

**EMOTIONAL INTELLIGENCE AND
ADAPTATION TO CLINICAL PRACTICE OF NURSING
STUDENTS AT KUA KARUN NURSING COLLEGE**



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Thesis
Entitled

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PRACTICE OF NURSING STUDENTS AT
KUA KARUN NURSING COLLEGE**



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**EMOTIONAL INTELLIGENCE AND ADAPTATION TO CLINICAL
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SUWONNAKOTE, Ph.D.****ABSTRACT**

The purposes of this descriptive research were to study the emotional intelligence and adaptation to clinical practice of Kuakarun nursing students and to compare the difference of adaptation to clinical practice in total and in four modes of physiologic, self-concept, role function, and interdependence among Kuakarun nursing student groups at different levels of emotional intelligence in total and in intrapersonal and interpersonal subscales.

The sample of 215 was selected from the nursing students of the second, third, and fourth year in academic year of 2002 by using the proportional stratified random sampling technique. The research tools were the Emotional Intelligence Scale and the Adaptation to Clinical Practice Questionnaire which was developed according to the Roy adaptation model. The reliability of these tools was 0.941 and 0.866, respectively. The data collection was performed during the last week of August, 2002. The data were analyzed by using Descriptive and Non-parametric Statistics : Kruskal-Wallis H Test and Mann-Whitney U Test.

The results revealed that the majority (65.6%) of Kuakarun nursing students had emotional intelligence within the average range. Eighty-six point five percent of Kuakarun nursing students was able to adapt to clinical practice at a high level in total adaptation. The majority of nursing students could adapt at a high level in all four modes; physiologic (73.5%), self-concept (71.6%), role function (92.6%), and interdependence (92.6%). The nursing students in the group of below, within, and above average levels of emotional intelligence in total and interpersonal subscale showed statistically significant differences in adaptation to clinical practice in total adaptation and in three modes of self-concept, role function, and interdependence ($P < 0.01$) but no statistically significant difference in the physiologic mode. The nursing students who were at different levels of emotional intelligence on the intrapersonal subscale had statistically significant differences in total adaptation and in four modes of physiologic, self-concept, role function, and interdependence ($P < 0.01$).

The development of emotional intelligence for nursing students should be implemented in a nursing college, such as the social skill development program. The norm for interpretation of the emotional intelligence score for nursing students should be further studied.

**KEY WORDS : EMOTIONAL INTELLIGENCE / ADAPTATION TO CLINICAL
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ความฉลาดทางอารมณ์และการปรับตัวในการเรียนภาคปฏิบัติของนักศึกษาพยาบาล วิทยาลัย
พยาบาลเกื้อการุณย์ (EMOTIONAL INTELLIGENCE AND ADAPTATION TO CLINICAL
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บทคัดย่อ

การวิจัยเชิงบรรยายครั้งนี้มุ่งศึกษาความฉลาดทางอารมณ์ การปรับตัวในการเรียนภาคปฏิบัติ และเปรียบเทียบความแตกต่างของการปรับตัวในการเรียนภาคปฏิบัติทั้งโดยรวม และรายด้านทั้ง 4 ด้าน คือ ด้านสรีระวิทยา ด้านอ้อมโนทัศน์ ด้านบทบาทหน้าที่ และด้านความสัมพันธ์พึงพาระหว่างกัน ของนักศึกษาพยาบาลวิทยาลัยพยาบาลเกื้อการุณย์ที่มีความฉลาดทางอารมณ์โดยรวม และรายด้าน ภายในตนเอง รายด้านระหว่างบุคคล แตกต่างกัน กลุ่มตัวอย่างจำนวน 215 คน เลือกโดยการสุ่ม แบบแบ่งชั้น จากนักศึกษาพยาบาลศาสตร์บัณฑิต ชั้นปีที่ 2-4 ปีการศึกษา 2545 เครื่องมือวิจัยเป็น แบบสอบถามความฉลาดทางอารมณ์ และแบบสอบถามการปรับตัวในการเรียนภาคปฏิบัติซึ่งสร้างขึ้น ตามกรอบแนวคิดของรอย มีความเที่ยง 0.941 และ 0.866 ตามลำดับ ผู้วิจัยเก็บข้อมูลในช่วงสัปดาห์ สุดท้ายของเดือนสิงหาคม 2545 วิเคราะห์ข้อมูลโดยใช้สถิติบรรยาย และนัยพารามेटริกซ์

ผลการวิจัยพบว่า นักศึกษาพยาบาลส่วนใหญ่ร้อยละ 65.6 มีความฉลาดทางอารมณ์อยู่ในช่วง เกณฑ์เฉลี่ย ร้อยละ 86.5 มีการปรับตัวในการเรียนภาคปฏิบัติโดยรวมอยู่ในระดับสูง ในรายด้าน นักศึกษาพยาบาลส่วนใหญ่มีการปรับตัวในการเรียนภาคปฏิบัติอยู่ในระดับสูงทั้ง 4 ด้านโดยด้าน สรีระวิทยาคิดเป็นร้อยละ 73.5 ด้านอ้อมโนทัศน์คิดเป็นร้อยละ 71.6 ด้านบทบาทหน้าที่คิดเป็น ร้อยละ 92.6 และด้านความสัมพันธ์พึงพาระหว่างกันคิดเป็นร้อยละ 92.6 นักศึกษาพยาบาลที่มีความ ฉลาดทางอารมณ์โดยรวม และในรายด้านระหว่างบุคคลในระดับที่แตกต่างกัน มีการปรับตัวใน การเรียนภาคปฏิบัติโดยรวม และรายด้านอ้อมโนทัศน์ บทบาทหน้าที่ และความสัมพันธ์พึงพา ระหว่างกันแตกต่างกันอย่างมีนัยสำคัญทางสถิติ ($P < 0.01$) ส่วนด้านสรีระวิทยาไม่แตกต่างกัน นักศึกษาพยาบาลที่มีความฉลาดทางอารมณ์ในรายด้านภายในตนเองในระดับที่แตกต่างกัน มีการ ปรับตัวในการเรียนภาคปฏิบัติโดยรวมและในรายด้านทั้ง 4 ด้าน แตกต่างกันอย่างมีนัยสำคัญทางสถิติ ($P < 0.01$)

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CONTENTS

	Page
ACKNOWLEDGEMENT	iii
ABSTRACT (English)	iv
ABSTRACT (Thai)	v
LIST OF TABLES	viii
LIST OF FIGURES	x
CHAPTER	
I INTRODUCTION	1
Background and rationale	1
Conceptual framework	6
Research questions	9
Research objectives	10
Research hypothesis	10
Scope of the study	10
Expected outcome and benefits	11
Limitation of the research	11
Definition of variables	11
II LITERATURE REVIEW	14
The adaptation and the education in clinical practice of nursing students	14
Factors related to adaptation in clinical practice	32
Emotional intelligence	38
The relationship between emotional intelligence and adaptation in clinical practice	43

CONTENTS (CONTS)

CHAPTER	Page
III METHODOLOGY	48
Population and sample	48
Research instruments	49
Protection of human rights	54
Data collection	54
Data analysis	55
IV RESULTS	56
V DISCUSSION	69
VI CONCLUSION AND RECOMMENDATIONS	75
BIBLIOGRAPHY	78
APPENDIX CONSENT TO PARTICIPATE IN RESEARCH STUDY	92
 QUESTIONNAIRES	93
 LIST OF THE EXPERT FOR INSTRUMENT VALIDITY	97
 A POPULATION FRAME FOR PROPORTIONAL STRATIFIED RANDOM SAMPLING TECHNIQUE	98
 THE SCORE RANGE OF EMOTIONAL INTELLIGENCE LEVEL OF KUAKARUN NURSING STUDENTS CLASSIFIED BY TOTAL, SUBSCALE, AND FACTORS	99
 TEST OF NORMALITY AND HOMOGENEITY OF VARIANCE	100
BIOGRAPHY	103

LIST OF TABLES

TABLE	Page
1. The practicum course of baccalaureate curriculum at Kuakarun Nursing College	26
2. Role of IQ and EQ in life activity	44
3. The score range of emotional intelligence level classified by total subscales and factors	51
4. The frequency (f) and percentage (%) of Kuakarun nursing students classified by academic year (n = 215)	57
5. The frequency (f) and percentage (%) of Kuakarun nursing students in each level of emotional intelligence classified by total, subscale, and factors of emotional intelligence (n = 215)	58
6. The frequency (f) and percentage (%) of Kuakarun nursing students in each level of adaptation to clinical practice classified by the total adaptation and each mode (n= 215)	59
7. The comparison of differences in adaptation to clinical practice among Kuakarun nursing student groups at different levels of the emotional intelligence analyzed by Kruskal-Wallis H Test (n = 215)	61
8. The Two-Sample Test of adaptation to clinical practice in total and each mode between Kuakarun nursing student groups at different levels of the emotional intelligence by Mann-Whitney U Test	62
9. The comparison of differences in adaptation to clinical practice among Kuakarun nursing student groups at different levels with of the emotional intelligence in intrapersonal subscal analyzed by Kruskal-Wallis H Test (n = 215)	64

