, 2000). Appropriate workload not only brings satisfaction to nurses but also impacts quality of care positively. However, with the changes in economics, many organizations cut costs and close down, have job losses, reduced employee status; certainly higher workload occurs in many countries (Burke & Greenglass, 2000; Tyler & Cushway, 1992). Nurses feels stress when they have high job demand (Moyle, Skinner, Rowe, & Gork, 2003). Higher quantitative work demands correlated with the nurses' intentions to leave nursing profession and it's the

main reason for quitting nursing in Finland (Flinkman, Laine, Leino-Kilpi, Hasselhorn, & Salantera, 2008). Fifty eight percent of nurses in Limpopo, South Africa, were extremely unhappy with workload and the unhelpfulness of co-worker (Kekana et al., 2007) because all nurses are hectic. Evidence suggested that workload plus dealing with life and death situation are important predictors of nurses' stress, burnout, health complaint, and quality of care (Florio, Donnelly, & Zevon, 1998). However, Belgium nurses consider task requirements as somewhat less important than pay and autonomy factor (Willem, Buelens, & Jonghe, 2007).

For Asia, studies from China and Thailand have also shown the most frequently cited workplace stressor for nurses was workload (Li & Lambert, 2008a, 2008b; Pongruengphant & Tyson, 2000); at the same time, it is a common predictor of well-being in hospital nurses in China (V. Lambert, et al., 2004a, 2007; V. Lambert, Lambert, & Ito, 2004b). For Thailand, not only workload is also the most influential factor to job satisfaction, but also Thai nurses in private hospital received more stable workloads than nurse in public hospitals (P. D. Tyson & Pongruengphant, 2004). This could be because private hospitals accept only private pay and some of social security health program customers; however, public hospitals take all types of customers including universal coverage health plan customers. Thus, the loading for nurses in private hospitals are more stable than those in public hospitals.

2.2.2 Shifting/floating. According to Schmalenberg and Kramer (2008), nurses who work 12-hour and 8-hour day shifts had higher scores on job satisfaction, more conductive in giving quality patient care than nurses on all other shifts or in rotating shifts. This issue grasps more attention in many hospitals. American nurses prefer flexible hours of scheduling; nurses were disappointed when flexible schedule

was not approved from the nurse manager in order to attend continual educational programs (Ellenbecker & Byleckie, 2005; C. Tinsley & France, 2004). Thus, they allow nurses to set their own schedule as long as the numbers of working hours meet the requirement of law and submit their schedule to nurse manager to make the final schedule arrangement. Many hospitals use a fixed 12-hour shift either day or night because it gives more flexibility to nurses in planning their lives. In worse situation, inconvenience of shifting was the main reasons for leaving nursing profession in Finland (Flinkman et al., 2008).

Moreover about floating, administrators normally see a floater as a person with talent because the person must be good at working and social skills in order to work anywhere. However, nurses have a different perspective about this issue. They think being a floater is one of uncomfortable stressors (Healy & McKay, 1999) because it breaks the routine of their work which creates higher tendency in making a mistake and there was no employee's protection even though nurses do not feel competent working in other departments (C. Tinsley & France, 2004).

2.2.3 Policy/system. Hospital policy and system that administrators use to govern their business, customers, and employees are crucial in bringing success to organizations. In Asia, organizational system influences job satisfaction of nurses in China (Li & Lambert, 2008a, 2008b) and Thailand (Pongruengphat & Tyson, 2000). Thai nurses are happier with the way hospitals implement the policies than five years ago since the situation has been improved (Tyson & Pongruengphant, 2004). The hospitals' policy and system had a direct impact on job satisfaction (S. Campbell, Lowles, & Weber, 2004) and retention plan in Australia (Cowin et al., 2008) because friendly policies may retain nurses longer. However, nurses in Belgium considered

organizational policies less important than other components (Willem et al., 2007).

2.2.4 Perform physicians' functions. There are inadequate physicians in many developing countries in Asia including Thailand. Nurses have been asked to perform physicians' functions in order to care for sick people especially in emergency situation. Lives are saved and necessary skills are learnt by nurses which can create satisfaction. It has been a major change of Thai nurses for the last five years due to the request from supervisors for them to perform physicians' functions (Tyson & Pongruengphant, 2004). Performing beyond duties make nurses uncomfortable and found to be positively related to self-disturbance and led to stress at work in China (Li & Lambert, 2008b). This dilemma of the practice suggests that the practice is safe as long as the order comes from nurse supervisors or physicians. However, it is the best if the law also supports nurses from performing such practices.

2.2.5 Deal with death/dying. As nurses, it is inevitable to encounter death and dying situation; however, nurses can make a big difference for dying patients and their relatives. Caring and comforting from nurses can make this end stage of life easier for every party. Competent and knowledgeable nurses together with medical team can even reverse patients who face serious condition back to normal stage. Therefore, it is normal that dealing with a death and dying situation is highly impacted job satisfaction (Florio et al., 1998; V. Lambert et al., 2004b; Lee, Holzemer, & Faucett, 2007; Mann & Cowburn, 2005) because such a situation does not only give a sense of fulfillment but may also lead to stress. The statement is supported by the situation in Thailand. Thai nurses found their work was more involved with life and death situations which caused emotional distress (Pongruengphant & Tyson, 2000; P. D. Tyson & Pongruengphant, 2004).

2.2.6 Supplies/resources. Supplies and resources give nurses convenience and effectiveness of care which bring satisfaction to them. That is why it is one of the factors measuring job satisfaction of nurses in Taiwan (Lee et al., 2007; C. J. Lin et al., 2007) and England (Traynor & Wade, 1992). Not surprisingly, adequacy and readiness of supplies and resources affect nurses' performance. Fifty six percent of African nurses and nurses in China are frustrated with inadequacy of supplies (Kekana et al., 2007) because it is important to render good patient care which will create job satisfaction (Shader, Broome, Broome, West, & Nash, 2001).

2.2.7 Administration/management. One of principle component of organizational job satisfaction scale which was designed to measure specific dimensions of job satisfaction among nurses was administration (Sauter et al., 1997). Supervisory aspect affects community nurses' perception of job satisfaction in England (J. R. Hackman & Oldham, 1975). In Thailand, management was one of the extrinsic factors affecting individual satisfaction (Pongruengphat & Tyson, 2000). However, management also relates to nurses' organizational stress (Tyson et al., 2002) because managers misunderstand the needs of the people and hospital. Management decision making created stress among nurses strongly which leads to unhappiness in the past (Tyson et al., 2002); however, the management problem has been decreased in public hospitals of Thailand (Tyson & Pongruengphat, 2004).

2.2.8 Job security. It is one of the factors measuring job satisfaction of community nurses in England (Traynor & Wade, 1993). When employees feel secure in their job, they surely feel happy. The sentence is supported by fifty percent of nurses in Africa, they felt satisfied because of job security (Kekana et al., 2007). Moreover, different types of hospitals provide different sense of job security to nurses.

Thai nurses in the private sector are more satisfied with job security than nurses in the public sectors (Tyson & Pongruengphat, 2004) because private hospital nurses feel safe and free from worry more than those in public hospital.

2.2.9 Support at work. Support from co-workers, administrators, and organization is important for nurses and it is one of the contributing factors of job satisfaction. For instance, Taiwanese and English nurses need support from co-workers to increase their job satisfaction (Lee et al., 2007; Traynor & Wade, 1993). In the past, lack of support from senior staff, manager, and organization caused stress for nurses in Thailand, China, South African significantly (Kekana et al., 2007; Pongruengphant & Tyson, 2000; P. Tyson, Pongruengphant, & Aggarwal, 2002). However, support among each other in public hospital in Thailand has been better than private hospitals in the past five years (Tyson & Pongruengphant, 2004). In addition, organizational support state of affairs seemed to be better for nurses in Taiwan; subsequently, the turnover rate was reduced (Tzeng, 2002). Noticing some changes in the new generation, nurses in Korea also felt they do not have sufficient support from their supervisors however, young Korean nurses felt support from co-worker have non-significant effects on satisfaction because they apply an individualism value from western countries more than in the past (Soe, Ko, & Price, 2004).

2.2.10 Group cohesiveness. African nurses were satisfied being part of a team even though they had heavy workload (Kekana, Rand, & Wyk, 2007). This is echoed by Fletcher (2001) who said that being overworked is not as great stressor if the work environment is good. Group cohesiveness is an influential component measuring job satisfaction of US nurses (Ellenbecker & Byleckie, 2005) and the most salient to English nurses in predicting job satisfaction (Adams & Bond, 2000).

2.2.11 Deal with patient/relatives. When sickness occurs in any family, sick person and family members are normally in stress. Nurses can assist all parties well during this complicated situation even though dealing with some difficult person is struggle. Not surprisingly, it is one of the major sources of occupational stress which influences job satisfaction of nurses in Thailand and USA (Ellenbecker & Byleckie, 2005; Kalichman, Gueritault-Chalvin, & Demi, 2000; Pongruengphant & Tyson, 2000). However in the end, nurses feel happy and satisfied with the opportunities to be able to help others.

2.2.12 Relationship with people at work. Studies from China and Taiwan revealed a positive relationship between good relationship and job satisfaction among nurses (Li & Lambert, 2008a; Lin, 2006). Social relationship with others such as coworkers, multidisciplinary team members at work is an important factor influencing job satisfaction (J. R. Hackman & Oldham, 1975; Kekana et al., 2007; Sauter et al., 1997; Willem et al., 2007). However, communication with peers has been directly impacted on job satisfaction (Dunn, Wilson, & Esteman, 2005; Willem et al., 2007) as a problem of relationship can arise from miscommunication. Not surprisingly, conflict with physicians, supervisors, and coworkers produces stress in the workplace (Tyson et al., 2002; Li & Lambert, 2008b; Ellenbecker & Byleckie, 2005; Willem et al., 2007). The problem also causes stress for nurses in Taiwan when physicians do not provide adequate and appropriate information about patient's treatment (Lee et al., 2007). However, Chinese and Japanese nurses who are older and have more experience in nursing encounter more conflict with physicians because nurses are more comfortable in confronting with them (Lambert et al. 2004b).

2.2.13 Home and work balance. Nurses sacrificed their normal time schedule with family in order to present themselves to help patients at work. Busy schedule naturally required additional help from family members at times. Furthermore, the number of family members and house locations had negative correlation with work satisfaction of nurses in Srisakate Hospital (Wacharobol, 2006) because of the increased burden of traveling distance and numbers of family members to take care of. Additionally, studies showed home and work imbalance also caused high level of stress for both Japanese nurses and Thai nurses; however, support from husbands in Japan had a stress buffering effect on the issue particularly when husbands shared childcare and household duties (Matsui, Ohsawa, & Onglatco, 1995). Furthermore, work-family imbalance correlated with Finnish nurses' intention to leave their profession (Flinkman et al., 2008). Therefore, support from family members to understand a wife or a mother, who is a nurse, is necessary because it gives her strength and happiness to function well as a nurse.

2.2.14 Governance. Nurses can be a part in governing an organization by establishing and maintaining the social, political, and economic arrangements by which the nurses control their practice, their self-discipline, their working conditions, and their professional affairs (Kozier, Erb, Berman, & Snyder, 2004). Unfortunately when nurses are not much involved in hospital governance, less satisfaction occurs. For instance, nurses in the public sector of Thailand are not happy due to the lack of involvement in planning and decision making in organization (Pongruengphant & Tyson, 1997; Pongruengphant & Tyson, 2000). Therefore, nurses need to work on the issue in their hospitals with the assistance from nursing organization to increase job satisfaction.

2.2.15 Role expectation. In caring for sick people, changes in their condition are expected and unexpected. When nurses know what they have to do confidently to help their patients, they gain a sense of satisfaction in their role. Self-direction is an important motivating factor for nurses in participating in patient care (Tyson & Pongruengphant, 2004) and influencing job satisfaction (Tyson et al. 2002). Therefore, when nurses are not received adequate support to participate in making decisions affecting patients (Tyson & Pongruengphant, 2004), it made them stress and displeased (Adams & Bond, 2000; Pongruengphant & Tyson, 2000). Furthermore, according to Kalichman et al. (2000), uncertainty about treatment is identified as a contributor, a predictor, and has a negative relationship with job satisfaction (Li & Lambert, 2008). The reason explaining role uncertainty for Thai nurses could be an implementation of durable power of attorney in Thailand. This law is established in Thailand; however, it was not carried out as much as it should be. Therefore, nurses do not feel confident in applying standards or guidelines in making decisions when facing death and dying situations. On the contrary in USA, all patients have to give an advanced directive indicating their code status. Subsequently, nurses feel more confident and comfortable in caring for directions whether patients are “no code” or “full code” status.

2.2.16 Autonomy. It was the most important component regarding a nurses’ job satisfaction in China (Finn, 2001) and US (Ellenbecker & Byleckie, 2005), the second in Belgium (Willem et al., 2007) and also one third of nurses in Limpopo, Africa (Kekana et al., 2007). Australian health services encourage autonomous practice hoping it may help retain nurses longer (Cowin et al., 2008). Nurses with a lower level of education considered autonomy less important than nurses with a higher

level of education (Dunn et al., 2005). Moreover, Thai nurses are experiencing a high levels of stress due to lack of support or chances to participate in decision making for patient's care (Tyson & Pongruengphant, 2004) which limits nurses' creativity and role independency. However, nurses' freedom to use their own decision has been increased in the public sector over five years and decreased slightly in private sector (Tyson & Pongruengphant, 2004). Lack of autonomy is a negative predictor of well-being of nurses confirming with nurses in China who avoid confrontation or questioning doctors about patient care (Li & Lambert, 2008a). However, Korean nurses' job autonomy did not have significant effects on their satisfaction because physicians have power to decide the scope of nurses' work; therefore, nurses didn't expect any autonomy in their role (Seo, Ko, & Price, 2004). Increasing autonomy for nurses is desirable because a research suggested that autonomy (Finn, 2001) and nurse-physician collaboration enhance satisfaction in the workplace (Bratt, Broome, Kelber, & Lostocco, 2000)

2.2.17 Professional status. In Thailand, opportunities to utilize nurses' abilities gives them satisfaction (Pongruengphant & Tyson, 2000; Thognchant, 1986). Even though nurses in South Africa have a high workload, 82% of them still continue working in the profession (Kekana et al., 2007) because their self-concept as nurses is high. Furthermore, Australia believes self-concept has a stronger relationship with nurses' retention plans than job satisfaction (Cowin et al, 2007). Additionally, feeling of accomplishment is very important for nurses' job satisfaction in Thailand and UK (Pongruengphant & Tyson, 2000; Traynor & Wade, 1992) because nurses constantly rate their satisfaction with accomplishments (Thognchant, 1986). In Thailand, nurses' feelings of accomplishment and social status have improved over five years (Tyson &

Pongruengphant, 2004). Professional status is an indicator for job satisfaction of nurses in Taiwan (Lin, 2006); USA (Ellenbecker & Byleckie, 2005; Sauter et al., 1997), and Belgium (Willem et al., 2007) because they expect other professions to accept and value the nursing profession by giving motivation and recognizing a job well done (McCoy, 1999; P. D. Tyson & Pongruengphant, 2004). Lack of pride in the quality of service and perceived inability to provide a service at appropriate standards are reasons for job dissatisfaction, stress and leaving nursing in England (Mackay, 1989).

2.2.18 Professional commitment. Nowadays, strong belief in nursing is required in order to stay long in the profession no matter what happens. For instance, even though nurses in Africa face a high workload, they still continue to work because of their high level of commitment to the nursing profession (Kekana et al., 2007). Conversely, Finnish nurses lack affective professional commitment and many of them wants to quit (Flinkman et al., 2006).

2.2.19 Pay/benefits. A component and strong predictor for job satisfaction around the world is salary (Ellenbecker & Byleckie, 2005; Kekana et al., 2007; C. J. Lin et al., 2007; Sauter et al., 1997; Soe, Ko, & Price, 2004; Traynor & Wade, 1993; Willem et al., 2007). Income of Thai nurses had the most dramatic increase of salary. It was over the 20,000 Baht category, where public hospital nurses pay increased from 0.9% to 29.6% and private hospital pay increased from 31.2% to 51% during subsequent year (Tyson & Pongruengphant, 2004). This economic factor is significant among nurses; subsequently, it decreases nurses' levels of organizational stress and increases their job satisfaction (Tyson & Pongruengphant, 2004). Moreover, there was positive correlation between years of experience in nursing and pay/benefits

of nurses in China (Li & Lambert, 2008b). On the other hand, low salary and fringe benefits are the main reasons 79% of nurses in Africa were dissatisfied and nurses in Finland were wanting to quit nursing (Flinkman et al., 2008; Kekana et al., 2007)

2.2.20 Continuing education. It plays an important role and was used to measure job satisfaction in England and Taiwan (Adams & Bond, 2000; C. J. Lin et al., 2007; Traynor & Wade, 1993). Thai and Taiwanese nurses are more satisfied with compensation and chances for advancement which have been improved radically during this period of time. In turn, it reduced turnover rates in Taiwan (P. D. Tyson & Pongruengphant, 2004; Tzeng, 2002a). However, Korean nurses did not have much professional growth and had no effect on job satisfaction due to low expectation of their roles (Seo, Ko, & Price, 2004). In other parts of the world, fifty four percent of nurses in South Africa expressed their disappointment over an inadequate in-service training (Kekana, Rand, & Wyk, 2007). A similar situation in Finland, of poor opportunity for personal growth, made nurses there want to leave the profession (Flinkman et al, 2006).

2.2.21 Promotion. Impact on job satisfaction and indication in measuring job satisfaction in Taiwan is promotion (C. J. Lin et al., 2007). In China and Thailand, chances of a promotion and support from managers have a significant influence on job satisfaction because positive evaluation may come from a good relationship with the manager (Li & Lambert, 2008a; Soe et al., 2004; P. Tyson et al., 2002; P. D. Tyson & Pongruengphant, 2004). Furthermore, the more years of experience in nursing nurses have, the happier they feel with their promotion in China (Li & Lambert, 2008b).

The distinguishing between components of job satisfaction in western and eastern countries is demonstrated in Table 2.

Table 2

Job Satisfaction Components and Their Amount of Sources in Studies from Western and Eastern Countries

Job satisfaction components	Sources from Western countries	Sources from Eastern countries
Workload	*****	*****
Shifting and Floating	***	
Policy and System	*	***
Performing Physicians' Functions		*
Dealing with Death and Dying	*	**
Supplies and Resources	**	**
Administration and Management	*	**
Job Security	*	*
Support at Work	*	***
Group Cohesiveness	**	
Dealing with Patient and Relative	*	*
Relationship with People at Work	***	***
Home and Work balance	*	*
Governance		*
Role Expectancy	*	**
Autonomy	**	***
Professional Status	****	**

Table 2 (Continued)

Job satisfaction components	Sources from Western countries	Sources from Eastern countries
Professional commitment	*	
Pay and Benefits	***	**
Continuing Professional Education	**	**
Promotion		***

Note. * represents amount of sources found in job satisfaction studies

***** = the most (9-10 times); **** = many (7-8 times); *** = moderate (5-6 times); ** = few (3-4 times); * = very few (1-2 times)

The sources of job satisfaction components that are found in studies from both Western and Eastern countries is demonstrated in Table 3, Appendix A.01

From reviewing all the components of job satisfaction (Table 2), shifting/floating, group cohesion, and professional commitment are the components that are found only in Western countries. Pay and benefits, and professional status are given more emphasize and often cited by researches in Western countries than in Eastern countries.

On the other hand, components such as performing physicians' function, governance, and promotion are found only in studies in Asia. Moreover, policy and system, dealing with death and dying, administration and management, support at work, caring role, and autonomy affect job satisfaction for Asian nurses more than nurses from other parts of the world.

The explanation of why each job satisfaction component affects nurses from different origins in different ways may be because of the social structure around them. To be more specific, cross-cultural differences in well-being reflect societies' historical experiences and noted that this may explain why country differences are so stable over time. They found that economic development and political ruling style of government are the two leading reasons for cross-country difference (Inglehart & Klingemann, 2000). To demonstrate this point, there was a study across seven countries comparing job satisfaction with the hypothesis that people in different countries may perceive subjective questions differently. The result suggested that cultural differences in the way people perceive subjective questions about satisfaction make simple cross-country ambiguous (Kristensen & Johansson, 2008). Since there are many job satisfaction components and selection must be made for the important components that will be included in a tool. Furthermore, an impact of the components on nurses from Western and Eastern countries can never be exactly the same. Hence, it is confirmed that it is obligatory to construct job satisfaction tools that will be suitable for usage in each area of the world.

From prior review of the job satisfaction in Asia nurses, the information is useful to corporate with job satisfaction studies in Thailand because people, culture, religion, economics, and values are quite similar. Therefore, it is essential to review further only Thai studies in order to draw closer to the concept and components for the TNJSS which is the purpose of this study.

2.3 Job Satisfaction in Thai Cultural Context

Since Asian values, attitudes, and behaviors do not affect work in the same way as in the West (Kim et al., 1994), the proposed TNJSS's components and items have possibility of differences from the West due to Thai cultural context. Even though job satisfaction level of Thai nurses was at moderate level from overall (Chairatana, 1995; Charuluxananan et al., 2002; Njuki, 2001; Suwanpibul, 1998), young nurses aged 20-29 years old are more likely to have low job satisfaction (Njuki, 2001). Therefore, it is essential to understand how Thai cultural context connects to the components which explain Thai nurses' thought, action, and expectation. Thus, many Thai cultural practices will be discussed based on literature review and interview data. These cultural practices are collectivism, large power distance, connection system, and humbleness.

Collectivism

Collective means actions, situations, or feelings involve or are shared by every member of a group of people (Sinclair, 2006). Collectivism is demonstrated in way of living and working of the Thais. Generally, a Thai family is an extended family which is composed of immediate family members and close family members living together in one house. Helping, caring, and sharing among members are common practices. They rely on each other more than most westerners who practice individualism. Being raised in a collective family, it is natural to have Num Jai which is the characteristic of giving courtesy and kindness to others.

The collectivism is reflected in the configurations of nursing care delivery method and workload in Thailand. The majority of Thai hospitals use functional nursing method in all departments except ICU and CCU. It is economical and efficient

and permits centralized direction and control (Kozier et al., 2004). More than one nurse is involved in the care of each patient in the sense of helping each other like collectivists. When there are extra numbers of patients, additional help from extra nurses is rare due to nursing shortage. Therefore, nurses need to help and give Nam Jai among each other to carry through their load in their department. These cultural practices ease the difficulty of the situation even though the load has been actually high. In contrast, westerners practice individualism which is reflected in a primary care nursing delivery system. Each nurse is responsible for only their patients which are normally 8-10 patients according to the patient's acuity. Hence, extra nurses from nursing agencies must be called in to take care of extra patients although it is very costly. Subsequently, the load is taken off the nurses there.

According to literature review, workload is most cited as the influential factor of job satisfaction in Thailand and Asia (Chairatana, 1995; Charuluxananan et al., 2002; V. Lambert, et al., 2004a, 2007; V. Lambert et al., 2004b; Lee et al., 2007; Li & Lambert, 2008a, 2008b; C. J. Lin et al., 2007; MOPH, 2000; Moyle et al., 2003; Pongruengphant & Tyson, 2000; Soe et al., 2004; Sui, 2002; Suwanpibul, 1998; P. D. Tyson & Pongruengphant, 2004). Vajira, Sappaitthiprasong nurses had moderate satisfaction with workload (Chairatana, 1995; Charuluxananan et al., 2002). According to a report on Health Resources, Bureau of Health Policy and Plan, MOPH, numbers of outpatients at each type of hospital, professional nurses in community hospitals have the heaviest workloads than others (Thailand Health Profile, 1999-2000). This could be from both social security health program and universal coverage health care programs that enhance medical accessibility. Despite the workload situation, work conditions were found to be at high satisfaction level at

Sappaitthiprasong (Chairatana, 1995) and moderate satisfaction from Vajira nurses (Suwanpibul, 1998).

Moreover, collectivism also naturally creates relationship and support among each other. Therefore, nurses are satisfied when these components are well maintained. According to Kinicki and Kreitner (2006), organizational culture influences our behavior at work; therefore, it can explain why Thai nurses value relationship at work the most. Since organizational culture in Thailand is demonstrated in the passive-defensive cultural type, it influences nurses' thought and beliefs about how they are expected to approach their work and interact with others. With this type of organizational culture, employees will avoid conflict and interpersonal relationships are pleasant. Nurses feel that they should agree with, gain the approval of, and be liked by others; in other words, going along with others well (Kinicki & Kreitner, 2006). In order to support the statement, from interview data, all nurses agree that relationship and support among each other which are social aspect component is the most important component of job satisfaction. It is also the only one component that is not affected by any other job satisfaction component. One nurse mentioned "if I have problems with friends at work, it makes me not want to come to work." That was why the poor interpersonal relationship with others at work creates trouble (Njuki, 2001).

From literature review, relationship among co-workers in public sectors was better than that of private sectors (Boonthong, 2000a). Vajira and Sappaitthiprasong nurses were moderately satisfied with office relationship (Suwanpibul, 1998; Vichitrakarn et al., 1995) and anesthetic nurses were moderately to high satisfaction with support from others and relationship with physician (Charuluxananan et al., 2002). Despite a good relationship with physicians, these anesthetic nurses found

physicians were not the best managers because of their inability to understand anesthetic nurses in relationship to the nature of their work and negligence in taking care of them (Charuluxananan et al., 2002). Good relationship among nurses and supervisors, subordinates, other personnel and organizations, co-workers creates satisfaction and confidence in retaining an organization.

About support at work component, good relationship brings good support among each other; problems arise when any of these two factors do not go well with nurses. Example was 66.6% of Ramathibodi nurses transferred out on those days because of the lack of support from manager which made them disappointed (Vichitrakarn et al., 1995). Hence, maintaining this component well is vital because support from others at work gives a sense of belonging to the group. Being in collectivism culture, relationship and support becomes a very important part of job satisfaction.

Being in a collective society, nurses may expect administrators and supervisors to treat them as family members. Superiors may be encouraged to work closely with subordinates, giving advice on personal matters, and being directly involved in accomplishing the task. Therefore, when administrators do not understand management style that contains collectivism practice, difficulty occurs. For instance, low satisfaction was found in some aspects of administration because nurses perceived their managers lacking in understanding and unqualified (Charuluxananan et al., 2002; Wang, 2004). Nevertheless, nurses at Sakaew hospital perceived their head nurses' leadership at a moderate level (Wang, 2004) and Vajira and Sappaitthiprasong nurses had moderate satisfaction policy/administration (Chairatana, 1995; Charuluxananan et al., 2002) over all.

Large power distance

Thailand is a large power distance country. People are more acceptable of unequal distribution of power and privileges within hierarchical organizational systems (Ralston et al., 2005). People tend to respect a person with power and privilege who normally holds high education, financial status, and position in society. In health care system, physicians and administrators have high power hierarchy in a hospital; therefore, nurses respect them and do not feel comfortable to voice opinion or question an order. Unfortunately, these circumstances affect healthy working relationship that will benefit both workers and patients.

Furthermore, since good working environment shows prestigious social status of a person, the image of HCOs such as tertiary university hospital which is the center of medical knowledge and fame, also makes nurses proud and happy to work there (Boonthong, 2000a; Topanthanont & Prachusilpa, 2007). Hence, work environment in both physical and natural surroundings not only bring happiness to nurses, but perception of nurses about good reputation of their hospital is also important. Supplies and resources are parts of work environment that also play an important role in job satisfaction. Example is Vajira, Sappaitthiprasong nurses had moderate satisfaction when there was an adequacy of equipment (Chairatana, 1995; Charuluxananan et al., 2002).

Additionally, this cultural practice also transforms into passive-defensive organizational culture. It makes an organization conservative, traditional, and bureaucratically controlled (Kinicki & Kreitner, 2006). Nurses are expected to follow the policies and practices, and make a good impression. In addition, this type of organizational culture also creates dependent beliefs. Hospitals under this culture are

hierarchically controlled and nonparticipative (Kinicki & Kreitner, 2006). The large power distance creates centralization of decision-making from top level only; therefore, it creates less consultative and participative management among members which affect administrative components (supervision, policy and system) of job satisfaction. Nurses do only what they are told and to clear all decisions with superiors or those in positions of authority. An example is from an interview with one nurse. She expressed "An administrator impacts our work. Every project we proposed has to go through administration. Always, there are obstructions." That is why in some situations, problems get solved less efficiently and improvement happens slowly due to this system. Therefore, the less centralization system is used, the better outcome for job satisfaction occurs.

At the same time, the centralization of decision-making system also suppresses autonomy of nurses. Being collectivists in conjunction with functional nursing care method makes Thai nurses attach to each other in the happy sense of doing and helping in rendering care for each patient. The practice partially decreases independency, less confidence in making decisions, and less comfort in exercising their authority within the scope of work. Autonomy occurs at a certain level but in a lesser degree comparing western nurses who practice individualism with the primary care nursing method. However, it is important to be aware that autonomy functions well only when superiors allow it and subordinates are confident to use it. The statement is well supported by the data from the interview. One nurse said "I like it very much...because I can do and make a lot of decision as a nurse in primary care unit. My boss (physician) does not have time; therefore, I pretty much make my own decision." This situation can be implied that full autonomy was given to this nurse

because the physician was not available and the nurse was trained to perform that task. For whatever was the reason, this nurse is very happy with her autonomy.

From literature review, a problem occurs with nurses at Sappaitthiprasong hospital. They felt moderately satisfied with work independence; however, they had intention to change the institution and the profession 49.5% in order to increase their autonomy (Chairatana, 1995). The data was quite contradictory between what nurses say and what nurses do.

When autonomy is suppressed, it is not easy to raise the professional status of the nurses to be as well respected as of other professions because Thai nurses have not been given opportunity to demonstrate their fullest capability at work, meetings, and public presentations especially in the past. Consequently, 66.6% of Ramathibodi nurses transferred out in 1995 because they were not happy with their nursing status (Vichitrakarn et al., 1995). Therefore, professional acceptance was vital because it brought up motivation and morale of nurses at Sukhothai hospital (Dejpiratanamongkol, 1998).

Furthermore, since Thais are intensely concerned with hierarchy prestige; therefore, promotion, continuing professional education, and pay and benefits components may be the strong motivations at work. Furthermore, promotion also affected motivation and morale of nurses at Sukhothai hospital (Dejpiratanamongkol, 1998). From interview data, nurses would like to see the promotion system based on productivity and achievement in their goals rather than other methods. An example was when one nurse complained that “The system is to take turn getting promotion…when someone is going to retire…somebody asks first.” Then, that person

gets the promotion. This organizational culture partially makes nurses unhappy in this aspect.

For continuing professional education component, nurses at Vajira and Ramathibodi expressed their perception of low job satisfaction because of lack of continual professional education in the past (Njuki, 2001; Suwanpiboon, 1998). Today, Thais value education more than before as more opportunity is offered for education. That maybe why Thai anesthetic nurses were satisfied to a moderately to high level when continuing professional education was offered (Charuluxananan et al., 2002). The data is also correlated with the interview data. Nurses are happy with a chance to advance their knowledge. One nurse said "Yes. Oh! It's very good. Administrators support us fully in further study or training. This hospital gives us yearly budget for that and we can use it in attending nursing course."

In the same way with pay, low pay disappointed Ramathibodi nurses 14 years ago and so it did at Vajira Hospital and anesthetic nurses at one hospital (Njuki, 2001; Suwanpibul, 1998; Vichitrakarn et al., 1995). Even though the anesthetic nurses' response was not happy with low pay, the issue was found to have not much influence on job satisfaction (Charuluxananan et al., 2002). This could be implied that pay is not the most important factor influencing job satisfaction for Thai nurses. Moreover, pay also affected motivation and morale of nurses at Sukhothai hospital (Dejpiratanamongkol, 1998). Thai nurses are more satisfied with their pay in both public and private sectors (Charuluxananan et al., 2002; P. D. Tyson & Pongruengphant, 2004). In addition, a study from Srisakate found that age, years of experience, salary, and financial status of nurses had positive correlation with work satisfaction at a statistically significant level (p= .05 and .01) (Wacharobol, 2006). As

same as nurses who work more than 3-5 years, stay at a proficient level, earn 11,473.43- Baht/month with extra income 6,202.65 Baht/month and their family income 33,310.11 Baht/month, are satisfied because sufficient income results in financial stability. They can work only one job and there is no need to look for part-time or a new job; therefore, no transferring out or changing job which leads to nursing retention in HCOs was found (Harmsupoe, 2000; Topanthanont & Prachusilpa, 2007; Wonganuroj, 2004).

In the other aspect about pay, according to the interview data, nurses feel they should get more pay and they tie their professional status with pay. According to them, low incentives make nursing status appear inferior to other profession.

Connection system

Since Thais are collectivists, helping and sharing things among each other are common practice which indirectly creates connection system. Thais use connection system in getting things done smoothly. Your connections are the people who you know or are related to, especially when they are in a position to help you (Sinclair, 2006). Therefore, good relationship and support with people is valued; and at the same time, it becomes important in order to maintain connections because it gives warmth to the working environment and convenience for getting work done.

Furthermore, when looking at autonomy component, it comes with accountability. If you are accountable to someone for something that you do, you are responsible for it and must be prepared to justify your actions to that person (Sinclair, 2006). Therefore, if a mistake occurs, flexibility and connections are sometimes there to assist them. This practice makes nurses' accountability compromised.

Moreover, connections also affect recognition in professional status component. Recognition and acceptance from other disciplines make nurses in public hospitals satisfied and wanted to stay longer in an organization (Boonthong, 2000b). However, recognition can be given with bias at times in favoring and keeping good relationship with their connections and people in their own group.

Lastly, chances of a promotion and support from managers have a significant influence on job satisfaction because positive evaluation may come from good relationship with the manager in China and Thailand (Li & Lambert, 2008a; Soe et al., 2004; P. Tyson et al., 2002; P. D. Tyson & Pongruengphant, 2004). In some situation, people enjoy relationship and connections that they have even though they do not get any promotion. For this reason, it can be explained the situation when anesthetic nurses had low satisfaction with promotion, but this responses was surprisingly not effecting job satisfaction (Charuluxananan et al., 2002).

Humbleness

Humbleness is Asian teaching that is embedded to the young ones. It is the way people honor elders and those who have higher social status. Children are taught to greet elders, Wai, express gentleness and polite gesture. Humble person is not proud and does not believe that they are better than others (Sinclair, 2006). Thai nurses also embedded this practice well. It supports good relationship and working atmosphere. Elders and superiors expect younger people and subordinates to be humble. And, if subordinates are being perceived as self-endorsement one, Thais superiors will not like it and have less tolerance toward them. With humbleness, it lays down the foundation of other cultural practice for Thais such as ‘Kreng Jai’ and ‘Mai Phen Rai’.

Kreng Jai means "…to be considerate, to feel reluctant to impose upon another person, to take another person's feelings (and ego) into account, or to take every measure not to cause discomfort or inconvenience for another person" (Komin, 1991). It all started in child rearing style of Thais. This practice automatically makes Thais Kreng Jai and respect others especially elders and higher authorities. In combination of high-context, collective Thai culture, it makes the Thais less vocalized (Ralston et al., 2005). Quietness is a virtue in Thai culture. Doubts are seldom verbalized (Smukupt & Berna, 1976). Furthermore, Thais' suppression a desire to criticize and acknowledging another's kindness or outstanding characteristic creates a pleasant atmosphere and soothing to all parties concerned (Kuntson, 1994). Critiquing and commenting on others' personality or work related issues whether in a positive or negative way is considered offensive which causes people to be upset or embarrassed.

In the good sense, kreng jai creates peace and smooth atmosphere at work which affect relationship and support from others positively. However, when a problem arises, it will not be discussed straight forward especially if it offends the other person because it will make an affected person lose face. The problem will not be raised because Thais do not want to cause any discomfort or embarrassing feelings toward anyone. In some circumstances, problems are solved using peace method by being compromised among each other. It is also important to be aware that behind the quietness of Thais it does not mean there is no problem. For instance, nurses at Sappaitthiprasong hospital said they are moderately satisfied with work independence (autonomy) and professional status; however, they had intention to change the institution and the profession 49.5 and 35.0 in percentage, respectively in order to increase their satisfaction of these two components (Chairatana, 1995). Furthermore,

they also are moderately satisfied with their income; however, almost half of them wanted to leave the hospital to get more income (Chairatana, 1995). They were not fully satisfied inside but they don't express themselves outside because of kreng jai. Superiors may not be able to be aware of problems until nurses decide to leave a hospital. The humbleness and kreng jai practice also affects nurses' bargaining or defending ability in workload, administration, autonomy, and incentive issues. Consequently, the professional status is compromised.

In addition, Thais have an attitude of easily adjusted and flexible to situation and people which are called "Mai Phen Rai". Thais say 'Mai Phen Rai' to show their humbleness when they encounter a little uncomfortable situation or their flexibility to circumstances. Therefore, using the 'Mai Phen Rai' attitude and connection system can give results in two different directions. First one is to get tasks completed faster and easier which gives convenience and good outcome. Second, when connection with others and "Mai Phen Rai" attitude are used abusively, some wrong doings or mistakes can be overlooked for their own group of people. Punishment can be omitted; consequently, discipline characteristic in people is compromised.

Learning in many cases, nurses take actions as a key person in many projects of their hospital and bring their hospital to success. However, with this humble cultural practice, nurses continue taking orders humbly even though they earn lots of knowledge in science, art, and technology. Humbleness makes them silent and they do not stand out much. Therefore, humbleness is one of the Thai cultures that influence autonomy, professional status, and incentive component.

These cultural practices are fundamental reasons that make Thai nurses reflect and operate differently from western nurses. Each one of them affects job satisfaction

components. Therefore, in application of this cultural context, it is significant to ensure that the Thai context is reflected in items of each component in the TNJSS. For instance, from literature review, autonomy component consists of decentralized working system, delegation of work, independent in making decision, accountability, discipline of wrong doing, and advocacy role issues. Items will be constructed and reflected content from both literature review and interview. The result will reveal the current situation and the degree of autonomy for Thai nurses. Therefore, the investigator believes that Thai cultural context deriving from interviewing Thai nurses and reviewing literatures will assist in creating items appropriately for TNJSS.

In defining attributes of job satisfaction for Thai nurses, the combination of information from literature review of studies from Asian countries and Thailand is worthwhile. Using such the information will enhance the wider perspective of job satisfaction since job satisfaction studies in Thailand are not prepared in every aspect of job satisfaction concept and components. Therefore, the job satisfaction components and amount of the sources are summarized in Table 4.

Table 4

Thai and Asian Nurses' Job Satisfaction Components and Finding Attributes

Components	Amount of Sources	Total Frequency of Citations
Workload	*****	**16**
Pay/Benefits	*****	**14**
Relationship with People at Work	****	**11**
Professional Status	***	**9**
Policy/System	***	**8**

Table 4 (continued)

Components	Amount of Sources	Total Times of Citations
Autonomy	***	**8**
Continual Professional Education	***	**7**
Support at Work	**	**6**
Promotion	**	**6**
Supplies/Resources	**	5
Administration	**	5
Role Expectancy	**	4
Deal with Death/Dying	**	4
Perform Physicians' Function	*	2
Home and Work Balance	*	2
Governance	*	2
Job Security	*	1
Deal with Patients/Relatives	*	1

Note. * represents amount of sources found in job satisfaction studies: ***** = the most (13-15 citations); **** = many (10-12 citations); *** = moderate (7-9 citations); ** = few (4-6 citations); * = very few (1-3 citations)

The Thai and Asian job satisfaction attributes and their sources of citations are demonstrated in Table 5, Appendix A.02.

Job satisfaction in Thailand has a similar structure to job satisfaction in Asia especially in relationship, support, pay/benefit, continual professional education, and promotion. Furthermore, shifting/floating, group cohesiveness, and commitment in nursing found in western nurses were not mentioned in any studies in Thailand and other Asian countries. Notice, autonomy and role expectancy were found in few studies. These two factors may not have been assessed thoroughly in the past. There was discrepancy between nurses' satisfaction in autonomy and their action such as

nurses at Sappaitthiprasong hospital. Therefore, more study and understanding of these factors are needed.

In order to focus on the purpose of this study, the researcher needs to find the attributes from all job satisfaction components appearing in studies from Asia and Thailand by using the guideline from Walker and Avant (2005). The attributes have to be cited often; then, the investigator will utilize them as guideline for components of the TNJSS. They are established in order from the most cited to the least cited attributes:

1. Workload (16 citations)
2. Pay/benefits (14 citations)
3. Relationship with others at work (11 citations)
4. Professional status (9 citations)
5. Policy/system (8 citations)
6. Autonomy (8 citations)
7. Continuing Professional education (7 citations)
8. Support at work (6 citations)
9. Promotion (6 citations)

The data from this part will be integrated with data from interviews in order to explore job satisfaction component for the TNJSS in Thai context.

2.4 Other Variables Influencing Job Satisfaction

There are other variables that influence Thai nurses' job satisfaction. These variables are personal data which are: age, gender, marital status, education, income, position, department, and years of nursing experience. The TNJSS study

investigates the relationship among these variables and Thai nurses' job satisfaction. Hence, how these variables affect job satisfaction in other studies are discussed in this section.

2.4.1 Age

The effects of age accounted for a substantial portion of the general increase in extrinsic and intrinsic satisfaction. Nurses on average were more satisfied with their job as they become older (P. D. Tyson & Pongruengphant, 2004). One study also found that age had positive correlation with work satisfaction at a statistically significant level (p=0.05) (Wacharobol, 2006). In contrast, young ones in the age group of 20-29 years had a low level of job satisfaction (Njuki, 2001). Therefore, it is confirmed that age differences influence job satisfaction differently with statistically significant results (Chairatana, 1995; Suwanpibul, 1998).

2.4.2 Gender

Since most of Thai nurses are female, it is natural that male nurses feel that are the minority. One study demonstrated that one of the negative factors regarding the satisfaction of being a nurse anesthetist was being a male gender nurse anesthetist (p=0.001) (Charuluxananan et al., 2002). In fact, males and females already have a different and similar world view depending on the issue; however, being a minority in nursing profession may or may not affect their perception of job satisfaction. Therefore, it is interesting to investigate if a gender of nurses makes any difference in the perception of job satisfaction on the same scale.

2.4.3 Marital Status

Marital status had relationship with job satisfaction at statistically significant level ($p < 0.05$) (Chairatana, 1995) meaning that the differences of marital

status impact job satisfaction differently. For instance, the number of family members had a negative correlation with work satisfaction at a statistically significant level ($p < 0.05$) (Wacharobol, 2006). Since married nurses tend to have family members more than single nurses, it is possible to infer that married nurses have lesser work satisfaction than single nurses.

2.4.4 Education

Educational level had positive correlation with happiness in work at a statistically significant level ($p = 0.05$) (Wacharobol, 2006). Higher educated nurses have more opportunity in job promotion; surely, they also have high job security and organizational commitment. Educational levels of nurses at Sukhothai Hospital and Sappaitthiprasong Hospital impacted motivation and morale including job satisfaction differently at statistically significant level ($p < 0.05$) (Chairatana, 1995; Dejpiratanamongkol, 1998). Since, motivation and morale are both necessary for maintaining job satisfaction, nurses who have high education level are more likely to have high job satisfaction.

2.4.5 Income

Compensation is important because it is a hygiene factor that keeps nurses motivated and prevents low satisfaction. The need for the pay of each nurse will not be the same depending on their family and environmental needs. According to Tyson and Pongruengphant (2004), compensation made nurses change from very low satisfaction to a degree of positive satisfaction due to the fact that their pay was increased from -0.24 to 0.21 in public hospitals and 0.26 to 0.73 in private hospitals after 5 years. In addition, salary of nurses at Sisaket Hospital had positive correlation with work satisfaction at a statistically significant level ($p = 0.01$)

(Wacharobol, 2006). Not surprisingly, low pay of salary <10,000 Baht/month made nurses have a low level of job satisfaction (Njuki, 2001) and wanting to resign (Vichitrakarn et al., 1995).