LIST OF TABLES (CONTS)

TABLES	Page
10. The Two-Sample Test of adaptation to clinical practice in total and each mode between Kuakarun nursing student groups at different levels of the emotional intelligence intrapersonal subscale by Mann-Whitney U Test	65
11. The comparison of differences in adaptation to clinical practice among Kuakarun nursing student groups at different levels of the emotional intelligence in interpersonal subscale analyzed by Kruskal-Wallis H Test (n = 215)	67
12. The Two-Sample Test of adaptation to clinical practice in total and each mode between Kuakarun nursing student groups at different levels of the emotional intelligence interpersonal subscale by Mann-Whitney U test	68
13. A population frame for proportional stratified random sampling technique	98
14. The score range of emotional intelligence level of Kuakarun nursing students classified by total subscale and factors	99
15. Normality and homogeneity of variance testing of adaptation to clinical practice in total and each mode in each group of emotional intelligence in total (n=215)	100
16. Normality and homogeneity of variance testing of adaptation to clinical practice in total and each mode in each group of emotional intelligence in intrapersonal subscale (n=215)	101
17. Normality and homogeneity of variance testing of adaptation to clinical practice in total and each mode in each group of emotional intelligence in interpersonal subscale(n=215)	102

LIST OF FIGURES

FIGURE		Page
1.	Research framework based on the Roy Adaptation Model	9
2.	The diagram demonstrates human as an adaptive system	15
3.	The conceptual model of this research	47

CHAPTER I

INTRODUCTION

Background and Rationale

For living in society, human must investigate a way for individual and social needs responded as physiologic, psychologic, and social status. When problems occur, they often take to conflict, confusion and stress. The individual difference is depended on the important, the complexity, and the time of problem happened. These include the individual of physiology, intelligence, perception, and experiences. Human must adapt when they contact a problem in order to maintain a balance of life (Nipa Nithayayon, B.E. 2530 : 9-10).

A nurse professionally focuses on health promotion and services for people in general and sick time to prevent, cure, and rehabilitate. Nursing is directly related to human life and safety. The quality of work produced by nurses must be considered differently from the other professions due to its relation to human being and death (Rayner, 1984 : 29). The heart of nursing study is nursing practice ability. These include both teaching and learning in clinical practices.

In general, students who study at a nursing institute are late adolescent. They have many problems and difficulty in adaptation because of changes in physical, psychological, emotional and social state. These students need more adaptation which takes them to be stress. For example, these students have to move from a school to college or university which needs more responsibility from them. They have to

interact with the other, such as instructors, classmates. This forces them for adaptation to ordinance, and leads to be stress, depress, and lost. If they succeed in adaptation, they would upheld to be self development and promote confidently to overcome problem in the future. On the other hand, if they are failure in adaptation, they might be dishearted and withdrawn (Orapin Choochom & Autchara Sukharom, B.E. 2535 : 2). This finding agrees with the study by Hurlock (1978, cited by Jaruporn Sangpao, B.E. 2534 : 3) that human could be happy, confident, and helpful when they are well adapted. Moreover, Lazarus (1969, cited by Suwiriya Suwanakhot, B.E. 2538 : 2) showed that a good adaptation is an accomplishment in study and work. The evaluation of adaptation is considered from ease, efficiency of working, physical symptom, and social acceptance. The failure in adaptation at school would take to muff one's chance for study.

In clinical practice, Smith (1968, cited by JintanaYuniphun, B.E. 2527 : 20) noted that clinical practice is the heart of nursing education. The students would learn and have experience in health by themselves in general and emergency situations. They have an opportunity to practice nursing directly and apply the theory to do practicing. This allows them to have intelligence, skill, and attitude to learn in their profession. However, several studies found that the clinical practice is an experience that leads to stress for the students because it directly relates to human life (Beck & Srivastava, 1991 : 131 ; Pagana, 1988 : 419 ; Jintana Leelakraiwan, et al., B.E. 2529 : abstract). The students need a higher self-responsibility to take care of patients. If any error occurs from lack of knowledge and experience, it would threaten patients' life. The students must work and interact with personal in health team, as well as patients and their relatives (Lees & Ellis, 1990 : 951 ; Mahat, 1996 : 165). It has been

demonstrated that some problems occurred during work among doctors and nurses (Jones & Johnston, 1997 : 476; Lee & Ellis, 1990 : 951; Mahat, 1996 : 165, 1998 : 14; Price, 1989 : 44; Vongchan Petpichetachean, et al., B.E. 2536 : 43-56 ; Chomphunuch Pongsiri, B.E. 2535 : 66-76) as well as instructors (Beck & Srivastava, 1991 : 130; Mahat, 1996 : 165; 1998 : 14; Pagana, 1988 : 422 ; Selleck, 1982; Winder, 1984 cited by Baolaong Sumdangrit, et al., B.E. 2544 : 40). Most of students have to be aware of a high responsibility to follow much more regulations, to face of problem solving, such as, emergency situation, sadness, and death (Jones & Johnston, 1997 : 476; Lees & Ellis, 1990 : 951). They may lack of self-confidence, knowledge, and skill (Beck & Srivastava, 1991 : 130; Pagana, 1988 : 420; Vongchan Petpichetachean, et al., B.E. 2536 : 43-56; Nipa Rujanantakul, B.E. 2541 : abstract). These factors lead to stress when the students do their clinical practices. Furthermore, these nursing students oftenly face those stresses all time for helping patients (Kuakarun Nursing College, B.E. 2534 : 1 ; Faculty of Nursing, Mahidol University & the Army Nursing College, B.E. 2530 : 36). A night-time work, especially, might disturb the circadian rhythm. This cause a sleep-problem and uncomfortable signs. The study of satisfaction in working of nurse found that the rotated working groups had a higher score of sleep problem and uncomfortable signs, but they had a lower score of satisfaction than those of the day-time working groups (Sunuttara Taboonpong & Niddaya Takviriyannun, B.E. 2542 : 11). Therefore, these nursing students need adaptation. Orathai Chuenmanuch (n.d.:11-26) found that the nursing students who succeed in adaptation presented effective nursing practices, happiness, and satisfaction. The study of Wanna Kongsuriya, et al. (1992, cited by Yuphadee Treepathanasuwan, B.E. 2539 : 2) also demonstrated that clinical practices cause several problems in adaptation of

staff nurses and instructors. Warunee Jamgrajai (B.E. 2540 : 159) found that the problem of adaptation in learning process was moderate level. Most students have fear and unsatisfaction when they work at night time during their clinical practices (Vongchan Petpichetachean, et al., B.E. 2536 : 43-56).

Pongphun Kurthpituk (B.E. 2530 : 71-72) and Orathai Chuenmanuch (n.d. : 11-26) showed that human who could not adapt to take conflict or constrain feeling, would decrease the quality of work and lead to stresses. This results in mental health problems. It has been found that stress, both physical and psychological, as well as fear of uncomplete working in students, cause a low self esteem (Jintana Leelakraiwan, et al., B.E. 2529 : abstract). These include moderate mental health problem (46.6 %), mild mental health problem (36.7 %), and no mental health problem (16.7 %) of Kuakarun nursing students in academic year of 1990 (Jaruporn Sangpao, B.E. 2534 : abstract). In four years latter, Thunyaluk Vajanavisid (B.E. 2538 : 46) found that the percentage of mental health problem were increased to be 56.52 % for moderate mental health problem. However, the group that had no mental health problem showed a decrease in percentage (14.05 %) of Kuakarun nursing students in academic year of 1994. The effect of failure in adaptation for problem solving in clinical practice could lead to drop out from school. For example, Kullaya Tantiphalacheva, et al. (B.E. 2536 : 59-61) found that the rate of drop out was increased every year during 1986 to 1990. The causes of drop out include bad attitude toward profession, physical problem, mental health problem, and, especially, adaptation problem. The drop out, recorded in 1996 from 5 nursing colleges in Southern of Thailand, was nine students. Four of them had adaptation problem (Praboromarajchanok institute, B.E. 2539 : no number of page). In analogous, the data

recorded during 1990 to 1992 from Payoaw Nursing College showed that the drop out was five students, four had psychic disorder and one had physical disease (Aumporn Prakongjit, B.E. 2536 : 3). These results may come from the baccalaureate nursing curriculum being practice in the clinic by those students.

All together show that students need to have adaptation to clinical practice to decrease stress or problem. Roy (1989 : 166, 1991 : 6-7, 1999 : 35-36) demonstrated that human are consisted of physiological, psychological, and social components. These are opened and adaptive systems by which they would adjust effectively to change in the environment and, inturn, affect the environment. Uncraff (1982 : 10) showed that the reconcile between human and environment in college would help them to have happiness, good adaptation and success in their goal and education. Therefore, the adaptation is important for all students. Goleman (1995 : 24-31) also noted that an intelligence is counted for 20 % of success whereas 80 % from the other factors, such as emotional intelligence. Furthermore, the emotional intelligence has more effect than the intelligence quotient approximately two fold. The study by Sudthirat Pimpong (B.E. 2526 : 133-142) revealed that the students'success was hinged not only on intelligence quotient but also on adaptation. Human have an emotional intelligence to triumph problems. They could express their teamwork ability to learn how to have a good adaptability, an effective work, and happiness. (Wilardsluk Cheowanlee, B.E. 2542 : 37-52 ; Therdsak Dechkong, B.E. 2542 : 8-19).

The emotional intelligence is an array of non-cognitive capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and pressures (BarOn, 1997 cited by Shauladda Kwanmuang, B.E. 2542 : 16). It has been noted that the emotional intelligence has several effects

on human, such as education which shows a positive relationship to their success (Holbrook, 1997 : abstract ; Worraporn Kongkeaw, et al., B.E. 2543 : abstract). The emotional intelligence is associated with the ability of clinical practice in psychiatric of nursing students (Prachan Jansuk, B.E. 2544 : abstract). However, this intelligence shows a negative relationship with stress level of students (Narakorn Khunverapong & Phitchaya Samransukrat, B.E. 2543 : 61). Several studies indicate that the emotional intelligence is an important factor for a modern leader to reach success (Massey, 1998 : abstract). Heretofore, the emotional intelligence could influence human in many aspects, such as, education and work. This would be an internal factor to stimulate the adaptive system. The data from ERIC (1992-2000) and CINAHL (1993-2000) demonstrated that, to date, there is no study on the differences of adaptation in clinical practice and emotional intelligence. Based on Roy Adaptation Model (Roy & Andrews, 1999), the researcher purposed that the emotional intelligence is associated with the adaptation of nursing students. In the present study, the nursing students from Kuakarun Nursing College were included. The data from this study may be beneficial to promote emotional intelligence of nursing students to gain their clinical practice adaptation and effective nursing services.

Conceptual Framework

The Roy Adaptation Model (Roy & Andrews, 1999) and literature review were applied for this study as a guide to study the adaptation in clinical practice of nursing students. According to the Roy Adaptation Model, the central notion of the model is that human as an adaptive system that is able to adapt oneself to a changing

environment and constantly does. This human system consists of inputs, outputs, as well as control and feedback processes.

Inputs are identified as stimuli and adaptation levels. The stimuli categorized as focal, contextual, and residual stimuli, may come externally from the environment or internally from the self. The focal stimulus is the stimulus that attracts one's attention or the most immediate awareness of human system. The contextual stimuli are all other stimuli presented in the situation that contribute to the effect of focal stimulus. The residual stimuli are the stimuli that may be affecting behavior but whose effects are not validated or unclear. Since the environment changes constantly and the significance of any stimulus alters simultaneously, hence the certain stimuli could vary rapidly (Roy & Andrews, 1999 : 38-40). The pooled effect of these stimuli determines the person's adaptation level-a changing point that represents one's ability to positively respond in a situation-that is categorized as integrated, compensatory, and compromised life processes. Based on this level, human deals with environmental changes through coping mechanisms.

The coping mechanisms, the given name of control processes, are defined as innate or acquired ways of responding to the changing environment in order to maintain the human system's balance including physiologic, psychologic and spiritual, social, and relational integrity. These innate and acquired coping mechanisms are categorized to be a regulator and cognator. The former responds automatically through neural, chemical, and endocrine coping channels, whereas the latter responds through perceptual/ information processing, learning, judgment, and emotion (Roy & Andrews, 1999 : 45-47). When individual confront stimuli, their coping processes are activated, causing behavioral responses. The behavior responses occur in one or more

of the four adaptive modes of physiologic, self-concept, role function, and interdependence.

Outputs of the system, then, are responses or person's behaviors that can be observed, measured, or self-reported. It can be either an adaptive response which promotes integrity or wholeness of person in terms of the goals of human system (survival, growth, reproduction, mastery, and person and environment transformations) or an ineffective response which does not contribute to these goals (Roy & Andrews, 1999 : 67). Both adaptive and ineffective responses act as feedback or further input to the system, allowing persons to decide whether to increase or decrease efforts of coping (Roy & Andrews, 1999 : 37).

Regarding the Roy Adaptation Model, learning in clinical practice is the focal stimulus that the nursing students has to be confronted with while their attentions are mostly attracted at the same time. In addition, the emotional intelligence, level of academic year, birth order, family status, including educational achievement that exist in the situation are the contextual stimuli. These stimuli could simultaneously activate coping processes, then produce responses or adaptations related to 4 adaptive modes to keep their system balance. The research framework is clearly illustrated in the following Figure 1. The solid lines show the area of study.

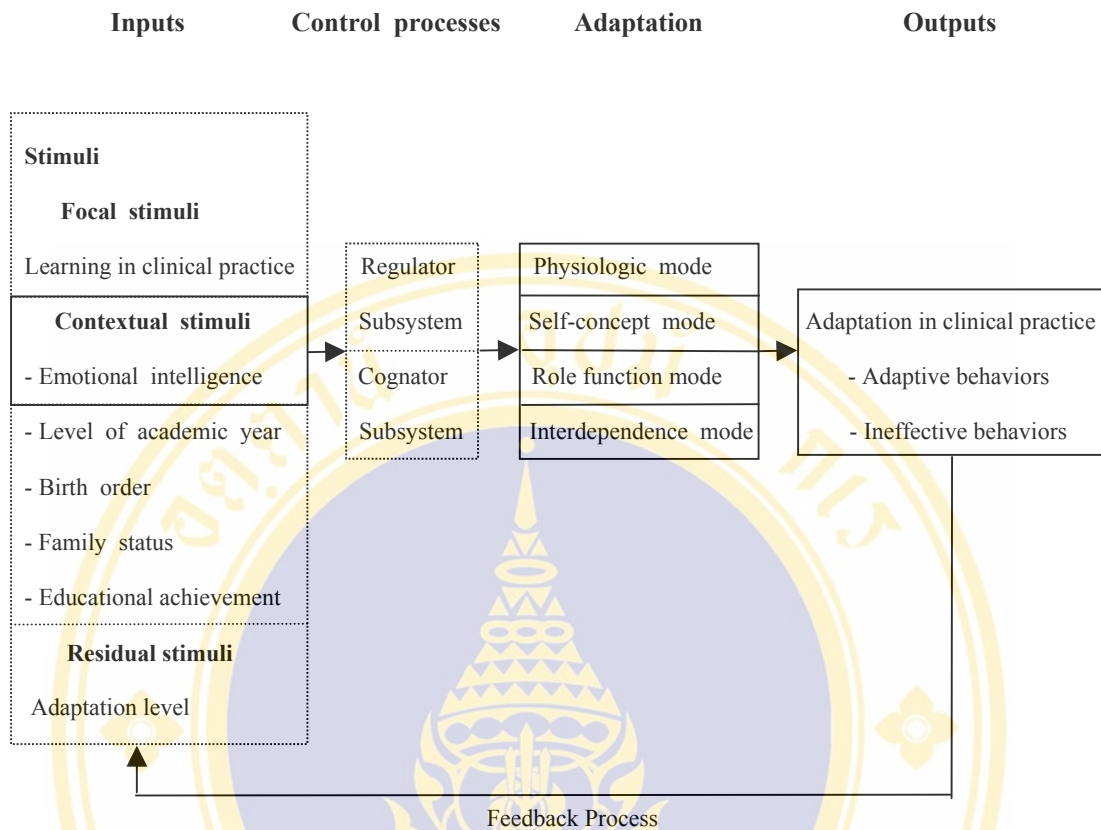


Figure 1 : Research framework based on the Roy Adaptation Model

Research Questions

1. How is the emotional intelligence of Kuakarun nursing students ?
2. How is the adaptation to clinical practice in total and each mode of Kuakarun nursing students ?
3. Is there a difference of adaptation to clinical practice among Kuakarun nursing student groups at different levels of the emotional intelligence in total and subscale ?