2.4.6 Position

There were a significant statistical differences of Thai nurses' position on job satisfaction (Suwanpibul, 1998). Position of nurses had relationship with job satisfaction at statistical significant level ($p < 0.05$) (Chairatana, 1995); hence, different positions influence job satisfaction differently. Various positions of nurses at Sukhothai Hospital also impacted motivation and morale differently at a statistically significant level ($p < 0.05$) (Dejpiratanamongkol, 1998).

2.4.7 Department

Department of work had impact on job satisfaction of Thai nurses at a statistically significance level ($p < .001$). The study from Ramathipbodi Hospital found that nurses who work in health promotion department had high job satisfaction; in contrast, nurses who work in operation room had the lowest job satisfaction. High autonomy, good relationship with patients and their relatives, high professional status, uncomplicated working systems, and non shifting schedules are the structure of work for nurses at health promotion departments which are different from structure of other departments and made them satisfied (Vichitrakarn et al., 1995). Hence, the departments where nurses work influence job satisfaction.

2.4.8 Years of Nursing Experience

There was a significant association between working experience in years of Thai nurses and their job satisfaction (Suwanpibul, 1998; Wang, 2004). At Sisaket Hospital, a study found that duration of work had positive correlation with

work satisfaction at a statistically significant level (p = .05) (Wacharobol, 2006). According to Mathis and Jackson (2004), one of the influential factors of nursing retention is duration of work (Mathis & Jackson, 2004); therefore, the duration of work impacts job satisfaction because there is a positive correlation between job satisfaction and retention. Moreover, the numbers of years of experience in nursing was also a positive predictor of job satisfaction (Li & Lambert, 2008a). This could be because longer duration of work has higher chance for promotion which normally comes with increased pay.

Notice, these personal factors had both negative and positive correlation with happiness and work satisfaction. However, some scholars said they were not related to job satisfaction (Adams & Bond, 2000); therefore, it is necessary to include these variables in this study.

Reviewing many literatures assist in understanding job satisfaction concept; however, the other way to see factors influencing job satisfaction is to review job satisfaction measurement tools. Prior to approaching that direction, the knowledge of measurement theory, framework, and psychometric properties is essential.

3. Measurement Theories, Frameworks, and Procedures

Theories in measurement and psychometric properties of tools are fundamental knowledge in reviewing any measures. It is important to understand the principle and framework of tools and be able to distinguish the quality of tools by reviewing the validity and reliability of the tools. Hence, this section will discuss: (1)

classical measurement theory, (2) norm-referenced framework, (3) validity, and (4) reliability.

3.1 Classical Measurement Theory

Since random error is present in the measurement of any phenomenon, the foundations of classical theory which has been used for assessing random measurement error (Waltz, Strickland, & Lenz, 2005) is used in explaining an assumptions of measures. The theory is related to the reliability and validity. Concept of true score, measurement error and the index of test reliability, controlled the area of psychological measurement for many years. It is based on assumptions of:

3.1.1 Random error must be considered in all measurement. Every observed score that results from any measurement procedure is composed of a true score and error score. In reality, no one knows the true score and the error score values. Only observed score is known.

3.1.2 Observed score is obtained when a measurement is taken. It is a combination of the true score and error of measurement. Then, systemic errors become part of the true score and affect validity but not reliability.

3.1.3 The mean of error scores is zero and the correlation between the true score and the error score is zero. Hence, the distributions of random error can be normal and so does that of observed scores (Waltz, Strickland, & Lenz, 2005).

According to Waltz, Strickland, and Lenz (2005), in a perfect world, if there were a measurement procedure that was perfectly reliable, the observed score and true score would be the same. In this case, the more observed scores widely spread around true scores, the more error of measurement. The more reliable a measurement

procedure is; the smaller standard error of measurement will be. Therefore, the size of the standard error of measurement is an indicator of the amount of error involved in using a particular measurement procedure. Hence, if a large number of subjects are measured on the attribute in question and their observed scores are plotted, the score distribution will demonstrate true differences in subjects' possession of the attribute being measured. The assumptions of the classical measurement theory lay down the foundation of norm-referenced framework.

3.2 Norm-referenced Framework

Norm-referenced measures are derived from classical measurement theory. Measurement framework is important in guiding the instrument design and interpretation of the measurement. This approach is appropriate when the interest is in evaluating the performance of a subject relative to the performance of other subjects in some well-defined comparison or norm group (Waltz, Strickland, & Lenz, 2005). For example, when nurses complete job satisfaction questionnaire, the scores will be compared among themselves. The benefits of using norm-reference measure are varies. Normally, it is utilized to construct a tool or a method to measure a specific characteristic which can maximally discriminate among subjects possessing different amounts of the characteristic (Waltz, Strickland, & Lenz, 2005).

3.3 Validity

"Validity is a unitary concept. It is the degree to which all of the accumulated evidence supports with intended interpretation of test scores for the intended purpose" (American Educational Research Association, 1999). In testing

validity of any measure, it should be done with more than one type and the method depends on the aim or purpose of the measure by examining the scores from a measure that is obtained for a specific purpose with a specified group of people under a certain set of conditions (Waltz, Strickland, & Lenz, 2005). For the purpose of conducting a new job satisfaction tool which uses norm-referenced framework, types of validity are an essential aspect to be acquainted with in order to select appropriate ones for the study. Content validity, construct validity, and criterion-related validity will be discussed. Norm-referenced validity procedures are:

3.3.1 Content Validity

Content validity is significant for all measures especially when design is an instrument to assess cognition such as job satisfaction. An emphasis is in the extent to which the content of measure represents the content domain. The procedures involve experts to judge the specific items in the measure in terms of their relevance, sufficiency, and clarity in representing the concepts underlying the measure's development (C. F. Waltz et al., 2005). Normally, in order to quantify the extent of agreement between experts, Content Validity Index (CVI) is employed. CVI is the proportion of items given a rating of quite/very relevant by all raters involved (C. F. Waltz et al., 2005). In determining content validity, it needs subject matter expertise; carefully selection, preparation, and use of experts to the optimal number of experts in specific measurement situations. Thus, this test will be performed due to its quality to test the content of the scale.

3.3.2 Construct Validity

Construct Validity is the extent to which relationships among items included in the measure are consistent with the theory and concepts that are

operationally defined (Waltz, Strickland, & Lenz, 2005). The methods in determining construct validity are: (1) the contrasted groups approach, (2) hypothesis testing approach, (3) the multitrait-multimethod approach (D. T. Campbell & Fiske, 1959; Martuza, 1975), and (4) factor analysis (Rew, Stuppy, & Becker, 1988). However, the technique for testing construct validity in constructing measure depends on the design of a study and purposes of use of these tests examining the concept with population of the study appropriately.

(1) The contrasted group approach. This test is utilized when there are two groups of population who are known to be extremely high and extremely low in characteristic being examined by the instrument. The scores performance of the test from the two groups is compared by using t-test or an analysis-of-variance test. If the tool is sensitive to individual differences in the trait being measured, the mean performance of two groups should differ significantly. However, if no difference is found between the mean scores of the two groups, it is possible that: (1) the test is unreliable; (2) the test is reliable, but not a valid measure of the characteristics; or (3) the conception of the construct of interest is faulty and needs reformulation (C. F. Waltz et al., 2005). This approach will not be performed in this study because it is not feasible to find any nurses who are neither satisfied with everything nor dissatisfied with everything. Therefore, the population of this study and the nature of job satisfaction are not suitable for the test.

(2) Hypothesis testing approach. It applies when using the theory or conceptual framework underlying the measure's designed to state hypotheses about the behavior of people with varying scores on the tool, gathering data to test the hypothesis, and making inferences on the basis of the results concerning whether or

not the rationale underlying the measure's construction is adequate to explain the data collected (C. F. Waltz et al., 2005). From studies of job satisfaction, researchers proposed a relationship between the stress at work and the job satisfaction level in negative direction. This study will also test this hypothesis. If the result shows significant correlation in the proposed way, it is the foundation of the statistical test. However, if the theory or conceptual framework fails the explanation for the data, it is crucial to: (1) revise the measure, (2) reformulate the rationale, or (3) reject the rationale altogether (C. F. Waltz et al., 2005).

(3) The Multitrait-multimethod approach. This approach can be engaged when it is probable to: (1) measure two or more different constructs; (2) use two or more different methodologies to measure each construct; (3) administer all instruments to every subject at the same time, and (4) assume that performance on each instrument employed is independent, not influenced by, biased by, or a function of performance on any other instrument (C. F. Waltz et al., 2005). These conditions must be met in order to use this approach. According to Waltz and colleagues (2005), the two basic principles of this approach are: (1) that different tools of the same construct should correlate highly with each other (the convergent validity principle); and (2) that tools of different constructs should have a low correlation with each other (the discriminant validity principle). Examples of convergent validity can test job satisfaction and motivation and examples of discriminant validity can examine job satisfaction and turnover. Therefore, based on the requirement of this method, subjects have to respond to multiple instruments at one time which can decrease respondents' willingness to participate, thus reducing the response rate, and increasing errors due to respondent fatigue. Furthermore, the method consumes both large amount of money

and time including the expertise of an investigator. Hence, even though this method produces more data with more efficiency than other available techniques (C. F. Waltz et al., 2005), it is unfortunately impractical and does not serve the purpose of TNJSS.

(4) Factor analysis. Factor analysis is selected for testing construct validity because it fits the nature of designing job satisfaction instrument. Job satisfaction is multi-dimensional concepts which are used to be a conceptual framework in constructing a job satisfaction tool. Moreover, job satisfaction as a psychological trait and factor analysis is relevant to construct-validation procedure. Furthermore, the investigator also intends to empirically justify these dimensions or factors. The result of this factoring process is a group of linear combinations of items called factors. These factors from analysis will show the number of dimensions or subcomponents assessed by the measure and the items with the highest factor loadings defining each factor should correspond with the items designed to measure each of the dimensions of the measure (Waltz, Strickland, & Lenz, 2005). It is advised to objectively name or interpret factors without allowing original conceptualization to bias the interpretation since the interpretation always involves a certain amount of subjectivity.

3.3.3 Criterion-related Validity

Criterion-related validity is the correlation between scores on an instrument and some other variable or criterion (C.F. Waltz et al., 2005). There are two types of criterion-related validity: predictive validity and concurrent validity. Predictive validity indicates the individual's future level of performance on a criterion and can be predicted from knowledge of performance on a prior measure. On the other hand, concurrent validity is used to estimate an individual's present standing on the

criterion. It is performed when the tool is examined for validity and the related criterion tool is given within a short period of time and comparing the scores if the tool presents standing for the criterion (C.F. Waltz et al., 2005). Since, the criterion against which the obtained scores are to be validated should be a higher status operationalization of the same construct that the measure is trying to tap (C. F. Waltz et al., 2005), it is very difficult to find the present standing criterion tool that yields the same theory, concept, and construct. Therefore, this type of validity will not be performed in this study.

3.4 Reliability

Reliability is the fundamental issue in psychological measurement. (Ghiselli, Campbell, & Zedeck, 1981). If a large number of subjects are measured on the attribute in question and their observed scores plotted, reliability would be conceptualized as the proportion of the variance in the observed score distribution that is due to the difference in subjects' possession of the attribute being measured (Waltz, Strickland, & Lenz, 2005). In the norm-referenced case, reliability is usually estimated by using: (1) a test-retest, (2) internal consistency and/or, (3) parallel form procedure which will be discussed in this section.

3.4.1 Test-retest Procedure

This method is appropriate for determining the quality of measures and assessing characteristics known to be relatively stable over the time period under investigation. Job satisfaction concept does not tend to change rapidly; therefore, it is suitable to use this procedure for testing reliability in a such study. The procedures are: (1) administer the instrument to a single group of subjects; (2) re-administer the same

instrument under the same conditions to the same group of subjects two weeks after the first; and (3) determine the extent to which the two sets of scores are correlated using Pearson correlation coefficient (Waltz, Strickland, & Lenz, 2005). The result reflects the extent to which the measure ranks order the performances of the subjects the same on the two separate measurement occasions. It is often called "coefficient of stability".

3.4.2 Internal Consistency

It's the reliability that is the most frequently utilized for cognitive measures when the concern is with the consistency of performance of one group of individuals across the items on a single measure. The methods of estimating the reliability are alpha coefficient, KR 20, or KR 21. Many researchers use alpha coefficient in investigating the reliability of job satisfaction tool because: (1) it has a single value for any given set of data; and (2) it is equal in value to the mean of the distribution of all possible split-half coefficients associated with a particular set of data. Alpha represents the performance of any one item on an instrument if it is a good indicator of performance on any other item in the same instrument (Waltz, Strickland, & Lenz, 2005). However, KR 20 and KR 21 are for the test that is dichotomously scored which is not the design of this study.

3.4.3 Parallel Form

If any study can produce two forms of an instrument, researchers prefer to use this method. There are four criteria for this form: (1) been conducted under same objectives and procedures; (2) approximately same means; (3) equal correlation with a third variable; and (4) equal standard deviations (C.F. Waltz et al., 2005). There are ways to create a parallel test using split-half reliability (DeVellis,

1991). First one is first-half last-half split which may be problematic because other factors such as: fatigue, practice effect, failure to complete the set of items and print quality might affect each subset differently. Second is odd-even reliability which odd-numbered items are compared to the even-numbered items. This method avoids many of the problems compared to the first one. The third one is balanced halves. One can identify some important item characteristics equally represented in each half such as wording, item length, attribute in question. However, in multiple item characteristics, it might be impossible to balance the proportion of one with another or which characteristics of the items should be balanced. Last one is random halves which can be done by randomly allocating each item to one of the two subsets that will eventually be correlated with one another. However, hoping that a less number of items, varying in interrelated dimensions, will give comparable groupings through randomization is unrealistic. Most importantly, we normally do not have two versions of scale that conform strictly to the requirement of parallel tests (DeVellis, 1991). There is no legitimate reason to split TNJSS into two forms in order to create parallel form. This type of reliability is feasible to perform but it is very complicated and does not fit the purpose of this study. It is also impractical because it does not add more value to this study. Hence, the parallel form of reliability was not included in the design.

The reliability of the TNJSS is tested using test-retest and internal consistency because job satisfaction is a psychological trait and these two tests serve the purpose of this study.

As job satisfaction is a subjective and multi-dimension concept, it is difficult to be measured in people who are from different places and expecting the results to be

the same. The knowledge of measurement theory, framework, validity, and reliability are crucial in reviewing job satisfaction tools and to be able to choose the most suitable one to be utilized in job satisfaction studies. The conclusion of measurement theory and psychometric properties are demonstrated in Figure 2, Appendix A.03. Furthermore, it is also important for researchers to know what tools are available currently in order to learn and select a good one from various resources.

4. Job Satisfaction Tools

Job satisfaction can be interpreted in various ways and many of its measures were developed based on the conceptual foundation of it. This section will discuss current job satisfaction tools. Their components and psychometric properties will be the emphasis.

4.1 Job Satisfaction Tools and Components

Since there is no gold standard of which components should be included in job satisfaction measurement, researchers have theorized about work components relevant to job satisfaction (J. R. Hackman & Oldham, 1976; E. A. Locke, 1976; Thierry, 1998). At the same time, many of them also use job satisfaction concept in drawing the components. Additionally, reviewing job satisfaction tools that are currently used is another method for clarifying the components.

In categorizing all components from job satisfaction tools, this review will use all 36 components from these tools to analyze for attributes of job satisfaction tool. The more numbers of components in each group, the more likely that group of components will become attributes. Then the attributes will show the important

components of the job satisfaction tool. From the review, it shows incentive as the most important job satisfaction component because it was used the most as a component of all the tools. Social aspect and professional status are the second and third important component respectively. Lastly, autonomy, work environment, scheduling, and workload are equally important components in measuring job satisfaction. The result is confirmed with the job satisfaction concept from western studies because five out of these six tools were developed from Western countries. (Table 6)

Table 6
Job Satisfaction Tools' Components and Attributes

	Job satisfaction tools and components						
Components in group	Tool 1	Tool 2	Tool 3	Tool 4	Tool 5	Tool 6	Total numbers of components used in each group
Incentives	1. Pay 2. Growth	1. Salary 2. Benefits	1. Pay 2. Reward	1. Benefit 2. Promotion	1. Professional growth 2. Benefits	1. Pay 2. Professional opportunity	12
Social aspect	1. Social aspect	1. Relationship with patient 2. Group cohesion with peers 3. Relationship with MD	1. Interaction/ cohesion	1. Human relationship	1. Intra-practice partnership/ collegiality 2. Social community interaction	1. Co-worker interaction	9
Professional status		1. Professional pride	1. Professional status	1. Feedback	1. Professional interaction	1. Praise/ Recognition	5
Scheduling		1. Flexible Schedule			1. Time	1. Scheduling	3

Table 6 (Continued)

Components In group	Job satisfaction tools and components						
	Tool 1	Tool 2	Tool 3	Tool 4	Tool 5	Tool 6	Total numbers of components used in each group
Workload		1. Stress 2. Workload		1. Workload			3
Autonomy		1. Autonomy in Work			1. Challenge/ autonomy	1. Control/ Responsibility	3
Security	1. Security						1
Family/work balance						Family/work balance	1

Note. Tool 1: The Measure of Job Satisfaction (MJS), (Traynor & Wade, 1993); Tool 2: Home Healthcare Nurse Job Satisfaction Scale (HHNJS), (Ellenbecker & Byleckie, 2005); Tool 3: Organization Satisfaction Scale, (Sauter et al., 1997); Tool 4: Nurses's Job Satisfaction Scale (NJSS), (Lin et al., 2007); Tool 5: Misener Nurse Practitioner Job Satisfaction Scale (MNPJSS), (Miller et al., 2005); Tool 6: McClosky/Mueller Satisfaction Scale (MMSS), (Saane et al., 2003)

4.2 Psychometric properties of job satisfaction tools

In psychometric quality aspects, the reliability was assessed by testing internal consistency coefficient using Cronbach's alpha with 0.80 or higher and test-retest using Pearson product-moment correlation coefficient with 0.70 or higher is acceptable (Lloyd, Streiner, & Shannon, 1998). Many types of validity testing method such as convergent validity, concurrent validity, discriminant validity, face validity, and criterion-related validity were utilized depending on their sources. According to the study from Saane and his colleagues in 2003, the criterion for the convergent validity was considered acceptable at 0.50 or higher. Criteria for an adequate degree of discriminant validity were determined at a correlation of 0.5 or less. For the content validity, if more than three work factors out of 11 work factors were not included in the instrument, the content validity of the instrument was considered unsatisfactory (Saane et al., 2003).

The demonstrated tools are generally well known and broadly used in many studies for measuring nurses' job satisfaction. The result of psychometric properties, comparisons of these tools reveals that tool number two, three, five, and seven have not demonstrated their standard in psychometric property testing. As a minimum, an adequate instrument should meet criteria for internal consistency and convergent validity (Saane et al., 2003); however, two methods of both reliability and validity should be tested. Therefore, researchers need to be aware that not all of the instruments that are utilized in job satisfaction studies always guarantee their standard reliability or validity. (Table 7)

Table 7

Psychometric Properties of Job Satisfaction Tools

Job Satisfaction Tools	Method	Sample	Validity	Reliability
1. The Measure of Job Satisfaction (MJS), 1992, England (Traynor & Wade, 1993)	QT	480 school health visit practice RNs	Concurrent validity 0.83 with The Price Waterhouse measure Factor analysis with factor loading >0.35	Cronbach's alpha 0.84-0.88 Test-retest 0.76-0.91
2. Home Health Nurse Job Satisfaction Scale (HHNJS), 2004, USA (Ellenbecker & Byleckie, 2005)	QT	340 home health RNs	Concurrent validity 0.79 with McClosky/Mueller Satisfaction Scale Factor analysis with factor loading 0.4	Cronbach's alpha 0.64-0.83
3. Organization Job Satisfaction Scale, 1997, USA (Sauter et al., 1997)	QT	496 RNs and 532 RNs in acute hospital	Convergent validity: 1. 0.10-0.60 with Job Enjoyment Scale 2. 0.19-0.53 with Control Over Nursing Practice Instrument 3. 0.33-0.56 with Commitment Measure of Price and Mueller Discriminant validity: 1. -0.10 to -0.48 with Job Stress Scale	Cronbach's alpha 0.77-0.88
4. Nurses' Job Satisfaction Scale (NJSS), 2007, Taiwan (C. J. Lin et al., 2007)	QT	360 RNs in two acute hospitals	Factor analysis with discrimination power 0.9 Face validity Discriminant validity 0.70 Concurrent validity 0.46-0.55	Cronbach's alpha 0.92 Test-retest 0.74

Table 7 (Continued)

Job Satisfaction Tools	Method	Sample	Validity	Reliability
5. Misener Nurse Practitioner Job Satisfaction Scale (MNPJSS), 2005, USA (Miller et al., 2005)	QT	342 NPs	Factor analysis with factor loading 0.35	Cronbach's alpha 0.79-0.94
6. McClosky/Mueller Satisfaction Scale (MMSS), 1990, USA (Saane et al., 2003)		RNs in hospital	Convergent validity 1. 0.53-0.75 with JDS 2. 0.41 with Brayfield-Roth Scale 3. 0.56 with JDS-general dimensions Content validity: 8 of 11 were included	Cronbach's alpha 0.89 Test-retest 0.64
7. Andrew and Whitney Job Satisfaction Questionnaire (Saane et al., 2003)		Heterogeneous	Convergent validity 1. 0.70 with MSQ 2. 0.70 with JDI 3. 0.64 with OCQ	Cronbach's alpha 0.81
8. Nurse Satisfaction Scale (NSS), 1993 (Saane et al., 2003)		RNs	Convergent validity 0.64 with OCS Content validity: 9 of 11 were included	Cronbach's alpha 0.84 Test-retest 0.75

Note. Abbreviations: JDI, Job Descriptive Index; JDS, Job Diagnostic Survey; MSQ, Minnesota Satisfaction Questionnaire; OCQ, Organizational Commitment Questionnaire; OCS, Organizational Commitment Scale

Noticing, there is only one tool in Asia, but not limited to, which is published and become a standard tool measuring job satisfaction in the way of developing and psychometric testing processes. It is the tool number 4 called "The Nurse Job Satisfaction Scale (NJSS)" which was developed in Taiwan to be utilized with Taiwanese nurses. The tool was constructed based on literature review solely; however, if the researchers interview nurses in Taiwan, it will create a richer and wider perspective of job satisfaction from the nurses. In determining validity, researchers tested for construct validity using factor analysis which was appropriate; however, they used face validity in stead of content validity. The study will be more robust if they choose to do content validity because face validity does not provide any evidence of validity that the instrument actually measures what it means to measure (Waltz, Strickland, & Lenz, 2005). Furthermore, the concurrent validity is normally performed when the tool is examined for validity and the related criterion tool is given within a short period of time and comparing the scores if the tool presents standing for the criterion (Waltz et al., 2005). However, researchers used only one question in testing this type of validity which is not considered a correct method. This data is crucial for researchers be aware that it is very difficult of find a good tools in measuring job satisfaction of nurses' in Asia in order to get a legitimate result; therefore, further study in job satisfaction and tool development are encouraged.

5. Social Desirability

Social desirability defined as the tendency of a person to project favorable images of themselves during social interaction (C.F. Waltz et al., 2005). Hence, it is a concern of interpreting the response of the TNJSS that nurses give in social

preference. Some questions may be sensitive and involve the risk of disclosure of their answers to third parties such as administrators and their answers may be perceived as socially undesirable (Tourangeau, Rips, & Rasinski, 2000). Moreover, Thais are Kreng Jai; therefore, they tend not to express their feeling much especially if the answer will make a hospital and administrators lose face. Consequently, the scores result from the TNJSS may not be legitimate. Furthermore, according to DeVellis (1991), including social desirability scale allows the researcher to assess how strongly individual items are influenced by social desirability. Items that correlate significantly with the social desirability score obtained should be considered as candidates for exclusion unless there is a good theoretical reason that is indicated.

In this study, the Social Desirability Scale-17 (SDS-17) is utilized. It was developed in 1999 after the Marlow-Crowne Social Desirability Scale for the purpose to have an updated context and shorter form (Stober, 2001). The SDS-17 is administered to subjects along with the TNJSS in field test in order to secure an accurate result.

6. Stress at Work and Job Satisfaction

Stress is a part in our everyday life no matter what type of job a person holds; however, being a nurse can have more stress than other professions because nurses provide care for patients who are sick and encounter life crisis.

One study found that Thai nurses who have moderate to high stress are ones who have the complex structure of work (Chokchaipaisarn, 2008). The structure of work can affect the way nurses provide care; and at the same time, manage other responsibilities. Being a part of current health care delivery system can be very

stressful. The two main health care systems of public hospitals in Thailand are universal health care and social security health care system which intend to give cost-effective care to clients. There has been a decrease in organizational budget, increased demands from duties; not to mention, nursing shortage. Naturally, nurses have carried a higher workload and the high workload has a positive relationship with stress at work (Chokchaipaisarn, 2008) and workplace stressors have been identified as a contributor to job satisfaction (Bratt et al., 2000; P. D. Tyson & Pongruengphant, 2004). However, some studies said personal variables such as age, educational level, marital status, and duration of working have no effect on stress (Chokchaipaisarn, 2008; Jaiphawung, 2004).

In this study, the hypothesis is the relationship between the stress at work and Thai nurses' job satisfaction is in a negative direction. Occupational Stress Scale (OSS) is utilized in order to test the hypothesis. The scale was modified and translated from Wieman's Occupational Stress Scale which derived from the concept of stress at work of Baker and Karasek (Maneenil, 2006). The concept specifies that stress at work is the result of an imbalance between job demand and job control. The job demand includes interactions among staffs and organization; social environment; and employees' future expectation. Moreover, the job control composes of job description, quantity of work, work itself, and roles at work. As studies mentioned above stress complex structure of work is the cause of stress at work, it also correlates with Lazarus who said the source of stress in workplace is mainly from the organizational arrangement of the workplace (Crandall & Perrewe, 1995).

Since working in a hospital has high job demand, difficult job control, and complex structure of work, this OSS is appropriate to test the hypothesis of this study. The result will demonstrate the relationship statistically.

Summary

Job satisfaction studies have been done for more than 40 years. Surprisingly, most of studies did not mention any theories but explained their work relying on literature review. This could be because: (1) job satisfaction work was built on top of each other for a long time which might be based on theories but people did not recognize the fundamentals of it, and (2) nurses did not have much knowledge in explaining theories until recently.

Job satisfaction concept for Asian nurses has some similarities with those from Western countries. Components such as workload, policy and system, deal with death and dying, support at work, role expectancy, and autonomy affect job satisfaction around the world but more intensely in Asia because Asian countries are mostly developing countries unlike USA, UK, or Europe. The ratio of the medical provider and the patient, health care delivery system, financial status, technology, knowledge, skills, and work system are more advanced than those in Asian countries. For these reasons, components such as performing physicians' function, governance, and promotion are found in studies for nurses in Asia only. Job satisfaction in Thailand has similar structure to job satisfaction in Asia especially in social aspect and incentive aspects. The work environment component gives satisfaction to nurses

excepting administration. However, role expectancy and autonomy are not clarified much in studies from Thailand.

In finding job satisfaction components, reviewing tools' components is helpful. Noticing seven out of eight reviewed job satisfaction tools were constructed in Western countries and components such as incentive, professional status, autonomy, social aspect, work environment, shifting and scheduling, and workload are confirmed to be the important components in assessing job satisfaction. However, components such as performing physicians' function, scheduling, and governance, found to be factors influencing low job satisfaction in Asian nurses only. They were not included in any of these tools. The reasons for this discrepancy can be the growing and changing working environment complexity; therefore, new problems are inevitable. Furthermore, people from different national groups sometimes identify different problems, make different plans, negotiate and coordinate differently, and make different decisions during complex cognitive tasks (Klien, 2004). Therefore, this literature review demonstrates the similarities and differences of job satisfaction concept especially its components between Western and Eastern countries. Moreover, since job satisfaction in Asia is very similar to that of in Thailand, the literature review of both sources is valuable for creating job satisfaction components. The information will be combined with interviewed data from Thai nurses in order to get more complete job satisfaction concept and components of this study.

CHAPTER 3

METHODOLOGY

Introduction

The objective of this methodological study was to develop The Thai Nurses' Job Satisfaction Scale (TNJSS) and evaluate its psychometric property. Two research questions were proposed: (1) what are the components of a job satisfaction scale for nurses in Thailand? and (2) how valid and reliable is this new constructed job satisfaction scale?

The discussion of this chapter was involved the instrumental development and psychometric properties testing of the TNJSS which was composed of eight steps. In these steps, there were four main phases: (a) interview phase, (b) pre-test phase, (c) field test phase, and (d) post-test, part one and post-test, part two phases that all required implementation with nurses. The contents of each phase such as the criteria of sample, sample size, sampling technique, setting, instruments, preparation, implementation, and data analysis were explained as appropriate. Lastly, human subjects' rights protection was described.

Developing and Testing Psychometric Properties of the TNJSS

This study used the scale development guideline of DeVellis (1991) and Waltz, Strickland, and Lenz, (2005). There were eight steps: (1) generation of an item pool, (2) determination of item format, (3) determination of validity, (4) pre-test, (5)

field test, (6) evaluation of items, (7) determination of reliability, and (8) hypothesis testing which all were explained along with an integration of four main intervention phases with nurses. These phases were described in the following manner.

Prior to step one (generation of an item pool), literature review and interviews of Thai nurses were necessary in order to explore Thai nurses' job satisfaction components and generate item pool. Hence, an interview phase was discussed. After step two and three were described; then, step four (pre-test phase) and step five (field test phase) were explained. Finally after step six was described, step seven (determination of reliability) and step eight (hypothesis testing) were explained as the post-test part one and two phases. Please see Figure 3.

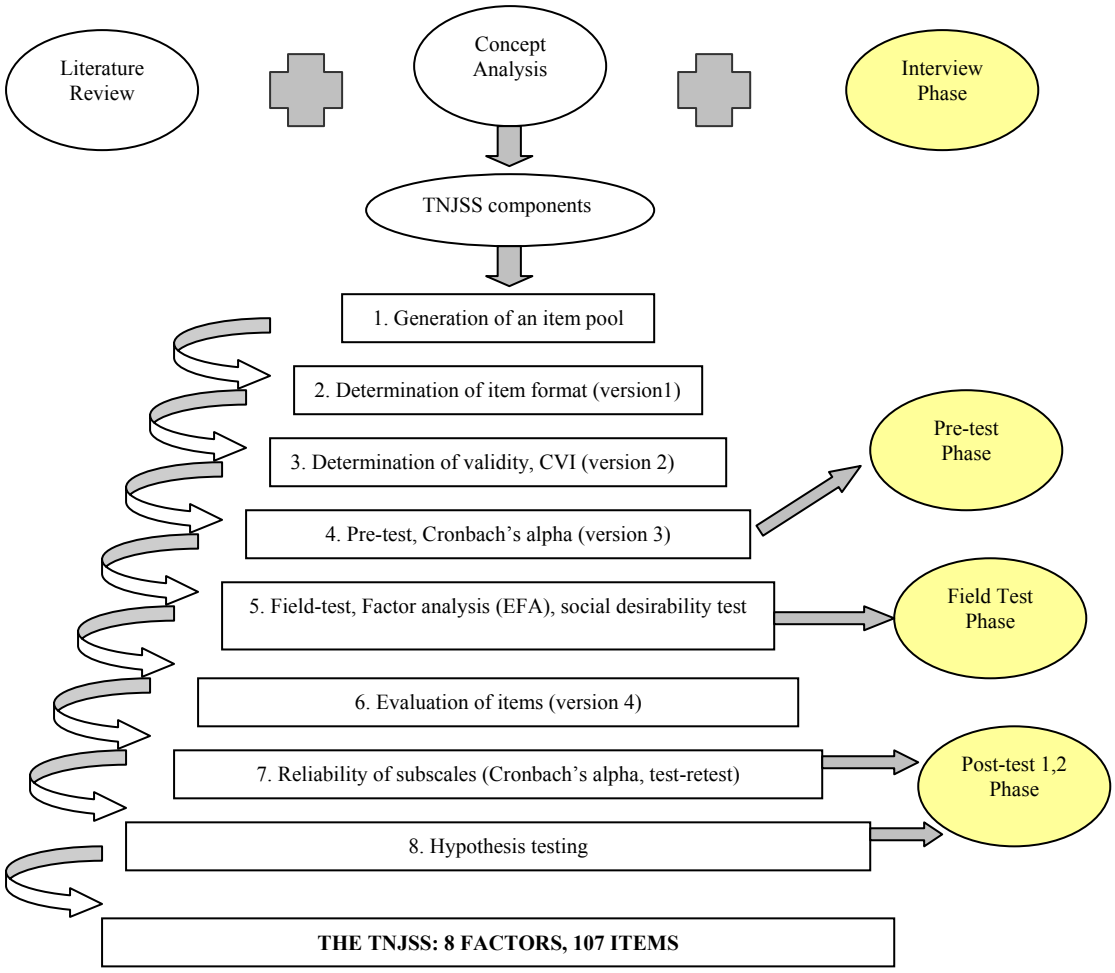

Figure 3. Steps in Development and Psychometric Evaluation of the TNJSS.

Prior to starting these eight steps, the investigator established job satisfaction components of the TNJSS by performing: (1) literature review, (2) interviews from Thai nurses, and (3) integration of job satisfaction components from both sources.

1. Literature review

Job satisfaction studies from Western and Eastern countries were reviewed and concept analysis was performed using Walker and Avant's (2005) method as the guideline. Similarities and differences of job satisfaction components from both

origins were explored. Then, literatures from Asian countries were combined with literatures from Thailand since the cultural practice was similar. Besides, there were not completed aspects of job satisfaction studies in Thailand. At last, the TNJSS components were proposed and they were:

1.1 Workload

1.2 Pay and benefits

1.3 Relationship with others at work

1.4 Professional status

1.5 Policy and system

1.6 Autonomy

1.7 Continuing education

1.8 Support at work

1.9 Promotion

2. Interviews from Thai nurses. The detail is explained in an interview phase.

An interview phase

The purpose of the interviews was to clarify job satisfaction components from Thai nurses, to confirm whether job satisfaction components from literature review vastly different from the components from the interview, and to assist in creating items.

Criteria of samples

1. Full-time employees at hospitals.

2. Identify themselves as those who have been through work adjustment or have worked at least one year in the hospital. According to Theory of Work

Adjustment (Dawis & Lofquist, 2008), work adjustment is the process of achieving and maintaining correspondence and its indication is the satisfaction of the individual with the work environment. Furthermore, the work adjustment period for graduate nurses in an acute care setting may range between 6 to12 months after being hired (Casey, Fink, Krugman, & Propst, 2004). Therefore, full-time nurses who have been through work adjustment were needed because they spent enough time exposing themselves to the hospital.

3. Able to communicate in Thai.

Sample size and sampling technique

The investigator posted an announcement looking for volunteers to participate in interviews at the hospital. There was one administrative nurse and two staff nurses from different departments who voluntarily participated in the interviews. Purposive sampling technique was used.

Instruments

Regarding to instruments, there were two forms.

1. The Demographic Data Form. It consisted of nine items: (1) age, (2) sex, (3) marital status, (4) educational level, (5) monthly income, (6) position, (7) department, and (8) years of nursing experience. (Appendix B.05 part 1)

2. The Interview Guideline. The nine job satisfaction components from the literature review were used as a guideline to develop interview questions. The form consisted of nine open-ended questions. (Appendix B.05 part 2)

Preparation

First of all, all necessary documents and arrangement were accomplished prior to the interview. Documents such as a letter asking for permission to conduct the

interview, announcement asking for volunteers to participate, written informed consent, and permission to conduct this study from faculty of nursing, Prince of Songkla University (PSU) were sent to the Chief Executive Officer (CEO) of one government general hospital which was a general hospital at Surathanee Province. A set of these documents was also sent to the director of nursing (DON) (Appendix B.01-04). The investigator's contact number was provided in the announcements. Then, an administrative nurse contacted the investigator with the names of nurses.

Implementation

Then, the data collection was started. The investigator performed semi-structured interviews by following questions in the interview form. Each participant gave the private interview on August 30, 2009 from 9.00-10.15am, 10.30-11.45am, and 1.00-2.15pm. The purpose and method of this study were explained to them. Written inform consent was shown to each nurse and asked whether they had further questions. Permission to tape recording in each interview was granted by each nurse.

Notes were written. Clarification and conclusions were drawn in order to ensure the accuracy of the information and understanding. When there was no new information, the interviews were terminated.

Data collected from notes and audiotape were transcribed fully and stored on the computer using Microsoft Word.

Data analysis

The data was conceptually drawn into themes. The themes of job satisfaction from the interviews were aligned with the components of job satisfaction from the literature review. The interview data, themes, and concept mapping are demonstrated in Appendix B.06-08, respectively.

Results from the interview were: (1) nurses felt comfortable with the private section for the interview and timing, and (2) seven themes resultant of the interview were:

2.1 Workload

2.2 Work environment

2.3 Administration

2.4 Social aspect

2.5 Autonomy

2.6 Professional status

2.7 Incentives

3. An Integration of job satisfaction components from both sources.

The job satisfaction components from the literature review and the themes of job satisfaction interview were integrated into:

3.1 Workload. This component stood as one of the Thai nurses' job satisfaction component from both literature review and interviews. It was composed of hours of work per week, levels of difficulty, energy consuming, and scheduling.

3.2 Work environment. It was derived solely from the interviews and composed of physical and natural environment.

3.3 Administration (supervision, policy/system). It was originally a supervision component and a policy/system component from the literature review. After the interviews, these two components were combined and became two important aspects of an administration component.

3.4 Social aspect (relationship, support). It was originally a relationship component and a support component from the literature review. After the interviews, these two components were combined and became two important aspects of socialization at work component.

3.5 Professional status. This component had been one of the Thai nurses' job satisfaction components from both literature review and interviews.

3.6 Autonomy. This component also had been one of the Thai nurses' job satisfaction components from both literature review and interviews.

3.7 Incentives (pay/benefit, continuing education, promotion). It was originally a pay/benefit component, a continuing education component, and a promotion component from the literature review. After the interviews, these three components were combined and became three important aspects of the incentives component.

The TNJSS components that were integrated from these sources are demonstrated in Figure 5.

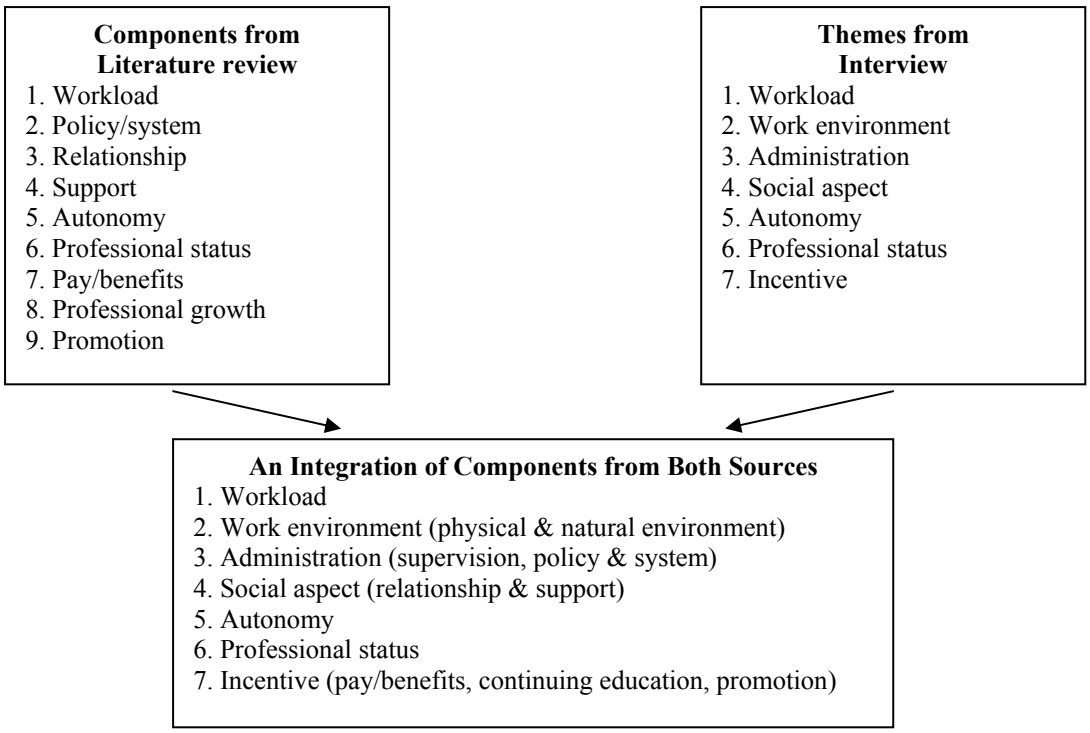

Figure 5. An Integration of Job Satisfaction Components.

After obtaining the TNJSS components, the eight steps of developing and testing its psychometric properties mentioned previously were carried on.

Step one: Generation of an item pool

Data collected from individual interview and literature review were generated into a large pool of items within the content of seven TNJSS components. One hundred and forty four items were created.

Step two: Determination of item format

All items were written in a structure of the six-point Likert scale format. The six possible responses were common practice in creating Likert scale because a

neutral midpoint would either favor apathetic disinterest subjects or suggest equal attraction to both true and not true of the statement (DeVellis, 1991). For Thai samples, they are Kreng Jai, and respect for those in higher authority. In combination of high-context, collective Thai culture, they are less vocalized (Ralston et al., 2005); in other words, less expressiveness. Therefore, if any item that will make other people or the hospital staff embarrassed, Thai nurses are more likely to select the middle point. To support the statement, nurses at Sappaitthiprasong hospital reported they were moderately satisfied with work independence (autonomy), professional status, and pay; however, almost half of them had intention to leave the hospital and profession in order to look for a job that offered higher satisfaction of these three components (Chairatana, 1995). Furthermore, some items might be highly correlated with social undesirable and the answer may not be from the true opinion. Since, the scale that most accurately reflects true differences of opinion is best (DeVellis, 1991); therefore, the six-point Likert scale can force subjects to select whether the statement is true or not true in different degree.

The TNJSS was designed to measure perception of nurses in job satisfaction and the scores are demonstrated as followings:

6 = The statement is true to respondent the most

5 = The statement is true to respondent moderately

4 = The statement is true to respondent the least

3 = The statement is not true to respondent the least

2 = The statement is not true to respondent moderately

1 = The statement is not true to respondent the most

Result from this phase is the TNJSS version 1 (144 items).

Step three: Determination the validity of the TNJSS

Content Validity determined how well the explicit items represent the universe of items. The investigator asked three experts to review the 144-item TNJSS. These experts composed of: one nursing educator experienced in tool development; one nursing researcher experienced in job satisfaction studies; and one nursing administrator educated and experienced in the Nursing Policy and System area. They were asked to:

1. Ensure that each item represented its theme. In assessing the relevancy of the items to the content addressed by the objectives using the following four-point scale:

1 = Not relevant

2 = Somewhat relevant

3 = Quite relevant

4 = Very relevant

Then, the scores from the relevant scale were computerized for Content Validity Index (CVI) using a formula described by Waltz, Strickland, and Lenz (2005) as following:

$$CVI = \frac{\text{The proportion of items given a rating of 3 or 4 by most experts}}{\text{Total number of questions}}$$

The CVI value of at least 0.8 is acceptable (C. F. Waltz et al., 2005). After the experts reviewed the 144-item TNJSS (version 1), 140 items were rated 3 or 4 by most or all experts. Therefore, the calculation of CVI in this process was:

$$CVI = \frac{140}{144} = 0.97$$

2. Identify clarity and conciseness of items using “yes” and “no” responses. Moreover, the experts were asked to suggest alternatives for items that were “not relevant”, “a little relevant”, “not clear”, and “not concise” (Appendix C).

Throughout the process of reviewing all questions, experts gave comments and recommendations to revise, combine, and modify even though the score of 3 or 4 were given to the questions. Hence, the investigator followed the instruction accordingly. Sixteen items were eliminated resulting in 128 items on the TNJSS.

Result from this phase was the TNJSS version 2 (128 items).

Step Four: Pre-test

The purpose of the pre-test was to foresee the possible problems in field testing especially the potential problems from the TNJSS which could be language appropriateness, clarity, comprehensiveness of items, and timing. Therefore, pre-test was another step to refine the scale. Additionally, another purpose of this pre-test was to seek reliability of the test. If the tool did not meet the standard of reliability, it would not yield standard validity which would cause problem when performing field test. The detail was explained in the pre-test phase.

Pre-test phase

Criteria of samples

The subjects needed to be: (1) full-time employees at hospitals, (2) identified themselves as those who have been through work adjustment or have worked at least one year in the hospital, and (3) able to communicate in Thai.

Sample size and sampling technique

The sampled hospital was one of the government general hospitals at southern Thailand. Due to employees' confidentiality protection, the hospital could not give the names of their nurses. Therefore, a simple random sampling technique was done by the nursing department of that hospital. There were 30 registered nurses from various departments that participated in this pre-test.

Instruments

Regarding to instruments, there were two forms.

1. The Demographic Data Form. It was the same form that was utilized in the interviews.

2. The 128-item TNJSS with the front page explaining subjects' right and instruction (Appendix B.03) and the back page asking subject to give comments on the questionnaire. (Appendix B.04)

Preparation

The investigator submitted a letter and a document from Instructional Review Board (IRB) of Faculty of Nursing, Prince of Songkla University and a summary of the research proposal to the Chief Executive Officer (CEO) of one government general hospital on October 20, 2010 and asked permission to conduct the pre-test (Appendix D.01-02). Then, the documents were given to the Director of Nursing (DON). After the investigator presented the proposal to an IRB committee of the hospital on October 28, 2010, permission from the IRB committee was granted.

Implementation

The investigator administered the package of questionnaire to 30 subjects on November 9, 2010. They were asked to identify readability, length of time spent in

filling out the questionnaire, and clarity of questions, as well as suggestions at the back page on November 9, 2010. The nurses were given two weeks to complete the questionnaire. Thirty questionnaires were completed and returned.

Data analysis and results

Descriptive statistic was used to calculate the result. All nurses (100%) agreed on the readability and clarity of questions. However, six nurses (20%) had difficulty in choosing answers due to six levels of choices and wording in answers. Five nurses (16.66%) felt there were too many questions; as same as, five nurses (16.6%) mentioned the similarity of questions. They consumed twenty minutes to one hour to complete the questionnaire. Consequently, some wordings in answers were adjusted to be easier understood.

Furthermore, internal consistency was tested by using Cronbach's alpha and the result was 0.97 for these 128 items. Corrected item-scale correlation was performed and items that fell below or equal to 0.3 were questions number 3, 19, 21, 33, 49, 97. Therefore, question number 19, 21, 33, and 97 were eliminated; however, question number 3 and 49 remained because they corresponded to the theory or concept of job satisfaction.

Finally, the result from this step was the TNJSS version 3 (124 items).

Step five: Field test. The detail is explained in the field test phase.

Field test phase

Setting

The National Geography Committee which is governed by The National Research Committee divides Thailand into six regions: north, middle, northeast, east,

west, and south (Geographic, 1977). Each region has many provinces where at least one government general hospital is located. According to the Ministry of Public Health, there are 69 general hospitals throughout Thailand. Their characteristics are: having 120-500 beds, providing secondary care, and located in big Amphur or its province (Wikipedia, 2009). Therefore, the settings for this study were government general hospitals from each region for quantitative study and two hospitals were randomly selected from each region.

Inclusion criteria of samples

The subjects were: (1) full-time employee at hospitals, (2) identified themselves as those who have been through work adjustment or worked at least 1 year in the hospital, and (3) able to communicate in Thai

Sample size

For the sample size, the factor pattern that emerges from a large-sample factor analysis will be more stable than that emerging from a smaller sample (DeVellis, 1991). Experts say the ratio of about 5 to 10 subjects per item, up to about 300 subjects is acceptable. Furthermore, when the sample is as large as 300, the ratio can be relaxed (H. E. A. Tinsley & Tinsley, 1987). In this study, the TNJSS (version 3) that was used in field test had 124 items; therefore, a sample size of at least 620 subjects should be adequate.

The investigator distributed 1,020 questionnaires equally to 12 sampled general hospitals; and 963 questionnaires were used in this study. The number of sample size was more than adequate. Since then, another set of guidelines also classifies a sample of 100 as poor, 200 as fair, 300 as good, 500 as very good, and 1,000 as excellent (Comrey, 1973). Therefore, this sample size was considered almost

excellent. Importantly, according to DeVellis (1991), larger samples increase the generalizability of the conclusions reached by means of factor analysis; hence, these study results could certainly represent the Thai nurse population.

Population and sampling technique

The population in this study was Thai nurses who worked in general hospitals that were belonged to government from six regions in Thailand. These six major strata or regions had numbers of government, general hospitals as follows: 7 hospitals in the north, 14 hospitals in the northeast, 3 hospitals in the east, 21 hospitals in the middle (excluding hospitals in Bangkok), 10 hospitals in the west, and 14 hospital in the south (Wikipedia, 2009). Simple random sampling was performed to select the name of two hospitals from each region. The 12 randomly selected hospitals were:

1. North region: Nan hospital and Pa Yao hospital
2. North-east region: Nong Kai hospital and Mahasarakarm hospital
3. East region: Trad hospital and Chachuengsao hospital
4. Central region: Ban Mee hospital in Lopburi and Uthaithanee hospital
5. West region: Ban Pong hospital in Ratchaburi and Prajuabkerikhun hospital
6. South region: Krabi hospital and Satoon hospital

Then, the 85 names of their nurses were systemic randomly selected from each hospital of each region by nursing department due to employees' confidentiality protection. Therefore, 170 nurses represented each region and the total of the samples were 1,020 nurses from all regions of Thailand.

Instruments

Regarding to the instruments, there were three forms.

1. The Demographic Data Form. It was the same form that was utilized in the interviews and the pre-test.

2. The 124-item TNJSS (version3)

3. The Social Desirability Scale-17 (SDS-17)

Since the field test's result came from subjects who represented all Thai nurses, it is necessary to obtain the most legitimate result. However, Thais practice large power distance and Kreng Jai; therefore, the subjects might give social preference answers. For this reason, distributing the SDS-17 along with the TNJSS in the field test was vital.

About an original SDS-17 (Appendix E.03), it was developed after the Marlow-Crowne Social Desirability Scale to update context and created a shorter form (Stober, 2001). Its Cronbach's alpha was 0.74 and the convergent validity of this new scale's scores demonstrated correlations between .52 and .85 with other measures of social desirability (Eysenck Personality Questionnaire, Lie Scale, Sets of Four Scale, and Marlowe-Crowne Scale). As to discriminant validity, SDS- 17 scores showed non-significant correlation with neuroticism (a condition of neurosis), psychoticism (a condition of psychosis), and openness to experience. Besides, the scale is suitable for adults of 18-80 years of age (Stober, 2001); therefore, this scale was suitable to be used in this study due to its psychometric properties and characteristics mentioned.

An original of the SDS-17 was in English; hence, back translation was performed. A Thai professor who is a bilingual person and teaches at an American

university translated the scale into Thai. Then, an American professor who is a bilingual person and teaches at a Thai university translated the scale back into English. Lastly, an Australian who was a hospital's CEO in Australia for more than 35 years compared the wording and meaning of both original SDS-17 and back-translated English version of the scale. Both versions found to be compatible in wording and meaning. Therefore, the Thai version was utilized in this study.

Preparation

Two hospital names were randomly drawn from each region of Thailand as mentioned previously. Telephone calls were made to the DON of each sampled hospital asking for whom the letter should be sent to and the address. Then, the investigator mailed out a letter and a summary of research proposal to all the CEO's of sampled hospitals and asked permission to conduct the study including the names of nurses. The CEO delegated the request to the DON. Several contacts were made between the investigator and involved parties of each hospital using telephone and e-mail. All hospitals gave permission to collect data as requested; however, each hospital did not give nurses' name due to confidentiality protection of the subjects.

Implementation

The investigator mailed a packet of 85 questionnaires and a letter to the DON of each sampled hospital on December 23, 2010. Each questionnaire contains subject's right and instructions, Demographic Data Form, the SDS-17, and Thai version of the TNJSS version 3 (Appendix E.01-04). A total of 1,020 questionnaires were distributed to the subjects. They were instructed to complete the questionnaire and return their envelope to the research coordinator of his/her hospital within three weeks.

Data treatment

The total of 995 questionnaires (97.55%) out of 1,020 questionnaires were returned and examined for completeness. There were 32 questionnaires (3.22%) that had missing data (more than 10% of each part); therefore, they were excluded from data analysis. Therefore, the data from 963 questionnaires was entered into the computer program using Window 2003. Mean scores replaced the missing values.

Data analysis

The data was examined using descriptive statistic analysis. There was no marked skewness, systematic missing data, and outliers of the data. The demographic data was computed using descriptive statistics analysis in order to learn the characteristics of the samples. Construct validity was performed using Exploratory Factor Analysis (EFA). This technique decomposed the variance of a measure into variance that was shared by the items (common factors) plus variance that was not shared (i.e., uniqueness). The outcome was the identification of a group of linear combinations of the items called factors (Soeken, 2005). The Principal Component Analysis (PCA) was performed because it resulted in components which were gleaned from the measured data (real factors) (Nunnally, 1978). The orthogonal rotation method was done using varimax rotation because it maximized a variable's loading on one factor and minimized its loading on all others which made interpretation clearer (DeVellis, 1991). The items correlation with social desirability testing was performed using Pearson product-moment correlation in order to ensure that the TNJSS was a social preference free scale; also the reliability of the SDS-17 was tested using Kuder Richardson (KR-20).

Step six: Evaluation of items

This process was to evaluate the performance of the individual items by processing rotation according to EFA principle. Rotated factors are interpreted by examining the items loading upon each; over and above a certain priori set criterion (usually 0.30 is the minimum that will be considered) (C.F. Waltz et al., 2005). The criteria in evaluating items were eigenvalues, scree plot, percent of variance, factor loading, reliability of each factor, and theoretical interpretability. Finally, appropriate items could be identified to represent the scale.

The result of this step was the TNJSS version 4 (107 items).

Step seven: Determination the reliability of the scale. The detail was explained in the post-test phase, part one.

Post-test phase, part one

This step was composed of two reliability tests: (1) test-retest, and (2) internal consistency.

Criteria of samples

The criteria of samples were the same as other phases.

Sample size and sampling technique

Due to employees' confidentiality protection, the nursing department could not release the names of the nurses. Therefore, the nursing department randomly selected 35 nurses from various backgrounds for this test.

Instruments

For this test-retest procedure, the instruments were:

1. Demographic data form

2. The 107-item TNJSS (version 4) covered with human subject's protection and instruction on the front page (Appendix F).

Preparation

The investigator submitted a letter and a document from Instructional Review Board (IRB) of Faculty of Nursing, Prince of Songkla University and a summary of research proposal to the Chief Executive Officer (CEO) of one hospital which is a government, general hospital on September 12, 2011 and asked for a permission to conduct the test-retest and hypothesis testing. Then, the request was given to the Director of Nursing (DON). The permission from the hospital was granted.

Implementation

The demographic data form and the 107-item TNJSS were administered twice with a 2 week interval between the tests (September 19, 2011 and October 3, 2011) to the same group of 35 nurses.

Data analysis

The correlations between the results of two tests were examined using Pearson product-moment correlation. Moreover, the internal consistency of the scale was performed using Cronbach's alpha coefficient.

Step eight: Hypothesis testing. The detail was explained in the post-test phase, part two.

Post-test phase, part two

The hypothesis was that there were relationships between stress at work and job satisfaction levels in a negative direction.

Criteria of samples

The criteria of samples were the same as other phases.

Sample size and sampling technique

The sampled hospital was one of the government general hospitals in southern Thailand. Due to employees' confidentiality protection, the nursing department could not release the names of the nurses. Therefore, the nursing department systematic randomly selected every third nurse from the total of 238 nurses. Hence, 70 nurses from various backgrounds participated in this test.

Instruments

For this test-retest procedure, the instruments were:

1. Demographic data form

2. The 107-item TNJSS (version 4) covered with human subject's protection and instruction on the front page (Appendix F).

3. The Occupational Stress Scale (OSS)

Regarding the OSS, the scale was modified and translated from Wieman's Occupational Stress Scale which was derived from the concept of stress at work of Baker and Karasek. The content validity was performed and the Cronbach's alpha was .91 (Maneenil, 2006). Hence, the scale is suitable to be utilized along with the TNJSS (version4) in order to test the hypothesis.

Preparation

Since all arrangements were done together with test-retest preparation, at this time, the investigator just called the DON of the hospital regarding the procedure.

Implementation

The questionnaire set consisting of human subject's protection and instruction (Appendix F.01), demographic data form, the OSS (Appendix F.02), and the TNJSS (version 4) was distributed to 70 nurses on September, 2011. All questionnaires were completed and returned.

Data analysis

The correlation between the total score of the OSS and the total score of the TNJSS was evaluated by using Pearson product-moment correlations. Furthermore, the reliability of the OSS was performed using Cronbach's alpha coefficient.

The summary of results in each step of this study was demonstrated in Figure 6.

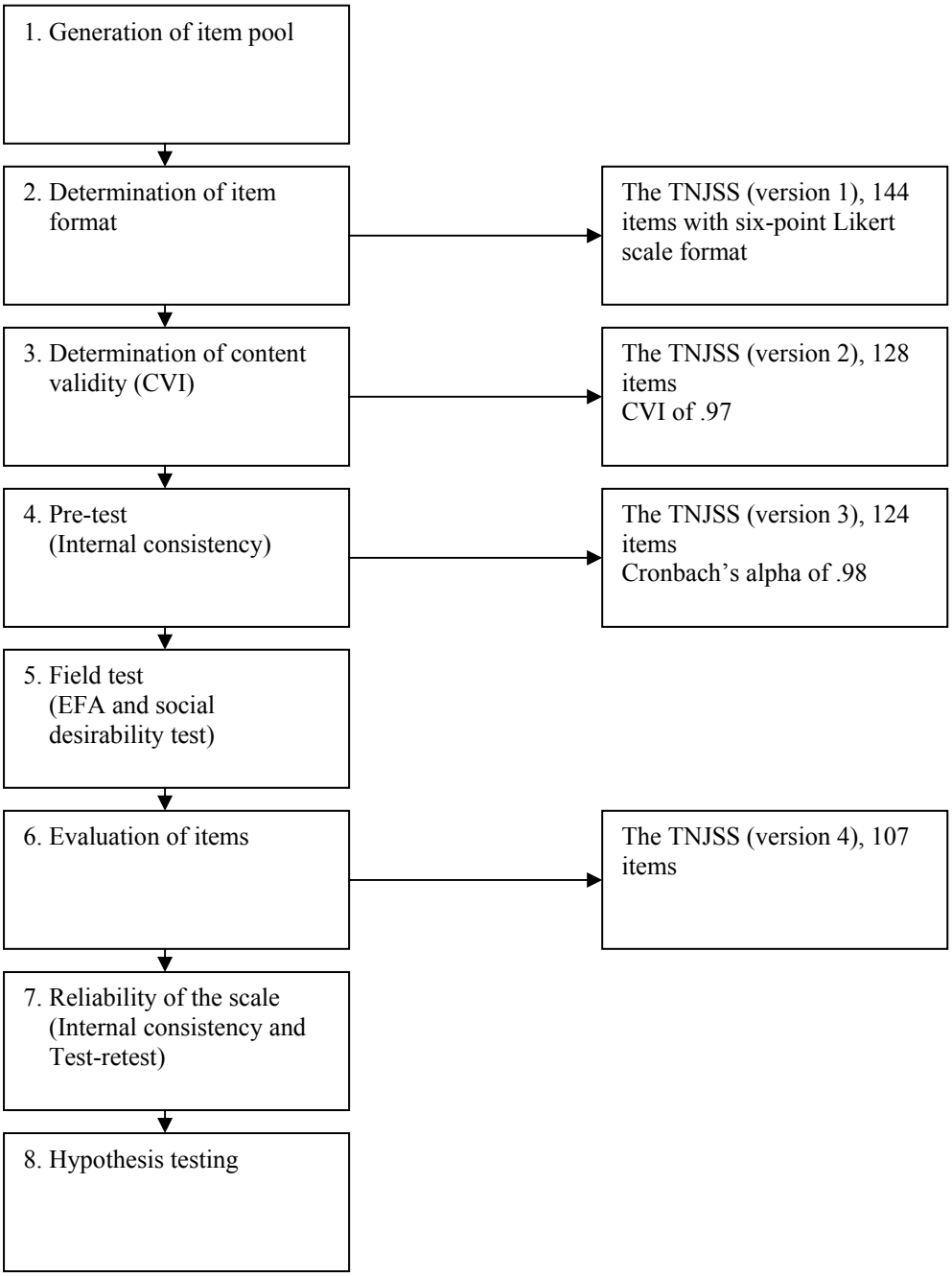

Figure 6. Results of the TNJSS in Each Version throughout the Development and Psychometric Evaluation.

Therefore, the analysis of all the results was performed in order to answer two research questions:

Research question 1: What are the components of the job satisfaction scale for Thai nurses?

The data analysis involving the derivation of the TNJSS's components began with ensuring the valid items on the questionnaires. Content validity was performed prior to pretest and CVI was calculated. Then, appropriate items in the TNJSS were used in field test. In this step, item analysis was done prior to the construct validity which was performed by using Exploratory Factor Analysis (EFA) to extract the components of the TNJSS. There were criteria in the analysis of EFA which were: 1) Kaiser's eigenvalues > 1.0, 2) satisfying scree plot, 3) approximate 5% of variance in each factor, 4) factor loading > 0.40, 4) respectable reliability of each factor, and 5) theoretical interpretability (DeVellis, 1991; Dixon, 2001; C. F. Waltz et al., 2005).

Research question 2: How valid and reliable is the new job satisfaction scale for Thai nurses?

Reliability of the TNJSS in pretest, field test, and posttest was examined using Cronbach's alpha coefficient. Furthermore, the stability of the TNJSS was examined using test-retest reliability in post-test procedure. The correlation between the two tests was acquired using Pearson product-moment correlation.

Moreover, the validity of the TNJSS was examined in all pre-test, field test, and post-test processes. Other than content validity and EFA which were mentioned previously, hypothesis testing was performed during post-test. The correlation between the TNJSS and the OSS was analyzed using Pearson product-moment correlation.

Human Subjects' Right Protection

After an approval from the Institutional Review Board (IRB) of the Faculty of Nursing (FON), Prince of Songkla University (PSU) on December 14, 2009, the written informed consent consisting of: (1) the purpose of study, (2) assurance of the subject's anonymity and confidentiality, (3) voluntarily to participate in the study, (4) the right to withdraw from the study without any consequences, (5) benefits of using results of this study in education, research, and administration of nursing area, and (6) name, address, and phone number of the investigator was given to all nurses (Appendix E.01). Each subject received a closed envelop containing a set of questionnaire including a statement regarding their rights. No identification used except coding. Code numbers were included on each questionnaire in order to follow up the questionnaire if necessary. The data entered into computer was anonymous. All documents collected from subjects were reserved and confidential. Since this study is a risk-free study, the return of questionnaire is treated as consent to participate in this study.

Summary

This methodology study is an instrument development and its psychometric evaluation. The TNJSS was developed from literature review and semi-structured interviews of Thai nurses. The information from sources then developed into seven components: (1) work load, (2) work environment, (3) administration: supervision and policy/system, (4) social aspect: relationship and support from others, (5) autonomy,

(6) professional status, and (7) intensive: pay/benefit, continuing professional education, and promotion. Then, items were generated (the TNJSS version 1). To ensure the legitimate items for the scale, content validity was performed using expert panel and CVI (the TNJSS version 2). The questionnaire was tested in pre-tested and the analysis of its reliability using Cronbach's alpha coefficient was completed (the TNJSS version 3).

On field test, the TNJSS version 3, the Demographic Data Form, and the SDS-17 were distributed to 1,020 nurses at 12 government general hospitals representing 6 regions around Thailand. The data collected was examined for: (1) construct validity using EFA, (2) internal consistency using Cronbach's alpha coefficient, (3) relationship between the TNJSS and the SDS-17 using Pearson product-moment correlation. Item analysis was also performed to assist in evaluating items. This step resulted in the TNJSS version 4.

At last on post-test, the hypothesis testing procedure was used to guarantee the other type of the TNJSS's construct validity. The OSS and the TNJSS version 4 were distributed to nurses. Their relationship between these two variables was analyzed using Pearson product-moment correlation. Furthermore, other two types of this scale's reliability were evaluated. Firstly, test-retest technique was used in order to examine the stability of this TNJSS version 4 using the statistical procedure of Pearson product-moment correlation. Lastly, the final reliability was established by performing internal consistency of the scale using Cronbach's alpha coefficient. These processes led in findings to answer the two research questions.

CHAPTER 4

RESULTS AND DISCUSSION

Introduction

The sequences of this chapter are presented as follows: (1) characteristics of the sample, (2) the analysis of research question one: What are the components of the TNJSS? and (3) the analysis of research question two: How is the validity and reliability of the TNJSS?

Results

1. Characteristics of the Sample

From total of 1,020 questionnaires, investigator received 995 (97.55%) questionnaires back during January to March, 2011 and 25 (2.45%) questionnaires were not returned. In all returned, there were 3.14% of questionnaires not viable due to missing data more than 10%. Finally, there were 963 (94.41%) questionnaires completed and the data was entered into computer.

By majority of subjects in each category of demographic data are reported in the following: 945 (91.1%) nurses were female; 557 (57.8%) nurses were married and living together; 888 (92.2%) nurses completed their Bachelor Degree; 214 (22.2%) nurses earned the salary of 26,000-30,000 Baht/month; 942 (96%) of them were staff nurses; 369 (38.3%) nurses worked at medical and surgical units; and 285 (29.6%) of them had 11-15 years of experience as nurses. The detail is demonstrated in Table 8.

Table 8

Frequency and Percentage of the Field Test Sample Classified by Demographic Characteristics

Demographic Characteristics	Frequency	Percentage
Gender (N = 963)		
Male	18	1.9
Female	945	98.1
Marital Status (N = 962)		
Single	310	32.2
Married and living together	557	57.8
Married but living separately	45	4.7
Divorce	34	3.5
Widow	16	1.7
Education Level (N = 960)		
Doctoral Degree	3	.3
Master Degree	67	7.2
Bachelor Degree	888	92.2
Monthly Income (N = 961)		
< 10,000	6	.6
10,000-15,000	135	14.0
16,000-20,000	178	18.5
21,000-25,000	162	16.8
26,000-30,000	214	22.2
31,000-35,000	157	16.3
36,000-40,000	76	7.9
> 40,000	33	3.4
Current Position (N = 963)		
Nursing Administrator	39	4.0
Nursing Staff	924	96.0
Department (N = 963)		
CCU	1	0.1
Nursing Policy and System	7	0.7
Anesthetic	40	4.2
OR	50	5.2
OPD	61	6.3
ICU	65	6.7
ER	65	6.7
Pediatric	85	8.8
Others (dialysis, recovery, PCU, etc)	101	10.5
OB/ GYN	119	12.4
Medical/Surgical	369	38.3

Table 8 (continued)

Demographic Characteristics	Frequency	Percentage
Years of Experience (N = 963)		
1-5	66	6.9
6-10	157	16.3
11-15	285	29.6
16-20	182	18.9
21-25	141	14.6
26-30	81	8.4
31-35	43	4.5
36-40	7	0.7
> 40	1	0.1

For wider perspective, the characteristics of nurses were demonstrated in Table 9. All nurses' ages were between 22-62 years old whose their average age was 38 (M= 38.33, SD= 7.63) years old. Their income was raging from 10,000 – 40,000 Baht per month and their experiences were ranging from one year to more than 40 years.

Table 9

Means, Standard Deviations, Minimum, and Maximum Scores for Continuous Demographic Characteristics (N=963)

Variables	N	M	SD	Min	Max
Age	963	38.33	7.63	22	62
Monthly Income	961	-	1.66	10,000	40,000
Years of Experience	963	-	1.57	1	>40

2. Analysis of the research question one: What are the components of the TNJSS?

The components of the TNJSS were extracted from the 124-item TNJSS (Appendix E.04) using: (1) item analysis and (2) principle component analysis.

2.1 Item analysis. The correlations between item to item, item to subscales, and item to total of the TNJSS in field test were demonstrated in Table 10.

Table 10

Correlation Coefficients of the 124 -item TNJSS Scale (N=963)

Scales	Item-item	Item-subscale	Item-total
Workload (WL)	.02 - .75	.15 - .71	.38 - .69
Work Environment (WE)	.10 - .86	.40 - .86	.66 - .80
Administration (AD)	.05 - .85	.31 - .84	.55 - .81
Social aspect (SO)	.09 - .85	.26 - .85	.53 - .81
Autonomy (AU)	.02 - .86	.21 - .86	.44 - .74
Professional Status (PR)	.07 - .74	.31 - .75	.49 - .79
Incentives (IN)	.12 - .88	.32 - .87	.61 - .79

Among these 124 items, item to item correlation ranged .02-.88; however, most of them were higher than 0.3. Furthermore, item to subscale correlation ranged .15-.87. According to the instruction from DeVellis (1991) on item-scale correlations, it is advisable to evaluate the corrected item-total correlation. An item with a high value for this correlation is more desirable than an item with a low value (DeVellis, 1991). Additionally, item with lowest corrected item-total correlation are candidates for elimination because the item content differs from the other items (Green, Salkind, & Akey, 2000). Therefore, the elimination of items was mainly based on evaluating the corrected item-total correlation. There were six items had corrected item-total correlation much lower than the rest of items; in other words, they had the lowest or the second lowest in their subscale. They were item WL3, AD46, SO59, SO63, AU67, and PR86. Elimination of them was appropriate because their item content was different from the rest of items. An example was professional status subscale; item PR86 had corrected item-total correlation of .46 while the rest of the items in this

subscale had the correlation ranged .63-.79. The PR86 stated “The professional nurses in your hospital are united” while other items were assessing how nurses feel about respected and recognized from others and how nurses proud of their profession. However, item AD46 “Nursing policy and system reveal transparency and punctually purchasing system” which involves the function of nursing policy and system. Moreover, item AU67 “You are free to refuse an assignment that is beyond the scope of your practice” which has been a problem for Thai nurse’s autonomy in Thailand. Therefore, they were not eliminated due to its meaning congruency with job satisfaction theories and concept.

Moreover, an acceptable item to total correlations should range from 0.3 to 0.7 (Nunnally & Bernstein, 1994). Noticing, all the values of the item to total correlations were more than 0.3; therefore, none of the item were deleted due to this rule. However, the inter-item correlations that were above .70 were considered to be eliminated due to the content redundancy. They were between WE20 and WE21, WE23 and WE24, AD27 and AD28, AD38 and AD39, AD41 and AD42, SO49 and SO50, AU77 and AU78, AU83 and AU84, IN100 and IN101, IN110 and IN111, and IN120 and IN121. Examples of the item content were WE20 “Your ward provides adequate and proper equipment which assists you to improve quality of work” and WE21 “Your ward provides adequate and proper equipment which assists you to complete more tasks within shorter period of time.” Other examples were AU83 “You are proud of yourselves when you solve complex problem independently” and AU84 “You are proud of yourselves when you take full responsibility of your assignments.” Therefore, after reviewing the item content, item WE21, WE23, AD28, SO50, AU84, IN121 were eliminated. However, AD38, AD39, AD41, AD42, AU77, AU78, IN100,

IN101, IN110, and IN111 were also reserved due to its meaning congruency with job satisfaction theories and concept. Hence, there were total of ten items deleted in this item analysis process which resulted in 114 items on the TNJSS.

2.2 Next, the Exploratory Factor Analysis was performed. The steps performing this EFA are: (1) descriptive analysis, (2) factor extraction using principle component analysis method, and (3) varimax rotation.

2.2.1 Descriptive factor analysis. This analysis revealed two excellent important statistical testing which confirmed an appropriateness of using factor analysis. First, the Bartlett's test of sphericity demonstrated overall significance of high correlations within a correlation matrix ($\chi^2 = 87634.02$, $p < .00$). Second, the Kaiser-Meyer-Olkin (KMO) reflected an adequacy of sample at .97.

2.2.2 Factor extraction. An initial examination for factor extraction using eigenvalue greater than 1 resulted in 18 factors with communality ranging .44-.87. The total percent of variance explained at 71.40. Furthermore, an examination of scree plot (Figure 7) indicates that seven and eight factors should be investigated. Even though primarily, job satisfaction scale hypothesized to have seven factors, six factors were also examined.

2.2.3 Varimax rotation. The rotation of orthogonal type using varimax method was made. The factor loading cutoff point was most suitable at .40 in order to reduce side loadings. Finally, the eight factors were decided to be the most parsimonious and theoretically interpretable. The eight factors compose of 107 items with total variance explained of 60.35%.

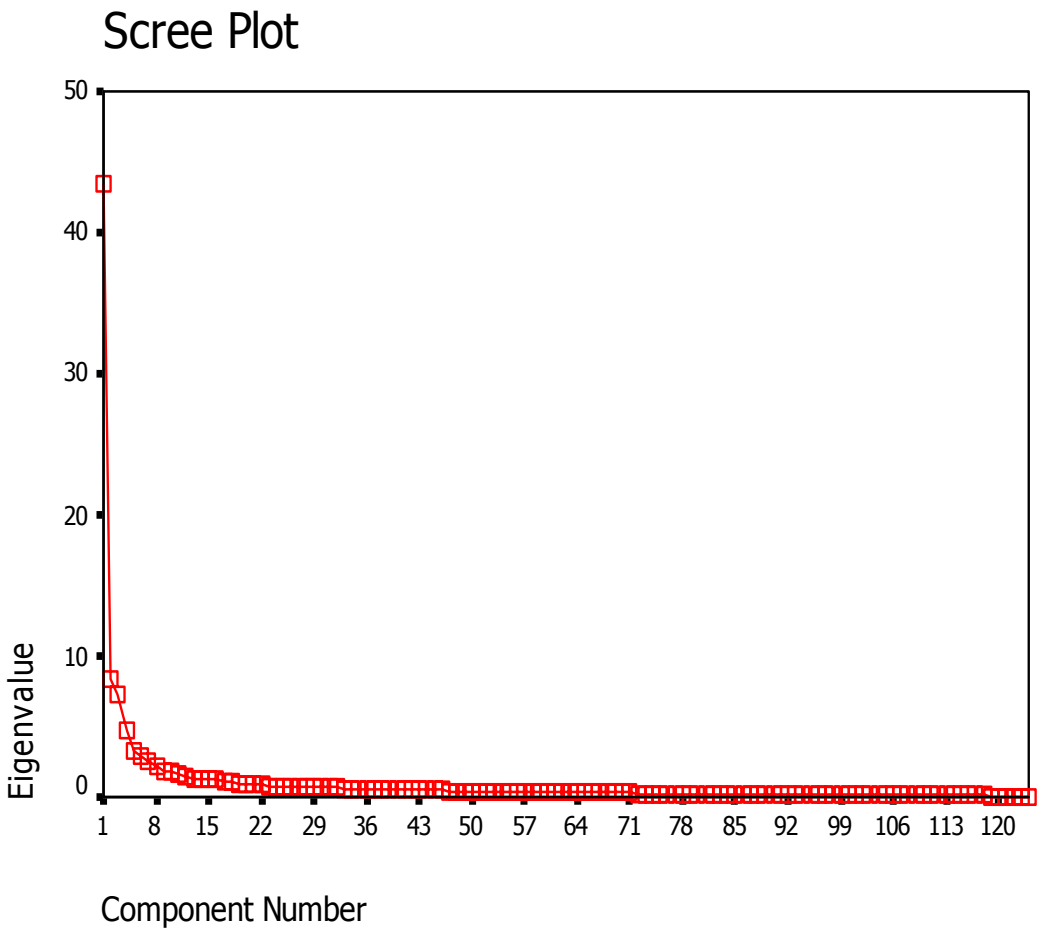

Figure 7. The Cattle's scree plot of 114-item TNJSS.

Note. Break in size of eigenvalues occurs between the seventh and the eighth factors

The result of eight factors included: (1) incentives, (2) professional autonomy and recognition, (3) nursing supervisor, (4) social aspect, (5) workload, (6) work environment, (7) nursing policy and system, and (8) assertiveness in confronting difficulties.

Factor I consisted of 27 items with factor loadings ranged from 0.47-0.79 and accounted for 13.03% of variance with an eigenvalue of 39.99. An examination of the item content (Table 11), found that the content of these items emphasized

"incentives" which comprised the aspects of: (1) pay/benefit 12 items, (2) continuing education 11 items, and (3) promotion 4 items. They were equivalent to the hypothesized underlying subscale of the 124-item TNJSS. There was only one item (TNJSS104: Hospital provides other benefits such as hospital bill, tuition of children, and etc.) had primary loading on factor 1 at .445 and had side loading on factor 2 at .458. Besides, the item content was not suitable in factor 2; hence, it was excluded from the scale. This factor's name remained as "Incentives."

Factor II consisted of 21 items with factor loadings ranged from .44-.79 and accounted for 12.84% of variance with an eigenvalue of 8.02. An examination of the item content (Table 12) revealed that these items focused on autonomy (12 items) and professional status (9 items) which were hypothesized to be a separate factor. Therefore, this Factor 2 is labeled "Professional Autonomy and Recognition" because of its item content combination in the factor.

Factor III consisted of 13 items with factor loadings ranged from.71- .84 and accounted for 10.24% of variance with an eigenvalue of 6.58. An assessment of item content (Table 13) demonstrated that these items involve directly with immediate supervisor of nurses (13 items) which were separated from administration subscale of the 124-item TNJSS. The item content was considered partially comparable to the hypothesized underlying the 124-item TNJSS. As a result, this Factor 3 was called "Nursing Supervisor."

Factor IV consisted of 13 items with factor loadings ranged from .51-.76 and accounted for 6.76% of variance with an eigenvalue of 4.15. An assessment of item content (Table 14) showed that these items focused on support/relationships (13

items) in social aspect subscale which was comparable to the hypothesized underlying subscale of the 124-item TNJSS. Thus, this Factor 4 was named "Social Aspect."

Factor V consisted of 11 items with factor loadings ranged from .44-.73 and accounted for 5.66% of variance with an eigenvalue of 2.92. An examination of item content (Table 15) revealed that these items emphasized on workload (11 items) which was equivalent to the hypothesized underlying subscale of the 124-item TNJSS. Hence, this Factor 5 was called "Workload."

Factor VI consisted of 8 items with factor loadings ranged from .56-.75 and accounted for 4.54% of variance with an eigenvalue of 2.76. An examination of item content (Table 16) revealed that these items entailed work environment which comprised of physical environment (5 items) and natural environment (3 items). They were equivalent to the hypothesized underlying subscale of the 124-item TNJSS. For this reason, this Factor 6 was labeled "Work Environment."

Factor VII consisted of 9 items with factor loadings ranged from .44 - .69 and accounted for 4.24% of variance with an eigenvalue of 2.35. An assessment of item content (Table 17) showed that these items focused directly on policy/system of Nursing Policy and System department (9 items) which was also separated from administration subscale of the 124-item TNJSS. The item content was considered partially comparable to the hypothesized underlying the 124-item TNJSS. As a result, this Factor 7 was called "Nursing Policy and System."

Factor VIII consisted of 5 items with factor loadings ranged from .41-.66 and accounted for 3.05% of variance with an eigenvalue of 2.03. An assessment of item content (Table 18) demonstrated that these items emphasized on autonomy of nurses when facing awkward situation. These 5 items were separated from autonomy

subscale of the 124-item TNJSS into new factor. It was named “Assertiveness in Confronting Difficulties.”

Table 11

Items, Factor Loadings, Percent of Variance, Eigenvalue, and Communalities (h^2) *of Factor I (N = 963)*

Factor I: Incentives

	Items (n = 27)	Factor Loadings	h^2
TNJSS110	Hospital provides adequate budget for you to gain more knowledge and skill.	.79	.74
TNJSS111	Hospital has flexible time-leave policy for you to acquire more knowledge and skill when appropriate.	.76	.74
TNJSS99	When you work is outside hospital, you get extra pay for per-diem, accommodation, and mileage appropriately.	.74	.65
TNJSS101	Comparing to other comparable professions, you receive a fair salary/ incentive according to your special knowledge, difficult level of work, and productivity.	.74	.69
TNJSS109	Hospital provides adequate time for you to acquire knowledge and skill.	.74	.70
TNJSS113	Hospital encourages staffs to continuing education activities such as meeting, seminar, field trip, and advance degree, etc.	.74	.66
TNJSS100	Comparing to nursing professions in the same hospital, you receive a fair salary/ incentive according to your special knowledge, difficult level of work, and productivity.	.73	.69
TNJSS112	Hospital has flexible budget reimbursement policy for you to gain knowledge and skill appropriately.	.72	.65
TNJSS98	You get paid per-diem rate appropriately for working afternoon and night shift.	.70	.59
TNJSS102	You receive a fair salary/ incentive comparing to nursing professions in other hospitals.	.68	.56
TNJSS117	Human resource improvement plan benefits your knowledge enhancement continuously.	.68	.65
TNJSS97	Your net salary (not including per-diem pay) is suitable to your duty and responsibilities.	.67	.61
TNJSS108	Hospital creates learning environment properly such as library and Internet.	.66	.55
TNJSS107	You satisfy with hospital party or retreat trip that hospital gives in appreciation of staffs' work.	.63	.51

Table 11 (continued)

	Items (n = 27)	Factor Loadings	h^2
TNJSS118	You receive competency training suitable to your weakness.	.63	.60
TNJSS119	Hospital has clear criteria in consider giving promotion or increased salary.	.60	.55
TNJSS124	You receive satisfied incentives that you never thought of resigning from the hospital.	.59	.52
TNJSS115	The selection of person to attend academic meeting is appropriate and aiming for the benefit of an organization mainly.	.57	.54
TNJSS120	The consideration of giving promotion or increased salary is judged, transparency, and traceable.	.57	.57
TNJSS122	Your responsibilities make your status advance comparable to other professions.	.56	.51
TNJSS123	People admire you when you got promotion and increased incentives from hospital.	.55	.53
TNJSS114	Your boss supports you in acquiring more knowledge and skills.	.55	.57
TNJSS103	You have adequate holidays or vacation time suitable to your personal life.	.54	.50
TNJSS106	Hospital staff's dormitory is in good condition and functional space.	.54	.39
TNJSS105	Hospital provides comfortable nurse's lounge in your ward.	.52	.42
TNJSS116	Your co-workers accommodate their schedule for you to attend educational knowledge and skill activities.	.50	.52
TNJSS96	Hospital has clear policies on your right and fringe/benefits.	.47	.47
	Eigenvalue	39.99	
	% of variance	13.03	

Table 12

Items, Factor Loadings, Percent of Variance, Eigenvalue, and Communalities of Factor II (N = 963)

Factor II: Professional Autonomy and Recognition

	Items (n = 21)	Factor Loadings	h^2
TNJSS91	Patients and their relatives have confident in your professional ability.	.79	.72
TNJSS74	You are independent to solve patient's problem under your scope of practice.	.77	.66
TNJSS72	You are independent to provide important information to patients independently under your scope of practice.	.74	.61
TNJSS73	You are independent to protect patient's right.	.74	.61
TNJSS92	You are proud in your profession because your health instruction makes patients change their self-care behavior.	.73	.64
TNJSS87	Patients and their relatives accept and respect you well as a professional nurse.	.70	.62
TNJSS88	Health team members honor and see you important as you are their co-worker.	.70	.64
TNJSS69	You are independent to suggest patient's important information to charged nurse or head nurse.	.67	.69
TNJSS70	You are independent to participate in patient's care plan with physician/multidisciplinary team.	.67	.60
TNJSS83	You are proud of yourselves when you solve complex problem independently.	.67	.59
TNJSS82	You satisfy with your full authority in making decision at your work.		
TNJSS90	Your charged nurse/head nurse values and sees you important because you are knowledgeable and use it appropriately.	.65	.60
TNJSS94	Your duties are important for the success of your hospital.	.64	.56
TNJSS79	You are independent to present innovation for the work improvement.	.63	.59
TNJSS89	Physician values and give important to your opinion when presenting patient's information.	.62	.52
TNJSS71	You are independent to specify goals and nursing care indicators of patients.	.61	.56
TNJSS68	You are free to present important patient's information to physicians.	.60	.52
TNJSS95	You are proud to talk about your job and your profession to others.	.56	.45

Table 12 (continued)

	Items (n = 21)	Factor Loadings	h^2
TNJSS80	You are independent to utilize the outcome of nursing research as appropriate.	.54	.49
TNJSS81	You are independent to suggest your idea about policies and management in your ward to superior.	.53	.63
TNJSS93	You are praised or receive reward from your superior or involved parties when you implement or produce a quality work.	.44	.42
	Eigenvalue	8.02	
	% of variance	12.84	

Table 13

Items, Factor Loadings, Percent of Variance, Eigenvalue, and Communalities of Factor III (N = 963)

Factor III: Nursing Supervisor

	Items (n = 13)	Factor Loadings	h^2
TNJSS31	You are comfortable to bargain with your superior as appropriate.	.84	.77
TNJSS38	Your superior is judged and fair to you.	.83	.80
TNJSS29	Your superior gives you opportunities to discuss or question when there is a problem or a doubt.	.82	.76
TNJSS30	You are confident in your superior's management because of his/her strong leadership.	.82	.77
TNJSS39	You are confident that your superior will support your proper decision made.	.82	.81
TNJSS32	Your superior gives chances for you to suggest ideas of problem solving for patient in your ward.	.81	.75
TNJSS37	Your superior is flexible in making decision depending on reasons of each situation.	.81	.76
TNJSS34	Your superior explain to your clearly about what he/she expects you to achieve at work.	.80	.74
TNJSS26	Your superior takes care of your like his/her relative.	.79	.71
TNJSS27	You feel secure when your superior works with you closely in difficult and complex situation.	.78	.72
TNJSS36	Your superior supports your creativity to improve the quality of work.	.78	.72
TNJSS33	Your superior dedicates works suitable to each one of you.	.76	.73
TNJSS35	Your superior explains accountability at work clearly.	.71	.65
	Eigenvalue	6.58	
	% of variance	10.24	

Table 14

Items, Factor Loadings, Percent of Variance, Eigenvalue, and Communalities of Factor IV (N = 963)

Factor IV: Social Aspect

	Items (n = 13)	Factor Loadings	h^2
TNJSS56	Co-workers and you respect and considerate among each other.	.76	.77
TNJSS52	When facing problems at your ward, everyone help solving problems properly.	.74	.75
TNJSS55	When you have problem or make mistake, your co-workers will instruct, warn, and assist you to go through the situation smoothly.	.74	.72
TNJSS49	Your co-workers have courtesy (Nam Jai) in helping each other.	.71	.67
TNJSS51	Your co-workers responsible their task well.	.70	.68
TNJSS54	You are comfortable to suggest opinion or discuss problems with co-workers.	.68	.72
TNJSS53	You feel you are a part of team work.	.63	.71
TNJSS66	You are happy and looking forward to come to work with your co-workers.	.62	.68
TNJSS65	You are happy to work with co-workers in your own group and know each other needs.	.60	.66
TNJSS64	You have good communication with your co-worker.	.59	.69
TNJSS61	Most of healthcare team members show appreciation for your cooperation/ support their work.	.53	.57
TNJSS57	Co-workers from other professions cooperate and support your work well.	.52	.58
TNJSS60	Supporting staffs such as nursing assistant, clerk, general staff cooperate and support your work well.	.51	.62
	Eigenvalue	4.15	
	% of variance	6.76	

Table 15

Items, Factor Loadings, Percent of Variance, Eigenvalue, and Communalities of Factor V (N = 963)

Factor V: Workload

	Items (n = 11)	Factor Loadings	h^2
TNJSS6	You can manage quality control paper work without affecting your routine work.	.73	.61
TNJSS1	The quantity of assigned task is appropriate so you can complete it within 8 hours/day.	.71	.54
TNJSS7	You have time to help others in your ward without affecting your routine work.	.67	.53
TNJSS2	Your assignment is not too difficult so you can finish it within given time.	.65	.46
TNJSS10	Your ward assigns nurses according to patient's acuity in each shift so you can work efficiently and have not much stress.	.63	.56
TNJSS4	You have time to plan to creative other works other than working routinely in each day.	.61	.44
TNJSS5	You still feel flesh after complete your work in each day.	.61	.43
TNJSS9	You have work schedule that accommodate with your life/family.	.55	.45
TNJSS11	Number of nurses in each shift is adequate and appropriate at your ward.	.54	.48
TNJSS8	Your work schedule is flexible depending on the needs of patients and you.	.49	.35
TNJSS12	Number of times that you have to float to other wards is appropriate.	.44	.29
	Eigenvalue	2.92	
	% of variance	5.66	

Table 16

Items, Factor Loadings, Percent of Variance, Eigenvalue, and Communalities of Factor VI (N = 963)

Factor VI: Work Environment

	Items (n = 8)	Factor Loadings	h^2
TNJSS24	Workplace is organized and suitable to your work.	.75	.73
TNJSS17	Your ward has good ventilation and present aroma which encourage good working atmosphere.	.73	.70
TNJSS18	Your ward has proper light and temperature which encourage good working atmosphere.	.72	.63
TNJSS25	You feel safe to work in your workplace.	.71	.68
TNJSS16	You satisfy with beautiful landscape around your ward.	.70	.68
TNJSS22	The arrangement of equipment, room, patient's bed is appropriate and convenient for your work.	.67	.65
TNJSS20	Your ward provides adequate and proper equipment which assists you to improve quality of work.	.59	.58
TNJSS19	Your ward provides adequate and proper equipment to care your patients.	.56	.50
	Eigenvalue	2.76	
	% of variance	4.54	

Table 17

Items, Factor Loadings, Percent of Variance, Eigenvalue, and Communalities of Factor VII (N = 963)

Factor VII: Nursing Policy and System

	Items (n = 9)	Factor Loadings	h^2
TNJSS44	The nursing administration department has decentralized administration system which creates faster management.	.69	.77
TNJSS45	The implementation of nursing policy and system can solve problems promptly and appropriately.	.69	.78
TNJSS42	It is a nursing policy that you receive up-to-date information about unit management so you can make improvement continuously.	.67	.75
TNJSS41	There is a nursing policy to provide work manual for new nurse to be ready to work in a new ward.	.64	.71
TNJSS47	Policies and system provided from nursing administrators respond to your needs and most of nurses.	.62	.71
TNJSS46	Nursing policy and system reveal transparency and punctually purchasing system.	.57	.58
TNJSS40	Nursing administration has a nursing policy and set up a system to provide access to information system so you and co-workers can obtain it conveniently and thoroughly.	.55	.65
TNJSS43	According to nursing policy and system, new nurses must receive an orientation prior to working in a new ward.	.54	.60
TNJSS48	You feel that your superior/nursing administrators in your organization respect you.	.44	.55
	Eigenvalue	2.35	
	% of variance	4.24	

Table 18

Items, Factor Loadings, Percent of Variance, Eigenvalue, and Communalities of Factor VIII (N = 963)

Factor VIII: Assertiveness in Confronting Difficulties

	Items (n = 5)	Factor Loadings	h^2
TNJSS78	You are free to report or write-up healthcare team members, who treat you wrongly, and send it to your superior.	.66	.62
TNJSS77	You are free to report or write-up healthcare team members, who treat patient wrongly, and send it to your superior.	.66	.61
TNJSS75	You are free to question or give opinion to physician when you disagree with his/her treatment plan.	.52	.54
TNJSS85	You are free to make proper decision in performing task even though it is different from senior nurses.	.44	.45
TNJSS67	You are free to refuse an assignment that is beyond the scope of your practice.	.41	.40
	Eigenvalue	2.03	
	% of variance	3.05	

Moreover, the relationship between the SDS-17 and the TNJSS was evaluated by using Pearson product-moment correlation. The results of correlations among the social desirability total score, the eight factors of the TNJSS's scores and the TNJSS total score are in Table 19.