Research Objectives

1. To study the emotional intelligence of Kuakarun nursing students.
2. To study the adaptation to clinical practice in total and each mode of Kuakarun nursing students.
3. To compare the difference of adaptation to clinical practice among Kuakarun nursing student groups at different levels of the emotional intelligence in total and subscale.

Research Hypothesis

There is a difference of adaptation to clinical practice among Kuakarun nursing student groups at different levels of the emotional intelligence in total and subscale.

Scope of the Study

This research aims to study the emotional intelligence, the adaptation to clinical practice, and to compare differences of adaptation to clinical practice among Kuakarun nursing student groups at different levels of emotional intelligence.

The subjects in this study were the second, third, and fourth year of Kuakarun nursing students in the academic year of 2002.

The emotional intelligence scale used is based on Shauladda Kwanmuang's emotional intelligence questionnaire (B.E. 2542). The adaptation to clinical practice is developed based on the Roy adaptation model.

Expected Outcome and Benefits

1. The results of the adaptation to clinical practice will be a guideline to develop the emotional intelligence of Kuakarun nursing students.
2. The findings may provide new knowledge and useful for the future research.

Limitation of the Research

The interpretation of emotional intelligence score in subgroup of below, within, and above average is based on Shauladda Kwanmuang's study in college students of Rajabhat Institute (B.E.2542) which might not be an appropriate norm for nursing students.

Definition of the Variables

Emotional intelligence is the capacity to recognize our own feeling and those of others, for motivation ourselves, managing personal emotion, as well as for making relationship with others as classified into intrapersonal and interpersonal subscale. It was measured by the Emotional Intelligence Scale, a 5-point scale.

Intrapersonal subscale is an ability to know one's own feeling composes of seven factors including self-awareness, self-regard, independence, self-control, adaptability, intentionality, and optimism.

Self-awareness is an ability to know one's own feeling at any time, and could use those feeling in self-directed ways to guide behavior.

Self-regard is a good feeling and satisfaction with oneself in the present situation.

Independence is an ability to take care of oneself and to make decision by oneself.

Self-control is an ability to manage moods, to think clearly and perform well.

Adaptability is an ability to detect emotions and interpret them correctly. It also includes the flexibility in emotions and well being.

Intentionality is an ability to be assertive to create suitable goals.

Optimism is an ability to view oneself, others, and situation positively.

Interpersonal subscale is the ability to live with the others, composes of five factors including empathy, social responsibility, assertiveness, conflict management, and interpersonal relationship.

Empathy is an ability to perceive and understand others' feelings, concerns and be perspective or appreciating the differences that people feel about things.

Social responsibility is an ability to live in a suitable and right way.

Assertiveness is an ability to show an appropriate behavior that is not trouble to oneself and others.

Conflict management is an ability to manage oneself and others in problem solving.

Interpersonal relationship is an ability to handle relationships positively in order to bring about a cooperation for goal attainment.

Adaptation to clinical practice is an internal or external action and reactions of nursing students under clinical practice circumstances, in the four modes of physiologic, self-concept, role function, and interdependence. It was measured by Adaptation to Clinical Practice Questionnaire, a 5- point scale.

Physiologic mode is the responses in the function of all cells, tissues, organs, and systems of the body. These responses could be expressed via changes in behaviors. The alterations may include the five basic needs : oxygenation, nutrition, elimination, activity and rest, and protection. The four complex processes : sense; fluid, electrolyte, and acid-base balance; neurologic function; and endocrine function also are accounted.

Self-concept mode is a behavior related to belief and feeling of nursing students expressed during their clinical practice. They may present in either physical and personal appearance.

Role function mode is a behavior associated to an expected role of nursing students during their clinical practice.

Interdependence mode is a behavior related to give and receive love, respect, and value of interaction among nursing students and instructors, friends, as well as authorities.

CHAPTER II

LITERATURE REVIEW

This research study in the difference of adaptation to clinical practice among Kuakarun nursing student groups was performed according to the level of the emotional intelligence. The scope of literature review is in a sequence as follows :

1. The adaptation and the education in clinical practice of nursing students
2. Factors related to adaptation to clinical practice
3. Emotional intelligence
4. The relationship between emotion intelligence and adaptation to clinical practice

The Adaptation and the Education in Clinical Practice of Nursing Students

Definitions of Adaptation

Rambo (1984:3) noted that the adaptation is a positive response to changes in the individual's internal or external environment that maintains integrity.

Frisancho (1979:3) cited that the adaptation is a process that an organism has attained a beneficial adjustment to the environment. This adjustment can be either temporary or permanent, acquired either through short-term or lifetime process. This may involve physiological, structural, behavioral, or cultural change aimed at to improve the organism's functional performance to face of environmental stresses.

According to Roy (1999:30) adaptation is “the process and outcome whereby thinking and feeling persons, as individuals or in groups, use conscious awareness and choice to create human and environmental integration.”

Roy Adaptation Model

According to Roy Adaptation Model (Roy & Andrews, 1999 : 35-36), the central notion of the model is that human are adaptive systems. The term of adaptive means that the capacities of human to think and feel, to root in consciousness and meaning. They could adjust effectively to change an environment and, in turn, to affect the environment. The term “system” is a set of parts connected to function as a whole for some purposes. This set could do by virtue of the interdependence of its parts. Roy has applied the general system theory in the description of humans as adaptive systems. These systems can be viewed as experiencing inputs, outputs, as well as control and feedback processes.

Human, as an adaptive system, can be indicated in the following diagram :

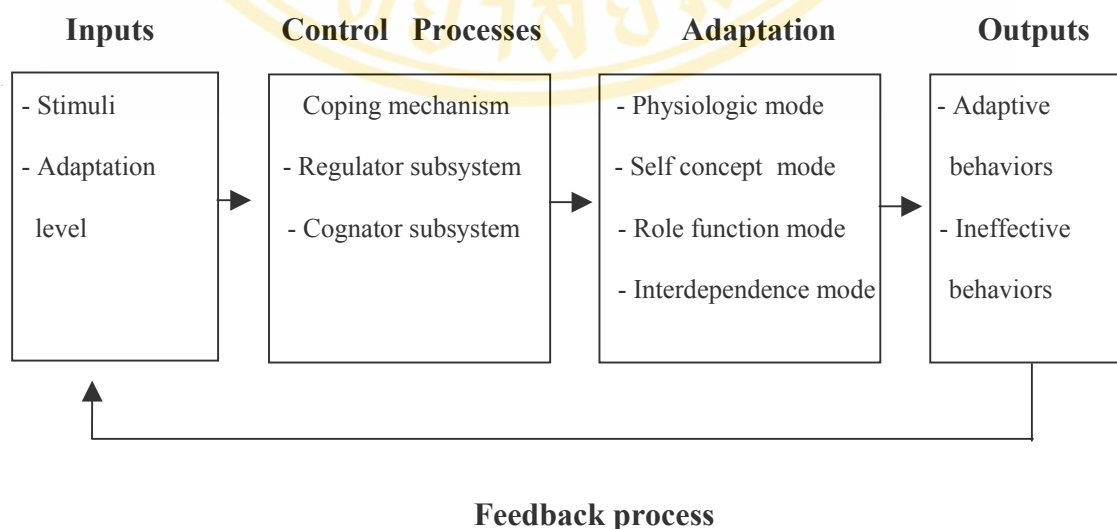


Figure 2 The diagram demonstrates human as an adaptive system

Source : Roy & Roberts (1981 : 58)

The Input

Roy and Andrews (1999 : 36-43) have indicated the input composing of two factors as follow :

1. Stimuli have been defined as a input which provokes a response, or more generally. It is the point of interaction between the human system and an environment. Stimuli can be external (external stimuli) or can originate from the internal environment (internal stimuli). Roy has identified and categorized these stimuli as focal, contextual, and residual stimuli.

1.1 Focal stimuli is an internal or external stimulus that is the most immediate awareness of human system. Many stimuli are focal, such as pain in surgical patients or being away from home in pediatric patients.

1.2 Contextual stimuli are all other stimuli presented in the situation that contributes to the effect of the focal stimulus. Therefore, the contextual stimuli are all environmental factors that affect human system. These factors will influence how the human system can deal with a focal stimulus. These may be positive or negative factors.

1.3 Residual stimuli are environmental factors within or with out human systems. The effects of which are unclear in the current situation. It may not be clear to the observer that those factors are being an effect. Certain stimuli are pooled to make up a specific internal input and change the adaptation level.

2. Adaptation level represents the condition of life processes described on three levels as integrated, compensatory, and compromised. An adaptation level could affect the ability of human system to respond positively to a situation.

Control Processes

To confront stimuli in a constantly changing environment, human would respond to those through coping processes. These processes are categorized to be the regulator and cognator as follow (Roy & Andrews, 1999 : 45-47):

1. Regulator coping process is a response performed automatically through neural, chemical, and endocrine coping channels, with an unconscious manner.

2. Cognator coping process is a response through four cognitive emotive channels : perceptual and information processing, learning, judgment, and emotion. Perceptual and information processing includes the activities of some selective attention, coding, and memory. Learning involves imitation, reinforcement, and insight whereas the judgment process encompasses such activities as problem solving and decision making. Through the person's emotions, defenses are used to seek relief from anxiety and to make affective appraisal and attachments.

When individual confront stimuli, their coping processes are activated, causing behavioral responses. The behavior responses occur in one or more of the four adaptive modes (Roy & Andrews, 1999 : 48-51) as follow :

The Physiologic Mode is associated with human's way as an individual interact via physical being to the environment. The behavior in this mode is the manifestation of the physiologic activities of all cells, tissues, organs, and system comprising the human body. There are five basic needs : oxygenation, nutrition, elimination, activity and rest, and protection. The four complex processes are sense; fluid, electrolyte, and acid-base balance; neuronal function; and endocrine function. The detail of these can be viewed as follow :

1. Oxygenation: This need involves the body's requirements for oxygen and the basic life processes of ventilation, exchange and transport of gases.
2. Nutrition: This need involves a series of integrated processes associated with digestion (the ingestion and assimilation of food) and metabolism (provision of energy, building of tissue, and regulation of metabolic processes).
3. Elimination: The need for elimination includes the physiologic processes involved in the excretion of metabolic wastes primarily through the intestines and kidneys.
4. Activity and rest: The need for balance the basic of life processes of mobility and sleep. This provides an optimal physiologic function of all body components, restoration and repair.
5. Protection: The need for protection includes two basic of life processes, nonspecific defense processes and specific defense processes.
6. Senses: The sensory processes are sight, hearing, touch, taste, and smell. This would enable people to interact with their environment. The sensation of pain is an importantly related consideration.
7. Fluid, electrolyte, and acid-base balance: The complex processes associated with fluid, electrolyte, and acid-base balance are required for cellular, extracellular, and systemic function.
8. Neurologic function: The neurologic channels are an integral part of a person's regulator coping mechanism. They function to control and coordinate body movements, consciousness, and cognitive-emotional processes, as well as to regulate activity of body organs.

9. Endocrine function: The endocrine system works through hormone along with neurologic function, to integrate and coordinate body function. The endocrine activity plays a significant role in the stress response and is also a part of regulator coping.

Self-Concept Mode for the individual has been identified as psychic and spiritual integrity. Self concept is the composite beliefs and feelings that a person holds about him or herself at a given time. This mode composes of physical self, including body sensation and body image ; and personal self comprises of self-consistency, self-ideal, and moral-ethical-spiritual self. The detail can be viewed as follow :

1. Physical self

1.1 Body sensation applies to the ability to feel and to experience oneself as a physical being. Some statements, such as, “I feel sick”, “I feel exhausted” are accounted.

1.2 Body image applies to how one views oneself physically and one’s appearance, for example, “I need to lose some weight,” “I am not very physically fit”.

2. Personal self

2.1 Self-consistency is a part of personal self component which strives to maintain a consistent self-organization and to avoid disequilibrium.

2.2 Self-ideal relates to what one would like to be or is capable of doing.

2.3 Moral-ethical-spiritual self includes the belief system and an evaluation of who one is in relation to the universe.

The Role Function Mode focuses on the roles that an individual occupies in society. A role, as the functioning unit of society, is a set of expectations about how a person occupies one position and behaves toward another. This mode emphasizes the need of social integrity.

A classification of role set involving primary, secondary and tertiary role, is shown as follow :

1. **The primary role** determines the majority of behaviors that a person engages in during a particular period of life. It is assessed by age, sex, and developmental stage.

2. **The secondary role** is those of a person assumes to complete the tasks associated with a developmental stage and the primary role.

3. **The tertiary role** is a role that is free by a person, temporary in nature, and often associated with the accomplishment of a minor task in a person's current development.

The Interdependence Mode focuses on an interaction related to the giving and receiving of love, respect, and value. People who demonstrate an adaptive interdependence have a comfortable balance between their needs for affiliation (dependence) and achievement (independence). The basic need of this mode is termed as a relational integrity (the feeling of security in nurturing relationship). These needs are met primarily by establishing in-depth interaction with other persons. Two specific relationships of this mode for individual are significant others and support systems.

The Output of human, as an adaptive system, is a behavior response of human. It can be either adaptive response that promotes the integrity of human system (survival, growth, reproduction, mastery, and person and environment transformation)

or ineffective response, neither promote integrity nor contribute the goal of adaptation. The integration of persons with the environment is crucial. These responses act as feedback or further input to the system, allowing persons to decide whether to increase or decrease effort to cope with the stimuli.

In summary, the adaptation is a human response to the environment in order to fulfill or promote goals of adaptation including survival, growth, reproduction, mastery, and person and environment transformations.

The Education in Clinical Practice at Kuakarun Nursing College and Adaptation to Clinical Practice of Nursing Student

Nursing education composes of both theory and clinical practice. This could orient and prepare a nurse to be professional. The ability in clinical practice is progressively increased as the students had passed their academic year. In theory, the knowledge content of principle and practicing methods are combined to be a good attitude to help patients professionally. This teaching and learning process would prepare a learner to receive knowledge and ability. Most tools used for teaching are lecture or demonstration and practicing methods (Somkid Ragsasat & Pranom Otakanon, 1985, cited by Sujittra Paesupat, B.E. 2542 : 10).

Clinical practice is the heart of nursing education because it could encourage the students to develop knowledge and skill including critical thinking, problem solving, and decision making. Billing & Halstead (1998 : 281) showed the relationship between theory and practice that encourage the progression of intelligence and profession. Moreover, the student would develop their skills, such as cognitive

domain, affective domain, and psychomotor domain (Scheveer, 1972, cited by Jintana Yuniphun, B.E. 2527 : 20-21).

The characteristic of clinical teaching is divided into 3 traits as follow :

1. Laboratory practice is a focus on an experimental practice, for example, scientific practice, or nursing technical practice in nursing practice room. This allows the students to do their practicing before performing with patients.

2. Nursing framework practice in a classroom is different from the laboratory practice in that the real data for education and problem solving activity are the principle. The learner have to do the data collection from a real situation and then analyze them base on the theory for discussion and conclusion.

3. Professional experience practice is referred to nursing practice with patients, groups, and community in aspects of critical thinking and problem solving. The learner could take their knowledge from the theory to practice, develop skill, promote intelligence as professionally (Kullaya Tantiphalacheva, B.E. 2538 : 36-40).

At Kuakarun Nursing College, the description framework of baccalaureate in nursing education is a process of education management for adult. The students need responsiveness and cooperation in learning activity to develop knowledge, attitude, and professional practice. This would help them to do critical thinking in health problem solving of person, family, and community. The instructor is an environment manager who manage learning experience from basic to complex for the students. There are four years in nursing education at Kuakarun Nursing College. In the first semester of the first year, the nursing students will learn in many theories of basic science such as, biology and mathematic. The applied sciences, such as anatomy, physiology, and pharmacology also are included. Indeed, the students will learn some

professional subjects, such as, Fundamental of Nursing. In the second semester, they will do demonstration and take in Fundamental of Nursing I. There are no summer semester.

In the first semester of the second year, there is Fundamental of Nursing II. The students will work and do their practicing related to basic nursing care at inpatient wards. In the second semester, there is Medical and Surgical Nursing Practicum I. The students will practice with a real situation on nursing care of adults who have abnormal of oxygenation, inflammation and immunization, electrolyte imbalance. This practicing requires a process of holistic problem solving and a concern of individual needs concluding bio-psycho-social and health promotion, prevention, and rehabilitation. There is a summer for the second-year students observation in pediatric.

There is Medical and Surgical Nursing Practicum II in the first semester of the third year. The students have to integrate the theory for a real situation by using a nursing process. Most problems that they face are abnormal of destroy, perception, sensory, movement and practice of a role in an operating room. In addition, the students will further do their practicing in Obstetric Nursing Practicum I. The contents are sexology and family planning, especially for women by using a holistic nursing process for health promotion, prevention, cure, and rehabilitation. There also is Pediatric in this semester. The knowledge in theory and nursing process are obligatory for pediatric nursing from birth to adolescence in general and specific. These include risk, and sick time in health promotion, prevention, cure and rehabilitation as a holistic nursing system.