The result showed that the social desirability score was positively correlated with all factors and the TNJSS total score, except factor IV (Nursing Supervisor), at a statistically significant at 0.05 and 0.01 levels. However, the magnitude of the correlation was quite low and ranged from .08-.16. The reliability of this scale was tested using KR-20 because the data was dichotomously scored. The alpha was .67

Table 19

Correlations among the SDS-17 Score and the Eight Factors of the TNJSS's Score and the TNJSS Total Score

Factor	Social Desirability
I: Incentives	.08*
II: Professional Autonomy and Recognition	.12**
III: Nursing Supervisor	.05
IV: Social aspect	.08*
V: Workload	.16**
VI: Work Environment	.10**
VII: Nursing Policy and System	.10**
VIII: Duty Assertiveness in Confronting Discomfort Situation	.10**
The TNJSS total score	.12**

* $p < 0.05$, ** $p < 0.01$

3. The analysis of research question two: How is the validity and reliability of the TNJSS?

To ensure psychometric properties of the TNJSS, procedures were performed to examining both validities and reliabilities.

3.1 Validity procedures. There were three procedures ensuring the validity of this newly constructed measure.

First, content validity and CVI were performed on the TNJSS version 1 before the pretest. It yielded an excellent result (CVI = .97) as it was explained in chapter 3.

Second, construct validity using EFA was made on the TNJSS version 3 after the field test. The result revealed eight factors with respectable values according to EFA criteria. Detail was discussed previously as answer to question two.

Third, another type of construct validity was performed using hypothesis testing procedure on the TNJSS version 4 (final version) during post-test. The relationship between stress at work and job satisfaction was hypothesized to be in negative direction. In Table 20, there was significant, moderate negative correlation between the total scores of the TNJSS and the total score of the Occupational Stress Scale (OSS) (r = -.468, p < .01). Alpha of the OSS was also evaluated by using Cronbach's alpha and it was .87.

Table 20

Mean, Standard Deviation, and Correlation Coefficient of the TNJSS (Version 4) Score and the OSS Score (N = 70)

Total score	$\overline{X}$	SD	r
TNJSS	453.89	68.57	-.468
OSS	37.57	8.39	

3.2 Reliability procedures. The two reliability examinations were internal consistency and test-retest procedure.

3.2.1 First, internal consistency reliability testing was completed: (1) pre-test, (2) field test, and (3) post-test using Cronbach's alpha coefficients.

(a) Pre-test. The 128-item TNJSS (version 2) was examined after the pretest at a government general hospital. The alpha of total scale was .98 and the alpha of all subscales were at satisfactory level (WL = .86, WE = .85, AD = .94, SO = .96, AU = .95, PR = .90, and IN = .95). (Table 21)

Table 21

Alpha Coefficients of the 128-item TNJSS (Version 2) (N = 30)

TNJSS (version 2)	Number of items	Mean	SD	alpha
Workload (WL)	15	58.69	10.06	.86
Work environment (WE)	12	45.37	8.42	.85
Administration (AD)	24	98.28	15.65	.94
Social aspect (SO)	18	81.77	13.09	.96
Autonomy (AU)	19	89.07	13.88	.95
Professional status (PR)	11	51.40	7.44	.90
Incentives (IN)	29	110.28	21.29	.95
Total	128	536	68.70	.98

(b) Field test. The 124-item TNJSS (version 3) was examined after the field test. The alpha of total scale was .98 and the alpha of all subscales were at satisfactory level (WL = .89, WE = .93, AD = .97, SO = .96, AU = .94, PR = .92, and IN = .97). (Table 22)

Table 22

Alpha Coefficients of the 124-item TNJSS (Version 3) (N = 963)

TNJSS (version 3)	Number of items	Mean	SD	alpha
Workload (WL)	15	65.84	11.10	.89
Work environment (WE)	10	44.95	8.63	.93
Administration (AD)	23	105.14	18.46	.97
Social aspect (SO)	18	89.03	11.13	.96
Autonomy (AU)	19	92.84	11.54	.94
Professional status (PR)	10	49.71	6.02	.92
Incentives (IN)	29	120.30	26.31	.97
Total	124	568.29	74.58	.98

(c) Post-test. After the EFA completed, changes were: (1) administration (AD) subscale of the TNJSS (version 3) divided into Factor III Nursing Supervisor and Factor VII Nursing Policy and System of the TNJSS (version 4); (2) autonomy (AU) and professional status (PR) subscale merged into Factor II Professional Autonomy and Recognition; and (3) some items from autonomy subscale of the TNJSS (version 3) moved to Factor VIII Assertiveness in Confronting Difficulties of the TNJSS (version 4). The investigator performed another internal consistency testing on the 107-item TNJSS (version 4) ensuring the alpha of total scale and the alpha of all factors. Table 23 demonstrated the alpha result confirming the reliability of the final version of the TNJSS.

Table 23

Alpha Coefficients of the Entire Scale and Each Factor in 107-item TNJSS (Version 4) (N = 963)

TNJSS (version 4)	Items	Alpha
I. Incentives	27	.96
II. Professional Autonomy and Recognition	21	.96
III. Nursing Supervisor	13	.97
IV. Social Aspect	13	.96
V. Workload	11	.87
VI. Work Environment	8	.92
VII. Nursing Policy and System	9	.94
VIII. Assertiveness in Confronting Difficulties	5	.84
Total	107	.98

3.2.2 Second, test-retest reliability was performed in order to assess the stability of the scale. The 107-item TNJSS was distributed to 35 nurses of one government general hospital randomly and the same procedure was repeated with the same group of nurses within two weeks later. In Table 24, the total scores of eight factors and the total scores of TNJSS of the two-time testing were evaluated for correlation by using Pearson product-moment correlation coefficient. The result yielded the significant correlations at level of .01 ($p<.01$). The result reflected the stability of this newly developed tool.

Table 24

Stability Evaluation of the First and Second TNJSS Test (N = 35)

Factor	First test		Second test		r
	M	SD	M	SD	
I. Incentives	100.80	22.49	108.51	18.20	.73
II. Professional Autonomy & Recognition	105.54	11.30	101.29	12.88	.84
III. Nursing Supervisor	57.14	12.70	58.66	9.66	.75
IV. Social Aspect	62.23	7.23	61.74	7.66	.72
V. Workload	40.66	11.75	42.09	10.21	.63
VI. Work Environment	31.09	10.10	32.83	8.57	.69
VII. Nursing Policy and System	37.20	8.34	37.43	8.70	.83
VIII. Assertiveness in Confronting Difficulties	20.46	4.61	20.94	3.67	.66
The TNJSS total score	455.11	70.06	463.49	63.79	.83

*p < .01

Summary of the results

The TNJSS composed of eight factors which were proved to be multidimensional constructed scale, and yet, an existence of Thai cultural context. The validity results demonstrated that the scale was conceptually constructed. Moreover, the reliability results revealed that the scale was reliable to be utilized as

well. Therefore, the psychometric properties of this newly constructed scale were respectable and capable to distinguish in measuring job satisfaction of Thai nurse.

Discussion

Even though many job satisfaction measures such as the Measure of Job Satisfaction (MJS), (Traynor & Wade, 1993); Home Healthcare Nurse Job Satisfaction Scale (HHNJS), (Ellenbecker & Byleckie, 2005); Organization Satisfaction Scale, (Sauter et al., 1997); Nurses's Job Satisfaction Scale (NJSS), (Lin et al., 2007); Misener Nurse Practitioner Job Satisfaction Scale (MNPJSS), (Miller et al., 2005); and McClosky/Mueller Satisfaction Scale (MMSS), (Saane et al., 2003), were developed, the TNJSS was distinguish because it was intended to measure job satisfaction of nurses specially in Thai cultural context. The purpose of this study was to develop a valid and reliable tool to measure the job satisfaction scale for Thai nurses.

In the development stage derived from an extensive literature review and interviews, the TNJSS was hypothesized to have seven underlying dimensions. Then, seven subscales of the 124-item TNJSS (Version 3): (1) Workload, (2) Work environment, (3) Administration, (4) Social aspect, (5) Autonomy, (6) Professional status, and (7) Incentives, were proposed for Exploratory Factor Analysis (EFA) using Principle components analysis in a sample of 963 Thai registered nurses. The principle components analysis using orthogonal rotation with specific varimax rotation and a loading cutoff point of .40, demonstrated the hypothesized eight factors of the Thai Nurses Job Satisfaction Scale with acceptable psychometric evaluation

results. The total scale and the eight factors with 107 items of the TNJSS had high reliabilities (α = 0.98 and 0.80-0.97 respectively). The eight factors were: (1) Incentives, (2) Professional Autonomy and Recognition, (3) Nursing Supervisor, (4) Social Aspect, (5) Workload, (6) Work Environment, (7) Nursing Policy and System, and (8) Assertiveness in Confronting Difficulties. The discussion of the findings was explained in three parts: (1) the components of the TNJSS, (2) its psychometric properties, and (3) strength of this study.

1. The components of the TNJSS

Factor I: Incentives

Incentives factor contained 27 items with factor loadings ranged from .47-.79. The name "Incentives" was remained as it was hypothesized as one of the subscales in 124-item TNJSS (Version 3) prior to the EFA. The findings were very similar to other job satisfaction tools (Ellenbecker & Byleckie, 2005; C. J. Lin et al., 2007; Miller et al., 2005; Saane et al., 2003; Sauter et al., 1997; Traynor & Wade, 1993) that all of them had incentives as one of the most important factors. All items in this factor derived from incentive subscale and the item content still composed of main three aspects which were: (1) pay/benefit 12 items, (2) continuing education 11 items, and (3) promotion 4 items. The points of view and studies supported among the items in this factor were explained.

The findings were strongly correlated with Herzberg Motivation Theory and Vroom Expectancy Theory. The three main aspects of this factor were included in both the Herzberg Motivation Theory and Vroom's Expectancy Theory (Vroom, 1964; Wikipedia, 2008b). The theories focused on rewards (incentives) that keep employees motivated. Examples are TNJSS97 "Your net salary (not including per-

diem pay) is suitable to your duty and responsibilities." TNJSS117 "Human resource improvement plan benefits your knowledge enhancement continuously." and TNJSS119 "Hospital has clear criteria in consider giving promotion or increased salary." These three items assessed three aspects of incentives which were similar to the Nurses' Job Satisfaction Scale (NJSS) (C. J. Lin et al., 2007). Their examples were item S11 "The welfare system in my hospital, I feel", S14 "The pursuing personal development in my hospital, I feel", and S12 "The promotion system in my hospital, I feel".

Even though incentives for nurses have been increased for the subsequent years (P. D. Tyson & Pongruengphant, 2004), they still expected a fair and judged incentives among themselves from employer. Examples of item reflected the statement were item TNJSS120 "The consideration of giving promotion or increased salary is judged, transparency, and traceable." Fairness and judges in pay and promotion were also included in the Abridged Job Descriptive Index (JDI) (Stanton et al., 2001).

Furthermore, the manager had control over the incentives. Examples of items were TNJSS114 "Your boss supports you in acquiring more knowledge and skills." and TNJSS120 "The consideration of giving promotion or increased salary is judged, transparency, and traceable." The issue was supported by studies that stated the support from managers has positive influence over job satisfaction and positive evaluation may come from good relationship with manager (Li & Lambert, 2008a; Soe et al., 2004).

Moreover, one of the ways nurses and people recognized the nursing profession was nurses' incentives. For instance were item TNJSS123 "People admire

you when you got promotion and increased incentives from hospital." and item TNJSS120 "Your responsibilities make your status advance comparable to other professions." Studies found nurses expect other professions to accept and value nursing profession by giving motivation and nurses constantly rate their satisfaction with accomplishments (McCoy, 1999; Thognchant, 1986; P. D. Tyson & Pongruengphant, 2004).

However, item TNJSS104 "Hospital provides other benefits such as hospital bill, tuition of children, and etc." had primary loading on factor I at .445 and had side loading on factor 2 at .458. However, the item content was not suitable in factor II; therefore, it was deleted from the scale.

Factor II: Professional Autonomy and Recognition

The second factor consisted of 21 items with factor loadings ranged from .44-.79. It incorporated 12 items from the autonomy subscale and nine items from professional status subscale of 124-item TNJSS. In the beginning, these subscales were hypothesized to be a separated factor as same as other job satisfaction tools that had professional autonomy as one factor (Ellenbecker & Byleckie, 2005; Miller et al., 2005; Saane et al., 2003) and others that had professional recognition as one factor (Ellenbecker & Byleckie, 2005; C. J. Lin et al., 2007; Miller et al., 2005; Saane et al., 2003; Sauter et al., 1997). However, there might be some relationships between these two subscales which made them become one factor. A study supported the statement was from Li and Lambert (2008a), they found lack of autonomy was a negative predictor of recognition or status of nurses as seen in nurses avoiding confrontation or questioning doctors about patient care. The statement inferred that when the autonomy was low, it would make nurses feel inferior of their professional status.

Hence, they avoided confrontation or questioning doctors who were considered their superior.

Furthermore, the merging between autonomy and professional status could be explained by using Thai cultural practices such as large culture distance, Kreng Jai, and humbleness. Large culture distance belongs to where people accept unequal distribution of power and privileges within hierarchical organizational systems (meaning physicians in this situation) (Ralston et al., 2005). Hence, when autonomy was limited, their pride was suppressed which led to unhappiness. The statement was supported by a study that said nurses were not happy with their job when lacking of pride in the quality of service and perceived inability to provide a service appropriately (Mackay, 1989). Therefore, people viewed nurse as a passive care worker. Surely, lack of autonomy lowered professional status or recognition. That was why they could not be separated in this study partly from our own culture.

The name of this factor incorporated from all 21 items that reflected nurses' autonomy and recognition. Examples of items were TNJSS74 "You are independent to solve patient's problem under your scope of practice"; TNJSS81 "You are independent to suggest your idea about policies and management in your ward to superior"; and TNJSS93 "You are praised or receive reward from your superior or involved parties when you implement or produce a quality work." These three example items involved an independent of their role and their expectation from their superior. Moreover, item TNJSS93 also reflected how administrators supported the professional recognition which was the same with one of items of the Abridged Job Descriptive Index (JDI) that stated "Supervisor praises good work." (Stanton et al., 2001). The statement was supported by studies that said nurses expect to receive

motivation and recognition for job well done (McCoy, 1999; P. D. Tyson & Pongruengphant, 2004) which had to come from their managers or doctors.

Factor III: Nursing Supervisor

The third factor encompassed 13 items with high factor loadings ranged from .71-.84. This factor was split from administration subscale of 124-item TNJSS (Version 3). At first, the subscale composed of item content involving nurse supervisor and nursing policy and system; however, the subscale was divided into two factors which were "Nursing Supervisor" and "Nursing Policy and System" factor after the EFA. The reason of this separation could be because the nursing supervisor factor assessed the nursing supervisor's role and function but the nursing policy and system factor assessed the policy and system of nursing department. In this case, the results of the nurses' satisfaction came from different causes, the assessment of nursing supervisor and nursing policy and system should be separated.

This factor was labeled "Nursing Supervisor" because all 13 items emphasized the role and function of nurse leader. Examples are TNJSS38 "Your superior is judged and fair to you"; TNJSS30 "You are confident in your superior's management because of his/her strong leadership." The nursing supervisor factor was important to be assessed the nurses' job satisfaction because nursing supervisor made impacts on nurses' job satisfaction (Satesuwan, Uniphan, & Boonyanukarn, 1986).

Furthermore, reflecting Thai cultural context through items such as collectivism was essential. Examples were item TNJSS26 "Your superior takes care of you like his/her family's relative" and item TNJSS27 "You feel secure when your superior works with you closely in difficult and complex situation." The items reflected the image of collectivism because Thais shared their actions and feelings to

members of their group like their family members. Nurses expected superior to work closely, support, and understand them. In supportive role, item TNJSS39 stated "You are confident that your superior will support your proper decision made" was very similar to the item of anesthetists' job satisfaction scale that stated "Your boss supports your anesthesia job" (Charuluxananan et al., 2002). Otherwise, when nurses perceived their managers lack of support of understanding, they are not satisfied (Charuluxananan et al., 2002; Wang, 2004).

Noticing, other job satisfaction tools mostly from western countries did not have administrator factor to assess job satisfaction (Traynor & Wade, 1993; Ellenbecker & Byleckie, 2005; Sauter et al., 1997; Lin et al., 2007; Miller et al., 2005; Saane et al., 2003). This could be because of the differences between the collectivism in Thai society versus the individualism in western society. As collectivists, Thais viewed the head of a family, a nurse leader in this situation, always important in every actions and situations. On the other hand, westerners practiced individualism which made them exercise their rights and autonomy optimistically. Therefore, nurse supervisor in western country had lower impact on job satisfaction.

Factor IV: Social Aspect

This forth factor incorporated 13 items from social aspect subscale of the 124-item TNJSS (Version 3) and the factor loadings were ranged from .51-.76. The finding confirmed the hypothesis prior to the EFA as same as other job satisfaction instruments (Ellenbecker & Byleckie, 2005; C. J. Lin et al., 2007; Lloyd, Streiner, Hahn, & Shannon, 1994; Miller et al., 2005; Saane et al., 2003; Sauter et al., 1997; Traynor & Wade, 1993). The item content explained relationship, support, and

communication at work. These three aspects of social were essential for assessing job satisfaction.

For instance, relationship with others at work is important factor for job satisfaction (J. R. Hackman & Oldham, 1975; Kekana et al., 2007; Sauter et al., 1997; Willem et al., 2007) as the statement was demonstrated in item TNJSS53 "You feel you are a part of team work. Besides, nurses need support from co-workers to increase their job satisfaction (Lee et al., 2007) and the statement was reflected in item TNJSS61 "Most of healthcare team members show appreciation for your cooperation/support their work." On the other hand, when there was lack of support from senior staff, manager, and organization, nurses felt significance stress (Pongruengphant & Tyson, 2000; P. Tyson et al., 2002). To enhance this factor, good communication with others was the key to prevent problems and sustain job satisfaction (Dunn et al., 2005; Willem et al., 2007). Items illustrated this point were TNJSS54 "You are comfortable to suggest opinion or discuss problems with co-workers" and TNJSS64 "You have good communication with your co-worker." Therefore, the name of this factor was remained "Social Aspect."

Moreover, item in this factor also embedded collective Thai cultural context such as item TNJSS49 "Your co-workers have courtesy (Nam-Jai) in helping each other." It clearly identified Thai context because Thais are raised in collective family, they grow up with the value of helping and giving courtesy to others (Nam-Jai). In addition, connection system was another Thai cultural issue that was demonstrated through item such as item TNJSS65 "You are happy to work with co-workers in your own group and know each other needs" and item TNJSS55 "When you have problem or make mistake, your co-workers will instruct, warn, and assist you to go through the

situation smoothly." Connection system was the result of collectivism; hence, it was an essential aspect at work because connections provided warmth working environment and convenience for getting work done.

Nevertheless, poor interpersonal relationship at work creates problems (Njuki, 2001). As one participant from the interview stated "If I have problems with friends at work, it makes me not wanting to come to work" which explained the importance of maintaining harmony with others at work. And, item TNJSS66 stated "You are happy and looking forward to come to work with your co-workers" reflected this point of view well as it was also remained in this factor after the EFA.

Factor V: Workload

This factor incorporated 11 items with factor loadings ranged from .44-.73. All of the items were from the workload subscale of the 124-item TNJSS (Version 3) confirming the hypothesized underlying the scale prior to EFA. Other nurse job satisfaction measures also encompassed workload as one of their factors (Ellenbecker & Byleckie, 2005; C. J. Lin et al., 2007; Saane et al., 2003; Traynor & Wade, 1993). Workload factor was vital in assessing job satisfaction because it was a common predictor of well-being of nurses and the most influential factor to job satisfaction (V. Lambert, et al., 2007; Lee et al., 2007; Siu, 2002; Soe et al., 2004; P. D. Tyson & Pongruengphant, 2004). All of the items in this factor gave details about characteristics of work itself, level of difficulties, quantity of work, scheduling and floating. Therefore, the factor was continued to be called "Workload."

The element of this factor is illustrated in item TNJSS1 "The quantity of assigned task is appropriate so you can complete it within 8 hours/day," TNJSS2 "Your assignment is not too difficult so you can finish it within given time," and

TNJSS11 “Number of nurses in each shift is adequate and appropriate at your ward.” Moreover, the item content was correlated with other studies. They found adequate number of nurses, appropriate assignments according to skills and knowledge, and suitable quantity of work impacted job satisfaction (Adams & Bond, 2000; Flinkman et al., 2008). Moreover, scheduling and floating caused inconvenient for nurses (Flinkman et al., 2008) and the statement was still important in this factor because items involving this issue stayed in this factor after the EFA. Examples of items were TNJSS9 “You have work schedule that accommodate with your life/family” and TNJSS12 “Number of times that you have to float to other wards is appropriate”. Additionally, workload increased because nurses were hectic from increased medical accesses in Thailand. Inevitably, nurses did not have time to help each others, this dilemma caused unhappiness among nurses (Kekana et al., 2007). Thus, item TNJSS7 “You have time to help others in your ward without affecting your routine work” was reserved in this factor after the EFA as well as reflecting Nam Jai in Collective society of Thailand.

At the same time, nurses surely expected fair workload. Examples of such items were TNJSS2 “Your assignment is not too difficult so you can finish it within given time” and TNJSS10 “Your ward assigns nurses according to patient’s acuity in each shift so you can work efficiently and have not much stress.” This principle must be maintained because higher quantity of work demands interrelated with the nurses’ intentions to quit their job and leave nursing profession (Flinkman et al., 2008). Certainly, that was why these items stayed in this factor after an EFA.

Factor VI: Work Environment

This factor comprised of 8 items with factor loadings ranged from .56-.75. All of the items were from the work environment subscale of the 124-item TNJSS (Version 3) confirming the hypothesized underlying the scale prior to an EFA. In fact, many the studies did not included this factor in their job satisfaction measures (Ellenbecker & Byleckie, 2005; C. J. Lin et al., 2007; Miller et al., 2005; Ng, 1993; Saane et al., 2003; Sauter et al., 1997; Traynor & Wade, 1993). This could be because all of these measures, except Nurses' Job Satisfaction Scale (NJSS) (C. J. Lin et al., 2007), were developed in western countries where the facilities, equipments, and surroundings were better in quality and quantity because of their adequate financial support. Even though the NJSS was developed in eastern country (Taiwan), this factor was not incorporated in the tool. This could be because it was developed without interviewing their nurses which could have given more depth of their context. Conversely in this study, this factor was mentioned during the interviews of Thai nurses. As one nurse mentioned "Work environment should be suitable and comfortable to the nature of work. I fought hard for good setting at work." The, the other nurse said "This office is too small and not suitable for the work. This setting is not ready to take care of any emergency situation. There is not enough support in equipment." They felt their work environment was needed for improvement in order to bring their happiness at work. Furthermore, Thais embed large power distance culture which power and privileges within hierarchical society are important (Ralston et al., 2005) and work environment is one of the aspects showing the prestigious social status of a person (Boonthong, 2000a; Topanthanont & Prachusilpa, 2007). Hence, this factor was necessary in assessing job satisfaction of Thai nurses.

Moreover, all of the items in this factor described work environment into physical and natural environment, this factor continued to be labeled “Work Environment.”

Items reflecting natural environment were TNJSS17 “Your ward has good ventilation and present aroma which encourage good working atmosphere” and TNJSS16 “You satisfy with beautiful landscape around your ward.” Likewise, item describing physical environment were TNJSS24 “Workplace is organized and suitable to your work” and TNJSS25 “You feel safe to work in your workplace.” In addition, equipments were incorporated in physical environment. The adequacy of supplies and equipments gave convenience and support an effectiveness of care. However, if there was a problem in this issue, nurses frustrated (Kekana et al., 2007). Items asking about equipments were TNJSS22 “The arrangement of equipment, room, patient’s bed is appropriate and convenient for your work” and TNJSS20 “Your ward provides adequate and proper equipment which assists you to improve quality of work.”

Moreover, administration controlled the arrangement and readiness of workplace which directly influenced the workload of nurses. Examples of items reflecting such assessments were TNJSS22 “The arrangement of equipment, room, patient’s bed is appropriate and convenient for your work” and TNJSS19 “Your ward provides adequate and proper equipment to care your patients.” This factor, therefore, was one of the factors that were created different from other job satisfaction tools because of its characteristic reflecting Thai cultural context. It was also proven to be a good factor since all items from subscale stayed in the same factor after the EFA and have high factor loadings.

Factor VII: Nursing Policy and System

This factor encompassed 9 items with factor loadings ranged from .44-.69. All of the items in this factor were separated from administration subscale of the 124-item TNJSS (Version 3). At first, the subscale composed of item content about nurse supervisor and nursing policy and system; however, the subscale was divided into two factors which were "Nursing Supervisor" and "Nursing Policy and System" factor after the EFA. The assessment of nursing policy and system factor involved policy/system of department which was different from the assessment of a person as a nursing supervisor. Therefore, the separated assessment of nursing supervisor and nursing policy and system was suitable.

Furthermore, the nursing policy and system factor was important in evaluating job satisfaction because it influenced job satisfaction of nurses (Li & Lambert, 2008a, 2008b; Pongruengphant & Tyson, 2000) and had direct impact on job satisfaction (S. Campbell et al., 2004). The finding was congruent with the Nurse Satisfaction Scale (Ng, 1993) that contained nursing policy and system factor.

All of nine items in this factor assessed the nursing policy and system; hence, the factor was named "Nursing Policy and System". Examples were item TNJSS40 "Nursing administration has a nursing policy and set up a system to provide access to information system so you and co-workers can obtain it conveniently and thoroughly." and item TNJSS47 "Policies and system provided from nursing administrators respond to your needs and most of nurses."

Moreover on Thai cultural context, large power distance cultural practice made an organization conservative, traditional, and bureaucratically controlled (Kinicki & Kreitner, 2006). Consequently, it created centralization of decision-

making mostly from top management only which often delays working processes. The dilemma decreased job satisfaction. Items expressing this idea in positive direction were item TNJSS44 “The nursing administration department has decentralized administration system which creates faster management.” and item TNJSS45 “The implementation of nursing policy and system can solve problems promptly and appropriately.”

Additionally, nursing policy and system’s had control over work environment in supplying equipment for nurses as item TNJSS46 stated “Nursing policy and system reveal transparency and punctually purchasing system.” Furthermore, administration system also eased workload of nurses by preparing them well before entering workforce as reflected in item TNJSS41 “There is a nursing policy to provide work manual for new nurses to be ready to work in new ward” and TNJSS43 “According to nursing policy and system, new nurses must receive an orientation prior to working in a new ward.” These items were remained in this factor with high factor loadings after the EFA as well.

Factor VIII: Assertiveness in Confronting Difficulties

This factor incorporated 5 items with factor loadings ranged from .41-.66. All of the items in this factor were separated from autonomy subscale of the 124-item TNJSS (Version 3). In fact, studies did not have this factor in their nurse job satisfaction tools (Ellenbecker & Byleckie, 2005; C. J. Lin et al., 2007; Miller et al., 2005; Ng, 1993; Saane et al., 2003; Sauter et al., 1997; Traynor & Wade, 1993). The reason could be because the TNJSS was developed not only by using job satisfaction concept in Asia, but also by integrating the Thai cultural context into the item generation process.

Firstly, Thais embed large power distance culture which made them accept an unequal distribution of power and privileges within hierarchical society (Ralston et al., 2005). This meant nurses respected physicians, administrators, and senior nurses as superior people and they did not feel comfortable to voice opinion or question an order.

Secondly, Thais also embed Kreng Jai "…to be considerate, to feel reluctant to impose upon another person, or to take every measure not to cause discomfort or inconvenience for another person" (Komin, 1991). Therefore, the cultural practices made Thai nurses hesitate and uncomfortable when they had to confront superiors or Kreng Jai other team members in order to maintain the integrity of patients and nursing practice. Nurses knew they had to do the right things at the right time (be assertive) even though it would go against culture and caused discomfort feeling to them. Examples were items TNJSS75 "You are free to question or give opinion to physician when you disagree with his/her treatment plan," TNJSS77 "You are free to report or write-up healthcare team members, who treat patient wrongly, and send it to your superior," and TNJSS67 "You are free to refuse an assignment that is beyond the scope of your practice." The latter item was meaningful because performing beyond duty made nurses feel uncomfortable, self-disturbance, and stress at work (Li & Lambert, 2008b). Hence, given these reason, this factor was called "Assertiveness in Confronting Difficulties".

Noticing, the name of the factor derived from item content which demonstrated an assertiveness of nurses when they faced awkward situations at work. Someone who is assertive states their needs and opinions clearly, so that people take notice (Sinclair, 2006). Additionally, assertive person states or acts as true; claim and

defend for it (Morehead, 1961). Clearly, the items reflecting autonomy of nurses in this factor were different from independent roles of nurses in Factor II (Professional Autonomy and Recognition) in cultural aspect.

Nevertheless, this factor had special characteristics that made this tool different from other job satisfaction tools. At the same time, it was a necessary factor in assessing job satisfaction of Thai nurses because this factor promoted appropriate actions which made nurses satisfied with their roles.

2. The Psychometric Properties of the TNJSS

The discussion in this section comprised of three aspects: (1) evidence supports the content validity of the TNJSS, (2) evidence supports the construct validity of this tool, and (3) evidence supports the reliability of this measure.

2.1 Evidence supports the content validity

Since the content validity was the extend to which the content of the tool represents the content domain (Soeken, 2005), the investigator asked experts to evaluate items of this tool in terms of their relevance and clarity in representing the concepts underlying the measure's development. Actually, at least two experts in the area of content are to be investigating the measure (Soeken, 2005); therefore, three experts reviewing this tool was adequate. They composed of a nursing educator, a nursing researcher, and a nursing administrator who were experienced in tool development, job satisfaction studies, and Nursing Policy and System, respectively. They also performed the assessment based on provided conceptual definitions. The result of CVI was .97 revealing an excellent value which demonstrated that the content validity was well representative of Thai nurses' job satisfaction. Therefore, the evidence supported the content validity of the TNJSS.

2.2 Evidence supports the construct validity

For the TNJSS, the construct validity was examined using EFA and hypothesis testing. The EFA offered satisfactory outcome with eight factors with 107 items that served the purpose of this study well. Each factor was correlated with each item producing moderate to high factor loadings which was acceptable (C. F. Waltz et al., 2005). Moreover, all factors had eigenvalue greater than 1 and most of them account for at least 5% of variance which are adequate (Dixon, 2001). Furthermore, the TNJSS accounted for 60.35% of total variance meaning the scale captured the construct and attributes of job satisfaction concept 60.35% which was respectable to assess job satisfaction of Thai nurses.

Regarding hypothesis testing, the relationship between stress at work and job satisfaction of Thai nurses was hypothesized to be in negative direction. There was a moderate negative correlation between the total scores of the TNJSS and the total scores of the OSS (r = -.47, $p < .01$). Certainly, the finding inferred on the relationship which underlying the TNJSS's construction was adequate to explain the data collected (Soeken, 2005). Furthermore, many studies revealed that stress at work or workplace stressors impacted job satisfaction of nurses (V. Lambert, et al., 2007; Lee et al., 2007; Li & Lambert, 2008a, 2008b; M.-C. Lin, Li, & Lin, 2007; Pongruengphant & Tyson, 2000; Siu, 2002; Soe et al., 2004) which were correlated with the findings in this study. When the negative relationship in this study was found not at the high magnitude, it inferred that stress at work did not highly impact job satisfaction as long as other job satisfaction factors were maintained. Still, the result was considered supportive to both hypothesis and the construct validity of the TNJSS.

2.3 Evidence supports the reliability

Two types of reliability testing examined internal consistency and stability of the TNJSS. An assessment of internal consistency used Cronbach's alpha coefficient in three occasions: pre-test, field test, and post-test and the results all showed the alpha of .98. The alpha of the final version of the TNJSS (after the EFA) also higher than .7 (α = .98) which is highly acceptable internal consistency for newly constructed tool; at the same time, it also implies the homogeneity of the items comprising the TNJSS (DeVellis, 1991; Polit & Hungler, 1995). Furthermore, the correlations among items to total scale were high at .44-.81 suggested that the items were all measuring the same phenomenon which was Thai nurses' job satisfaction. In addition, high alpha of this scale signified that items were good in forming a strong factor which yield such good results (Dixon, 2001). Besides, the results were congruent with other job satisfaction tools with alpha coefficient ranging .64-.94 (Ellenbecker & Byleckie, 2005; C. J. Lin et al., 2007; Miller et al., 2005; Ng, 1993; Saane et al., 2003; Sauter et al., 1997; Traynor & Wade, 1993). Unquestionably, the TNJSS demonstrated strong evidence support of the scale's reliability in an internal consistency aspect.

Similarly in testing stability of the TNJSS using test-retest method, the result of total scores from administering the TNJSS in two separate occasions of two weeks interval were correlated (r = .83, p < .01). The findings inferred the constant of scores remained from one event to another and the TNJSS was truly reflects important construct because it could assess the construct comparably on separate occasions (DeVellis, 1991). In addition, the results of the same kind of testing in this study were similar to other nurses' job satisfaction measures which were ranged

.64-.91 (C. J. Lin et al., 2007; Mueller & McClosky, 1990; Ng, 1993; Traynor & Wade, 1993). Hence, the TNJSS had proven evidence support of the stability of this newly developed tool.

Likewise, the reliability of other scales that were utilized in this study revealed reliable results and outcome. Firstly, the reliability of the SDS-17 was tested using KR-20 because the data was dichotomously scored. The alpha was .67 and this could be because the SDS-17 was constructed in western cultural context. It was aimed to measure social desirability of westerners who practice individualism. However, Thais practice collectivism; therefore, an applicability of the SDS-17 in Thailand was verified to be nearly set even though the SDS-17 demonstrated acceptable alpha 0.74, discriminant and convergent validity in America (Stober, 2001). Therefore, reviewing these results cautiously was recommended. Second, the Cronbach's alpha of the OSS was .87 which confirmed the tool's reliability. Since OSS was utilized in hypothesis testing; hence, the result of the examination was reliable and surely support the construct of the TNJSS.

3. The Strengths of the Study

There were important aspects in this study that influenced the findings of this study. The discussion were in the followings: (1) the relationship between the Social Desirability Scale-17 and the TNJSS, (2) the strength of research methodology, (3) sufficient item pool, (4) the six-point Likert scale format (5) an adequate ratio of subjects per each item, (6) the high response rate, (7) an integration of Thai culture.

3.1 The relationship between the SDS-17 and the TNJSS.

The SDS-17, that constructed by Stober in 1999 (Stober, 2001), was distributed to 1,020 nurses in conjunction with TNJSS version 3 in the field test. The result showed that the social desirability score was positively correlated with all factors and the TNJSS total score, except factor IV (Nursing Supervisor), at a statistically significant at 0.05 and 0.01 levels. However, the magnitude of the correlation was quite small and ranged from .08-.16 indicating that the reason of the significant correlations was because of the large number of subjects (N=963). Additionally, the investigator provided an individual envelope and asked them to seal it before returning it to the research coordinator of their hospital. Therefore, they felt confident about their identification and their answers which possibly made their response score not highly correlated with the TNJSS score. The statement was supported by the work of Becker in 1976 that mentioned the less subjects believe there was potential for identification of their responses, the less social desirability likely to come into play (Becker, 1976). Hence, the influence of social desirability was at minimal magnitude optimistically in this study.

Surely, studies involving utilization of the TNJSS in Thailand were highly recommended to use along with the social desirability scale due to complex cultural context of the society.

3.2 The strength of research methodology.

In developing the TNJSS, methodological triangulation was employed in attempt to decrease the weakness and biases of each method and to increase the strength of each other (Mitchell, 1986). In this study, after an extensive review of literature, in-depth interviews were performed in order to gain broader perspectives on

job satisfaction in Thai context. This qualitative method offered rich data regarding job satisfaction of Thai nurses that no other resource mentioned. Furthermore, the methodological triangulation reduced the probability of bias and increased the researcher's ability to interpret the findings with a greater degree of confidence (Thurmond, 2001). This was where quantitative method came in with the psychometric evaluation process of this study. The steps were: (1) generation of an item pool, (2) determination of item format, (3) determination of content validity, (4) pre-test, (5) field test, (6) evaluation of items, (7) test of stability, and (8) hypothesis testing. The numbers and statistical methods in quantitative phase were a solid evidence of findings which contained the least bias and made the interpretation the most accurate. This was the strength of this study as both qualitative and quantitative methods enable the researcher to derive a more complete understanding of the phenomenon under study (Shih, 1998).

3.3 Sufficient item pool.

From an extensive literature review and in-dept interviews of Thai nurses; at first, there were 144 items after the generation of item pool and the determination of item format completed. After the determination of content validity, the TNJSS had 128 items. Then, the pre-test was performed which left 124 items on the scale. After that, the field test proceeded and the EFA was done. Finally, there were 107 items on the final version of the TNJSS. The final alpha coefficient of total scale and all factors were .98 and ranged .89-.97 respectively.

The investigator had followed DeVellis as a guideline that suggested creating items more than the expected number of item in the final scale. Furthermore, internal consistency reliability was a function of the strong correlation with one

another and number of items on the scale; therefore, having lots of items was a form of guarantee against poor internal consistency (DeVellis, 1991). In other words, the more items in the pool were, the better outcome of reliability was. The principle applied to other nurses' job satisfaction measures as their tools had respectable internal consistency reliability and contained more than ten items to be reliable (Ellenbecker & Byleckie, 2005; Kline, 1993; C. J. Lin et al., 2007; Ng, 1993; Saane et al., 2003; Sauter et al., 1997; Traynor & Wade, 1993). Even though, the TNJSS was developed from large pool of items and produced a long scale at the end, it demonstrated respectable reliability; surely, because it tended to be more reliable (DeVellis, 1991).

3.4 The six-point Likert scale format.

Thais are Kreng Jai, want to live with others harmoniously and respect those who have higher authorities. Therefore, if any item will make the others embarrass, Thai nurses are prone to select the middle point (Chairatana, 1995). The TNJSS used the six-point Likert scale format because a neutral midpoint would either favor uninterested subjects or suggest equal attraction to both true and not true of the statement (DeVellis, 1991). Therefore, the scale forced subjects to choose whether the statement was true or not true to the fact in different degree inevitably. This point of view was vital in Thailand in order to maintain its sensitivity in measuring job satisfaction.