In the second semester of the third year, the students will practice Medical and Surgical Nursing Practicum III. It contains the nursing care on adult health status

and sick. The knowledge of abnormal growth of cell, emergency and crisis, public danger, forensic medicine, technology connected to nursing care are required. For Obstetric Nursing Practicum II, the students will practice on giving services, diagnosis and examination in gestational period, the appraisal of mother and fetus health status, both in normal and risk. Mental Health and Psychiatric Nursing Practicum is provided in this semester. They have to use the nursing process, relationship skill, interaction technique and group activity therapy for nursing care patients having mental, emotional, and behavior problems. In summer of the third year, the students have an extra practice in Medical and Surgical Nursing Practicum, Obstetric Nursing Practicum, and Mental Health and Psychiatric Nursing Practicum.

The first semester of the fourth year has practice of Community Health Nursing Practicum II. This is the professional experience practice that uses all theories for the application in home health care, home visiting, family care, school health care, and occupational health care. The public health administration and work process are performed in different levels. The practice of Community Health Nursing Practicum III is a study in community diagnosis for health problem solving. In addition, the practice of Obstetric Nursing Practicum III is assigned to learn about high risk of mother and fetus in gestation and labor periods, both in normal and abnormal, whereas the practice of Obstetric Nursing Practicum IV is scoped in take care of mother during post partum period both normal and complication. These include breast feeding and infant care. Although the nursing students will practice in both Obstetric Nursing Practicum III and IV, the emphasize is Obstetric Nursing Practicum III.

In the second semester of the fourth year, the students will practice in Practicum of Nursing Administration. This subject focuses on the leadership by using the principle of effective administration of planning, assign, conference. For nursing practice, the nursing process of supervision and appraisal of working are essential. The Basic Medical Care Practicum is provided in this semester. It is the basic medical care that applies the theory to practice. These include process of interview of patients' history, physical examination, and analysis of laboratory results. In addition, the Obstetric Nursing Practicum III and IV are also in this semester. The emphasize is Obstetric Nursing Practicum IV. There is no summer. Therefore, the students who passed all practicum subjects will graduate at the end of the second semester of the fourth year. Table 1 shows the summary of practicum course in each academic year.

Table 1 The practicum course of baccalaureate curriculum at Kuakarun Nursing

College

Academic year	The first semester	The second semester	Summer semester
1	-	Fundamental of Nursing I	-
2	Fundamental of Nursing II	Medical and Surgical Nursing Practicum I	Observation in Pediatric
3	- Medical and Surgical Nursing Practicum II - Obstetric Nursing Practicum I - Pediatric Nursing Practicum	- Medical and Surgical Nursing Practicum III - Obstetric Nursing Practicum II - Mental Health and Psychiatric Nursing Practicum	- Medical and Surgical Nursing Practicum (extra) - Obstetric Nursing Practicum (extra) - Mental Health and Psychiatric Nursing Practicum (extra)
4	- Community Health Practicum II, III - Obstetric Nursing Practicum III, IV	- Prcaticum in Nursing Administration - Basic Medical Care Practicum - Obstetric Nursing Practicum III,IV	-

Source : Kuakarun Nursing College (B.E. 2544 : 21-35)

As discussed earlier, the clinical practice is a focal stimulus that could trigger stresses in these students. They need an adaptation in physical, mental, and social integrity. The coping process that composes of regulator and cognator coping

subsystems is required. The activities of the coping process can be demonstrated in four adaptive modes as follow :

Physiologic Mode

Nursing is different from another professional carrier in that it relates to human being and death (Rayner, 1984 : 29). The students have to work not only at day time, but also at night time. This could disturb life process. It has been shown that the rotate working groups of nurse had the higher score of sleep problem and uncomfortable signs as well as the lower score of satisfaction than those of the day time working group (Sunuchtara Taboonpong & Nidtaya Takviriyannun, B.E. 2542 : 11). Therefore, they need an effective adaptation to avoid their health problems, both physical and mental. Lindop (1999 : 967-973) demonstrated the comparative study of stress in students and compared the results between pre-and post-project 2000. The sample were 146 current Diploma in Nursing (Project 2000) adult branch students and the other of 146 students who undertook a certificate course leading to Registered General Nurse (RGN) in 1988. The results found that the major source of stress was associated with physical hard work that caused fatigue from practice (Lee & Ellis, 1990 : 957 ; Mahat, 1998 : 14-16). Furthermore, Mc Cranie, et al. (1987, cited by Yuphadee Treepathanasuwana, B.E. 2539 : 26) and Beck & Srivastava (1991 : 127-132) also showed that the hard working was the cause of stress. In clinical practice, many nursing students lack of knowledge, skill, and experience (Beck & Srivastava, 1991: 130 ; Pagana, 1988 : 420 ; Vongchan Petpichetachean, et al., B.E. 2536 : 43-56 ; Nipa Rujanantakul, B.E. 2541 : abstract). They could not correctly perform the principle of practice, such as changing a bed sheath while a patient is still on the bed, or moving a patient who is over weight. These practices lead to be muscle weakness.

Some students have to contact a patient who is infected some diseases and then they turn to be sick as well. Therefore, these students ought to review much more knowledge and factors that could prevent diseases and promote health. The communication with the health team to share experiences in working may help the students do the adaptation in this mode.

Self-Concept Mode

The self-concept is a component of beliefs and feelings that a person holds about him or herself at a given time. The psychological and spiritual aspects of a person are the basic need of this mode. These aspects include both physical self and personal self. The physical self is referred as body sensation and body image, whereas the personal self comprises of self-consistency, self-ideal, and moral-ethical-spiritual self. In general, the students have the self-concept problem in body image and feel bad on their personality. In self-consistency, they have the awareness of self as a social person taking the function to be a professional nurse. In self-ideal, the students would work for goal setting of life. In moral-ethical-spiritual self, the students have the awareness of social rule to follow and create self-esteem that stimulates them to feel valuable in the society. In clinical practice, there were several researches showed that the nursing students have self-concept problem in lack of knowledge and skill or personal inadequacy (Beck & Srivastava, 1991 : 130; Pagana, 1988 : 420; Vongchan Petpichetachean, et al., B.E. 2536 : 43-56 ; Nipa Rujanantakul, B.E. 2541 : abstract). This leads to lack of self confidence and feel low self esteem. In addition, these students are fear of making errors (Pagana, 1988 : 421; Vongchan Petpichetachean, et al., B.E. 2536 : 43-56), of failure (Jones & Johnston, 1997 : 480 ; Pagana, 1988 : 423), of helplessness (Mahat, 1996 : 165 ; 1998 : 14), of uncertainty (Pagana, 1988 : 422).

Beck (1993 : 492-493) also found that the clinical practice leads to be pervading anxiety, feeling abandoned, and encountering reality shock.

Therefore, the nursing students need an adaptation in order to gain knowledge and ability in practicing. This would allow them to be self-confident, valuable and then provide the nursing care with moral-ethical and spiritual.

Role Function Mode

In this mode, the roles of the students not only as a nursing student but also as a professional nurse who ought to follow social needs and expectation. They require the basic knowledge related to professional nurse, technology, relationship, administration, and skill. These factors could lead them to gain intelligence and good attitude in working, understanding, and responsibility in human (Siraya Summawaj, B.E. 2540 : 234). All of these requirements could cause stress for students. Mahat (1998 : 11-18) studied on stress and coping in the junior baccalaureate nursing students for clinical setting. They are Caucasian and African American students who enrolled in the first clinical course (n = 107). The instrument was The Critical Incident Technique Tool (Flanagan, 1954) to measure perceived stressors. The results showed that the problem in ability to perform role was the third stressor. These were inadequate preparation (48 %, n = 12), fear of failing (20 %, n = 5), performing under supervision (16 %, n = 4), unclear expectation (8 %, n = 2), and fear of harming a patient (8 %, n = 2). Beck (1993 : 489-497) showed a phenomenological study of initial clinical experience in nursing students. They were eighteen, and undergraduate nursing students. All participants were just completing their first clinical course. In this study, the 18 written descriptions as well as 104 significant statements, regarding the initial clinical experience, were extracted. The results were organized into six

clusters of them, one of six was a doubting choice. However, in 1991 Beck and Srivastava (1991 : 130) had already reported the stress of doubting choice of nursing as a career.

Therefore, if nursing students could not work in the roles as a nursing student or a professional nurse, they need to gain much more knowledge and adequate preparation to raise their self confidence in role function.

Interdependence Mode

In clinical practice, nursing students are under control of an instructor or staff nurse due to a limitation of knowledge and skill. The students have to work and interact learning with health team, patients, and relatives (Lee & Ellis, 1990 : 951 ; Mahat, 1996 : 165). This could cause interpersonal relationship problems (Jones & Johnston, 1997 : 476 ; Lee & Ellis, 1990 : 951 ; Mahat, 1996 : 165, 1998 : 14 ; Price, 1989 : 44 ; Vongchan Petpichetachean, et al., B.E. 2536 : 43-56 ; Chomphunuch Pongsiri, B.E. 2535 : 66-70), especially, a negative interaction with an instructor (Beck & Srivastava, 1991 : 130 ; Mahat, 1996 : 165, 1998 : 14 ; Pagana, 1988 : 422 ; Selleck, 1982, Winder, 1984, cited by Baolaong Sumdangrit, et al., B.E. 2544 : 40) staff nurses, patients and others.

It has been demonstrated that interpersonal relationship problems were occurred during clinical practice. Admi (1997 : 323-327) showed the stress in nursing students during the initial clinical experience. The result of factor analysis of the 25 identified stress items revealed in six subscales ; one of six was a closed supervision from instructor. Lindop (1999 : 967-373) showed a comparative study of stress in students between pre-and post project 2000. The results found that one of the major source of stress is associated with poor communication.

Gwele & Uys (1998 : 404-407) studied levels of stress and academic performance in baccalaureate nursing students. The targeted population included the first-year, second-year, and third-year students (N = 39) who were in the old program. For the new program, all students in the first-year, second-year, and third-year students (N = 62) were recruited. The instrument used was the Perceived Stress Scale (PSS) designed by Cohen, Karmack, and Mermelstein (1983), and Clinical Stress Questionnaire (CSQ) developed by Pagana (1989). The results found no significant differences by the PSS between groups of educational program. The students in the new program rated their program as more challenging by the CSQ, as compared to the students in the old program ($F = 28.70$; $P = 0.000$). For both perceive harm and threat, the students in the new program had a lower score than those in the old program.

In Thailand, Jaratsri Aeamlao (B.E. 2534 : abstract) studied the factor related to stress level in nursing students. The results found that there were several factors related to stress level of the students. One of those was the perception to interpersonal relationship among the students, instructors and authority. Suwiriya Suwanakhot (B.E. 2538 : 48) referred to the study of Harris (1992) that the factor related to students in a college who were drop out before successful in education. There were 24% of student drop out. The factor that cause of drop out was loneliness. They required to adapt both learning and interpersonal relationship.

Suntaree Waebula (B.E. 2539 : 144-146) demonstrated the cause and coping of stress in nursing students. The results showed that a cause of high stress level was interpersonal stress. The first was a fault finding by an instructor, and unfriendly whereas the second was a reprove checking by an instructor, as well as going off a huff and blame. The third was a reprove checking by a staff nurse and percussion with

others. Baolaong Sumdangrit, et al. (B.E. 2544 : 38-49) showed perception of anxiety-producing situations in the clinical setting in nursing students. The sample was 431 baccalaureate nursing students, Faculty of Medicine, Ramathibodi Hospital, Mahidol University in academic year of 1999. The instrument used was the questionnaire. The results demonstrated that the most anxiety-producing situation was the blame by an instructor using the worst verbal in front of patients.

Therefore, nursing students require an adaptation to balance both physiological and psycho-social components. There are physiologic mode, self-concept mode, role function mode, and interdependence mode. The potential of nursing students, the emotional intelligence and the other factor as contextual stimuli would contribute an effective clinical practice.

Factors Related to Adaptation to Clinical Practice

There are many problems occurred during clinical practice. This allows nursing students to be stress. These include interpersonal relationship problems, doubting choices, fear of failure, pervading anxiety, physical hard work. When they are stress, they need to adapt for a balance of life and form physical and spiritual integrity. The stimuli can come externally from environment or may originate in the internal environment. These stimuli are categorized as focal, education in clinical practice; contextual, emotional intelligence and the other factor.

Nipa Nithayayon (B.E. 2530:106-115) purposed three factors related to adaptation as follow :

1. Influence of physical on biology, such as heredity that leads to differences of individual and adaptation.

2. Influence of physical, social, and cultural environment.

3. Influence of “self”, such as perception and understanding received from experience.

Sirichai Prataebchai (B.E. 2533 : 19) showed some factors related to adaptation as follow:

1. Percept and understand correctly the problem.
2. Good interpersonal relationship.
3. Receive an appropriate child rearing practice from baby to adult with the strong, endurance, cogency and that person can contact with the problem.
4. Having the experience in problem solving.
5. Having the intelligence.
6. Having a time for adaptation.

The Roy adaptation model has not refered to the time for successful in adaptation.

Aguilera & Messick (1982 : 63-64) noted that factors related to adaptation can showed as follow :

1. Perception of the event.
2. Situational support.
3. Coping mechanism.

Furthermore, there are many researches showed some factors related to adaptation in students as follow :

Level of Academic Year

It has been found that the difference of academic year could affect adaptation (Kullawan Withayavongruji, B.E. 2526 : 101) and learning problem (Siriwan Sukdee, B.E. 2534 : abstract; Pimmas Tanjareernrat, B.E. 2532 : abstract). The data showed that the medical students have more stress problems when they are practicing in clinic than those in pre-clinic (Huebner, et al., 1981 : 547-558 ; Lloyd & Gartrell, 1983 : 964-966). Moreover, the results also indicated that the level of academic year shows a relationship with adaptation (Suwiriya Suwanakhot, B.E. 2538 : abstract). This result reconciles with Kanittha Chuenneam (B.E. 2540 : abstract) who found that nursing students in the second year had social adaptation as total and subscales better than the other who in the first year. However, Waweewan Boonnim (B.E. 2541 : 51-52) found that the level of academic year had a negative relationship with mental health of nursing students. Furthermore, Penthiwa Narintarangkul-nayudhya demonstrated that the academic year have no relationship with adaptation (B.E. 2533 : 60 ; Nimnaon Intachai, B.E. 2532 : abstract). In addition, Thunyaluk Vajanavisid (B.E. 2538 : 46) found that the level of academic year have no relationship with mental health of nursing students.

Therefore, the relationship between academic year and adaptation is still controversial.

Birth Order

Adler (1974, cited by Orapin Choochom & Autchara Sukharom, B.E. 2535 : 14) noted that the first born child will receive more love from the parent. When the parent have the second child, the first will show a feeling of envy to the second. If the

parent prepare the first child to give love and care, this child will grow the responsibility and can adapt better than the other. Nipa Nithayayon (B.E. 2520 : 202-205) showed that the birth order would differ adaptation. The students who are the first and the middle child have different adaptation on interpersonal relationship (Wararat Prasittanyakit, B.E. 2537 : 90) and the last child has more personal problem on emotion than the first (Somnaphun, B.E. 2525 : abstract, cited by Warunee Jamgrajai, B.E. 2540 : 39). On contrary, the birth order had no relationship with the mental health level of nursing students (Jaruporn Sangpao, B.E. 2534 : 67). Furthermore, Kanittha Chuenneam (B.E. 2540 : abstract) found that nursing students who have different on birth order have no different in social adaptation as total and subscale. Thus, it remains controversy in this aspect.

Family Status

Many studies showed that students who have a difference in familys' status, such as economic, size of family, atmosphere of family, would have different adaptation (Orapin Choochom & Autchara Sukharom, B.E. 2535 : abstract ; Jiraporn Chaiyarat, B.E. 2539 : abstract ; Landis, 1955, cited by Warunee Jamgrajai, B.E. 2540 : 33-34). The students who came from a divorce family had a higher level of anxiety, aggression, and learning problem than those of the students who came from an intact family (Pansky, 1990 : 3143). Moreover, the students who came from a divorce family also had a higher level of difficulty in adaptation (Schnell, 1991: 6118). However, Jaruporn Sangpao (B.E. 2534 : 74-75) and Thunyaluk Vajanavisit (B.E. 2538 : 46) found that the marriage status of parent and the mental health level of nursing

students show no relationship. Therefore, it is still unclear the relationship between these two parameters.

Educational Achievement

The education achievement, as a success or failure of the learner, is an indicator of ability in learning. This achievement could divide a learner to be smart, moderate, or bad (Nipa Methaveechai, B.E. 2536 : 9), depending on intelligence and some factors. Coping and adaptation uses an intelligent appraisal to solve problems, especially a harm (Harris, 1989 : 14). Cassmeyer, et al. (1995 : 169) demonstrated that coping is the last method that a person use for adaptation. The intelligence process and individual skill are used when a person contact abnormal situations. Therefore, the intelligence level would affect perception, understanding in stress, and adaptation ability.