3.5 An adequate ratio of subjects per each item.

In field test, the investigator distributed the 124-item TNJSS to 1,020 registered nurses throughout Thailand; hence, the ratio of subjects per each item in this study was 8: 1. This ratio was more than adequate for the criteria of Tinsley and

Tinsley (1987) who set ratio of 5-10 subjects per item which was appropriate for tool development (H. E. A. Tinsley & Tinsley, 1987). Therefore, the TNJSS was considered stable because the factor pattern that emerged from a large-sample factor analysis would be more stable than that emerging from a smaller sample (DeVellis, 1991).

3.6 The high response rate.

From total of 1,020 questionnaires, investigator received 995 questionnaires back meaning of high response rate at 97.55%. Even though 32 questionnaires were excluded from data analysis, the data from 963 questionnaires was excellent for performing EFA. Furthermore, this large volume of data helped investigator confirming the reality of reliable sources and outcome. Besides, the larger samples increase the generalizability of job satisfaction phenomenon reached by means of factor analysis (DeVellis, 1991).

In order to achieve high response rate, the investigator worked on many details in preparation and implementation on field test. First of all, the investigator contacted each DON who was the key person and remembered to call them by their names in the later contacts. In the requested letter to collect data, their importance as one of the hospitals representing all government general hospitals in Thailand was emphasized. After the arrangement, a packet with a letter to DON of 12 sampled hospitals; 85 questionnaires in an individual envelope with code written in front of each envelope and each questionnaire; and four big returned envelopes adhered with stamps for EMS and investigator's name (receiver) written on it for mailing back to the investigator, were mailed to each sampled hospital on December 23, 2010. In the letter for the DON, it requested assistance with clear instructions. In each package, the

investigator also included a gift for a research coordinator who distributed and collected questionnaires and small reward for a person who packed and sent the four big returned enveloped containing all questionnaires to the post office.

For subjects, the investigator mentioned in their letter that their participation were important as they represented all Thai nurses. The subjects were instructed not to write their name on the questionnaire, completed the questionnaire, placed it back in a provided envelop, sealed it, and returned the envelope to the research coordinator of his/her hospital within three weeks. These instructions assured the nurses' confidentiality to their answers and wanted to return the questionnaire. Phone calls from the investigator made to remind the research coordinator of each sampled hospital one week before the due date. After collecting envelop with answered questionnaire from subjects, the research coordinator put them into big four returned envelops and mail them back to the investigator. After received all questionnaires, the investigator called all DON to thank you for their significant supports.

3.7 An integration of Thai cultural context

The TNJSS was developed to assess job satisfaction of Thai nurses. Therefore, an incorporation of Thai cultural context into item content (questions) and item format determination (form of answer) was considered a strength aspect of the TNJSS since job satisfaction is influenced by the culture to which people adhere (Chu et al., 2003). Furthermore, the TNJSS is also trusted to be a sensitive and suitable tool in measuring the phenomenon due to these special characteristics.

Summary

The purposes of this study were to develop the Job Satisfaction Scale for Thai Nurses and to determine its psychometric properties. The discussion of results was to report the findings of sample characteristics and answer two research questions.

Research question 1 inquired the components of the TNJSS. The eight factors consisted of 107 items and explained a total of 60.35% of variance were found. They are: (1) incentives, (2) professional autonomy and recognition, (3) nursing supervisor, (4) social aspect, (5) workload, (6) work environment, (7) nursing policy and system, and (8) assertiveness in confronting difficulties. The derivation of each factor in the 107-item TNJSS (last version) from the 124-item TNJSS version 3 was demonstrated.

Research question 2 inquired the psychometric properties of the TNJSS. They included: (1) content validity index of .97, (2) construct validity using EFA showed acceptable factor items, factor loadings, communalities, eigenvalue, and variance of percentage, (3) construct validity using hypothesis testing method revealed significant correlations between the TNJSS and OSS negatively, (4) internal consistency reliability using Cronbach's alpha coefficient offered respectable alpha of the eight factors and total scale ranging from .89-.97 and .98 respectively, (5) stability using test-retest method gave the significant correlation between the two-time testing of the TNJSS at .83.

Hence, the TNJSS provides adequate psychometric properties as a standard newly constructed tool can be. But yet, it also integrated Thai cultural context into the measure which is suitable to assess job satisfaction for nurses throughout Thailand as well.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter presents the summary, implications, and recommendations of the study to nursing education, practice and administration, research, and theory development.

Conclusions

From this study, the majority of characteristics in the categories of 963 registered nurses from 12 government general hospitals representing six regions of Thailand were: female (91.1 %), married (57.8%), completion of Bachelor Degree (92.2%), salary of 26,000-30,000 Baht/month (22.2%), staff nurses (96%), medical and surgical unit (38.3%), and 11-15 years of experience in nursing (29.6%).

The Thai Nurses' Job Satisfaction Scale (TNJSS) composed of 107 items with eight factors and total variance explained of 60.35%. Factor loadings of the TNJSS ranged from .41-.84. The result of eight factors included:

1. Factor I: Incentives (27 items) with factor loadings ranged from 0.47-0.79 and accounted for 13.03% of variance with an eigenvalue of 39.99. The first factor comprised the aspects of pay/benefit, continuing education, and promotion.

2. Factor II: Professional Autonomy and Recognition (21 items) with factor loadings ranged from .44-.79 and accounted for 12.84% of variance with an

eigenvalue of 8.02. The item content of the second factor focused on autonomy and professional status.

3. Factor III: Nursing Supervisor (13 items) with factor loadings ranged from.71- .84 and accounted for 10.24% of variance with an eigenvalue of 6.58. The item content of this third factor was involved directly with the immediate supervisor of nurses

4. Factor IV: Social Aspect (13 items) with factor loadings ranged from .51-.76 and accounted for 6.76% of variance with an eigenvalue of 4.15. The item content of the forth factor focused on support/relationships in socialization at work.

5. Factor V: Workload (11 items) with factor loadings ranged from .44-.73 and accounted for 5.66% of variance with an eigenvalue of 2.92. The item content of this fifth factor emphasized time consuming at work, levels of difficulty of work, energy consuming, and scheduling.

6. Factor VI: Work Environment (8 items) with factor loadings ranged from .56-.75 and accounted for 4.54% of variance with an eigenvalue of 2.76. The item content of this sixth factor entailed physical environment and natural environment.

7. Factor VII: Nursing Policy and System (9 items) with factor loadings ranged from .44 - .69 and accounted for 4.24% of variance with an eigenvalue of 2.35. The item content of this seventh factor focused directly on policy/system of the Nursing Policy and System department.

8. Factor VIII: Assertiveness in Confronting Difficulties (5 items) with factor loadings ranging from .41-.66 and accounted for 3.05% of variance with an eigenvalue of 2.03. Item content of the eighth factor involved autonomy of nurses while facing awkward situation.

The correlation between the total scores of the TNJSS and the total scores of the Social Desirability Scale-17 was at a very minimum level meaning the answered questionnaires were influenced by social preference at a very low level.

Moreover, the psychometric properties of the TNJSS demonstrated a valid and reliable measure to evaluate Thai nurses' job satisfaction. For validity, the results of Exploratory Factor Analysis with the total sample score (N = 963) supported the construct validity of the TNJSS. Furthermore, the results of hypothesis testing from using Pearson product-moment correlations between the total scores of TNJSS and the total scores of the Occupation Stress Scale (OSS) supported the construct validity as well. The OSS was reliable with Cronbach's alpha of .87. For reliability, the results of Cronbach's alpha coefficient and test-retest supported the internal consistency and stability of the TNJSS. The alpha of all eight factors and the total scale ranged .84-.96 and .98, respectively which demonstrated the homogeneity of items and the ability in measuring the same phenomenon. Moreover, the results of test-retest from using Pearson product-moment correlations between the scores of test one and test two demonstrated the stability of the TNJSS overtime. The constant of scores remained from one event to another. Hence, the TNJSS can certainly assess construct comparably on separate occasions.

Implications and Recommendations

The TNJSS is a valid and reliable measure in evaluating job satisfaction of nurses in Thailand. Since, this tool assesses job satisfaction of nurses through eight factors: (1) incentives, (2) professional autonomy and recognition, (3) nursing

supervisor, (4) social aspect, (5) workload, (6) work environment, (7) nursing policy and system, and (8) assertiveness in confronting difficulties, it can identify the fact regarding actual situations that really occur to Thai nurses. Moreover, the findings of this study will certainly benefit nursing discipline in education, practice and administration, research, and theory development which are discussed in the following.

1. Nursing education

Nurse educators can prepare nursing curriculum integrating important topics from the eight factors of the TNJSS on top of other nursing knowledge in preparation for undergraduate nursing students to work efficiently and happily. The recommended examples are explained by using some concepts of the TNJSS' factors.

1.1 Factor I: Incentives. Every employee needs this factor to motivate their work. One of the aspects of this factor is continuing education. In order to make nurses' needs in continuing education to be at the full benefits and potential, nursing schools need to prepare for them. Embedding a life long learning skill and acquaintance with computer and information technology will prepare undergraduate students to gain knowledge and skills easily and continually. These skills will become their habit of wanting to improve and learn throughout their profession.

1.2 Factor II: Professional Autonomy and Recognition. Building up characteristics takes longer time than knowledge; therefore, nursing students need training in some skills prior to becoming their natural characteristics in the profession. The lesson content about nursing law, patients' rights, ethics, and scope of practice are to be integrated in lessons so they will gradually develop role confidence since the first year. The appropriate knowledge and confidence will promote their autonomy. In

turns, these topic lessons will pave the way for our nursing students to perform their roles independently, efficiently, and happily in comfortable and uncomfortable situations (Factor VIII: Assertiveness in Confronting Difficulties).

Full autonomy leads to nurses' happiness. Their full potential shines which makes others respect and recognize them. Other interesting topics are nursing value and commitment which influence their inner happiness and duration of stay in the nursing profession. When turnover rate is low, it demonstrates the stability of the nursing profession.

1.3 Factor III: Nursing Supervisor. Leadership is another issue to be stressed in order to equip and train our students because nurses do not function only as nurses, they are also asked to work in non-nursing committees and administration. Therefore, the characteristics of nurses' leadership especially in collective society such as caring for both the personal and working life of the staff, supportive, fairness, opened mind, responsible, and flexible are necessary for students to learn in leadership class and practice on ward. Moreover, assertiveness is another characteristic that Thai students need to be motivated in more than other skills. It is essential for them to learn how to state their needs and opinion clearly in an appropriate situation. This skill is required for leadership and will ease uncomfortable feelings when facing an awkward situation in Factor VIII (Assertiveness in Confronting Difficulties).

1.4 Factor IV: Social Aspect. This factor is composed of support and relationship. Good relationship brings support among each other. Effective communication is the knowledge and skills that nursing students need. Ineffective communication with others at work impacts job satisfaction (Dunn et al., 2005;

Willem et al., 2007); therefore, effective communication knowledge plays an important role in building relationship and avoiding misunderstanding among nurses. Besides, effective communication is the foundation of nursing leadership in maintaining social aspect, confronting uncomfortable situations, and bargaining for incentives. Most importantly, balancing between assertiveness and maintaining polite gesture, humbleness, and Kreng jai of Thai culture is vital to be taught to the students as well.

1.5 Factor V: Workload. Last but not the least is regarding workload dilemma (Burke & Greenglass, 2000; Lee et al., 2007; Li & Lambert, 2008a; M.-C. Lin et al., 2007; Moyle et al., 2003; Pongruengphant & Tyson, 2000; Siu, 2002; Soe et al., 2004) which is normally the effect of inadequate staffing. If the nurses' job satisfaction in workload factor is low, the nation's administration of nursing education plays one of important roles to solve the situation. Since the nursing educational institutes together with Thai Nursing Council govern number of nursing student's production each year; accomplishing adequate nurses in the workforce each year will alleviate workload problem.

It is also recommended that nursing educators continuously update research studies and findings about job satisfaction in order to learn which factors of job satisfaction is less satisfied by nurses. Then, teachers can construct the lesson content mentioned above accordingly.

2. Nursing practice and administration

Since, the TNJSS was developed in Thai cultural context; nurse administrators can utilize the TNJSS and the results from total scores and each factor

will infer an actual situation that Thai nurses are facing. Then, nursing administrators can make adjustment accordingly and the results can be utilized in many ways.

For instance in Factor I: Incentives (pay/fringe benefit, continuing education, and promotion), it becomes an issue that nurses particularly have to fight for. Nursing administrators are nurses' advocacy in maintaining judge and fair incentives. At the same time, the nurses' intensive should be compatible with other professions in the same level and other hospitals. This principle has to be maintained in nurses' pay and benefit policy. Besides, conducting academic classes or seminar is encouraged. A nursing library in a hospital and an Internet in each ward should be available to promote continuing education. A reasonable fund is available for each nurse each year to attend special classes or continuing education. For promotion, nursing administrators can provide a transparency, fair and traceable policy. Nursing administrators are encouraged to give promotion according to each nurse' productivity. On the other hand, nurses themselves need to bargain and be assertive about the incentive issue in order to acquire what they need. Furthermore, nurses can present the job satisfaction evaluation results to Thai Nursing Association and Thai Nursing Council for the purpose of their advocacy in management and fringe benefit for nurses in national level.

Moreover, Factor II Professional Autonomy and Recognition and Factor VIII Assertiveness in Confronting Difficulties function are similar. Only the different is the difficulties in Factor VIII are more than Factor II because nurses have to be free to do things against culture. Staff nurses who embed the skill since they were nursing students, they are more likely to be able to express their autonomy well. Hence, nursing administrators need to understand, encourage, and support staff nurses when

they exercise their autonomy within the scope of their practice even though some actions may upset higher authorities such as administrators or physicians. Nursing administrators play a very important role because optimal autonomy occurs when the administrators give it fully to nursing staffs. Another policy that is important is rewarding and giving recognition for job well done. Staff nurses need appreciation expressed by their administrators' especially administrative nurses. Therefore, the administrators need to have this policy to support each other. In turns, nurses are motivated and have pride in their profession.

Furthermore about Factor IV Social Aspect, nursing administrators need to emphasize policies that promote social aspect. Examples are activities such as creative discussion meeting in each department monthly, outreach mobile clinic or community services, employee camp or party, or retreat trip. Likewise, educational classes such as telephone skills, effective communication, or professional manner are all essential for nurses to be reminded at least once a year in order to maintain professional and positive relationship among nurses at work. Theses activities and educational classes will train nurses to be united and carry on their role professionally. Additionally, nursing administrators need to understand that nurses expect special support from the administrators both in personal and working life including Nam Jai because we are collectivists.

Also for Factor V: Workload, nurses can inquire their employer for the fairness of workload. Some ways for nursing administrators to create fairness in workload as much as possible are to implement primary nursing care delivery system and assign patients according to level of their disease severity acuity. Surely, the cases assignment must be suitable and appropriate to knowledge and skills of each nurse.

An implementation of the policy makes nurses care for patients in the same numbers and promotes more nursing knowledge faster than functional nursing care delivery system. Moreover, nursing administrators may consider hiring auxiliary staffs to handle clerk or simple paper work, so nurses do not waste their time on simple task but working on actual nursing processes and complicated paper work on health care accreditation. Last but not least, fixed shift give more benefit to nurses than rotated shift because fixed shift makes more stable circadian biological clock for nurses than rotated shift and nurses can plan their daily activities with family better as well. Hence, nurses will not feel much of difficulties in handling work schedule.

Furthermore about Factor VI Work Environment, nurses need to communicate and demand for appropriate natural and physical environment because they are necessary in order to perform their roles and provide good care for patients. If there is any deficiency, nurses are not happy which will affect the quality of services they give. Hence, nursing administrators need to assess this factor periodically, set budget yearly, and try their best to provide what nurses request.

Lastly about Factor III Nursing Supervisor and Factor VII Nursing Policy and System, nursing administrators need to analyze the result of job satisfaction from using the TNJSS and determine which items in these two factors have unsatisfactory result. Then, making adjustment accordingly is advisable. One important aspect of being a nursing supervisor in collective society is to work with nursing staffs as if they are a part of family. Nam Jai has to be expressed and work with them side by side. This issue is needed to be reminded in conjunction with management knowledge and skill class yearly.

Job satisfaction evaluation is crucial because professional nurses comprise 70% of all the healthcare personnel in health care organization system of Thailand (Srisuphan et al., 2005). Hence, if nurses are not happy and leave a hospital, health care organization will need substantial amount of funds for recruitment, orientation, and training. Furthermore, hospital administration can also shows support of staffs and cooperation to the National Health Development Plan (version 10, 2007-2011), (แผนพัฒนาสุขภาพแห่งชาติ ฉบับที่ 10) in strategy three that emphasizes the development of health system and medical system that make clients and care givers happy.

3. Nursing research

The derivation of the TNJSS's factors was from extensive review literatures from Asian countries and Thailand. The tool also demonstrated acceptable psychometric properties to be a standard instrument. Researchers can use the TNJSS in assessing job satisfaction of nurses who are in Thailand and Asian countries where embedded similar cultural context. Furthermore, in an intervention study, the test can be administered prior to an intervention; then, the results can be used to guide the way of adjusting situation in each factor. Thereafter, the same test is to be done again in order to confirm whether the improvement of all factors will increase nurses' job satisfaction. However, an implication of the TNJSS can be maximized in health care organizations that provide secondary care or higher since it was the setting in this study; therefore, cautiously utilization of the tool in primary care setting is advisable. Another recommendation is to develop the TNJSS in a shorter form which will eliminate the questionnaire fatigue of subjects and may be more applicable in other situations and settings.

4. Nursing theory development

The job satisfaction concept in this study was constructed by using Walker and Avant guideline (Walker & Avant, 2005). The attributes from the concept integrated with in-depth interviews of Thai nurses, they became subscales of the TNJSS. After the EFA, all factors were comparable to the hypothesized underlying subscale of the 124-item TNJSS. However, the incorporation of autonomy and professional status subscale into Factor II Professional Autonomy and Recognition was explained using cultural aspect as well as Factor VIII: Assertiveness in Confronting Difficulties. Furthermore, even though there are job satisfaction theory and other relevant theories explaining job satisfaction (Chapman, 2007, 2008; Droar, 2004; F. I. Herzberg et al., 1959; Vroom, 1964), none of them involves cultural aspect. Therefore, it is recommended for researchers to confirm the findings of this study by using another methodology for further investigation such as Confirmatory Factor Analysis (CFA), subsequently, the nursing job satisfaction theory can be developed.

Summary

The purposes of this study were to develop job satisfaction instrument for Thai nurses and determine its psychometric properties. First, development phase, the items of the TNJSS was developed from literature review and the themes from in-depth interviews. The integration of components from both sources emerged into: (1) workload, (2) work environment, (3) administration, (4) social aspect, (5) autonomy, (6) professional status, and (7) incentives. Large pools of items were generated

conforming to Thai cultural context for the 144-item TNJSS and six-point Likert scale was selected.

Second, psychometric evaluation phase, the tool was validated using content validity and CVI yield acceptable result. Subsequently, the 128-item of TNJSS was tested in pilot study which left 124 questions on the questionnaire. Reliability was examined with satisfactory result.

Systemic random sampling technique was used to randomly select 1,020 registered nurses who met the inclusion criteria from 12 government general hospitals representing six regions of Thailand. The 124-item TNJSS were administered to subjects along with the Social Desirability Scale-17 (SDS-17). Out of 1,020 questionnaires, 995 of them returned which made high response rate at 97.55%. The majority of sample in each category was: female (91.1 %), married (57.8%), completion of Bachelor Degree (92.2%), salary of 26,000-30,000 Baht/month (22.2%), staff nurses (96%), medical and surgical unit (38.3%), and 11-15 years of experience of nursing (29.6%).

The original 124-item TNJSS demonstrated high internal consistency with alpha coefficient of .98. Item analysis was performed and ten items were eliminated. The principle components analysis was done on the 114-item TNJSS and it yielded 18 factors with eigenvalue greater than 1 and communality ranged .44-.87. The total percent of variance explained at 71.40. Moreover, an examination of scree plot indicated that seven and eight factors should be investigated. Even though primarily, job satisfaction scale hypothesized to have seven factors, six factors were also examined. The varimax rotation was found to be the most parsimonious and theoretically interpretable in this study.

The study results answered the research questions as followings:

Research question one: What are the components of the job satisfaction scale for Thai nurses?

The results suggested eight factors comprised of 107 items with high internal consistency reliability of alpha .98 and offered a total of 60.35% of variance. These eight factors were:

1. Factor I: Incentives. This first factor encompassed 27 items with factor loadings ranged .47-.79, accounted for 13.03% of variance with an eigenvalue of 39.99, and demonstrated an alpha of .96.

2. Factor II: Professional Autonomy and Recognition. This second factor incorporated 21 items with factor loadings ranged .44-.79, accounted for 12.84% of variance with an eigenvalue of 8.02, and showed an alpha of .96.

3. Factor III: Nursing Supervisor. The third factor included 13 items with factor loadings ranged .71-.84, accounted for 10.24% of variance with an eigenvalue of 6.58, and provided an alpha of .97

4. Factor IV: Social Aspect. The forth factor comprised of 13 items with factor loadings ranged .51-.76, accounted for 6.76% of variance with an eigenvalue of 4.15, and offered an alpha of .96.

5. Factor V: Workload. The fifth factor composed of 11 items with factor loadings ranged .44-.73, accounted for 5.66% of variance with an eigenvalue of 2.92, and demonstrated an alpha of .87.

6. Factor VI: Work Environment. The sixth factor encompassed eight items with factor loadings ranged .56-.75, accounted for 5.66% of variance with an eigenvalue of 2.92, and showed an alpha of .87.

7. Factor VII: Nursing Policy and System. The seventh factor incorporated nine items with factor loadings ranged .44-.69, accounted for 4.24% of variance with an eigenvalue of 2.35, and provided an alpha of .94.

8. Factor VIII: Assertiveness in Confronting Difficulties. The eighth factor comprised of five items with factor loadings ranged .41-.66, accounted for 3.05% of variance with an eigenvalue of 2.03, and offered an alpha of .80.

Not only the items in this scale contained Thai context, this last factor clearly identified the uniqueness of this instrument in evaluating job satisfaction of Thai nurses. Moreover, when the total score of SDS-17 was correlated with the total score of subscales and the TNJSS, all factors had significant relationship but very low magnitude (r = .08-.16, p < .01) with the SDS-17. Therefore, the influence of social desirability on the TNJSS was at the minimum level.

Research question two: How valid and reliable is the new constructed job satisfaction scale?

The content validity resulted in the CVI of .97 which demonstrated that the content of TNJSS well represents the job satisfaction of Thai nurses' domain. The constructed validity was examined using EFA that gave 107-item, 8 factors with moderate to high factor loadings of .41-.84, Eigenvalue greater than one, and total percentage of variance explained 60.35%. Another type of construct validity was performed using hypothesis testing method. The correlation of total scores between

the TNJSS and OSS was also significant (r = -.486, $p < .01$). The results of both construct validity supported hypothesis and constructed underlying the scale.

For reliability, the internal consistency of all pre-test, field test, and post-test were examined and the alpha was .98. The result confirmed the homogeneity and high item-total correlation of items comprising the TNJSS. Another type of reliability was also assessed using test-retest method. The correlation of the test-retest result was significant (r = .83, $p < .01$) meaning that the TNJSS can assess construct comparably on separate occasions.

Hence, the results certainly confirmed the reliability and validity of the 107-item TNJSS (final version). Therefore, the TNJSS was considered a standard instrument that could be utilized to serve purposes of others in nursing profession optimistically.

REFERENCES

12manage. (2008). Expectancy Theory (Vroom). Retrieved November 17, 2008, from www.12manage.com

Adams, A., & Bond, S. (2000). Hospital nurses' job satisfaction, individual and organizational characteristics. *Journal of Advanced Nursing, 32*(3), 536-543.

American Educational Research Association, A. P. A., and National Council on Measurement in Education. (1999). *Standards for educational and psychological testing* Washington DC American Psychological Association.

Becker, W. (1976). Biasing effects of respondents' identification on responses to a social desirability scale: A warning to researchers. *Psychological Reports, 39*(3, Pt. 1), 756-758.

Blegen, M. A., & Mueller, C. W. (1987). Nurses' job satisfaction a longitudinal analysis. *Research in Nursing and Health, 10*, 227-237.

Boonthong, T. (2000a). *Nursing service system incorporation and preferred Thai health care delivery system in the future* Nonthaburi: Thai Nursing Council.

Boonthong, T. (Ed.). (2000b). *Nursing service system reform in corresponding with Thai health care service preferrence in the future* (3 rd ed.). Nonthaburi: Thai Nursing Council.

Borhas, G. J. (1979). Job satisfaction, wages and unions. *Journal of Human Resources, 14*, 21-40.

Bratt, M., Broome, M., Kelber, S., & Lostocco, L. (2000). Influence of stress and nursing leadership on job satisfaction of pediatric intensive care nurses. *American Journal of Critical Care, 9*, 307-317.

Bundhamcharoen, K., Patcharanarumol, W., & Tangcharoensathien, V. (2011). Demographic and Health Transition: Health Systems Charllenges and Future Direction. In G. Jones & W. Im-em (Eds.), *The Impact of Demographic Change in Thailand*: UNFPA Thailand.

Burke, R. J., & Greenglass, E. R. (2000). Effects of hospital restructuring on full time and part time nursing staff in Ontario. *International Journal of Nursing Studies, 37*, 163-171.

Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validity by multitrait-multimethod matrix. *Psychology Bulletin, 56*(12), 81-105.

Campbell, S., Lowles, E., & Weber, B. (2004). Organizational structure and job satisfaciton in Public Health Nursing. *Public Health Nursing 21*, 654-571.

Casey, K., Fink, R., Krugman, M., & Propst, J. (2004). The graduate nurse experience. *Journal of Nursing Administration, 34*(6), 303-311.

Chairatana, C. (1995). Job satisfaction, intention to leave the institution and profession among nurses at Sappaitthiprasong Hospital. *Medical Journal Ubon Hospital, 16*(2), 55-76.

Chapman, A. (2007). Adam's equity theory [Electronic Version]. Retrieved November 17, 2008 from www.businessballs.com.

Chapman, A. (2008). Maslow's Hierarchy of Needs [Electronic Version]. Retrieved November 17, 2008 from www.businessballs.com.

Charuluxananan, S., Kyokong, O., & Tamdee, D. (2002). Factors related to satisfaction of being Thai nurses Anesthetists. *Thai Journal of Anesthesiology, 28*(4), 205-214.

Chinn, P. L., & Kramer, M. K. (2008). *Integrated Theory and Knowledge development in Nursing* (Seventh ed.). Missouri: Mosby Elsevier.

Chokchaipaisarn, M. (2008). Work Stress of the Government Officials in the Mental Health Department. *Rajanukul Institute Journal, 23*(2).

Chu, C. I., Hsu, H. M., & Price, J. L. (2003). Job satisfaction of hospital nurses: An empirical test of a causal model in Taiwan. *International Nursing Review, 50*, 176-182.

Comrey, A. L. (1973). *A first course in factor analysis*. New York: Academic Press.

Cowin, L. S., Johnson, M., Rhonda, G. C., & Marcsh, H. W. (2008). Casual modeling of self-concept, job satisfaction, and retention of nurses. *International Journal of Nursing Studies, 45*, 1149-1159.

Crandall, R., & Perrewe, P. L. (Eds.). (1995). *Occupational Stress*. Washington, DC: Taylor & Francis.

Dawis, R. V., & Lofquist, L. H. (2008). *Theory of Work Adjustment as presented in A Psychological Theory of Work Adjustment: An Individual-Differences Model and Its Application*. Retrieved September 30, 2008, from http://www.psych.umn.edu.

Dejpiratanamongkol, T. (1998). Factors influencing morale for working at Sukhothai hospital, Sukhothai Province. *Journal of Uttaradit Hospital 13*(1), 43-53.

DeVellis, R. F. (1991). *Scale Development: Theory and Applications* (Vol. Applied Social Research Methods Series). London: SAGE Publications.

Dixon, J. K. (2001). Grouping Techniques In B. H. Munro (Ed.), *Statistical method of health care research* (3rd ed.). Philadelphia: Lippincott.

Droar, D. (2004). Motivational needs. Retrieved November 17, 2008, from www.arrod.co.uk.mht

Dunn, S., Wilson, B., & Esteman, A. T. (2005). Perceptions of working as a nurse in an acute care setting. *Journal of Nursing Management, 13*, 22-31.

Ellenbecker, C. H., & Byleckie, J. J. (2005). Home healthcare nurses' job satisfaction scale: Refinement and psychometric testing. *Journal of Advanced Nursing, 52*(1), 70-78.

Finn, C. (2001). Autonomy: an important for nurses' job satisfaction. *International Journal of Nursing Studies 38*, 349-357.

Flinkman, M., Laine, M., Leino-Kilpi, H., Hasselhorn, H. M., & Salantera, S. (2008). Explaining young registered Finnish nurses' intention to leave the profession: A questionnaire survey. *International Journal of Nursing Studies, 45*, 727-739.

Florio, G. A., Donnelly, F. P., & Zevon, M. A. (1998). The structure of work-related stress and coping among oncology nurses in high-stress medical settings. *Journal of Occupational Health Psychology, 3*, 227-242.

Freeman, R. B. (1978). Job satisfaction as an economic variable. *American Economic Review, 68*, 135-141.

Fung-Kam, L. (1998). Job satisfaction and autonomy of Hong Kong registered nurses. *Journal of Advanced Nursing, 27*(2), 355-363.

Geographic, T. C. o. N. (1977). Thai Regional Division Retrieved October 14, 2010, from http://www.rist.ac.th/Redeemer/Thai_Department

http://www.royin.go.th/th/knowledge/detail.php?ID=1378

Ghiselli, E. E., Campbell, J. P., & Zedeck, S. (1981). *Measurement theory for the behavioral sciences*. San Francisco: Freeman.

Green, S. B., Salkind, N. J., & Akey, T. M. (2000). Item analysis using the reliability procedure. In S. B. Green, N. J. Salkind & T. M. Akey (Eds.), *Using SPSS for Windows Analyzing and Understanding Data* (second ed.). Upper Saddle River, New Jersey: Prentice Hall.

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research In E. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research*. Thousand Oaks, CA: Sage.

Guleryuz, G., Guney, S., Aydin, E. M., & Asan, O. (2008). The mediating effect of job satisfaction between emotional intelligence and organizational commitment of nurses: A questionnaire survey. *International Journal of Nursing Studies, 45*, 1625-1635.

Hackman, J. R., & Oldham, G. R. (1975). Development of the job diagnostic survey. *Journal of Applied Psychology, 60*, 159-170.

Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: test of a theory. *Organizational Behavior Human Perform, 16*, 250-279.

Hamermesh, D. S. (Ed.). (1977). *Economic aspects of job satisfaction*. NY: Wiley.

Harmsupoe, S. (2000). *People and quality of life improvement*. Bangkok: O. S. Printing House.

Hasselhorn, H.-M., Tackenberg, P., & Muller, B. H. (2003). *Working conditions and intent to leave the profession among nursing staff in Europe*. Stockholm National Institute for Working Life and The Swedish Trade Unions in Co-operation.

Healy, C., & McKay, M. (1999). Identifying sources of stress and job satisfaction in the nursing environment *The Australian Journal of Advanced Nursing, 17*, 30-35.

Herzberg, F. (2008). Herzberg's motivation theory. Retrieved November 17, 2008, from www.en.wikipedia.com

Herzberg, F. I., Mausner, B., & Snyderman, B. (1959). *The motivation to work* (2nd ed.). New York: John Wiley.

Inglehart, R., & Klingemann, H.-D. (Eds.). (2000). *Genes, culture, democracy and happiness*. Cambridge: MIT Press.

Irvine, D. M., & Evans, M. G. (1995). Job-satisfaction and turnover among nurses-integrating research findings across studies. *Nursing Research, 44*(4), 246-253.

Jaiphawung, P. (2004). *Stress of Warden at Central Jail.* Graduates Development and Administration Institute, Chaing Rai.

Jongudomsuk, P. (2008). *Health Care Policy and System of Thailand*: Health Systems Research Institute (HSRI).

Kalichman, S., Gueritault-Chalvin, V., & Demi, A. (2000). Sources of occupational stress and coping strategies among nurses working in AIDS care. *Journal of the Association of Nurses in AIDS Care, 11*, 31-37.

Kekana, H., Rand, E., & Wyk, N. (2007). Job satisfaction of registered nurses in a community hospital in the Limpopo province in South Africa. *Curationis, 30*(2), 24-35.

Kim, U., Triandis, H. C., Choi, S. C., & Yoon, G. (1994). *Individualism and Collectivism: Theory, Method, and Application*. Thousand Oaks, CA: Sage.

Kinicki, A., & Kreitner, R. (2006). Organizational Culture, Socialization, and Mentoring. In A. Kinicki & R. Kreitner (Eds.), *Organizational Behavior: Key Concepts, Skills & Best Practices* (2nd ed.). USA: McGraw-Hill Irwin.

Klien, H. (2004). Cognition in natural settings: The cultural Lens Model. *Advances in Human Performance and Cognitive Engineering Research, 4*, 247-278.

Kline, D. L. (1993). *The handbook of psychological testing*. London: Routledge.

Komin, S. (1991). *Psychology of the Thai people: Values and behavioral patterns*. Retrieved June 10, 2009. from www.sciencedirect.com.

Kozier, B., Erb, G., Berman, A., & Snyder, S. (2004). *Fundamentals of nursing: Concepts, process, and practice* (Seventh ed.). USA: Pearson Prentice Hall.

Kristensen, N., & Johansson, E. (2008). New evidence on cross-country differences in job satisfaction using anchoring vignettes *Labour Economics, 15*, 96-117.

Kuntson, T. J. (1994). Comparison of Thai and US American cultural values: "mai pen rai" versus "just do it" *Assumption Business Administration College Journal, 14*, 1-38.

Lambert, V., et al. (2004a). Cross-cultural comparison of workplace stressors, ways of coping and demographic characteristics as predictors of physical and mental health among hospital nurses in Japan, Thailand, South Korea and the USA (Hawaii) *International Journal of Nursing Studies, 41*, 671-684.

Lambert, V., et al. (2007). Predictors of physical and mental health in hospital nurses in the People's Republic of China. *International Nursing Review, 54*, 85-91.

Lambert, V., Lambert, C., & Ito, M. (2004b). Workplace stressors, ways of coping and demographic characteristics as predictors of physical and mental health of Japanese hospital nurses. *International Journal of Nursing Studies, 41*, 85-97.

Lambert, V. A. (2008). Positivism, Empiricism, and Pragmatism. Songkla: Prince Songkla University.

Lance, C. E. (1991). Evaluation of a structural model relating job satisfaction, organizational commitment and precursors to voluntary turnover. *Multivariate Behavior Research, 26*, 137-162.

Larson, E., Lee, P. C., Brown, M. A., & Et, a. (1984). Job satisfaction: assumptions and complexities. *Journal of Nursing Administration, 14*(1), 31-38.

Lassey, M. L., Lassey, W. R., & Jinks, M. J. (1997). *Health Care Systems around the World: Characteristics, Issues, Reforms*. New Jersey: Prentice Hall

Lawler, E. E., & Porter, L. W. (1967). The effect of performance on job satisfaction. *Industrial Relations, 7*(20-28).

Lee, M. H., Holzemer, W. L., & Faucett, J. (2007). Psychometric Evaluation of the Nursing Stress Scale (NSS) Among Chinese Nurses in Taiwan. *Journal of Nursing Measurement, 15*(2), 133-144.

Li, J., & Lambert, V. A. (2008a). Job satisfaction among intensive care nurses from the People's Republic of China. *International Council of Nurses, 55*, 34-39.

Li, J., & Lambert, V. A. (2008b). Workplace stressors, coping, demographics and job satisfaction in Chinese intensive care nurse. *Nursing in Critical Care, 13*, 12-22.

Lin, C. J., Wang, H. C., Li, T. C., & Huang, L. C. (2007). Reliability and validity of nurses' job satisfaction scale and nurses' professional commitment. *Mid Taiwan Journal Medicine, 12*, 65-75.

Lin, M.-C., Li, I.-C., & Lin, K.-C. (2007). The relationship between personal traits and job satisfaction among Taiwanese community health volunteers. *Journal of Clinical Nursing, 16*, 1061-1067.

Lloyd, S., Streiner, D., Hahn, E., & Shannon, S. (1994). Development of the emergency physician job satisfaction measurement instrument. *American Journal of Emergency Medicine, 12*, 1-10.

Lloyd, S., Streiner, D., & Shannon, S. (1998). Predictive validity of the emergency physician and global job satisfaction instruments. *Academic Emergency Medicine, 5*, 234-241.

Locke, E. A. (Ed.). (1976). *The nature and causes of job satisfaction*. Chicago, IL: Rand Mc Nally.

Locke, L. A. (1969). What is job satisfaction? *Organizational Behavior and Human Performance, 4*.

Mackay, L. (1989). *Nursing a Problem*. Buckingham: Open University Press.

Maneenil, P. (2006). *Occupational Stress and Family Support of High School Teachers in Hat Yai District, Songkhla Province.* Unpublished Minor Thesis in Nursing Science, Prince of Songkla University, Hat Yai, Songkhla.

Mann, S., & Cowburn, J. (2005). Emotional labour and stress within mental health nursing. *Journal of Psychiatric and Mental Health, 12*, 154-162.

Martuza, V. R. (1975). *EDF 660 tests and measurements course manual* Newark: University of Delaware, College of Education.

Mathis, R. L., & Jackson, J. H. (2004). *Human resource management* (10th ed.). Singapore: Seng Lee Press.

Matsui, T., Ohsawa, T., & Onglatco, M. L. (1995). Work-family conflicts and the stress-buffering effects of husband support and coping behavior among Japanese married working woman. *Journal of Vocational Behavior, 47*, 178-192.

McCoy, J. (1999). Recognize, reward, retain. *Nursing Management, February*, 41-43.

Microsoft. (2008). The Encarta World English Dictionary. North American Edition. Retrieved August 7, 2008, from http://encarta.msn.com

Miller, K., Apold, S., Bass, L., Berner, B., & Levien-Brill, E. (2005). Job satisfaction among nurse practitioners. *Journal of Nurses Practitioner, 1*, 30-33.

Mitchell, E. S. (1986). Multiple triangulation: A methodology for nursing science. *Advances in Nursing Science, 8*(3), 18-26.

MOPH. (2000). Thailand Health Profile 1999-2000 [Electronic Version]. Retrieved December 3, 2008 from www.moph.go.th/ops/thealth_44/CHA6_1.PDF.

Morehead, A. H. (Ed.) (1961) The new American Webster handy college dictionary. London: The new English library limited.

Moyle, M., Skinner, J., Rowe, G., & Gork, C. (2003). Views of job satisfaction and dissatisfaction in Australian ling-term care. *Journal of Clinical Nursing, 12*, 168-176.

Mueller, C. W., & McClosky, J. C. (1990). Nurses' job satisfaction: a proposed measure. *Nursing Research, 39*(2), 113-117.

Ng, S. H. (1993). A job satisfaction scale for nurses. *N Z J Psychology, 22*, 46-53.

Njuki, G. M. (2001). *Factors related to job satisfaction among nurses at Ramathibodi hospital Bangkok, Thailand.* Unpublished Thesis, Mahidol University.

Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). NY: McGraw-Hill.

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw Hill.

Organ, D. W., & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Personnel Psychology, 48*, 775-802

Polit, D., & Hungler, B. (1995). *Nursing research: Principles and methods* (5th ed.). Philadelphia: Lippincott.

Pongruengphant, R., & Tyson, P. (2000). When nurses cry: Coping with occupational stress in Thailand. *International Journal of Nursing Studies, 37*, 535-539.

Price, J. L. (2001). Reflections on the determinants of voluntary turnover. *International Journal of Manpower, 22*(7), 600-624.

Quarstein, V. A., McAfee, R. B., & Classman, M. (1992). The situational occurrence theory of job satisfaction. *Human Relations, 45*, 859-873.

Ralston, D. A., Hallinger, P., Egri, C. P., & Naothinsuhk, S. (2005). The effects of culture and life stage on workplace strategies of upward influence: A comparison of Thailand and the United States. *Journal of World Business, 40*, 321-337.

Rew, L., Stuppy, D., & Becker, H. (1988). Construct validity in instrument development: A vital link between nursing prctice, research, and theory. *Advances in Nursing Science, 10*(8), 10-22.

Saane, N. V., Sluiter, J. K., Verbeek, J. H. A. M., & Friengs-Dresen, M. H. W. (2003). Reliability and validity of instruments measuring job satisfaction- a systemic review. *Occupational Medicine, 53*, 191-200.

Saari, L. M., & Judge, T. A. (2004). Employee attitudes and job satisfaction. *Human Resource Management, 43*, 395-407.

Saenadisai, S. (2007). *Nurse and positive practice environment: The major concern*. Paper presented at the Positive Practice Environment: Quality Workplaces and Quality Patient Care.

Satesuwan, A., Uniphan, J., & Boonyanukarn, P. (1986). The relatoinship between the taking care behavior of the unit nursing manager and job satisfaction including nursing retention *Journal of Nursing, Chulalongkorn University, 8*, 40-49.

Sauter, M. A., Boyle, D., Wallace, D., Andrews, J. L., Johnson, M. S., Bates, M., et al. (1997). Psychometric evaluation of the organizational job satisfaction scale. *Journal of Nursing Measurement, 5*(1), 53-69.

Shader, S., Broome, E., Broome, C., West, M., & Nash, M. (2001). Satisfaction and anticipated turnover in nurses in an academic medical center. *Journal of Nursing Administration, 31*(4), 210-216.

Shih, F. J. (1998). Triangulation in nursing research: Issues of conceptual clarity and purpose. *Journal of Advanced Nursing, 28*(3), 631-641.

Sinclair, J. (2006). Collins Birmingham University International Language Database Dictionary on CD-ROM (Version 5th): Collins Publishers.

Siu, O.-L. (2002). Predictors of job satisfaction and absenteeism in two samples of Hong Kong nurses. *Journal of Advanced Nursing, 40*(2), 218-229.

Smukupt, S., & Berna, L. (Eds.). (1976). *Impact of non-verbal communication in an intercultural setting: Thailand* (Vol. 3). Falls church, VA: Speech Communication Association.

Soe, Y., Ko, J., & Price, J. L. (2004). The determinants of job satisfaction among hospital nurses: A model estimation in Korea. *International Journal of Nursing Studies, 41*, 437-446.

Soeken, K. L. (2005). Validity of measure. In C. F. Waltz, O. L. Strickland & E. R. Lenz (Eds.), *Measurement in nursing and health research* (3rd ed.). NY: Spring Publishing Company

Srisuphan, W., Senaratana, W., Kunaviktikul, W., & Tonmukayakul, O. (2005). Supply and requirement projection of professional nurses in Thailand over the next two decades (1995-2015 A.D.) (Publication. Retrieved September 4, 2008, from World Health Organization: http://www.who.int/hrh/en/HRDJ_2_3_05.pdf

Stamps, P. L. (1997). *Nurse and work satisfaction: An index for measurement* (2nd ed.). Chicago: Health Administration Press.

Stamps, P. L., & Peidmont, E. B. (1986). *Nurses and work satisfaction* Michigan: Health Administration Press Perspectives.

Stanton, J. M., Sinar, E. F., Balzer, W. K., Julian, A. L., Thoresen, P., Aziz, A., et al. (2001). Development of a compact measure of job satisfaction: The abridged job descriptive index. *Education and Psychological Measurement, 61*(6), 1104-1122.

Stober, J. (2001). The Social Desirability Scale -17 (SDS-17). *European Journal of Psychological Assessment, 17*(3), 222-232.

Streubert, H. J. (1991). Phenomenological research as a theoretic initiative in community health nursing. . *Public Health Nursing, 8* (2), 119-123.

Sui, O.-L. (2002). Predictor of job satisfaction and absenteeism in two samples of Hong Kong nurses. *Journal of Advanced Nursing, 40*, 218-229.

Suwanpibul, B. (1998). Job Satisfaction of Professional Nurses in Vajira Hospital. *Vajira Medical Journal, 42*(3), 183-190.

Syptak, J. M., Marsland, D. W., & Ulmer, D. (1999). Job satisfaction: Putting theory into practice [Electronic Version]. *Journal of Family Practice Management*. Retrieved November 24, 2008 from www.aafp.org.

Taunton, R. L., Bott, M. J., Koehm, M. L., Miller, K., Rindner, E., Pace, K., et al. (2004). The NDNQI-Adapted Index of Work Satisfaction. *Journal of Nursing Measurement, 12*(2).

Thierry, H. (Ed.). (1998). *Motivation and satisfaction*. UK: Psychology Press/Erlbaum.

Thogchant, P. (1986). *Job satisfaction among full-time faculty members of nursing college in Thailand.* Unpublished Unpublished Doctoral Dissertation, North Texas State University, Texas.

Thurmond, V. A. (2001). Th point of triangulation. *Journal of Nursing Scholarship, 33*(3), 253-258.

Tinsley, C., & France, N. (2004). The trajectory of the registered nurse's exodus from the profession: A phenomenological study of the lived experience of oppression. *International Journal for Human Caring, 8*, 8-12.

Tinsley, H. E. A., & Tinsley, D. J. (1987). Uses of factor analysis in counceling psychology research. *Journal of Counseling Psychology, 34*, 414-424.

Topanthanont, S., & Prachusilpa, K. (2007). Factors influencing retention of professional nurse employees, government university hospitals. *Thai Journal of Nursing Council, 22*(4), 101-113.

Tourangeau, R., Rips, L. J., & Rasinski, K. A. (2000). *The psychology of survey response*. Camgridge, NY: Camgridge University Press.

Tovey, E. J., & Adams, A. E. (1999). The changing nature of nurses' job satisfaction: An exploration of sources of satisfaction in the 1990s. *Journal of Advanced Nursing, 30*(1), 150-158.

Traynor, M., & Wade, B. (1993). The development of a measure of job satisfaction for use in monitoring the morale of community nurses in four trusts. *Journal of Advanced Nursing, 18*, 127-136.

Tyler, P., & Cushway, D. (1992). Stress, coping and mental well-being in hospital nurses. *Stress Medicine, 8*, 91-98.

Tyson, P., Pongruengphant, R., & Aggarwal, B. (2002). Coping with organizational stress among hospital nurses in Southern Ontario. *International Journal of Nursing Studies, 39*, 453-458.

Tyson, P. D., & Pongruengphant, R. (2004). Five-year follow-up study of stress among nurses in public and private hospitals in Thailand. *International Journal of Nursing Studies, 41*, 247-254.

Tzeng, H. M. (2002a). The influence of nurses' working motivation and job satisfaction on intention to quit: An empirical investigation in Taiwan. *International Journal of Nursing Studies, 39*, 867-878.

Vichitrakarn, S., Vaicheeta, S., & Hanucharurnkul, S. (1995). Job satisfaction, intention to leave organization, and leave nursing profession at Ramathibodi hospital. *Ramathibodi Nursing Journal, 1*(3), 11-24.

Vroom, V. (1964). Expectancy Theory (Vroom). Retrieved November 17, 2008, from www.12manage.com

Wacharobol, A. (2006). The happiness and work satisfaction evaluation of nursing staffs in Sisaket hospital. *Journal of Medicine from hospitals at Sisaket, Surin, and Bureerum, 21*(2), 59-71.

Walker, L. O., & Avant, K. C. (2005). Concept Analysis. In *Strategies for Theory Construction in Nursing* (pp. 69, 73). NJ: Pearson Prentice Hall.

Waltz, C. F., Strickland, O. L., & Lenz, E. R. (2005). An introduction to measurement. In *Measurement in nursing and health research*. NY: Spring Publishing Company.

Waltz, C. F., Strickland, O. L., Lenz, E. R., & Soeken, K. L. (2005). Validity of Measures. In C. F. Waltz, O. L. Strickland & E. R. Lenz (Eds.), *Measurement in Nursing and Health Research*. New York: Springer Publishing Company, Inc.

Wang, S. H. (2004). *Job satisfaction of staff nurses and their perception on head nurses' leadership: A study in Sakaeo provincial hospital, Thailand.*

Wegge, J., Schmidt, K., Parkes, C., & Van Dick, K. (2007). 'Taking a sickie': Job satisfaction and job involvement as interactive predictors of absenteeism in a public organization. *Journal of Occupational and Organizational Psychology, 80*, 77-89

Wikipedia. (2008a). Expectancy theory. Retrieved November 17, 2008, from www.en.wikipedia.org

Wikipedia. (2008b). Herzberg's motivation theory. Retrieved November 17, 2008, from www.en.wikipedia.com

Wikipedia. (2009). Hospitals in Thailand. Retrieved September 13, 2009 from http://th.wikipedia.org

Willem, A., Buelens, M., & Jonghe, I. D. (2007). Impact of organizational structure on nurses' job satisfaction: A questionnaire survey. *International Journal of Nursing Studies, 44*, 1011-1020.

Wonganuroj, P. (2004). *Psychology in human resource administration*. Bangkok: Pimdee.

Young, A., Taylor, S. G., & Renpenning, K. M. (2001). *Connections Nursing Research, Theory, and Practice*. Missouri: Mosby.

Zurn, P., Dolea, C., & Stilwell, B. (2005). *Nurse retention and recruitment: Developing a motivated workforce*. Paper presented at the The global nursing review initiative. Retrieved September 4, 2008, from http://www.icn.ch/global/Issue4Retention.pdf.

APPENDIX A

A.01

Table 3

Job Satisfaction Components and Citations in Studies from Western and Eastern Countries

Factors	Empirical sources from Western (W) & Eastern (E) countries
1.Workload	**W**: Burke & Greenglass, 2000; Ellenbecker & Byleckie, 2005; Traynor & Wade, 1993; Adams & Bond, 2000; Florio et al., 1998; Kakena, Rand, & Wyk, 2007; Tayler & Cushway, 1992; Willem, Buelens, & Jonghe, 2007; Flinkman et al., 2008 **E**: Li & Lambert., 2008; Pongruengphant & Tyson 2000; Lambert et al., 20004a; 2004b; 2007; Soe, Ko, & Price., 2004; Lee, Holzemer, & Faucett, 2007; Lin et al., 2007; Siu., 2002; Tyson & Pongruenphant, 2004; Moyal et al., 2003
2.Shifting/ Floating	**W:** Ellenbecker & Byleckie, 2005; Healy & McKay, 1999; Tinsley & France, 2004 ; Schmalenberg & Kramer., 2008; Flinkman, 2006
3.Policy/system	**W:** Willem, Buelens, & Jonghe, 2007; Cowin et al. 2008 **E:** Li & Lambert., 2008a; 2008b; Pongruengphat & Tyson., 2000; Tyson & Pongruengphant., 2004; Campbell et al., 2004
4.Perform physicians' functions	**E:** Tyson & Pongruengphant., 2004; Li & Lambert., 2008b
5.Deal with death/ dying	**W:** Mann & Cowburn., 2005; Florio et al., 1998 **E:** Lambert et al., 2004b; Lee et al., 2007; Pongruenphant & Tyson., 2000; Tyson & Pongruenphant., 2004
6.Supplies/resources	**W:** Kakena, Rand, & Barribal, 2005; Shader et al., 2001; Traynor & Wade., 1992 **E:** Lin et al., 2007; Lee et al., 2007; Tholdy et al., 1998

Table 3 (continued)

Factors	Empirical sources from Western (W) & Eastern (E) countries
7.Administration/ Management	**W:** Sauter et al., 1997, Hackman & Oldham., 1975; **E:** Pongruengphant & Tyson., 2000; Tyson et al., 2002; Tyson & Pongruengphant., 2004
8. Job security	**W:** Traynor & Wade, 1993; Kakena, Rand, & Wyk, 2007 **E:** Tyson & Pongruengphant., 2004
9.Support at work	**W:** Traynor & Wade, 1992, Kakena, Rand, & Wyk, 2007 **E:** Pongruengphant & Tyson, 2000; Tyson et al, 2002; Tyson & Pongruengphant, 2004; Tzeng, 2002; Soe, Ko, & Price, 2004; Lee et al, 2007
10.Group Cohesiveness	**W:** Kekana, Rand, & Wyk., 2007; (Fletcher, 2001); Ellenbecker & Byleckie, 2005; Adams & Bond, 2000
11. Deal with patient/relative	**W:** (Ellenbecker & Byleckie, 2005; Kalichman, Gueritault-Chalvin, & Demi, 2000) **E:** Pongruengphant & Tyson, 2000
12.Relationship with people at work	**W:** Dunn et al, 2005; Willem, Buelens, & Jonghe, 2007; Hackman & Oldham, 1975; Kakena, Rand, & Wyk, 2007; Sauter et al, 1997; Ellenbecker & Bylecckie, 2005; **E:** Tyson et al, 2002; Li & Lambert, 2008; Lin et al, 2007; Lee et al, 2007; Lambert et al., 2004b
13.Home and work balance	**W:** Flickman et al, 2006 **E:** Watcharobon, 2006; Matsui et al., 2005
14.Governance	**E:** Pongruengphant & Tyson, 1997; Pongruengphant & Tyson, 2000
15.Role expectancy	**W:** Kalichman et al, 2000, Adams & Bond, 2000 **E:** Li & Lambert, 2008; Tyson & Pongruengphant, 2004; Tyson et al, 2002; Pongruengphant & Tyson, 2000

Table 3 (continued)

Factors	Empirical sources from Western (W) & Eastern (E) countries
16.Autonomy	**W:** Ellenbecker & Byleckie, 2005; Willem, Buelens, & Jonghe, 2007; Cowin et al, 2008; Kakena, Rand, & Wyk, 2007 **E:** Tyson & Pongruengphant, 2004; Li & Lambert, 2008; Soe, Ko, & Price, 2004; Bratt et al, 2000; Finn, 2001; Dunn et al, 2005
17.Professional status	**W:** Traynor & Wade, 1993; Mc Coy, 1999; Ellenbecker &Byleckie, 2005; Sauter et al, 1997; Willem, Buelens, & Jonghe, 2007; Mackay, 1989; Kakena, Rand, & Wyk, 2007; Cowin et al, 2008 **E:** Pongruengphant & Tyson, 2000; Thongchant, 1986; Tyson & Pongruengphant, 2004; Lin et al, 2007
18.Committment to nursing	**W:** Kakena, Rand, & Wyk, 2007; Flinkman et al, 2008
19. Pay/Benefits	**W:** Traynor & Wade, 1993; Kakena, Rand, & Wyk, 2007; Ellenbecker & Byleckie, 2005; Sauter et al, 1997; Flinkman, 2008 **E:** Seo et al., 2004; Lin et al., 2007; Li & Lambert, 2008a; Tyson & Pongruengphant, 2004
20. Continuing Professional Education	**W:** Traynor & Wade, 1993; Adams & Bond, 2000; Kakena, Rand, & Wyk, 2007; Flinkman et al., 2008 **E:** Lin et al., 2007; Tyson & Pongruengphant, 2004; Tzeng, 2002; Seo, Ko, & Price, 2004
21. Promotion	**E:** Tyson et al., 2002; Lin et al., 2007; Tyson & Pongruengphant, 2004; Seo, Ko, & Price, 2004; Li & Lambert, 2008a

Note. W = Western countries and E = Eastern countries

A.02

Table 5

Job Satisfaction Components and Citations in Studies from Asia and Thailand

Components	Authors	Total
1. Workload	Chairatana, 1995; Charuluxananan et al., 2002; V. Lambert, et al., 2004a, 2007; V. Lambert et al., 2004b; Lee et al., 2007; Li & Lambert, 2008a, 2008b; Lin et al., 2007; MOPH, 2000; Moyle et al., 2003; Pongruengphant & Tyson, 2000; Soe et al., 2004; Sui, 2002; Suwanpibul, 1998; P. D. Tyson & Pongruengphant, 2004	16
2. Policy/system	S. Campbell, Lowles, & Weber, 2004; Chairatana, 1995; Charuluxananan et al., 2002; Li & Lambert, 2008a, 2008b; Pongruengphant & Tyson, 2000; P. Tyson et al., 2002; P. D. Tyson & Pongruengphant, 2004	8
3. Performing physicians' function	Tyson & Pongruengphant, 2004; Li & Lambert, 2008b	2
4. Deal with death/dying	Lambert et al., 2004b; Lee et al., 2007; Pongruenphant & Tyson, 2000; Tyson & Pongruenphant, 2004	4
5. Supplies/ resources	Lin et al., 2006; Lee et al., 2007; Tholdy et al., 1998; Chaluluxananont, 2002; Chairatana, 1995	5
6.Administration	Pongruengphant & Tyson, 2000; Tyson et al., 2002; Tyson & Pongruengphant, 2004; Wang, 2004; Chaluluxananont, 2002	5
7. Job Security	Tyson & Pongruengphant, 2004	1
8. Support at work	Lee et al., 2007; Pongruengphant & Tyson, 2000; Soe et al., 2004; P. Tyson et al., 2002; P. D. Tyson & Pongruengphant, 2004; Tzeng, 2002	6

Table 5 (Continued)

Components	Authors	Total
9. Relationship with others at work	Bratt et al., 2000; Chairatana, 1995; Charuluxananan et al., 2002; Kitpredapaurisut, 1999; V. Lambert et al., 2004b; Lee et al., 2007; Li & Lambert, 2008a; Lin et al., 2007; Njuki, 2001; Suwanpibul, 1998; P. Tyson et al., 2002; Vichitrakarn et al., 1995	11
10. Deal with patient/relative	Pongruengphant & Tyson, 2000	1
11. Home and work balance	Watcharobon, 2006; Matsui et al., 2005	2
12.Governance	Pongruengphant & Tyson, 1997; Pongruengphant & Tyson, 2000	2
13. Caring role	Li & Lambert, 2008; Tyson & Pongruengphant, 2004; Tyson et al., 2002; Pongruengphant & Tyson, 2000	4
14. Autonomy	Bratt et al., 2000; Chairatana, 1995; Dunn et al., 2005; Finn, 2001; Li & Lambert, 2008a, 2008b; Soe et al., 2004; P. D. Tyson & Pongruengphant, 2004	8
15. Professional status	Boonthong, 2000; Chairatana, 1995; Dejpiratanamongkol, 1998; Kitpredapaurisut, 1999; Lin et al., 2007; Pongruengphant & Tyson, 2000; Thogncchant, 1986; P. D. Tyson & Pongruengphant, 2004; Vichitrakarn et al., 1995	**9**
16. Pay/ Benefits	Chairatana, 1995; Charuluxananan et al., 2002; Dejpiratanamongkol, 1998; Harmsupoe, 2000; Li & Lambert, 2008a; Lin et al., 2007; Njuki, 2001; Soe et al., 2004; Suwanpibul, 1998; Topanthanont & Prachusilpa, 2007; P. D. Tyson & Pongruengphant, 2004; Vichitrakarn et al., 1995; Wacharobol, 2006; Wonganuroj, 2004	**14**
17. Continuing Professional Education	Charuluxananan et al., 2002; Lin et al., 2007; Njuki, 2001; Soe et al., 2004; Suwanpibul, 1998; P. D. Tyson & Pongruengphant, 2004; Tzeng, 2002	**7**

Table 5 (Continued)

Component	Authors	Total
18. Promotion	Dejpiratanamongkol, 1998; Li & Lambert, 2008a; Lin et al., 2007; Soe et al., 2004; P. Tyson et al., 2002; P. D. Tyson & Pongruengphant, 2004	6

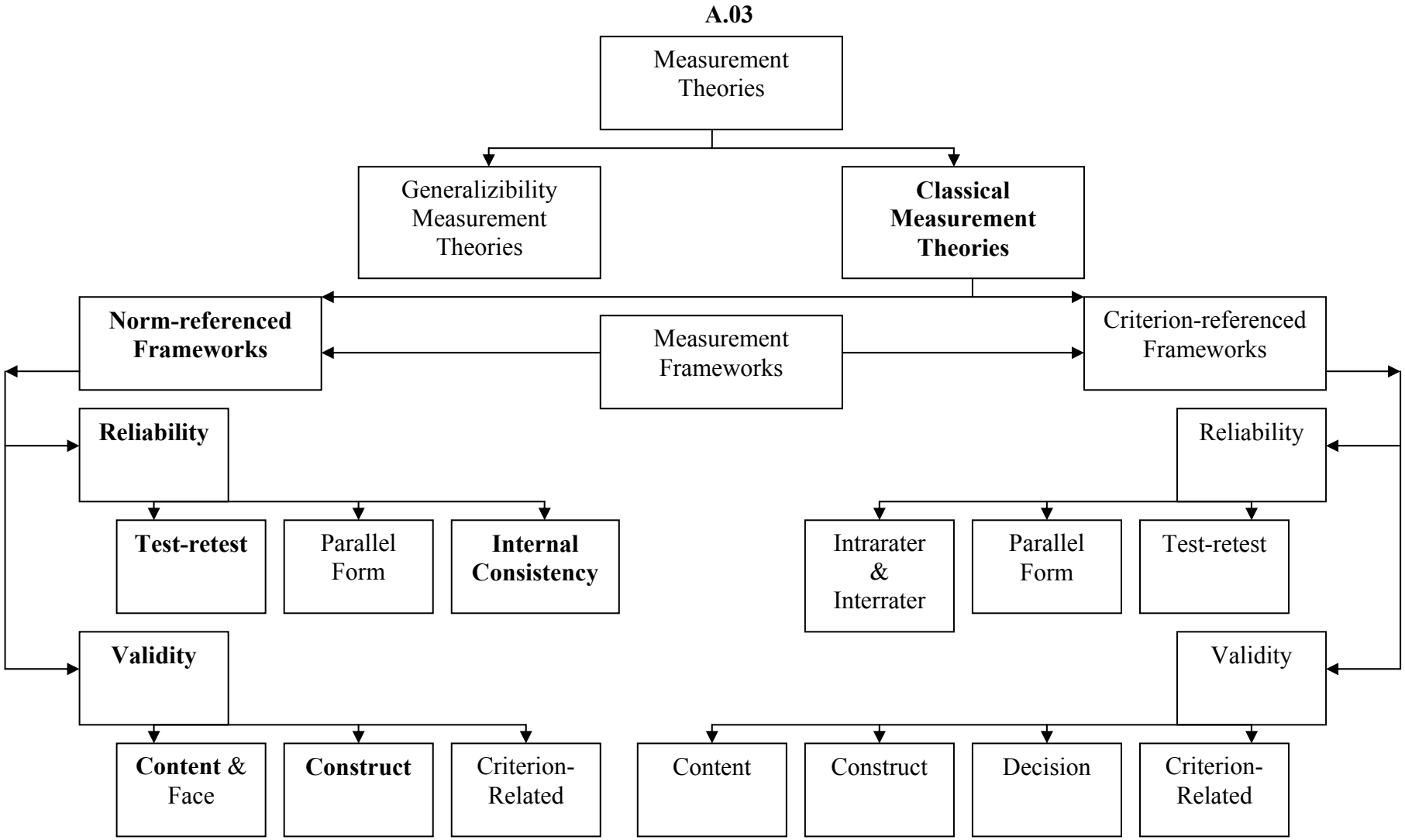

Figure 2. Demonstrating measurement theories, measurement frameworks, and psychometric properties testing.

Note. *Those in bold letters are theory, framework, and psychometric properties testing for the TNJSS.

APPENDIX B

Documents for Requesting Interviews and Interview Data

B.01 Letter Asking Permission to Conduct Interviews

B.02 Announcement Acquiring Participants

B.03 Oral Informed Consent

B.04 Permission Letter from PSU to Conduct Interviews

B.05 Interview Questionnaire for Registered Nurse

B. 06 Interview Data

B. 07 Job Satisfaction Components from Interviews

B. 08 Concept Mapping of Job Satisfaction Components from Interview

B.01

โรงพยาบาลมิชชั่นภูเก็ต
4/1 ถ.เทพกระษัตรี ต. รัษฎา
อ. เมือง จ. ภูเก็ต 83000

วันที่ 28 สิงหาคม พ.ศ. 2552

เรื่อง ขออนุญาตสัมภาษณ์ และขอความอนุเคราะห์รายชื่อพยาบาล
เอกสารแนบ ประกาศหาพยาบาลวิชาชีพผู้มีความสนใจให้สัมภาษณ์เรื่อง ความพึงพอใจในการทำงาน และ
แบบฟอร์มพิทักษ์สิทธิผู้เข้าร่วมวิจัย
เรียน ท่านผู้อำนวยการโรงพยาบาล

ดิฉัน นางจารุรัตน์ ศรีรัตนประภาส อาจารย์ประจำ คณะพยาบาลศาสตร์ วิทยาลัยมิชชัน กำลังศึกษาต่อในระดับปริญญาเอก สาขาการพยาบาล ณ มหาวิทยาลัยสงขลานครินทร์ วิทยาเขตหาดใหญ่ ขณะนี้อยู่ในระหว่างการเตรียมการทำวิทยานิพนธ์ เรื่อง การพัฒนาและการประเมินเครื่องมือวัดความพึงพอใจในการทำงานสำหรับพยาบาลไทย (Development and Psychometric Evaluation of Thai Nurses' Job Satisfaction Scale, TNJSS) โดยมีจุดประสงค์เพื่อสร้างเครื่องมือมาตรฐานสำหรับการประเมินความพึงพอใจในการทำงานของพยาบาลไทย ซึ่งจะเก็บข้อมูลโดยขอความร่วมมือจากพยาบาลวิชาชีพที่ยินดีอาสาให้สัมภาษณ์จำนวน 3 ท่าน ได้แก่ พยาบาลประจำการจากต่างแผนกที่โรงพยาบาล 2 ท่าน และพยาบาลตำแหน่งบริหาร 1ท่าน ในการสัมภาษณ์จะเป็นการสัมภาษณ์เดี่ยวและใช้เวลาประมาณ 45 นาทีถึง 1 ชั่วโมง ต่อการสัมภาษณ์พยาบาล 1 ท่าน และหากท่านมีข้อสงสัยประการใดเกี่ยวกับงานวิจัยครั้งนี้ กรุณาติดต่อดิฉันได้ที่ (086) 943-0200

ดังนั้นดิฉันใคร่ขออนุญาตเก็บข้อมูลจากพยาบาลในสังกัดของท่าน และขออนุเคราะห์รายชื่อพยาบาลและเบอร์โทรศัพท์ของพยาบาลที่มีความประสงค์จะร่วมโครงการครั้งนี้ด้วย จักเป็นพระคุณยิ่ง

ขอแสดงความนับถือ

.....
(นาง จารุรัตน์ ศรีรัตนประภาส)

สำเนาเรียน หัวหน้าฝ่ายการพยาบาล

B.02

ประกาศ

วันที่ 28 เดือน สิงหาคม ปี พ. ศ. 2552

เรียน พยาบาลวิชาชีพทุกท่าน
เรื่อง ขออาสาสมัครร่วมวิจัย

ดิฉัน นางจารุรัตน์ ศรีรัตนประภาส อาจารย์ประจำ คณะพยาบาลศาสตร์ วิทยาลัยมิชชัน กำลังศึกษาต่อในระดับปริญญาเอก ณ มหาวิทยาลัยสงขลานครินทร์ วิทยาเขตหาดใหญ่ ขณะนี้อยู่ในระหว่างการเตรียมการทำวิทยานิพนธ์ เรื่อง การพัฒนาและการประเมินเครื่องมือวัดความพึงพอใจในการทำงานสำหรับพยาบาลไทย (Development and Psychometric Evaluation of Thai Nurses' Job Satisfaction Scale, TNJSS) โดยมีจุดประสงค์เพื่อสร้างเครื่องมือมาตรฐานสำหรับการประเมินความพึงพอใจในการทำงานของพยาบาลไทย ซึ่งจะเก็บข้อมูลโดยขอความร่วมมือจากพยาบาลวิชาชีพที่ยินดีจะให้สัมภาษณ์จำนวน 3 ท่าน ได้แก่ พยาบาลประจำการที่ไม่มีตำแหน่งเป็นผู้บริหารจากต่างแผนกของโรงพยาบาล 2 ท่าน และพยาบาลประจำการตำแหน่งบริหาร 1 ท่าน ในการสัมภาษณ์นั้นจะเป็นการสัมภาษณ์เดี่ยวและใช้เวลาประมาณ 45 นาทีถึง 1 ชั่วโมงต่อการสัมภาษณ์พยาบาล 1 ท่าน

ดังนั้นหากท่านใดสนใจ กรุณาติดต่อหัวหน้าฝ่ายการพยาบาลของท่าน และหากท่านมีข้อสงสัยเกี่ยวกับงานวิจัยครั้งนี้ กรุณาติดต่อดิฉันได้ที่ (086) 943-0200

ดิฉันขอขอบพระคุณท่านมาล่วงหน้า ในการเข้ามามีส่วนร่วมในการวิจัย อันจะเป็นข้อมูลอันสำคัญแก่พยาบาลวิชาชีพในประเทศไทยของเราต่อไปในอนาคต

ขอแสดงความนับถือ

.....

(นาง จารุรัตน์ ศรีรัตนประภาส)

B.03

แบบฟอร์มพิทักษ์สิทธิผู้เข้าร่วมวิจัย

เรียน พยาบาลผู้เข้าร่วมวิจัย

ดิฉัน นางจารุรัตน์ ศรีรัตนประภาส อาจารย์ประจำ คณะพยาบาลศาสตร์ วิทยาลัยมิชชัน กำลังศึกษาต่อในระดับปริญญาเอก สาขาการพยาบาล ณ มหาวิทยาลัยสงขลานครินทร์ วิทยาเขตหาดใหญ่ ขณะนี้อยู่ในระหว่างการเตรียมการทำวิทยานิพนธ์ เรื่อง การพัฒนาและการประเมินเครื่องมือวัดความพึงพอใจในการทำงานสำหรับพยาบาลไทย (Development and Psychometric Evaluation of Thai Nurses' Job Satisfaction Scale, TNJSS) โดยมีจุดประสงค์เพื่อสร้างเครื่องมือมาตรฐานสำหรับการประเมินความพึงพอใจในการทำงานของพยาบาลไทย ซึ่งจะเก็บข้อมูลโดยขอความร่วมมือจากพยาบาลวิชาชีพที่ยินดีจะแบ่งปันประสบการณ์โดยการให้สัมภาษณ์ ซึ่งท่านจะเป็นตัวแทนพยาบาลวิชาชีพในภูมิภาคของท่าน ในการสัมภาษณ์นั้นจะเป็นการสัมภาษณ์เดี่ยวและใช้เวลาประมาณ 45 นาทีถึง 1 ชั่วโมง ต่อการสัมภาษณ์พยาบาล 1 ท่าน

ในการที่ท่านเข้ามามีส่วนร่วมในการให้สัมภาษณ์นี้ เป็นการอาสาโดยสมัครใจ ขอให้ท่านเล่าประสบการณ์ในการทำงานจริงของท่านอันจะเป็นข้อมูลอันสำคัญในการสร้างเครื่องมือประเมินความพึงพอใจในการทำงานของพยาบาลไทย เมื่อท่านเข้าร่วมวิจัยแล้ว ท่านสามารถถอนตัวจากการให้ข้อมูลได้ตลอดเวลาที่ท่านต้องการ ท่านจะไม่ได้รับผลกระทบใดๆที่เป็นอันตรายทั้งตัวท่าน หน้าที่การงานและครอบครัวของท่านทั้งสิ้น จะไม่มีการเปิดเผยชื่อท่าน ข้อมูลที่ได้รับจากท่านจะถูกนำเสนอในภาพรวมของพยาบาลไทยเท่านั้น

หากท่านประสงค์จะสอบถามข้อสงสัยใดๆเกี่ยวกับการศึกษานี้ กรุณาติดต่อดิฉันได้โดยตรง และดิฉันใคร่ขอขอบคุณเป็นอย่างสูง สำหรับความร่วมมือของท่านเป็นอย่างดีในครั้งนี้

ขอแสดงความนับถือ

.....

(นาง จารุรัตน์ ศรีรัตนประภาส)

ผู้ทำการวิจัย นาง จารุรัตน์ ศรีรัตนประภาส
ที่อยู่ 4/1 โรงพยาบาลมิชชั่นภูเก็ต ถ.เทพกระษัตรี ต.รัษฎา อ.เมือง จ.ภูเก็ต 83000
เบอร์โทรศัพท์ (086) 943-0200

B.04

ที่ ศธ ๐๕๒๑.๐๕/๒๖๕๓

คณะพยาบาลศาสตร์
มหาวิทยาลัยสงขลานครินทร์
ตู้ ปณ. ๙ ปทฝ.คอหงส์
อ.หาดใหญ่ จ.สงขลา ๙๐๑๑๒

๑๙ สิงหาคม ๒๕๕๒

เรื่อง ขออนุญาตเก็บข้อมูลวิจัย

เรียน ผู้อำนวยการโรงพยาบาลพุนพิน

ด้วยนางจารุรัตน์ ศรีรัตนประภาส รหัสนักศึกษา ๕๑๑๐๔๓๐๐๐๓ นักศึกษาหลักสูตรปรัชญาดุษฎีบัณฑิต สาขาการพยาบาล (นานาชาติ) คณะพยาบาลศาสตร์ มหาวิทยาลัยสงขลานครินทร์ มีความประสงค์ที่จะทำวิทยานิพนธ์เรื่อง "Development and Psychometric Evaluation of Thai Nurse's Job Satisfaction Scale" โดยมี รองศาสตราจารย์ ดร.อรัญญา เชาวลิต เป็นอาจารย์ที่ปรึกษาวิทยานิพนธ์ ซึ่งในกระบวนการดังกล่าว นักศึกษามีความจำเป็นต้องเก็บข้อมูลวิจัยเพื่อประกอบการทำวิทยานิพนธ์

คณะพยาบาลศาสตร์ มหาวิทยาลัยสงขลานครินทร์ จึงขออนุญาตให้ นางจารุรัตน์ ศรีรัตนประภาส เก็บข้อมูลวิจัย ณ โรงพยาบาลพุนพิน ระหว่างวันที่ ๑๕ กันยายน – ๓๐ ตุลาคม ๒๕๕๒ พร้อมนี้ได้แนบโครงร่างวิทยานิพนธ์มาด้วยแล้ว

จึงเรียนมาเพื่อโปรดพิจารณาให้ความอนุเคราะห์ด้วย จะเป็นพระคุณยิ่ง

ขอแสดงความนับถือ

(ผู้ช่วยศาสตราจารย์แสงอรุณ อิสระมาลัย)
ผู้ช่วยคณบดีฝ่ายบัณฑิตศึกษา ปฏิบัติราชการแทน
คณบดีคณะพยาบาลศาสตร์

สำนักงานเลขานุการ
โทรศัพท์ ๐-๗๔๒๘-๖๔๕๖
โทรสาร ๐-๗๔๒๘-๖๔๒๑
สำเนาเรียน หัวหน้าฝ่ายการพยาบาล โรงพยาบาลพุนพิน

B.05

เลขที่แบบสัมภาษณ์ ☐

แบบสัมภาษณ์สำหรับพยาบาลวิชาชีพ

ตอนที่ 1 ข้อมูลส่วนบุคคล

1. อายุ _____ ปี
2. เพศ
   _____ ชาย _____ หญิง
3. สถานภาพทางการสมรส
   _____ โสด _____ สมรสและอยู่ร่วมกัน
   _____ สมรสแต่แยกกันอยู่ _____ หย่าร้าง
   _____ ม่าย
4. ระดับการศึกษาสูงสุด
   _____ ปริญญาเอก _____ ปริญญาโท
   _____ ปริญญาตรี
5. รายได้ (บาทต่อเดือน)
   _____ 10,000 และน้อยกว่า _____ 10,000-15,000
   _____ 16,000-20,000 _____ 21,000-25,000
   _____ 26,000-30,000 _____ 31,000-35,000
   _____ 36,000-40,000 _____ 40,000 และมากกว่า
6. ประเภทของตำแหน่ง
   _____ ผู้บริหาร _____ พยาบาลทั่วไป
7. แผนกประจำการ
   _____ บริหารทางการพยาบาล _____ ฟื้นฟูสุขภาพ
   _____ อายุรกรรม /ศัลยกรรม _____ สูตินารี
   _____ กุมารเวช _____ วิกฤตทั่วไป
   _____ วิกฤตด้านหัวใจ _____ ผู้ป่วยนอก
   _____ ฉุกเฉิน _____ สถานีอนามัย
8. ประสบการณ์การทำงาน (ปี)
   _____ 1-5 _____ 6-10
   _____ 11-15 _____ 16-20
   _____ 21-25 _____ 26-30
   _____ 31-35 _____ 36-40
   _____ 40 และมากกว่า

<u>ตอนที่ 2</u> ข้อมูลเกี่ยวกับความพึงพอใจในการทำงาน

1. เมื่อพูดถึง ความพึงพอใจในงาน (job satisfaction) ท่านคิดถึงอะไร และกรุณาให้ความหมายตามความรู้สึกของท่าน

2. ท่านมีความพึงพอใจในงานโดยทั่วไปอยู่ในระดับมากน้อยเพียงใด

3. สิ่งที่ทำให้ท่านพึงพอใจในงานมีอะไรบ้าง

4. เมื่อพูดถึงสภาพของงาน ระบบและสิ่งแวดล้อมที่ทำงานแล้ว ท่านคิดถึงอะไร

ท่านมีความพึงพอใจมากน้อยเพียงใดและอย่างไร

กรุณาอธิบายว่าอะไรที่ทำให้ท่านพึงพอใจหรือไม่พึงพอใจในเรื่องนี้บ้าง

5. หากจะกล่าวถึงสังคมกับผู้ร่วมงานนั้น ท่านคิดถึงอะไรบ้าง

ท่านมีความพึงพอใจมากน้อยเพียงใดและอย่างไร

อะไรบ้างที่มีส่วนทำให้ท่านพึงพอใจหรือไม่พึงพอใจกับสังคมและผู้ร่วมงานนี้

6. ในฐานะที่ท่านเป็นพยาบาลวิชาชีพ ท่านคิดว่าบุคคลจากสาขาวิชาชีพอื่นๆคิดอย่างไรกับท่าน

ท่านพึงพอใจกับการที่เขามองเรามากน้อยอย่างไร

อะไรบ้างที่มีส่วนทำให้ท่านพึงพอใจและไม่พึงพอใจ เมื่อพูดถึงเรื่องนี้

7. หากจะกล่าวถึงการให้อิสระและสิทธิในการตัดสินใจภายในขอบเขตของงานที่ท่านรับผิดชอบแล้ว ท่านคิดถึงอะไร

ท่านมีความพึงพอใจมากน้อยเพียงใดและอย่างไร

กรุณาอธิบายว่าอะไรที่ทำให้ท่านพึงพอใจหรือไม่พึงพอใจในเรื่องนี้บ้าง

8. เกี่ยวกับเรื่องค่าตอบแทนจากนายจ้าง ท่านคิดว่าสิ่งเหล่านี้ควรจะมาในรูปแบบใดบ้าง

ท่านมีความพึงพอใจมากน้อยเพียงใดและอย่างไร

อะไรบ้างที่มีส่วนทำให้ท่านพึงพอใจและไม่พึงพอใจเกี่ยวกับเรื่องนี้

9. ท่านมีเรื่องอื่นๆ ที่อยากจะพูดถึงในประเด็นความพึงพอใจและไม่พึงพอใจในการทำงานอีกหรือไม่ โปรดอธิบาย

B.06: Interview Data in Job Satisfaction (JS)

Description from interview	Line
Nurse 1	
I: When talking about job satisfaction, what does it mean to you?	1 2
N_1: Happiness at work and something that makes me wanting to come to work.	3 4
I: In general, what is your job satisfaction level?	5
N_1: Good satisfaction.	6
I: What do you think about when mentioning job satisfaction?	7
N_1: Example is work environment. I satisfy with working environment at low level. It should give convenience. Examples are parking space and unit to work. The parking is good and it makes me wanting to come to work. Contrary to other situation, I fought hard for good setting for work. I had to get signatures of co-workers and make the request for air-condition from administration. As our job is to service others, it is naturally tired, stress out. Therefore, working environment should be suitable and comfortable to the nature of work. Another situation was at TB clinic, I asked for equipments, separated area, and waited for the answer a long time. Administrators said it is in the process of making decision. However, when some VIPs visited our unit, we got equipments in at that very same day.	8 9 10 11 12 13 14 15 16 17 18 19 20 21
I: OK. What else do you think about?	22
N_1: She paused and smiled.	23
I: How about workload? Is it important? How do you satisfy with it?	24 25
N_1: Yes, it is important. However, I feel OK with mine because it is at moderate load but I don't like if someone else has lighter workload. While we are working so hard, we notice someone has nothing much to do. I would like to have fairness about this.	26 27 28 29 30
I: What else?	31
N_1: Pay.	32
I: Are you happy with it and at what level?	33
N_1: Low level. We should get more pay. We receive very little comparing to other professions. But when I compare myself to others who earn less and work hard physically; then, I feel better.	34 35 36 37
I: Pay is something we receive in return from our employer. What else do you think should be included as reward from them?	38 39 40
N_1: Retrieve. This hospital should organize a retrieve trip for employees. At least, it is something for us to enjoy together. Another thing is about sick visit pay. I want some money paid from employer but not from co-workers who came to visit and put their money in for the sick one.	41 42 43 44 45
	46

Description from interview	Line
Nurse 1 (Continued)	
I: Other than these, what else do you think it should be included in incentives?	1 2
N_1: Education for us.	3
I: Are you happy with it and at what level?	4
N_1: Good support. This hospital gives 5000 baht/year.	5
I: "What will happen if you can not use all of development fund in this year?"	6 7
N_1: "I don't want it to be cut off because some people are very busy and can't leave the job during that seminar time. That person has less chance to attend any meeting.	8 9 10
I: "So, would you like to have more flexibility in this issue?"	11
N_1: "Yes. The CEO normally gives this flexibility; however, the chief nursing administrator does not. I feel the power in making decision about nursing is controlled by one person in this hospital." She laughed.	12 13 14 15
I: "OK. Tell me more about administration in general. How is your satisfaction level?	16 17
N_1: "Not so OK. An administrator impacts our work. Every project we proposed has to go through administration. Always, there are obstructions. Like last week, it was the end of budget year. We sent projects in a long time already and they were sitting there doing nothing. Nobody looked at them. All of the sudden in last week, administrator sent them down and said they are not good." She smiled and laughed. Everybody was not happy and complained "What are we going to do? How are we going to fix this in short period of time?".	18 19 20 21 22 23 24 25 26
I: Does that mean you lost both your productivity and money for hospital?	27 28
N_1: Yes. Some people just go ahead and do it using their own money. And at the end, they could not reimburse their money. Therefore, I just do not do anything in order to avoid this problem. It made me lazy.	29 30 31 32
I: Are you tired of this system?	33
N_1: Yes.	34
I: How about hospital policy?	35
N_1: The policy comes out from the same person. Power controlling is still the same. She thinks her idea is the main one and best. If anything she suggests is OK with me, I will follow it. If what she suggests is not OK, I just do nothing.	36 37 38 39
I: Do you have terms for administrator here? What do you think?	40 41
N_1: There should be a term but there is not. She has been there for a long time.	42 43
I: How about social at work?	44
N_1: We love each other well in the same group. Whatever we do, we are all OK and do it together. Sometimes, we have an argument among other small groups in this unit.	45 46 47 48

Description from interview	Line
Nurse 1 (Continued)	
N_1: However, when we have problem with people from other unit; we all love each other again. Actually, they separate themselves into many sides or groups.	1 2 3
I: How is the support among each other?	4
N_1: We support and help each other well. This may be because we maintain good relationship.	5 6
I: Over all, what is your satisfaction level in social at work?	7
N_1: Good.	8
I: OK. What else do you think it is important for you to stay in this profession long time and happy? Or, is there anything that you think it should be important for this?	9 10 11
N_1: She had a long pause and smile.	12
I: For example is our professional status or autonomy in governing your work. What do you think about them?	13 14
N_1: I think they are good. I am assigned to suitable amount to work and be responsible for it. I'm comfortable with it. I can make decision within the scope of my practice.	15 16 17
I: And, how is the situation when you want to suggest new idea in this unit?	18 19
N_1: They accept my idea well.	20
I: What do you think about our professional status? How do people in society and other professions look at us?	21 22
N_1: I think they look at us at good level.	23
I: How do you rate your satisfaction in your nursing professional status?	24 25
N_1: A lot.	26
I: Is there anything else I did not mention and you think it is important?	27 28
N_1: Long paused. Smiled and laughed. I can not think of anything else.	29 30
I: OK. In conclusion, you would like to see fairness in assigning workload even though your load is appropriate. In general, your job satisfaction is at good level. Convenient working facility is one important part that makes you wanting to come to work.	31 32 33 34 35
N_1: Yes.	36
I: From what we discussed, what do you think is the most important factor that contributes to your job satisfaction?	37 38
N_1: Happiness at work composes of many factors such as pay, friends, and working environment.	39 40
I: So, what is the most important one?	41
N_1: Paused. Friends here.	42
I: How about them? If they stay, will you also stay?	43
N_1: How can we not stay here? Whatever happens, I will stay as long as there is no other job that is better in the sense of more reliable. I will try taking new job while keeping this job until I do not have time take care of the new one. Then, I will decide to leave this job.	44 45 46 47 48

Description from interview	Line
Nurse 1 (Continued)	
I: Does this mean if you find better job, you will leave this job?	1
N_1: Yes, if there is any one thousand eight hundreds million	2
baht business to take care of.	3
I: So, if there is any other nursing job that pays more, you will	4
take it also. Correct?	5
N_1: Yes.	6
I: How about traveling? Where is your home? Is it far from	7
here?	8
N_1: My house is in town. It's short distance coming here.	9
I: Where are your parents?	10
N_1: They are here.	11
I: Is that why you work here too? This is because you also said	12
this job does not pay well and you want to change job if there	13
is a better offer. Does it mean to change job or change	14
profession?	15
N_1: Yes, but I will change job not profession.	16
I: Would you go if someone asks you to sell baby formula or be	17
a drug representative?	18
N_1: No. She was laughing. Actually, nursing makes me proud	19
and has chances to do good deeds or good merit all the time. I	20
do not have to go to temple due to my laziness.	21
I: How do you compare nursing with other health care	22
providers? Are we well respected and accepted?	23
N_1: I know doctors and pharmacists look at us as inferior;	24
however, I know nurses do a lot of work and not the inferior to	25
these people. Even people in the same organization, they do	26
not respect us that much excepting administrative nurses.	27
I: How do you know?	28
N: I know because when we ask them to do some tasks, they	29
say busy and have no time to do it for us.	30
I: How about people in society? Do you feel an acceptance and	31
respect from them?	32
N_1: Good. They call us doctor but I want them to call us nurse.	33
But for people who are educated, they do not want their	34
children to be nurses.	35
I: Why do you think it is that way?	36
N_1: They think nurses are to serve others and clean up dirty	37
human waste.	38
I: So, you think general people think that way.	39
N_1: She nodded.	40
I: How about promotion? What do you think about it?	41
N_1: The system is to take turn getting promotion. In some	42
situation, when someone is going to retired but her rank is not	43
as same as others; then, promotion goes to that person. Or,	44
somebody asked first but the other did not. Problems arise.	45

Description from interview	Line
Nurse 1 (Continued)	
I: What do you think it should be?	1
N_1: It should rely on productivity of each person; however, it is	2
also difficult to know who does more. People here work	3
together but each person's responsibility is different. We do	4
not know how my friend performs. Who is better? I would like	5
to see clearer picture or policy about this. Why do we have to	6
compete among each other? People quarrel about this. Why	7
does not this promotion come when anyone achieve the goal of	8
their work? Some people are friends for a long time and	9
become enemy at the end due to this promotional competition.	10
It also depends on whether that person makes noise about it.	11
Sometimes, if you make noise, you will get the promotion. It's	12
like they have quota.	13
I: I see and understand you. Is there anything else you want to	14
talk about? Is there anything I missed when talking about job	15
satisfaction?	16
N_1: I do not know if there is anything else. I can not think of it.	17
She laughed.	18
I: Conclusion, you said money is not the most important issue.	19
Workload, social at work, intensives are all important. What is	20
the most important factor for you?	21
N_1: Social. If I have problems with friends at work, it makes	22
me not wanting to come to work.	23
	24
Nurse 2	25
I: What is the meaning of job satisfaction to you?	26
N_2: Satisfaction in duty, career path, incentives, fringe benefits,	27
fairness.	28
I: What do you mean by fairness?	29
N_2: I mean fairness in incentives, manpower, and career path.	30
I: What is the level of job satisfaction in general?	31
N_2: Moderate to good.	32
I: You mentioned about incentives. What types of incentive do	33
you expect?	34
N_2: Payment, recognition, fringe benefits.	35
I: What are the examples of fringe benefits?	36
N_2: Nurses' lounge, educational support, promotion.	37
I: What do you think about vacation?	38
N_2: We got what we are supposed to even though we have to	39
come to work on some weekends due to QA work. But, we can	40
accept it.	41
I: What else do you think it should be included in incentives	42
other than pay, recognition, fringe benefit, and promotion?	43

Description from interview	Line
Nurse 2 (Continued)	
N_2: Payment for our administrative position. This is because we are more exhausted than staff nurses. Even though we do not have to rotate on shifts but we have lots of paper work to complete. We got paid as much as staff nurses but we are responsible more. I know it might not be changed for us but I hope it will be changed in the next generation. It is a stressful even though we should not be. Lots of more white hair grows.	1 2 3 4 5 6 7
I: What is the level of satisfaction about incentives in general?	8
N_2: If we talk about within nursing area, it is at moderate level. However, if we mean in hospital level comparing to other professions, we should get more. It's too low.	9 10 11
I: You talked about other profession. Tell me more about it comparing to ours. Are you satisfied? How so?	12 13
N_2: I feel good satisfaction with my nursing status because I use it to coordinate with others and receive good result. Nurses are included in all projects and administrative teams that make hospital success. We are the key person in coordinating those works. We know we are important group of people and do a lot for our hospital. However, when we look at our incentives, it makes us looked inferior to other health professions.	14 15 16 17 18 19 20
I: What do you think how other health care providers look at us? For examples are pharmacists, physical therapist, and others.	21 22 23
N_2: They look at us as we are servers and supporters even though we have the main role in bringing hospital reaching achievement.	24 25 26
I: So, what is your satisfaction level when talking about how other professional personnel looks at us?	27 28
N_2: It's like they look at us in OK level. But when they look at our incentives, it devalues our status. Incentive in amount of money makes us look inferior; however, they give us good recognition and the importance in bringing the hospital' success. Maybe, they do it to at least make us happy and they can use us again. It makes us proud but we can not mention about money. They suppress us in this issue.	29 30 31 32 33 34 35
I: OK. You were mentioning about how nurses or yourselves work to bring the success to an organization. Does it mean you can make decision on your own within the scope of your responsibilities? Please explain.	36 37 38 39
N_2: Yes, but it is not at too high level. Let us see. It's more of at moderate level. All suggestions have to go though administrative nurses at higher level. And, we are not prepared or equipped to learn much about budget especially at the combined one.	40 41 42 43 44
	45

Description from interview	Line
Nurse 2 (Continued)	
N_2: For example, when I would like to have exercise	1
equipment to promote the health of patients in one project, I	2
have to communicate with this group of nurses who hold the	3
central budget. The request was declined. Therefore, I think an	4
improvement in this project can not be achieved as it should	5
be. It is like we know what it should be done but we do not	6
have the privilege in making decision. There is an obstruction	7
and lack of support from administration. This made me not	8
wanting to do anything sometimes and discouraged.	9
I: Therefore, what do you think about the privilege of making	10
decision? Does it important for your work or job satisfaction?	11
N_2: If we look administrative work or QA, it plays an	12
important part. However, if we look at just routine work on	13
ward, I'm happy with it. For example, if we present some	14
research result, it is difficult to get their support. However,	15
they give good support in making decision about completing	16
routine paper work but not about equipment requested.	17
I: How is it about your workload?	18
N_2: It is OK. Not too much and not too little because we are in	19
OR. However, the administrators calculate our workload based	20
on our productivity only, we are at disadvantage.	21
I: Please explain to me how they calculate productivity here.	22
N_2: They look at the whole picture. For example, we have to	23
produce 90-100% which means they look at only operation	24
cases. They don't look at visiting patients before and after	25
surgery. It looks few works but actually it's not.	26
I: Does this mean you think productivity calculation method is	27
not fair?	28
N_2: No, I don't mean it's not fair. However, I think it should be	29
covered more than this because there are many other detail	30
works that support QA and administration. Furthermore, the	31
preparation of patients before surgery, recovery period,	32
prevention of complication, and transferring also take time	33
which was not included in productivity report. It is impossible	34
to have numbers of productivity in OR as many as IPD.	35
I: OK. How is environment at work? Please tell me about it.	36
N_2: OK. The sections are located in proper places as much as	37
the space is available.	38
I: What is the level of your happiness in this issue?	39
N_2: Moderate even though it needs some improvement.	40
I: How about social life with others at work? Do you think it is	41
important for your happiness at work? How so?	42
N_2: Good level and I get good support from them.	43
I: How about relationship with them?	44
N_2: Good.	45

Description from interview	Line
Nurse 2 (Continued)	
I: Any problems at all? This can be such as communication.	1
N_2: I have very few communication problems in unit and I	2
have good communication with bosses.	3
I: Is there anything else you would like to talk about?	4
N_2: She paused.	5
I: From our conversation, could you rank all factors for me?	6
Which one is important the most and the less important ones?	7
N_2: It's an administrative system and administrators to give	8
recognition and encouragement are the most important factor	9
in my job satisfaction. Social comes in second. Others are at	10
about the same level after the social.	11
I: Is there anything else you would like to talk about?	12
N_2: I'm worry about nursing assistants. They are used to do	13
many tasks for nurses because nurses are too busy even though	14
the law does not cover them. However, these assistants like it	15
because they can increase their role and compete themselves as	16
they are nurses. Then, we will be less in demand. Another	17
thing is about value in our profession. Old nurses stay in the	18
profession because of their value in profession; however, new	19
nurses value money. This is not good.	20
	21
Nurse 3	22
I: What is the meaning of job satisfaction?	23
N_3: JS is a desire to give the best for our patients and the	24
happiness in my work.	25
I: Can you tell me the level of our job satisfaction in general	26
from 1-5, one is very little and five is very much?	27
N_3: It's at four.	28
I: What do you think about when we talk about job	29
satisfaction?	30
N_3: It's the job that we can provide happiness to others, solve	31
their problem, and give education. It's for the purpose of	32
giving good health and practice; at the same time, we can do	33
good merit (Tum boon). Nursing gives value in our profession.	34
You know it is like you can give them light. We have	35
opportunity to prevent diseases which normally affect all	36
family members, financial status, stress both patient and	37
relatives.	38
I: OK. How about yourselves? What brings you to have job	39
satisfaction?	40
N_3: Co-workers.	41
I: How so? Could you please explain to me?	42
N_3: They give good support, cooperate, and good relationship	43
both co-workers and bosses. We get along well with. We are	44
also being able to transfer job back and forth easily. No	45
problem.	46

Description from interview	Line
Nurse 3 (Continued)	
I: How would you rate your satisfaction on your relationship	1
and support from co-worker?	2
N_3: At level 4.	3
I: Is there any problem at all? This is such as communication	4
problem.	5
N_3: No. We don't have communication problem.	6
I: What else do you think it's important for your job	7
satisfaction?	8
N_3: Myself. I should be ready both physically and mentally to	9
serve in order to give service.	10
I: Wow! Is there anything else for you?	11
N_3: She shook her head and smiled.	12
I: Therefore, I added questions about JS components. What do	13
you think about work environment? How much is your	14
satisfaction level about this? Please explain.	15
N_3: No OK. It's at level 3. This office is too small and not	16
suitable for the work. Toilet for patient is not convenient.	17
Patient has to walk to OPD which is far. It is also hard to call	18
MD in case of emergency. The setting is not ready to take care	19
of any emergency situation. We always have to refer patient to	20
ER. Furthermore, there is not enough support in equipment.	21
We have to key in information of patient manually; then, we	22
transfer the information into computer. It's like double work	23
which is wasting time.	24
I: How about workload? How would you rate your satisfaction	25
on workload? Please explain.	26
N_3: It is moderate to good.	27
I: Is it like 3.5?	28
N_3: Yes. The work is OK and not too much or too little.	29
I: How is your work schedule?	30
N_3: I work normal hours at 8.30-4.30. No weekend.	31
I: Let us talk about incentives. How would you rate your	32
satisfaction about incentives?	33
N_3: It's at level 2 because the pay is too little. Doctor earns	34
much more and we work almost the same now as a NP.	35
I: So, why are you still here? Is there anything such as family	36
or parents here that making you stay here?	37
N_3: My parents live here.	38
I: What else do you think it should be included in incentives?	39
N_3: She paused.	40
I: How about benefits? How is your benefit? Are you happy	41
with it?	42
N_3: My benefit is OK.	43
I: How is your vacation?	44
N_3: It's OK too.	45
I: What else?	46
N_3: She smiled and paused.	47

Description from interview	Line
Nurse 3 (Continued)	
I: Do you think promotion is a part of incentives?	1
N_3: Yes.	2
I: How do you like it here? Please tell me more about your promotion.	3 4
N_3: Not too good and it's about 3.5. We alternate or take turn in getting it which I think it's OK. But the consideration should be based on productivity. It's not fair.	5 6 7
I: How so?	8
N_3: Ranking gives to a person who asks for it, about to retire, have not gotten it for a while instead of how much work the person perform. It makes those who work hard discouraged.	9 10 11
I: Other than promotion, do you think professional growth is important? And, how do you happy with this issue here?	12 13
N_3: Yes. Oh! It's very good, 5. Administrators support us fully in further study or training. This hospital gives us yearly budget for that and we can use it in attending nursing course.	14 15 16
I: Is there anything else you would like to have?	17
N_3: Shift pay. I don't have to work on rotated shift but I should get paid somehow. Another thing is guaranteed paid like doctor. We should have it also because we see all kinds of patients such as put in IUD, Norplant for doctor because they don't have time. We also risk our license for doing this and actually it's their job even though we had training doing this.	18 19 20 21 22 23
I: So, do you mean you actually are not protected by law when putting Norplant for patients?	24 25
N_3: No.	26
I: The guaranteed paid you mentioned is very interesting. Is there anything else?	27 28
N_3: Tuition. It should cover our children until Master Degree.	29
I: OK. Government pays tuition for children until grade 12; however, most of them have to borrow government fund (ก.ย.ศ.) for studying in college. And, you would like children to be able to borrow this fund until Master Degree, wouldn't you?	30 31 32 33
N_3: Yes.	34
I: What else do you think it's important for your job satisfaction?	35 36
N_3: She smiled with no answer.	37
I: Do you think our professional status is important? How do you satisfy with it?	38 39
N_3: Yes. It is at 4. However, situation in our professional status in the past was better than now. Currently, patients demand service and their rights. They see that it is our duty to give services. We go out and give them services sometimes. Before, they came to us.	40 41 42 43 44
I: How about other professions? How do you know whether they accept and respect us?	45 46
N_3: Yes, other profession respect and accept us well. I know it from interaction and behavior of them toward us.	47 48

Description from interview	Line
Nurse 3 (Continued)	
I: What do you think about your power in making decision within the scope of your practice?	1 2
N_3: I like it very much.	3
I: What is the level of satisfaction about your autonomy?	4
N_3: Very much about at level 5 because I can do and make decision a lot as a nurse in PCU. My boss does not have time; therefore, I pretty much make my own decision.	5 6 7
I: Is there anything else you would like to talk about in this issue other than the pay that should be increased since you take more responsibilities.	8 9 10
N_3: No.	11
I: So, what is more important for your job satisfaction between social and autonomy?	12 13
N_3: Same.	14
I: However, you said your satisfaction with social is at level 4. But, autonomy was ranked at level 5.	15 16
N_3: It's like co-workers are more important and influential to job satisfaction more than autonomy. The level of satisfaction of both factors at this moment is as what I said.	17 18 19
I: About relationship and support among co-workers, you said it's good. Please explain more.	20 21
N_3: We are NP and see patients. If anyone of us has to leave a while to take care of business, we can cover for each other. No problem.	22 23 24
I: Is there anything else you want to add?	25
N_3: The problem I want to mention more is about inadequate computer. We were talking about how to make AC report well and on time. We conducted patients report for more than 700 cases and sent to the Health Promotion and Prevention Organization (ส.ป.ส.ช.): however, we did not get any reimbursement because input data in computer was not completed. We were stressed out. Our administration sent someone to attend this organizational meeting but another group of people implement it. The work does not support each other well.	26 27 28 29 30 31 32 33 34 35
I: Who do you think they should send to the meeting?	36
N_3: I don't know.	37
I: Really?	38
N_3: Laughed. The problem obstructed the flow of work. Administrators sent someone for seminar but she is not the one implement the policy. It doesn't help much and made organization lost money instead of getting money from following proper procedures from seminar.	39 40 41 42 43
I: So, what do you do?	44
N_3: We discussed problem before but nothing happens. We did our best already. We talked to them but it seems like administration is not up to dated with new policy from government.	45 46 47 48

Description from interview	Line
Nurse 3 (Continued)	
N_3: They should reconsider the policy about sending people for seminar. They should send a person who involves more in this issue. When the person they sent came back from the meeting, she does not communicate with us. That is why we are in trouble.	1 2 3 4 5
I: How do you feel?	6
N_3: I feel discouraged because we work hard to get money for hospital but we did not get it and there is nothing much I can do. The situation should be better. Another thing, our boss is dental hygienist. He is the one who do not supply new computer for us to use. He thinks he saves money but actually we lost money from the Health Promotion and Prevention Organization (ส.ป.ส.ช.) reimbursement. Consequently, work does not get done properly. The boss can't get the picture how to get work done and get more money for hospital. Trained personal is also unable to help much. I'm not happy about this.	7 8 9 10 11 12 13 14 15 16 17
I: You mentioned administration. What do you mean among the system or a person?	18 19
N_3: People.	20
I: Have you talked to them about solutions?	21
N_3: Yes. No result.	22
I: Please help me to rank the factors we talked about among administration, social, work environment, and incentives. Which one is the most influential to your job satisfaction?	23 24 25
N_3: Social is the most important one then administration, work environment, and incentive respectively.	26 27
I: So, how about professional status and autonomy?	28
N_3: I don't have any problem with those and my satisfaction with them is high. Therefore, they do not affect me much.	29 30
I: Is there anything you would like to add?	31
N_3: I want administrative team understand new working system better than this. I don't like to see the wasted of our hard working effort and get nothing back. I feel sorry for the wasted. This year our hospital budget was cut out four million baht because we could not reimburse it. I'm afraid how we will survive if our hospital budget was cut because of this problem year by year. I believe the lost will affect us some days in the future.	32 33 34 35 36 37 38
I: How is your morale?	39
N_3: Good from other parts. She smiled a little.	40

B.07
JOB SATISFACTION COMPONENTS FROM INTERVIEW

From interviewing 3 nurses, the data was described and coded as demonstrated in **Appendix B**. The themes from the interviews are: 1) work environment, 2) administration, 3) workload, 4) incentives, 5) social, 6) autonomy, and 7) professional status.

1. **Work environment.** Work environment is facility and equipment provided by organization. It gives convenience and comfortable places for nurses to work. It is one of the components that is important and make nurses happy. As nurse number 1 said

"It should give convenience. Examples are parking space and unit to work. The parking is good and it makes me wanting to come to work."

As the nature of nursing work, nurses have to give service and try to please customers and patients all the time. It is naturally bringing stress like the nurses number 1 said:

"Contrary to other situation, I fought hard for good setting for work. I had to get signatures of co-workers and make the request for air-condition from administration. As our job is to service others, it is naturally tired, stress out. Therefore, working environment should be suitable and comfortable to the nature of work."

The situation is similar to nurse number 3. However, if the work environment is not appropriate, it impacts the **workload**, productivity, and quality of care. She said:

"This office is too small and not suitable for the work. Toilet for patient is not convenient. Patient has to walk to OPD which is far. It is also hard to call MD in case of emergency. The setting is not ready to take care of any emergency situation. We always have to refer patient to ER. Furthermore, there is not enough support in equipment. We have to key in information of patient manually; then, we transfer the information into computer. It's like double work which is wasting time."

Therefore, work environment is not only important for job satisfaction but also impacts workload component. However, **administration** which governs everything in organization plays vital role in making good work environment in an appropriate timing. As nurse number 1 said:

"Another situation was at TB clinic, I asked for equipments, separated area, and waited for the answer a long time. Administrators said it is in the process of making decision. However, when some VIPs visited our unit, we got equipments in at that very same day."

Nurse number 3 also mentioned:

"Another thing, our boss is dental hygienist. He is the one who do not supply new computer for us to use. He thinks he saves money but actually we lost money from the Health Promotion and Prevention Organization (ส.ป.ส.ช.) reimbursement. Consequently, work does not get done properly."

The relationship of work environment toward workload and administration is demonstrated in concept mapping diagram (Appendix B.08).

2. **Administration**. Administration affects other job satisfaction components due to its function in an organization. An administrative department and administrators can also reflex their own images through their work such as sincerity in solving problem or capability in comprehending current health care delivery system. As nurse number 1 mentioned about TB clinic in work environment component prior, moreover, nurse number 3 also stated:

"The boss can't get the picture how to get work done and get more money for hospital. Trained personal is also unable to help much. I'm not happy about this."

In addition, nurses expect their administrators to process work in appropriate timing. Nurse number 1 stated:

"An administrator impacts our work. Every project we proposed has to go through administration. Always, there are obstructions. Like last week, it was the end of budget year. We sent projects in a long time already and they were sitting there doing nothing. Nobody looked at them. All of the sudden in last week, administrator sent them down and said they are not good…Everybody was not happy and complained…What are we going to do? How are we going to fix this in short period of time?" She smiled and laughed.

Furthermore, employee expects administrators to be flexible appropriately and not a dictator person such as what nurse number 1 said:

"Yes. The CEO normally gives this flexibility; however, the chief nursing administrator does not." She added *"The policy comes out from the same person. Power controlling is still the same. She thinks her idea is the main one and best. If anything she suggests is OK with me, I will follow it. If what she suggests is not OK, I just do nothing."* Subsequently, productivity decreased.

Inevitably, administration and policy making are unable to be separated. Nurses would like to see clear and more appropriate policy in organization such as nurses in number 1 and 3 said:

"I would like to see clearer picture or policy about this." This was when nurse number 1 discussed about promotion.

Nurse number 3 stated *"They should reconsider the policy about sending people for seminar. They should send a person who involves more in this issue. When the person they sent came back from the meeting, she does not communicate with us. That is why we are in trouble."* Policy is one of components in administration that influence happiness or unhappiness at work.

Moreover, administration influences other components of job satisfaction. Not only administration affects **work environment** as mentioned in work environment component, but also affects **workload** like nurse number 3 said:

"The problem I want to mention more is about inadequate computer. We were talking about how to make AC report well and on time. We conducted patients report for more than 700 cases and sent to the Health Promotion and Prevention Organization (ส.ป.ส.ช.): however, we did not get any reimbursement because input data in computer was not completed. We were stressed out. Our administration sent

someone to attend this organizational meeting but another group of people implement it. The work does not support each other well." This situation happened due to decision made from administration created negative outcome even though nurses felt they worked hard. Subsequently, they were not satisfied.

Therefore, administration does not only affect **work environment** and **workload**, but also other job satisfaction components such as **incentives**, **professional status**, and **autonomy.** The explanation will be followed later in each component. Noticing, the only component that does not be influenced by administration is social component and administration itself is not affected by any component at all. The relationship among administration and these components is displayed in the diagram (Appendix B.08).

3. **Workload.** Workload is the most cited as stressor of job satisfaction based on literature review; however, it does not make much impact on nurses who work at this general hospital based on the interview. Therefore, it is necessary to do further investigation on this component in other type of hospital such as regional hospital. As far as interview data this time concerns, workload associates with fairness as nurse number 1 said:

"Yes, it is important. However, I feel OK with mine because it is at moderate load but I don't like if someone else has lighter workload. While we are working so hard, we notice someone has nothing much to do. I would like to have fairness about this."

Nurses are comfortable and satisfy in duty when appropriate load is assigned like nurse number 1 said:

"I am assigned to suitable amount to work and be responsible for it. I'm comfortable with it." Furthermore, nurse number 2 also mentioned about what made she has job satisfaction "*Satisfaction in duty."* Satisfaction in duty occurs when assigned work is appropriate both amount and level of difficulty which will make a nurse accomplishes the work well.

Not surprisingly, workload of nurses in an organization is based on productivity; however, it is important to make sure they are judged and fair to nurses. Otherwise, unhappiness occurs. Nurse number 2 mentioned about workload.

"It is OK. Not too much and not too little because we are in OR. However, the administrators calculate our workload based on our productivity only, we are at disadvantage…. I don't mean it's not fair. However, I think it should be covered more than this because there are many other detail works that support QA and administration. Furthermore, the preparation of patients before surgery, recovery period, prevention of complication, and transferring also take time which was not included in productivity report."

Even though she denied that she feels unfairness in calculating productivity, the data revealed that she feels that way. This could be because Thais are Kreng Jai and do not intend to put anyone in embarrassment situation.

Furthermore, as mentioned earlier, **administration** and **work environment** both impact workload as nurse number 3 talked about at the end of page 2. The outcome from workload is very important for the nurse. At least, there are some

rewards from hard working. However, if it does not come out well such as productivity and reimbursement, the nurse is not happy like nurse number 3 said.

"I don't like to see the wasted of our hard working effort and get nothing back. I feel sorry for the wasted. This year our hospital budget was cut out four million baht because we could not reimburse it. I'm afraid how we will survive if our hospital budget was cut because of this problem year by year. I believe the lost will affect us some days in the future."

Lastly, workload also associates with **incentives** component. Nurses expect to get more pay when they take more responsibilities than other nurses as nurse number 2 raised the issue about payment for her administrative position.

"This is because we are more exhausted than staff nurses. Even though we do not have to rotate on shifts but we have lots of paper work to complete. We got paid as much as staff nurses but we are responsible more. I know it might not be changed for us but I hope it will be changed in the next generation. It is a stressful even though we should not be. Lots of more white hair grows." Therefore, please refer to relationship among workload and other 3 components in Appendix B.08.

4. **Incentives.** Incentive is what employees receive in return for the work they have done for an organization. According to interview data, incentives compose of: (1) pay such as salary, sick visit pay, administrative position pay, shift pay and fringe benefit such as retrieve, vacation, expenses on sickness reimbursement, and tuition for children; (2) continually professional education or training, and (3) promotion or career path.

Firstly, each of these three nurses voiced out their opinion in the same direction that their pay is too low comparing to other professions. An example was from nurse number 1.

"We should get more pay. We receive very little comparing to other professions."

Nurse number 2 also shared with us.

"If we talk about within nursing area, it is at moderate level. However, if we mean in hospital level comparing to other professions, we should get more. It's too low."

Nurse number 3 mentioned the same way with others.

"It's at level 2 because the pay is too little. Doctor earns much more and we work almost the same now as a NP."

Other than comparing pay with other professions, nurses feel they deserve more pay when they have higher **workload** or more responsibilities as what nurse number 2 said.

She wants to have *"Payment for our administrative position. This is because we are more exhausted than staff nurses…. It is a stressful even though we should not be. Lots of more white hair grows."*

Other than the sense of reliable in nursing profession, it is normal that nurses expect to get maximum paid in return from their work. Therefore, it is easy that nurse will take other job if the pay is much more like what nurse number 1 said.

"Whatever happens, I will stay as long as there is no other job that is better in the sense of more reliable. I will try taking new job while keeping this job until I do not have time to take care of the new one. Then, I will decide to leave this job…If there is any one thousand eight hundreds million baht business to take care of."

On the other hand, we have to accept that nurses rate their **professional status** with pay. A good example is from nurse number 2.

"Nurses are included in all projects and administrative teams that make hospital success. We are the key person in coordinating those works. We know we are important group of people and do a lot for our hospital. However, when we look at our incentives, it makes us looked inferior to other health professions."…. it devalues our status….they give us good recognition and the importance in bringing the hospital' success…. It makes us proud but we can not mention about money. They suppress us in this issue."

In addition, an administrative nurse also would like to have fairness in incentives as nurse number 2 said.

"I mean fairness in incentives…. We got paid as much as staff nurses but we are responsible more."

Secondly, when talking about continually professional education, nurse would like to see some flexibility in cutting off the fund policy. Nurse number 1 said:

"I don't want it to be cut off because some people are very busy and can't leave the job during that seminar time. That person has less chance to attend any meeting." She added *"The CEO normally gives this flexibility; however, the chief nursing administrator does not."*

However, good support from **administration** in continually professional education makes nurse very happy as nurse number 3 mentioned.

"Yes. Oh! It's very good, 5. Administrators support us fully in further study or training. This hospital gives us yearly budget for that and we can use it in attending nursing course."

Thirdly, on promotion or career path, nurses would like to see the promotion system from **administration** based on productivity and achievement in their goals other than other method such as nurse number 1 shared with me.

"The system is to take turn getting promotion. In some situation, when someone is going to retired but her rank is not as same as others; then, promotion goes to that person. Or, somebody asked first but the other did not. Problems arise."

She mentioned further. "*It should rely on productivity of each person…I would like to see clearer picture or policy about this. Why do we have to compete among each other? People quarrel about this. Why does not this promotion come when anyone achieve the goal of their work? ….It also depends on whether that person makes noise about it. Sometimes, if you make noise, you will get the promotion. It's like they have quota."*

The promotion process that is not based on productivity creates unfair feeling for nurses which influence their job satisfaction in this issue. As nurse number 3 mentioned.

"Not too good and it's about 3.5. We alternate or take turn in getting it which I think it's OK. But the consideration should be based on productivity. It's not fair…. It makes those who work hard discouraged.

Therefore, according to the data, workload and administration are both have impact over incentives components. Fairness is very important issue in many components of incentives. Lastly, incentives itself can influence nursing professional status. Please refer to diagram for their relationship in Appendix B.08.

5. **Professional status**. As mentioned in incentives component, nurses based their professional status on **incentives**. Low incentives make professional status appear inferior even though nurses have high value in their importance in organization and good deeds to patients. According to literature review, nurses also rate their satisfaction in professional status on their capability being utilized; therefore, whenever they feel less contribution to organization, they are not happy with their status. **Administration** can impact nurses' satisfaction in professional status as nurse number 1 stated.

"The policy comes out from the same person. Power controlling is still the same. She thinks her idea is the main one and best. If anything she suggests is OK with me, I will follow it. If what she suggests is not OK, I just do nothing." This nurse does not agree with administration, she decides not to participate in activity with administration. Or, in other situation in her unit, there was a problem with project financial reimbursement *"Therefore, I just do not do anything in order to avoid this problem. It made me lazy."* Consequently, the value in herself as employee will be decreased.

However, for nurse number 2, administration plays an important role for her professional status as she mentioned.

"It's an administrative system and administrators to give recognition and encouragement are the most important factor in my job satisfaction."

On the other hand, nurses also put high value in their profession to good things they can do for others and organization like nurse number 1 said.

"Actually, nursing makes me proud and has chances to do good deeds or good merit all the time….. They call us doctor but I want them to call us nurse…"

Nurse number 2 also said.

"I feel good satisfaction with my nursing status because I use it to coordinate with others and receive good result. Nurses are included in all projects and administrative teams that make hospital success. We are the key person in coordinating those works. We know we are important group of people and do a lot for our hospital."

Nurse number 3 stated.

"It's the job that we can provide happiness to others, solve their problem, and give education. It's for the purpose of giving good health and practice; at the same time, we can do good merit (Tum boon). Nursing gives value in our profession. You

know it is like you can give them light. We have opportunity to prevent diseases which normally affect all family members, financial status, stress both patient and relatives."

Even though nurses also feel good in their professional status through how people react or treat them, nurses feel other professional personal look at them as inferior. Nurse number 1 explained.

"I know doctors and pharmacists look at us as inferior; however, I know nurses do a lot of work and not the inferior to these people. Even people in the same organization, they do not respect us that much excepting administrative nurses."

Furthermore, nurse number 2 said "....*They give us good recognition and the importance in bringing the hospital to success... They look at us as we are servers and supporters even though we have the main role in bringing hospital reaching achievement."*

Even though nursing professional status is not at too low level, there is a concern about the increased role of nursing assistant that nurses may need to pay attention to.

Nurse number 2 stated "*I'm worry about nursing assistants. They are used to do many tasks for nurses because nurses are too busy even though the law does not cover them. However, these assistants like it because they can increase their role and compete themselves as they are nurses. Then, we will be less in demand."*

Therefore, both incentives and administration component can make impacts to nurses' satisfaction in professional status. Please refer to diagram in Appendix B.08.

6. **Social.** Social at work refers to relationship and support with others at work such as superior, co-worker, and subordinates. As Thais are collectivists, it is not surprised that social component is one of the most important components. People live in extended family and use to helping and supporting each other since childhood. The statement can be supported by nurse number 1. She said:

"We love each other well in the same group. Whatever we do, we are all OK and do it together. Sometimes, we have an argument among other small groups in this unit… However, when we have problem with people from other unit; we all love each other again...We support and help each other well. This may be because we maintain good relationship… They accept my idea well."

Two out of three nurses who gave private interview stated the most important component at work is social with co-workers.

Nurse number 1 said *"Social. If I have problems with friends at work, it makes me not wanting to come to work."*

In addition, nurse number 3 said about first element in job satisfaction. *"Co-workers…They give good support, cooperate, and good relationship both co-workers and bosses. We get along well with. We are also being able to transfer job back and forth easily. No problem."* Even though this nurse rated her job satisfaction on autonomy at very good, 5 level; however, it is not the most important component for her. She added *"It's like co-workers are more important and influential to job satisfaction more than autonomy. The level of satisfaction of both factors at this moment is as what I said."* She gave satisfaction in social at good level, 4.

According to literature review, communication breakdown causes relationship with others. However, communication breakdown seems to be a small problem for nurse number 2 as she said.

"I have very few communication problems in unit and I have good communication with bosses"

Furthermore, communication does not seem to be a problem to nurse number 3 at all as she answered *"No. We don't have communication problem."*

Therefore, this issue is needed further investigation. Noticing from interview data, this component is the only component that does not impact other component and vice versa.

7. **Autonomy**. Nurses feel good to very good about their autonomy.

Nurse number 1 said *"I think they are good. I am assigned to suitable amount to work and be responsible for it. I'm comfortable with it. I can make decision within the scope of my practice."*

Nurse number 2 gave answer *"Satisfaction in duty"* for job satisfaction factor. Satisfaction in duty is happiness in work assigned and be able to manage it well.

Nurse number 3 said "*I like it very much…about at level 5 because I can do and make decision a lot as a nurse in PCU. My boss does not have time; therefore, I pretty much make my own decision."*

However, full autonomy is to be given by **administration.** Therefore, it can influence autonomy of nurse like in the situation of nurse number 2.

"Yes, but it is not at too high level. Let us see. It's more of at moderate level. All suggestions have to go though administrative nurses at higher level. And, we are not prepared or equipped to learn much about budget especially at the combined one…For example, when I would like to have exercise equipment to promote the health of patients in one project, I have to communicate with this group of nurses who hold the central budget. The request was declined. Therefore, I think an improvement in this project can not be achieved as it should be. It is like we know what it should be done but we do not have the privilege in making decision. There is an obstruction and lack of support from administration. This made me not wanting to do anything sometimes and discouraged." Consequently, it affects the happiness of nurse's autonomy. Please refer to diagram for the relationship between autonomy and administration in Appendix B.08.

In conclusion, all seven components influence job satisfaction. These nurses are still working at this hospital because they have good job satisfaction even though there were some complaints. Noticing, these nurse stay in town which is about 10 minutes traveling by car to work and their parents are also stay closed by. These can be explained by collectivism of Thai culture. Therefore, the nurses' retention for these 3 nurses at this hospital depends not only from nurses' job satisfaction but also because here is their hometown.

B.08

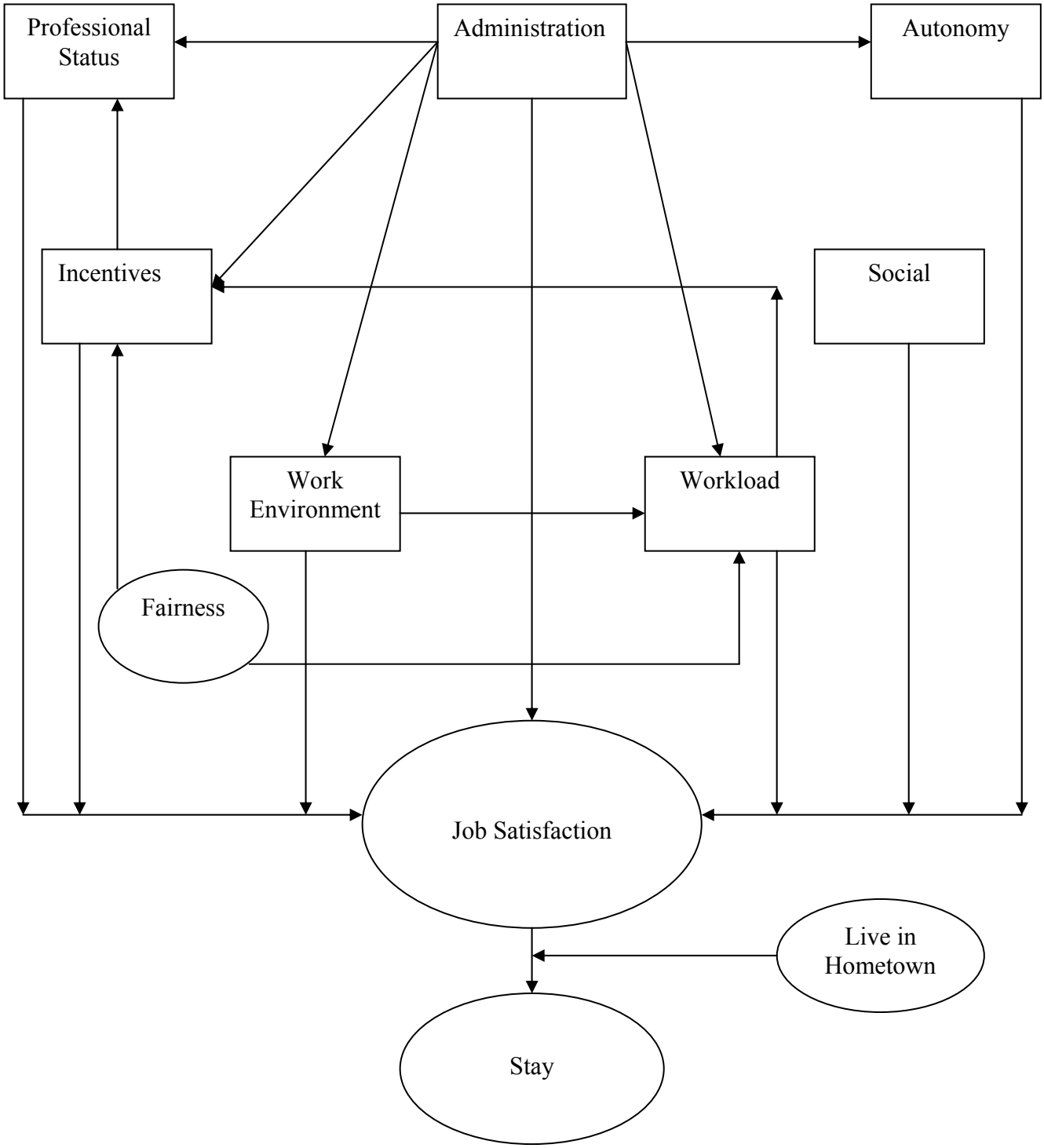

Figure 4. A Concept Mapping of Job Satisfaction and Components from Interviews.

APPENDIX C

Content Validity

แบบประเมินความตรงตามเนื้อหา (Content Validity Form) ของเครื่องมือวิจัย

เอกสารชุดนี้เป็นแบบประเมินความตรงตามเนื้อหาของเครื่องมือวิจัย ผู้วิจัยใคร่ขอความกรุณาจากท่านในการแสดงความคิดเห็นเกี่ยวกับระดับความสอดคล้องของเนื้อหา (Relevancy) โดย 4= สอดคล้องดีมาก 3=สอดคล้องดี 2=สอดคล้องเล็กน้อย 1=ไม่สอดคล้อง รวมถึงความชัดเจน (Clarity) และการกระชับความ (Conciseness) ของคำถาม โดยการทำเครื่องหมายถูก (✓) ลงในช่องที่ตรงกับความคิดเห็นของท่านหลังคำถามแต่ละข้อ และหากคำถามใดท่านเห็นว่า สอดคล้องเล็กน้อย ไม่สอดคล้อง ไม่ชัดเจน หรือไม่กระชับความ สมควรแก่การปรับปรุงหรือมีข้อเสนอแนะอื่นๆ กรุณาเติมข้อความในช่องแสดงข้อเสนอแนะด้วย ผู้วิจัยขอขอบคุณในความอนุเคราะห์ของท่านครั้งนี้

ข้อคำถาม	สอดคล้องกับวัตถุประสงค์การวิจัย			ความสอดคล้องกับเนื้อหาที่ต้องการวัด					ความชัดเจน		ความกระชับ		ข้อเสนอแนะในการปรับปรุง
	วัตถุประสงค์ข้อที่	สอดคล้อง	ไม่สอดคล้อง	เนื้อหาที่วัด	4	3	2	1	ชัดเจน	ไม่ชัดเจน	กระชับ	ไม่กระชับ	
ภาระงาน (workload)													
1. งานที่ได้รับมอบหมายมีปริมาณเหมาะสมที่ทำให้ท่านทำให้เสร็จทันได้ในเวลา 8 ชั่วโมง/วัน													
2. ลักษณะงานที่ได้รับมอบหมายมีความยากง่ายพอเหมาะที่จะทำให้ท่านสามารถทำให้สำเร็จได้ภายในเวลาที่กำหนด													
3. ลักษณะงานที่ได้รับมอบหมายนั้นเหมาะสมกับความรู้และทักษะของท่าน													
4. ท่านทำงานได้รวดเร็วและไม่ยากนัก เนื่องจากได้รับการจัดสรรทรัพยากรในปริมาณที่เพียงพอและยุติธรรมกับงานที่ได้รับ													

APPENDIX D

Pretest

D.01 Letter to CEO and DON of Vachira Hospital

D.02 Letter from IRB, PSU to CEO of Vachira Hospital

D.03 Front Cover of the TNJSS for Nurses

D.04 Back Cover of the TNJSS for Nurses

D.01

ที่ ศธ ๐๕๒๑.๐๕/๒๒๖๘

คณะพยาบาลศาสตร์
มหาวิทยาลัยสงขลานครินทร์
ตู้ ปณ. ๙ ปทฝ.คอหงส์
อ.หาดใหญ่ จ.สงขลา ๙๐๑๑๒

๓๑ สิงหาคม ๒๕๕๓

เรื่อง ขออนุญาตทดลองใช้เครื่องมือ การประเมินค่าความเที่ยงของมาตรวัดย่อยและการทดสอบสมมุติฐาน

เรียน ผู้อำนวยการโรงพยาบาลวชิระภูเก็ต

ด้วยนางจารุรัตน์ ศรีรัตนประภาส รหัสนักศึกษา ๕๑๑๐๔๓๐๐๐๓ นักศึกษาหลักสูตรปรัชญาดุษฎีบัณฑิต สาขาการพยาบาล (นานาชาติ) คณะพยาบาลศาสตร์ มหาวิทยาลัยสงขลานครินทร์ กำลังดำเนินการทำวิทยานิพนธ์เรื่อง "Development and Psychometric Evaluation of the Thai Nurses' Job Satisfaction Scale (TNJSS)" โดยมี รองศาสตราจารย์ ดร. อรัญญา เชาวลิต เป็นอาจารย์ที่ปรึกษาวิทยานิพนธ์ ซึ่งในกระบวนการสร้างเครื่องมือวิจัยในเรื่องนี้ จำเป็นต้องมีการทดลองใช้เครื่องมือวิจัย การประเมินค่าความเที่ยงของมาตรวัดย่อยและการทดสอบสมมุติฐาน เพื่อเป็นข้อมูลประกอบการทำวิจัยเพื่อวิทยานิพนธ์ ในเรื่องดังกล่าว

ในการนี้ คณะพยาบาลศาสตร์ มหาวิทยาลัยสงขลานครินทร์ จึงขออนุญาตให้นางจารุรัตน์ ศรีรัตนประภาส ทดลองใช้เครื่องมือวิจัยโดยการใช้แบบสอบถามในการเก็บข้อมูลวิจัย รวมถึงการประเมินค่าความเที่ยงของมาตรวัดย่อย และการทดสอบสมมุติฐาน จากพยาบาลวิชาชีพในโรงพยาบาลของท่าน ระหว่างวันที่ 15 กันยายน -31 ธันวาคม 2553

จึงเรียนมาเพื่อโปรดพิจารณาให้ความอนุเคราะห์ด้วย จะเป็นพระคุณยิ่ง

ขอแสดงความนับถือ

(ผู้ช่วยศาสตราจารย์แสงอรุณ อิสระมาลัย)
ผู้ช่วยคณบดีฝ่ายบัณฑิตศึกษา ปฏิบัติราชการแทน
คณบดีคณะพยาบาลศาสตร์

สำนักงานเลขานุการ
โทรศัพท์ ๐-๗๔๒๘-๖๔๕๖
โทรสาร ๐-๗๔๒๘-๖๔๒๑

D.02

ที่ ศธ ๐๕๒๑.๑.๐๕ / ๒๑๓๖

คณะพยาบาลศาสตร์
มหาวิทยาลัยสงขลานครินทร์
ตู้ ปณ.๙ ปทฝ.คอหงส์
อ.หาดใหญ่ จ.สงขลา ๙๐๑๑๒

หนังสือฉบับนี้ ให้ไว้เพื่อรับรองว่า นางจารุรัตน์ ศรีรัตนประภาส รหัสนักศึกษา ๕๐๑๐๔๓๐๐๐๓ นักศึกษาหลักสูตรปรัชญาดุษฎีบัณฑิต สาขาวิชาการพยาบาล (หลักสูตรนานาชาติ) คณะพยาบาลศาสตร์มหาวิทยาลัยสงขลานครินทร์ มีความประสงค์ที่จะทำวิทยานิพนธ์ เรื่อง "Development and Psychometric Evaluation of the Thai Nurses' Job Satisfaction Scale (TNJSS)" โดยมี รองศาสตราจารย์ ดร.อรัญญา เชาวลิต เป็นอาจารย์ที่ปรึกษาวิทยานิพนธ์ ทั้งนี้ วิทยานิพนธ์ของนักศึกษาได้ผ่านการพิจารณาด้านจริยธรรมจากคณะกรรมการประเมินงานวิจัยด้านจริยธรรม และสอบโครงร่างวิทยานิพนธ์ผ่านเมื่อวันที่ ๑๔ ธันวาคม ๒๕๕๒ แล้ว

ให้ไว้ ณ วันที่ ๑๕ กรกฎาคม พ.ศ. ๒๕๕๓

(รองศาสตราจารย์ ดร.ลดาวัลย์ ประทีปชัยกูร)
คณบดีคณะพยาบาลศาสตร์

D.03

พฤศจิกายน 2553

เรียน พยาบาลวิชาชีพผู้ร่วมทดลองตอบแบบสอบถามทุกท่าน

เรื่อง ขอความร่วมมือในการทดสอบแบบสอบถามเพื่อการทำวิจัยประกอบวิทยานิพนธ์

แบบสอบถามฉบับนี้เป็นข้อคำถามเกี่ยวกับความพึงพอใจในการทำงานของพยาบาลไทย ซึ่งเป็นส่วนหนึ่งของการทำวิทยานิพนธ์ สาขาพยาบาลศาสตร์ มหาวิทยาลัยสงขลานครินทร์ และเพื่อให้เกิดผลสูงสุดกับงานวิจัยนี้ จึงใคร่ขอความร่วมมือจากท่าน ในการตอบแบบสอบถามนี้ให้ตรงกับความเป็นจริงที่เกิดขึ้นกับท่านมากที่สุด นอกจากนั้นแล้ว ขอให้ท่านกรุณาแสดงความคิดเห็นเกี่ยวกับ การอ่านแล้วเข้าใจ ความชัดเจนของคำถาม เวลาทั้งหมดที่ท่านใช้ในการทำแบบสอบถามนี้และข้อเสนอแนะอื่นๆที่ด้านหลังของแบบสอบถามนี้ เพื่อนำมาปรับปรุงแก้ไขให้สมบูรณ์ยิ่งขึ้น ทั้งนี้ข้อมูลที่ท่านกรุณาตอบ จะเก็บไว้เป็นความลับ และเป็นภาพรวมของโรงพยาบาล จึงไม่มีผลกระทบกับหน้าที่การงานของท่านแต่อย่างใด และผลที่ได้จะใช้เพื่อการวิจัยเท่านั้น

จึงเรียนมาเพื่อขอความร่วมมือจากท่าน และขอขอบคุณที่ท่านได้สละเวลาตอบแบบสอบถามมา ณ โอกาสนี้

ขอแสดงความนับถือ

(นาง จารุรัตน์ ศรีรัตนประภาส)

D. 04

ความคิดเห็นและข้อเสนอแนะ

1. ท่านมีความคิดเห็นอย่างไร เกี่ยวกับ**การอ่านแล้วเข้าใจ**ข้อคำถามเหล่านี้ และมีคำถามข้อใดที่ท่านต้องการให้การเสนอแนะเกี่ยวกับกรณีนี้บ้าง?

2. ท่านมีความคิดเห็นอย่างไร เกี่ยวกับ**ความชัดเจน**ของข้อคำถามเหล่านี้ และมีคำถามข้อใดที่ท่านต้องการให้การเสนอแนะเกี่ยวกับกรณีนี้บ้าง?

3. ท่านใช้**เวลาทั้งหมด**เท่าไร ในการตอบแบบสอบถามนี้?

4. ข้อเสนอแนะอื่น ๆ เช่น ข้อเลือกระดับความจริงที่เกิดขึ้น 1-6 เป็นต้น

APPENDIX E

Field Test

E.01 Subject's Right and Instruction for the Questionnaire

E.02 Demographic Data Form

E.03 Social Desirability Scale-17

E.04 The TNJSS Version 3

E.01

แบบฟอร์มพิทักษ์สิทธิผู้เข้าร่วมวิจัย

เรียน พยาบาลวิชาชีพผู้เข้าร่วมวิจัยทุกท่าน

ดิฉัน นางจารุรัตน์ ศรีรัตนประภาส อาจารย์ประจำ คณะพยาบาลศาสตร์ วิทยาลัยมิชชัน กำลังศึกษาต่อในระดับปริญญาเอก สาขาการพยาบาล ณ มหาวิทยาลัยสงขลานครินทร์ วิทยาเขตหาดใหญ่ ขณะนี้อยู่ในระหว่างการทำวิทยานิพนธ์ เรื่อง การพัฒนาและการประเมินเครื่องมือวัดความพึงพอใจในการทำงานสำหรับพยาบาลไทย (Development and Psychometric Evaluation of Thai Nurses' Job Satisfaction Scale, TNJSS) โดยมีจุดประสงค์เพื่อสร้างเครื่องมือมาตรฐานสำหรับการประเมินความพึงพอใจในการทำงานของพยาบาลไทย ซึ่งงานวิจัยนี้ได้ผ่านการพิจารณาด้านจริยธรรมจากคณะกรรมการประเมินงานด้านจริยธรรม คณะพยาบาลศาสตร์ มหาวิทยาลัยสงขลานครินทร์มาเรียบร้อยแล้ว และในการเก็บข้อมูลนี้ ท่านจะเป็นหนึ่งในตัวแทนพยาบาลวิชาชีพในภูมิภาคของท่านในการตอบแบบสอบถามเหล่านี้ซึ่งจะใช้เวลาประมาณ 30-40 นาที ท่านจึงมีส่วนสำคัญอย่างยิ่งที่จะทำให้การพัฒนาและการประเมินแบบสอบถามนี้สำเร็จลุล่วงได้ ซึ่งจะมีประโยชน์แก่การศึกษา การบริหาร และการวิจัยของพยาบาลวิชาชีพในเรื่องที่เกี่ยวข้องในอนาคตได้อย่างมาก

ในการที่ท่านเข้ามามีส่วนร่วมในการตอบแบบสอบถามนี้ เป็นการสุ่มตัวอย่าง ขอให้ท่านตอบแบบสอบถามที่ตรงกับความเป็นจริงที่เกิดขึ้นกับท่านมากที่สุด การเข้าร่วมตอบสอบถามนั้นเป็นไปโดยความสมัครใจและเมื่อท่านเข้าร่วมวิจัยแล้ว ท่านสามารถถอนตัวจากการให้ข้อมูลได้ตลอดเวลาที่ท่านต้องการ ท่านจะไม่ได้รับผลกระทบใดๆที่เป็นอันตรายทั้งตัวท่าน หน้าที่การงานและครอบครัวของท่านทั้งสิ้น จะไม่มีการเปิดเผยชื่อท่าน ทั้งนี้ผู้วิจัยได้ใช้ตัวเลขแทนชื่อท่านและเมื่อได้รับแบบสอบถามคืน ตัวเลขจะถูกลบออกก่อนการป้อนข้อมูลลงคอมพิวเตอร์ ดังนั้นเมื่อท่านได้รับแบบสอบถามแล้ว กรุณาทำโดยไม่ต้องเขียนชื่อใดๆลงบนแบบสอบถาม และเมื่อทำเสร็จ ให้ท่านกรุณาปิดซองที่แนบมาให้ก่อนที่จะส่งคืนแก่ผู้ประสานงานวิจัยในโรงพยาบาลของท่านภายใน 3 สัปดาห์ เพื่อการส่งคืนแก่ผู้วิจัย ข้อมูลที่ได้รับจากท่านจะถูกนำเสนอในภาพรวมของพยาบาลไทยเท่านั้น

หากท่านประสงค์จะสอบถามข้อสงสัยใดๆเกี่ยวกับการศึกษานี้ กรุณาติดต่อดิฉันได้โดยตรง และดิฉันใคร่ขอขอบคุณเป็นอย่างสูง สำหรับความร่วมมือของท่านเป็นอย่างดีในครั้งนี้

ขอแสดงความนับถือ

.....

(นาง จารุรัตน์ ศรีรัตนประภาส)

ผู้ทำการวิจัย นาง จารุรัตน์ ศรีรัตนประภาส
ที่อยู่ 4/1 โรงพยาบาลมิชชั่นภูเก็ต ถ.เทพกระษัตรี ต.รัษฎา อ.เมือง จ.ภูเก็ต 83000
เบอร์โทรศัพท์ (089) 737-3824

☐ ☐ ☐ ☐

E.02

แบบสอบถามข้อมูลส่วนบุคคลสำหรับพยาบาลวิชาชีพ

ข้อมูลส่วนบุคคล

1. อายุ _____ ปี
2. เพศ

(1)_____ ชาย (2) _____ หญิง

3. สถานภาพทางการสมรส

(1)_____ โสด (2) _____ สมรสและอยู่ร่วมกัน
(3)_____ สมรสแต่แยกกันอยู่ (4) _____ หย่าร้าง
(5)_____ ม่าย

4. ระดับการศึกษาสูงสุด

(1)_____ ปริญญาเอก (2) _____ ปริญญาโท
(3)_____ ปริญญาตรี

5. รายได้ (บาทต่อเดือน)

(1)_____ 10,000 และน้อยกว่า (2) _____ 10,000-15,000
(3)_____ 16,000-20,000 (4) _____ 21,000-25,000
(5)_____ 26,000-30,000 (6) _____ 31,000-35,000
(7)_____ 36,000-40,000 (8) _____ 40,000 และมากกว่า

6. ประเภทของโรงพยาบาล

(1)_____ ระดับปฐมภูมิ (2) _____ ระดับทุติยภูมิ
(3)_____ ระดับตติยภูมิ

7. ประเภทของตำแหน่ง

(1)_____ ผู้บริหาร (2) _____ พยาบาลทั่วไป

8. แผนกประจำการ

(1) _____ บริหารทางการพยาบาล (2) _____ ฟื้นฟูสุขภาพ
(3) _____ อายุรกรรม /ศัลยกรรม (4) _____ สูตินารี
(5) _____ กุมารเวช (6) _____ วิกฤตทั่วไป
(7) _____ วิกฤตด้านหัวใจ (8) _____ ผู้ป่วยนอก
(9) _____ ฉุกเฉิน (10)_____ วิสัญญี
(11)_____ ห้องผ่าตัด (12)_____ อื่นๆ โปรดระบุ.....

9. ประสบการณ์การทำงาน (ปี)

(1)_____ 1-5 (2) _____ 6-10
(3)_____ 11-15 (4) _____ 16-20
(5)_____ 21-25 (6) _____ 26-30
(7)_____ 31-35 (8) _____ 36-40
(9)_____ 40 และมากกว่า

E.03

The Social Desirability Scale-17 (SDS-17)

Instruction
Below you will find a list of statements. Please read each statement carefully and decide if that statement describes you or not. If it describes you, check the word "true"; if not, check the word "false."

Items
1. I sometimes litter.
2. I always admit my mistakes openly and face the potential negative consequences.
3. In traffic I am always polite and considerate of others.
4. I have tried illegal drugs (for example, marijuana, cocaine, etc.).
5. I always accept others' opinions, even when they don't agree with my own.
6. I take out my bad moods on others now and then.
7. There has been an occasion when I took advantage of someone else.
8. In conversations I always listen attentively and let others finish their sentences.
9. I never hesitate to help someone in case of emergency.
10. When I have made a promise, I keep it – no ifs, ands or buts.
11. I occasionally speak badly of others behind their back.
12. I would never live off other people.
13. I always stay friendly and courteous with other people, even when I am stressed out.
14. During arguments I always stay objective and matter-of-fact.
15. There has been at least one occasion when I failed to return an item that I borrowed.
16. I always eat a healthy diet.
17. Sometimes I only help because I expect something in return.

Note
Answer categories are "true" (1) and "false" (0). Items 1, 4, 6, 7, 11, 15, and 17 are reverse keyed. Item 4 was deleted from the final version of the SDS-17.

E.04

แบบสอบถามความพึงพอใจในการทำงานของพยาบาลไทย

คำชี้แจง แบบสอบถามนี้มีวัตถุประสงค์เพื่อศึกษาความพึงพอใจในการทำงานของพยาบาลไทย โปรดทำเครื่องหมายถูกลงในช่องทางขวามือด้านท้ายของข้อความในแต่ละข้อที่เป็นจริง/ตรงกับความรู้สึกของท่านมากที่สุด จงเลือกตอบเพียงคำตอบเดียว ซึ่งในแต่ละช่องนั้นมีความหมายดังนี้

6 หมายถึง ข้อความนั้นตรงกับสิ่งที่เกิดขึ้นกับท่านมากที่สุด

5 หมายถึง ข้อความนั้นตรงกับสิ่งที่เกิดขึ้นกับท่านปานกลาง

4 หมายถึง ข้อความนั้นตรงกับสิ่งที่เกิดขึ้นกับท่านน้อย

3 หมายถึง ข้อความนั้นไม่ตรงกับสิ่งที่เกิดขึ้นกับท่านน้อย

2 หมายถึง ข้อความนั้นไม่ตรงกับสิ่งที่เกิดขึ้นกับปานกลาง

1 หมายถึง ข้อความนั้นไม่ตรงกับสิ่งที่เกิดขึ้นกับท่านมากที่สุด

ข้อที่	ข้อความ	ระดับความจริงที่เกิดขึ้น					
		6	5	4	3	2	1
	ภาระงาน (Workload)						
1	งานที่ได้รับมอบหมายมีปริมาณเหมาะสมที่ทำให้ท่านทำให้เสร็จทันได้ในเวลา 8 ชั่วโมง/วัน						
2	งานที่ได้รับมอบหมายมีความยากง่ายพอเหมาะที่จะทำให้ท่านสามารถทำให้สำเร็จได้ภายในเวลาที่กำหนด						
3	ลักษณะงานที่ได้รับมอบหมายนั้นเหมาะสมกับความรู้และทักษะของท่าน						
4	ท่านมีเวลาในการคิดวางแผนงานที่สร้างสรรค์อื่นๆ นอกเหนือจากการปฏิบัติภารกิจประจำในแต่ละวัน						
5	ท่านยังรู้สึกสดชื่นหลังเสร็จสิ้นภาระงานในแต่ละวัน						
6	ท่านสามารถจัดการเรื่องงานเอกสารต่างๆควบคู่ไปกับการทำงานคุณภาพโดยไม่กระทบงานประจำของท่าน						
7	ท่านสามารถแบ่งเวลาเพื่อช่วยเหลืองานอื่นๆของหอผู้ป่วยท่านได้ โดยไม่เกิดผลเสียต่อภาระงานประจำของท่าน						
8	ตารางปฏิบัติงานมีความยืดหยุ่น สามารถเปลี่ยนแปลงได้เพื่อตอบสนองความจำเป็นส่วนตัวของท่านและความจำเป็นของหอผู้ป่วย						
9	ตารางปฏิบัติงานของท่าน ทำให้ท่านมีเวลาเพียงพอสำหรับชีวิตส่วนตัว/ครอบครัว						
10	หอผู้ป่วยของท่านจัดคนในแต่ละเวรตามจำนวนและความรุนแรงของผู้ป่วยที่ทำให้ท่านทำงานได้อย่างมีคุณภาพและไม่เครียด						

ข้อที่	ข้อความ	ระดับความจริงที่เกิดขึ้น					
		6	5	4	3	2	1
11	การจัดจำนวนผู้ปฏิบัติงานในหอผู้ป่วยของท่าน เพียงพอและเหมาะสม						
12	การไปช่วยปฏิบัติงานแผนกอื่นเป็นการชั่วคราว (float) เป็นไปในปริมาณที่เหมาะสม						
13	การคำนวณภาระงานในหน่วยหอผู้ป่วยของท่านเป็นไปอย่างยุติธรรม โปร่งใสและตรวจสอบได้						
14	ภาระงานที่ท่านได้รับมอบหมายมีความยุติธรรมเมื่อเปรียบเทียบกับภาระงานของเพื่อนร่วมงาน						
15	ท่านรู้สึกพึงพอใจที่หอผู้ป่วยมอบหมายงานที่อยู่ในขอบเขตของวิชาชีพการพยาบาล						
สิ่งแวดล้อมที่ทำงาน (Work environment)							
16	ท่านพอใจในความสวยงามของภูมิทัศน์ในหอผู้ป่วยของท่าน						
17	การถ่ายเทอากาศและกลิ่นในหอผู้ป่วยของท่านเหมาะสมในการส่งเสริมบรรยากาศของการปฏิบัติงาน						
18	แสงสว่างและอุณหภูมิในหอผู้ป่วยของท่านมีความเหมาะสมในการส่งเสริมบรรยากาศของการปฏิบัติงาน						
19	หอผู้ป่วยของท่านมีอุปกรณ์สำหรับการรักษาพยาบาลผู้ป่วยอย่างพอเพียงและเหมาะสมกับงาน						
20	หน่วยงานจัดสรรอุปกรณ์เพียงพอและเหมาะสมในการพัฒนาคุณภาพการทำงานของท่าน						
21	หน่วยงานจัดสรรอุปกรณ์เพียงพอในการปฏิบัติภารกิจปริมาณมากให้สำเร็จได้ในเวลาอันรวดเร็ว						
22	การจัดอุปกรณ์ ห้องทำงาน ห้อง/เตียงผู้ป่วยเหมาะสมและอำนวยความสะดวกในการปฏิบัติงานแก่ท่าน						
23	สถานที่ทำงานของท่านสะอาด น่าทำงาน						
24	สถานที่ทำงานของท่าน จัดเป็นระเบียบเรียบร้อย เอื้อต่อการทำงาน						
25	ท่านรู้สึกปลอดภัยจากการปฏิบัติงานในสิ่งแวดล้อมของสถานที่ทำงานของท่าน						
ด้านการบริหาร (Administration)							
26	หัวหน้าดูแลท่านเสมือนญาติในครอบครัว						
27	ท่านรู้สึกอุ่นใจที่หัวหน้าทำงานที่ยุ่งยาก ซับซ้อนร่วมกับท่านอย่างใกล้ชิด						
28	หัวหน้าติดตามนิเทศงานด้วยความเป็นกันเอง						

ข้อที่	ข้อความ	ระดับความจริงที่เกิดขึ้น					
		6	5	4	3	2	1
29	หัวหน้าเปิดโอกาสให้พูดคุย ซักถามเมื่อมีปัญหาหรือข้อสงสัย						
30	ภาวะผู้นำของหัวหน้าทำให้ท่านมั่นใจในการบริหารงานของหัวหน้า						
31	ท่านรู้สึกสะดวกใจที่จะเจรจาต่อรองกับหัวหน้าของท่านได้ตามที่ท่านเห็นสมควร						
32	หัวหน้าให้โอกาสท่านแสดงความคิดเห็นในการแก้ปัญหางานในหอผู้ป่วยของท่าน						
33	หัวหน้ามอบหมายงานแก่ลูกน้องได้เหมาะสมกับความสามารถของแต่ละคน						
34	ท่านได้รับการชี้แจงอย่างชัดเจนจากหัวหน้าเกี่ยวกับความคาดหวังต่อการทำงานของท่าน						
35	หัวหน้าบอกให้ทราบอย่างชัดเจนเกี่ยวกับทุกคนต้องรับผิดและรับชอบในการปฏิบัติงานของตน						
36	หัวหน้าส่งเสริมงานที่เป็นแนวคิดสร้างสรรค์ของท่านในการพัฒนางาน						
37	หัวหน้ามีความยืดหยุ่นในการตัดสินใจด้วยเหตุผลที่เหมาะสมกับแต่ละกรณี						
38	ท่านได้รับความยุติธรรมจากหัวหน้า						
39	ท่านมั่นใจว่าหัวหน้าจะสนับสนุนการตัดสินใจที่เหมาะสมของท่าน						
40	ฝ่ายบริหารทางการพยาบาลกำหนดระบบข้อมูลข่าวสารที่เอื้อให้ท่านและเพื่อนร่วมงานเข้าถึงข้อมูลได้อย่างสะดวกและทั่วถึง						
41	ฝ่ายบริหารทางการพยาบาลจัดทำคู่มือการปฏิบัติงานที่ช่วยให้ท่านมีความพร้อมก่อนการปฏิบัติงาน						
42	ฝ่ายบริหารทางการพยาบาลมีข้อมูลที่ทันสมัยในการบริหารหน่วยงาน ที่ช่วยให้ท่านสามารถพัฒนางานได้อย่างต่อเนื่อง						
43	ฝ่ายบริหารทางการพยาบาล/หน่วยงานมีการปฐมนิเทศพยาบาลใหม่หรือพยาบาลที่ย้ายมาทำงานในหอผู้ป่วยของท่าน						
44	ระบบงานแบบกระจายอำนาจของฝ่ายบริหารทางการพยาบาลทำให้การบริหารงานเป็นไปอย่างรวดเร็ว						
45	ฝ่ายบริหารทางการพยาบาลสามารถแก้ไขปัญหาต่างๆได้อย่างเหมาะสม รวดเร็ว						

ข้อที่	ข้อความ	ระดับความจริงที่เกิดขึ้น					
		6	5	4	3	2	1
46	ฝ่ายบริหารทางการพยาบาลมีระบบการจัดซื้ออุปกรณ์ต่างๆ อย่างโปร่งใสและทันเวลา						
47	นโยบายจากกลุ่มการพยาบาลของฝ่ายบริหารการพยาบาล สามารถตอบสนองความต้องการของท่านและพยาบาลส่วนใหญ่ได้						
48	ท่านรู้สึกว่าหัวหน้างานหรือฝ่ายบริหารการพยาบาลในองค์กรให้เกียรติท่าน						
สัมพันธภาพกับผู้ร่วมงาน (Social at Work)							
49	เพื่อนร่วมงานของท่านมีน้ำใจในการช่วยเหลือซึ่งกันและกัน						
50	เพื่อนร่วมงานของท่านร่วมมือร่วมใจในการทำงานเหมือนครอบครัวเดียวกัน						
51	เพื่อนร่วมงานของท่านมีความรับผิดชอบในงานเป็นอย่างดี						
52	เมื่อมีปัญหาเกิดขึ้นในหอผู้ป่วยของท่าน ทุกคนช่วยกันหาทางแก้ไขโดยใช้เหตุผล						
53	ท่านรู้สึกว่าท่านเป็นส่วนหนึ่งของทีมงาน						
54	ท่านรู้สึกสะดวกใจในการนำเสนอความคิดเห็นหรือคุยถึงปัญหาต่างๆกับเพื่อนร่วมงาน						
55	เมื่อท่านมีปัญหาในการปฏิบัติงานหรือปฏิบัติงานผิดพลาด เพื่อนร่วมงานจะให้คำแนะนำ ตักเตือนและช่วยเหลือท่านให้สถานการณ์นั้นผ่านพ้นไปได้ด้วยดี						
56	ท่านและเพื่อนร่วมงานให้เกียรติและเกรงใจซึ่งกันและกัน						
57	เพื่อนร่วมงานต่างวิชาชีพให้ความร่วมมือและสนับสนุนงานท่านเป็นอย่างดี						
58	ท่านสามารถทำงานร่วมกับพยาบาลแผนกอื่นได้เป็นอย่างดี						
59	หัวหน้ามีน้ำใจ ให้ความช่วยเหลือและสนับสนุนงานท่าน						
60	ผู้ปฏิบัติงานอื่นๆ เช่น ผู้ช่วยพยาบาล เสมียน คนงานของแผนกให้ความร่วมมือและสนับสนุนการทำงานของท่าน						
61	บุคคลในทีมสุขภาพส่วนใหญ่แสดงความขอบคุณที่ท่านให้ความร่วมมือ/สนับสนุนการทำงานของเขา						
62	แพทย์ส่วนใหญ่ให้ความร่วมมือในการปฏิบัติงานของท่าน						
63	ท่านรู้สึกสะดวกใจที่จะเสนอความคิดเห็นกับแพทย์ แม้ความคิดเห็นของท่านจะต่างจากแพทย์						
64	การสื่อสารของท่านกับเพื่อนร่วมงานของท่านเป็นไปด้วยความราบรื่น						

ข้อที่	ข้อความ	ระดับความจริงที่เกิดขึ้น					
		6	5	4	3	2	1
65	ท่านพึงพอใจที่ได้ทำงานกับเพื่อนร่วมงานที่คุ้นเคยและรู้ใจในหอผู้ป่วยของท่าน						
66	ท่านมีความสุขและอยากมาทำงาน ร่วมกับเพื่อนร่วมงานของท่าน						
เอกสิทธิ์ (Autonomy)							
67	ท่านมีอิสระในการจะปฏิเสธการทำงานที่นอกเหนือขอบเขตความรับผิดชอบของวิชาชีพ						
68	ท่านมีอิสระในการนำเสนอข้อมูลที่สำคัญของผู้ป่วยแก่แพทย์						
69	ท่านมีอิสระในการนำเสนอข้อมูลที่สำคัญของผู้ป่วยแก่หัวหน้าเวร/หัวหน้าหอผู้ป่วย						
70	ท่านมีอิสระในการมีส่วนร่วมวางแผนการรักษาดูแลผู้ป่วยกับแพทย์/เพื่อนร่วมวิชาชีพอื่น						
71	ท่านมีอิสระในการกำหนดเป้าหมายและตัวชี้วัดผลลัพธ์ทางการพยาบาลสำหรับผู้ป่วยของท่าน						
72	ท่านมีอิสระในการให้ข้อมูลต่างๆที่เป็นประโยชน์ต่อผู้ป่วยและญาติ ภายใต้ขอบเขตความรับผิดชอบของวิชาชีพ						
73	ท่านมีอิสระในการปกป้องผลประโยชน์ของผู้ป่วย						
74	ท่านมีอิสระในการตัดสินใจแก้ปัญหาของผู้ป่วย ภายใต้ขอบเขตความรับผิดชอบของวิชาชีพ						
75	ท่านมีอิสระในการทักท้วงหรือแสดงความคิดเห็นต่อแพทย์ ในกรณีที่ท่านไม่เห็นด้วยกับแผนการรักษาของแพทย์						
76	ท่านมีอิสระในการทักท้วงหรือแสดงความคิดเห็นต่อหัวหน้าเวร/หัวหน้าหอผู้ป่วย ในกรณีที่ท่านไม่เห็นด้วยกับการกระทำ/การตัดสินใจ						
77	ท่านมีอิสระในการแจ้งหรือเขียนรายงานส่งหัวหน้าของท่าน ในกรณีที่มี**บุคคลในทีมสุขภาพ**ปฏิบัติไม่เหมาะสมต่อ**ผู้ป่วย**						
78	ท่านมีอิสระในการแจ้งหรือเขียนรายงานส่งหัวหน้าของท่าน ในกรณีที่มี**บุคคลในทีมสุขภาพ**ปฏิบัติไม่เหมาะสมต่อ**ท่าน**						
79	ท่านมีอิสระในการเสนอนวัตกรรมใหม่ๆเพื่อพัฒนางาน						
80	ท่านมีอิสระในการนำเอาผลการวิจัยมาใช้ในการพยาบาลตามความเหมาะสม						
81	ท่านมีอิสระในการนำเสนอความคิดเห็นเกี่ยวกับนโยบายและการดำเนินงานในหอผู้ป่วยต่อหัวหน้า						

ข้อที่	ข้อความ	ระดับความจริงที่เกิดขึ้น					
		6	5	4	3	2	1
82	ท่านพึงพอใจที่ได้รับสิทธิในการตัดสินใจอย่างเต็มที่ในงานที่รับผิดชอบ						
83	ท่านรู้สึกภูมิใจที่ได้แสดงความสามารถในการแก้ปัญหาที่ยุ่งยากซับซ้อนได้อย่างอิสระ						
84	ท่านรู้สึกภูมิใจที่ได้แสดงความรับผิดชอบต่อผลการดำเนินงานที่ได้รับมอบหมาย						
85	ท่านมีอิสระที่จะกระทำตามที่ท่านตัดสินใจว่าเห็นสมควร แม้ว่าจะต่างจากการตัดสินใจของพยาบาลรุ่นพี่/หัวหน้าหอผู้ป่วย						
สถานภาพทางวิชาชีพ (Professional Status)							
86	พยาบาลวิชาชีพในโรงพยาบาลของท่านมีความสมานสามัคคีกัน						
87	ผู้ป่วยและญาติให้การยอมรับและนับถือท่านในฐานะพยาบาลวิชาชีพ						
88	บุคลากรในทีมสุขภาพให้เกียรติและความสำคัญกับท่านในฐานะเพื่อนร่วมงาน						
89	แพทย์ให้คุณค่าและความสำคัญต่อความคิดเห็นของท่าน เมื่อท่านนำเสนอข้อมูลเกี่ยวกับผู้ป่วย						
90	หัวหน้าเวร/หัวหน้าหอผู้ป่วยให้ความสำคัญและเห็นคุณค่าของท่าน จากการแสดงความรู้ความสามารถของท่านให้เป็นที่ประจักษ์ในเวลาที่เหมาะสม						
91	ผู้ป่วยและญาติแสดงความมั่นใจในความ สามารถของท่านในการแสดงออกทางวิชาชีพ						
92	ท่านภูมิใจในวิชาชีพที่ทำให้ผู้ป่วยปรับเปลี่ยนพฤติกรรมการดูแลตนเองตามที่ท่านให้คำแนะนำ						
93	ท่านได้รับการยกย่องชมเชยหรือได้รับรางวัลจากหัวหน้าหรือผู้ที่เกี่ยวข้อง เมื่อปฏิบัติงานหรือผลิตผลงานที่มีคุณภาพ						
94	งานที่ท่านปฏิบัติมีส่วนสำคัญต่อความสำเร็จของโรงพยาบาลของท่าน						
95	ท่านภูมิใจที่จะพูดถึงงานและการเป็นพยาบาลของท่านให้ผู้อื่นฟัง						
ผลตอบแทนจากองค์กร (Incentives)							
96	โรงพยาบาลมีนโยบายด้านสิทธิประโยชน์ ผลประโยชน์และสวัสดิการของท่านอย่างชัดเจน						

ข้อที่	ข้อความ	ระดับความจริงที่เกิดขึ้น					
		6	5	4	3	2	1
97	เงินเดือนที่ได้รับ (ไม่รวมค่าขึ้นเวรพิเศษ) เหมาะสมกับหน้าที่และความรับผิดชอบ						
98	ท่านได้รับเงินค่าตอบแทนเพิ่มในการปฏิบัติงานเวรบ่าย เวรดึกอย่างเหมาะสม						
99	ท่านได้รับค่าเบี้ยเลี้ยง ค่าที่พักและค่ายานพาหนะอย่างเหมาะสมเมื่อท่านต้องเดินทางไปปฏิบัติงานนอกสถานที่						
100	เงินเดือน/ค่าตอบแทนที่ท่านได้รับเป็นไปอย่างยุติธรรมตามความรู้ความสามารถพิเศษ ความยากง่ายของเนื้องานและผลงาน เมื่อเทียบกับพยาบาลวิชาชีพในโรงพยาบาลเดียวกัน						
101	เงินเดือน/ค่าตอบแทนท่านที่ได้รับเป็นไปอย่างยุติธรรมตามความรู้ความสามารถพิเศษ ความยากง่ายของเนื้องานและผลงาน เมื่อเทียบกับวิชาชีพอื่นในระดับเดียวกัน						
102	ท่านได้รับเงินเดือน/ผลตอบแทนในระดับเดียวกันกับพยาบาลโรงพยาบาลอื่นในประเภทเดียวกัน						
103	ท่านมีวันหยุดหรือวันลาเหมาะสมและเพียงพอที่จะตอบสนองต่อภารกิจส่วนตัวของท่าน						
104	โรงพยาบาลให้สวัสดิการด้านอื่นๆ เช่น ค่ารักษาพยาบาล ค่าเล่าเรียนบุตร เป็นต้น						
105	โรงพยาบาลจัดให้ท่านมีห้องพักผ่อนอิริยาบถสำหรับพยาบาลที่เหมาะสมอยู่ในหอผู้ป่วยของท่าน						
106	หอพักพยาบาลที่โรงพยาบาลจัดไว้ให้นั้น อยู่ในสภาพที่ดีและกว้างขวางพอเหมาะ						
107	ท่านพอใจที่โรงพยาบาลจัดงานเลี้ยงสังสรรค์หรือจัดทัศนาจรให้แก่บุคลากรเพื่อตอบแทนการทำงานของบุคลากร						
108	โรงพยาบาลสนับสนุนบรรยากาศแห่งการเรียนรู้ เช่น การมีห้องอ่านหนังสือ/อินเตอร์เน็ตที่เหมาะสม						
109	โรงพยาบาลให้เวลากับท่านอย่างพอเพียงในการไปเพิ่มพูนความรู้และทักษะ						
110	โรงพยาบาลให้งบประมาณกับท่านอย่างพอเพียงในการไปเพิ่มพูนความรู้และทักษะ						
111	โรงพยาบาลมีนโยบายที่ยืดหยุ่นเกี่ยวกับเวลา เพื่อเอื้อให้ท่านได้สามารถเพิ่มพูนความรู้และทักษะอย่างเต็มที่ตามความเหมาะสม						

ข้อที่	ข้อความ	ระดับความจริงที่เกิดขึ้น					
		6	5	4	3	2	1
112	โรงพยาบาลมีนโยบายที่ยืดหยุ่นเกี่ยวกับการเบิกจ่ายงบประมาณ ที่เอื้อให้ท่านได้สามารถเพิ่มพูนความรู้และทักษะตามความเหมาะสม						
113	โรงพยาบาลส่งเสริมให้บุคลากรได้เพิ่มพูนความรู้และทักษะอย่างต่อเนื่อง เช่น การประชุม/อบรม/สัมมนา การดูงาน การลาศึกษาต่อ เป็นต้น						
114	หัวหน้าให้การสนับสนุนท่านให้ท่านได้เสริมความรู้และทักษะตามความเหมาะสม						
115	การคัดเลือกบุคลากรเข้าร่วมประชุมด้านวิชาการเป็นไปด้วยความเหมาะสมและคำนึงถึงประโยชน์ของหน่วยงานเป็นหลัก						
116	เพื่อนร่วมงานสับเปลี่ยนเวรให้ท่านได้มีโอกาสร่วมกิจกรรมเสริมความรู้และทักษะตามที่ท่านต้องการ						
117	แผนการพัฒนาบุคลากรของโรงพยาบาลเอื้อให้ท่านมีโอกาสพัฒนาความรู้อย่างต่อเนื่อง						
118	ท่านได้รับการพัฒนาสมรรถนะที่ตรงกับจุดอ่อนของท่าน						
119	โรงพยาบาลมีหลักเกณฑ์เกี่ยวกับการพิจารณาเลื่อนขั้นหรือปรับขึ้นเงินเดือนอย่างชัดเจน						
120	การได้รับการเลื่อนขั้นหรือปรับขึ้นเงินเดือนเป็นไปอย่างยุติธรรม โปร่งใสและตรวจสอบได้						
121	ท่านพึงพอใจกับผลการประเมินเพื่อการเลื่อนขั้นหรือปรับขึ้นเงินเดือน						
122	งานที่ท่านรับผิดชอบอยู่มีความก้าวหน้าทัดเทียมกับวิชาชีพอื่น						
123	ท่านได้รับการชื่นชมจากคนรอบข้าง เมื่อท่านได้รับความก้าวหน้าและได้รับผลตอบแทนจากโรงพยาบาล						
124	ท่านได้รับผลตอบแทนที่น่าพอใจ จนไม่เคยคิดจะลาออกจากโรงพยาบาล						

APPENDIX F

Post test

F.01 Letter for Subject's Right and Instruction

F.02 Occupational Stress Scale (OSS)

F.01

กรกฎาคม 2554

เรียน พยาบาลวิชาชีพผู้ร่วมทดลองตอบแบบสอบถามทุกท่าน

เรื่อง ขอความร่วมมือในการทดสอบแบบสอบถามเพื่อการทำวิจัยประกอบวิทยานิพนธ์

ดิฉัน นางจารุรัตน์ ศรีรัตนประภาส อาจารย์ประจำ คณะพยาบาลศาสตร์ วิทยาลัยมิชชัน กำลังศึกษาต่อในระดับปริญญาเอก สาขาการพยาบาล ณ มหาวิทยาลัยสงขลานครินทร์ วิทยาเขตหาดใหญ่ ขณะนี้อยู่ในระหว่างการทำวิทยานิพนธ์ เรื่อง การพัฒนาและการประเมินเครื่องมือวัดความพึงพอใจในการทำงานสำหรับพยาบาลไทย (Development and Psychometric Evaluation of Thai Nurses' Job Satisfaction Scale, TNJSS) โดยมีจุดประสงค์เพื่อสร้างเครื่องมือมาตรฐานสำหรับการประเมินความพึงพอใจในการทำงานของพยาบาลไทย ซึ่งงานวิจัยนี้ได้ผ่านการพิจารณาด้านจริยธรรมจากคณะกรรมการประเมินงานด้านจริยธรรม คณะพยาบาลศาสตร์ มหาวิทยาลัยสงขลานครินทร์มาเรียบร้อยแล้ว แบบสอบถามฉบับนี้เป็นข้อคำถามเกี่ยวกับความพึงพอใจในการทำงานของพยาบาลไทย ซึ่งเป็นส่วนหนึ่งของการทำวิทยานิพนธ์ สาขาพยาบาลศาสตร์ มหาวิทยาลัยสงขลานครินทร์

เพื่อให้เกิดผลสูงสุดกับงานวิจัยนี้ จึงใคร่ขอความร่วมมือจากท่าน ในการตอบแบบสอบถามนี้ให้ตรงกับความเป็นจริงที่เกิดขึ้นกับท่านมากที่สุด ท่านจะไม่ได้รับผลกระทบใดๆที่เป็นอันตรายทั้งตัวท่าน หน้าที่การงานและครอบครัวของท่านทั้งสิ้น จะไม่มีการเปิดเผยชื่อท่าน ทั้งนี้ผู้วิจัยได้ใช้ตัวเลขแทนชื่อท่านและเมื่อได้รับแบบสอบถามคืน ตัวเลขจะถูกลบออกก่อนการป้อนข้อมูลลงคอมพิวเตอร์ ดังนั้นเมื่อท่านได้รับแบบสอบถามแล้ว ***<u>กรุณาตอบแบบสอบถามและทำโดยไม่ต้องเขียนชื่อใดๆลงบนแบบสอบถาม</u>*** และข้อมูลที่ได้รับจากท่านจะถูกนำเสนอจะเป็นผลที่ใช้เพื่อการวิจัยเท่านั้น

หากท่านประสงค์จะสอบถามข้อสงสัยใดๆเกี่ยวกับการศึกษานี้ กรุณาติดต่อดิฉันได้โดยตรงตามที่อยู่และเบอร์โทรศัพท์ข้างล่างนี้ ทั้งนี้ดิฉันใคร่ขอขอบคุณที่ท่านได้สละเวลาตอบแบบสอบถามและสำหรับความร่วมมือของท่านเป็นอย่างดีมา ณ โอกาสนี้ด้วย

ขอแสดงความนับถือ

(นาง จารุรัตน์ ศรีรัตนประภาส)

ผู้ทำการวิจัย นาง จารุรัตน์ ศรีรัตนประภาส
ที่อยู่ 4/1 โรงพยาบาลมิชชั่นภูเก็ต ถ.เทพกระษัตรี ต.รัษฎา อ.เมือง จ.ภูเก็ต 83000
เบอร์โทรศัพท์ (089) 737-3824

F.02

แบบสอบถามความเครียดในงาน

คำชี้แจง เมื่อท่านอ่านข้อความต่อไปนี้แล้ว กรุณาตอบคำถามตามความเป็นจริงและเห็นว่าตรงกับความรู้สึกของท่านมากที่สุด คำตอบที่ได้จะไม่มีถูกผิด โดยข้อความที่ให้เลือกตอบมีความหมายดังนี้

5 หมายถึง ท่านมีความรู้สึกเกือบตลอดเวลา

4 หมายถึง ท่านมีความรู้สึกเป็นบ่อยๆ

3 หมายถึง ท่านมีความรู้สึกเป็นครั้งคราว

2 หมายถึง ท่านมีความรู้สึกนานๆครั้ง

1 หมายถึง ท่านไม่เคยมีความรู้สึกเลย

ข้อคำถาม	ความถี่ของเหตุการณ์				
	เกือบตลอดเวลา (5)	เป็นบ่อยๆ (4)	เป็นครั้งคราว (3)	นานๆครั้ง (2)	ไม่เคยมีความรู้สึกเลย (1)
1. ท่านมีความรู้สึกว่าตนเองต้องรับผิดชอบงานมากกว่าอำนาจหน้าที่ที่มีอยู่					
2. ท่านมีความรู้สึกว่าขอบเขตงานและความรับผิดชอบในหน้าที่การทำงานยังไม่มีความชัดเจนเพียงพอต่อการปฏิบัติงานของท่าน					
3. ท่านไม่ทราบว่าตนเองมีโอกาสที่จะได้รับการเลื่อนตำแหน่งหรือไม่					
4. ท่านมีความรู้สึกว่าท่านต้องทำงานหนักมากเกินไปและบางครั้งท่านก็ไม่สามารถทำงานให้เสร็จทันเวลาได้					
5. ท่านคิดว่าท่านไม่สามารถทำให้ตนเกิดความรู้สึกพึงพอใจกับความขัดแย้งที่เกิดขึ้นจากความต้องการของบุคคลรอบข้างได้					
6. ท่านมีความรู้สึกว่าตนเองมีคุณสมบัติไม่เหมาะสมหรือไม่ตรงกับงานที่รับผิดชอบ					
7. ท่านไม่ทราบว่าผู้บังคับบัญชาคิดกับตัวท่านอย่างไรและจะประเมินการปฏิบัติงานอย่างไร					
8. ท่านคิดว่าตนเองไม่สามารถรับข้อมูลข่าวสารที่จำเป็นต่อการปฏิบัติงานได้					
9. ท่านรู้สึกวิตกกังวลเกี่ยวกับการตัดสินใจบางอย่างที่อาจส่งผลกระทบต่อชีวิตบุคคลที่ท่านรู้จัก					
10. ท่านมีความรู้สึกว่าเพื่อนร่วมงานอาจจะรู้สึกไม่ชอบหรือยอมรับตัวท่านได้					

ข้อคำถาม	ความถี่ของเหตุการณ์				
	เกือบตลอดเวลา (5)	เป็นบ่อยๆ (4)	เป็นครั้งคราว (3)	นานๆ ครั้ง (2)	ไม่เคยมีความรู้สึกเลย (1)
11. ท่านคิดว่าตนเองไม่สามารถควบคุมการกระทำและการตัดสินใจที่เกิดขึ้นอย่างทันทีของผู้บังคับบัญชาซึ่งมีผลกระทบต่อท่านได้					
12. ท่านไม่ทราบว่าเพื่อนร่วมงานมีความคาดหวังเกี่ยวกับตัวท่านอย่างไร					
13. ท่านคิดว่าความคิดของท่านที่จะทำงานที่ได้รับมอบหมายให้ดีได้อย่างไรอาจทำให้ท่านไม่สามารถปฏิบัติงานได้ตามปริมาณที่ต้องการ					
14. ท่านรู้สึกว่ามีงานมากมายหลายอย่างที่ต้องทำทั้งที่ท่านไม่เห็นด้วย					
15. ท่านรู้สึกว่าการดำเนินชีวิตของครอบครัวรบกวนการทำงานของท่าน					

VITAE

Name Mrs. Jarurat Sriratanaprapat

Student ID 5110430003

Education Attainment

Degree	Name of Institution	Year of Graduation
1. Bachelor's Degree of Science Nursing (BSN)	Mission College, Bangkok, Thailand	1991
2. Master's Degree of Science Nursing (MSN) Major in Family Nurse Practitioner (FNP)	California State University, Long Beach, California, USA	2002

Scholarships Awards during Enrolment

1. Nurse Practitioner Education Fund from California Government, USA (1998-2000)
2. Continue Education Fund from Lakewood Regional Medical Center, Lakewood, California, USA (1998-2000)

Work Position and Address

Nursing Lecturer, Faculty of Nursing, Asia Pacific International University (Mission College), Main campus, Muak Lek, Saraburi, 18180, Thailand