It has been noted that students who have a high education achievement show a higher adaptation ability and problem solving ability than those of students who have a low education achievement (Gill, 1962 : 144-149 ; Sue-Stanley, 1985 : 198, cited by Sumalee Suwanapakdee, B.E. 2541 : 26 ; Suwiriya Suwanakhot, B.E. 2538 : abstract). Furthermore, students who have a high education achievement perform more responsibility, good self control, and good relationship to the instructors. Moreover, the research results also indicated that the education achievement show a positive relationship with mental health of nursing students (Waweewan Boonnim, B.E. 2541 : 51-52). On the other hand, students who have a low education achievement have interpersonal relationship problems (Onoda, 1975 : 772). Suntaree Waebula (B.E. 2539 : 141) demonstrated that nursing students having

low education achievement had a higher stress level than those in moderate or high education achievement. Moreover, nursing students who have a low stress level showed a higher level of social adaptation in total and subscale than those in the higher stress level (Kanittha Chuenneam, B.E. 2540 : abstract). By contrast, Pattharajit Tunkul (B.E. 2542 : abstract) found that the education achievement has no relationship with stress level. Moreover, the research results found that nursing students who have different in education achievement had no difference on social adaptation as total and subscales (Kanittha Chuenneam, B.E. 2540 : abstract). Therefore, further studies are needed to elucidate the relationship between education achievement and social adaptation.

It has been shown that there are many factors relates to adaptation, such as child rearing practice. The student who received a democratic type of child-rearing could adapt better than those received an authoritarian and permissive type of child-rearing (Landis, 1955 : 105-106, cited by Warunee Jamgrajai, B.E. 2540 : 34). The other factors including habit in learning, attitude, environment of college and cooperate in student activity are accounted to change adaptation. The factor that could predict a learning adaptation of nursing student is a habit in learning, cooperation to do activity and attitude to a professional nurse. These factors could predict the adaptation of nursing students by 24.40 % (Sumalee Suwanapakdee, B.E. 2541 : abstract).

However, the factors related to adaptation would influence individually.

Emotional Intelligence

Definition of Emotional Intelligence

There are several different meaning of emotional intelligence due to the words or terminology used. For example, emotional intelligence, emotional quotient, emotional intelligence quotient, or social intelligence are appeared. Thodsaporn Prasertsuk (B.E. 2542 : 21) noted that the emotional intelligence is an ability of a person to realize their own feelings, thoughts, as well as those of other people. They can control their emotions and internal impulse, and delay their need fulfillment. They can face problem and get rid of stresses which interrupt their creative thinking. This thinking makes a suitable behavior in work with other people happily. They will be successful in study, their career, and their lives.

Praraj Woramunee (B.E. 2542 : 2) demonstrated that the emotional intelligence is used to control reasonable emotion, whereas Cooper & Sawaf (1997 : xiii) defined it as the ability of sense, understand, and effective application. Mayer & Salovey (1997 : 10) defined the emotional intelligence as the ability to perceive accurately, appraise, and express emotions. These ability could access and generate feeling when they facilitate thought. Moreover, this intelligence also includes the ability to understand emotion and emotional knowledge, the ability to regulate emotion to promote emotional and intellectual growth. Goleman (1998 : 375) showed that the emotional intelligence is the capacity to recognize our own feelings and those of others, for motivation ourselves, managing personal emotions, as well as for making relationship with others. BarOn (1997) said that emotional intelligence is an array of non-cognitive capabilities, competencies, and skill that influence one's ability to succeed in coping with environmental demands and pressures.

The Component of Emotional Intelligence

There are different components of emotional intelligence divided by several psychologists (Cooper & Sawaf, 1997; BarOn, 1997; Goleman, 1998; and Shauladda Kwanmuang, B.E. 2542) as follow:

Cooper and Sawaf (1997) divided the component of emotional intelligence to be 4 subscales and 16 factors, as follow :

1. Emotional literacy

- 1.1 Emotional honesty
- 1.2 Emotional energy
- 1.3 Emotional feedback
- 1.4 Emotional connection and intuition

2. Emotional fitness

- 2.1 Authentic presence
- 2.2 Trust radius
- 2.3 Constructive discontent
- 2.4 Resilience and renewal

3. Emotional depth

- 3.1 Unique potential and purpose
- 3.2 Commitment
- 3.3 Applied integrity
- 3.4 Influence without authority

4. Emotional alchemy

- 4.1 Intuitive flow
- 4.2 Reflective time-shifting

4.3 Opportunity sensing

4.4 Creating the future

BarOn (1997) divided the component of emotional intelligence to be 5 subscales and 15 factors, as follow :

1. Intrapersonal

1.1 Emotional self-awareness

1.2 Assertiveness

1.3 Self-regard

1.4 Self-actualization

1.5 Independence

2. Interpersonal

2.1 Empathy

2.2 Interpersonal relationship

2.3 Social responsibility

3. Adaptability

3.1 Problem solving

3.2 Flexibility

3.3 Reality testing

4. Stress management

4.1 Stress tolerance

4.2 Impulse control

5. General mood

5.1 Optimism

5.2 Happiness

Goleman (1998, cited by Shauladda Kwanmuang, B.E. 2542 : 26) divided the component of emotional intelligence to be 2 scales, 5 subscales, and 25 factors, as follow :

Personal Competence

1. Self-awareness

- 1.1 Emotional awareness
- 1.2 Accurate self-assessment
- 1.3 Self-confidence

2. Self-regulation

- 2.1 Self-control
- 2.2 Trustworthiness
- 2.3 Conscientiousness
- 2.4 Adaptability
- 2.5 Innovation

3. Motivation

- 3.1 Achievement drive
- 3.2 Commitment
- 3.3 Initiative
- 3.4 Optimism

Social Competence

4. Empathy

- 4.1 Understanding others
- 4.2 Developing others

4.3 Service orientation

4.4 Leveraging diversity

4.5 Political awareness

5. Social skills

5.1 Influence

5.2 Communication

5.3 Conflict management

5.4 Leadership

5.5 Change catalyst

5.6 Building bonds

5.7 Collaboration and cooperation

5.8 Team capabilities

Based on the conceptual framework of Cooper & Sawaf (1997), BarOn (1997), and Goleman (1998), Shauladda Kwanmuang (B.E. 2542 : 51) had analyzed and synthesized the new component of emotional intelligence. This component of emotional intelligence composes of 2 subscales and 12 factors, as follow :

Intrapersonal

1. Self-awareness

2. Self-regard

3. Independence

4. Self-control

5. Adaptability

6. Intentionality

7. Optimism

Interpersonal

1. Empathy
2. Social responsibility
3. Assertiveness
4. Conflict management
5. Interpersonal relationship

In the present study, the researcher used the conceptual framework of Shauladda Kwanmuang (B.E. 2542) as a factor of emotional intelligence variable.

The Relationship between Emotional Intelligence and Adaptation to Clinical Practice

To date, it is clear that people need not only intelligence quotient (IQ) but also emotional intelligence to be achievement. There are many people who have a high intelligence quotient level. However, they still face learning problems because they could not use their full ability, to understand, accept and solve the problem. Thus, if we combine the IQ to the emotional intelligence, we could overcome those problems. It has been demonstrated that the emotional intelligence has a relationship with an appropriate adaptation (Ministry of Public Health, B.E. 2543 : 27, 52 ; Verawat Pannitamai, B.E. 2542 : 12 ; Thodsaporn Prasertsuk, B.E. 2543 : 97). The higher emotional intelligence of woman resulted in a good adaptation to problem. (Ministry of Public health, B.E. 2543 : 24). The success needs both IQ and emotional intelligence. These IQ and emotional intelligence could affect on life activities, such as study or work, as shown in table 2.

Table 2 Role of IQ and EQ in life activity

Successful side	Factor indicating to be success
Study	IQ
Problem solving	IQ
Work	IQ + EQ
Adaptation	EQ
Managing others	EQ
Managing self	EQ
Marriage	EQ

Source : Verawat Pannitamai (B.E.2542 :12), Thodsaporn Prasertsuk (B.E.2543 : 97)

In clinical practice, there were several causes of stress in nursing students, such as relationship problems (Jones & Johnston, 1997: 476 ; Lee & Ellis, 1990 : 951 ; Mahat, 1996 : 165, 1998 : 14 ; Price, 1989 : 44 ; Vongchan Petpichetachean, et al., B.E. 2536 : 43-56 ; Chomphunuch Pongsiri, B.E. 2535 : 66-76), especially with instructors (Beck & Srivastava, 1991 : 130 ; Mahat ; 1996 : 165 ; 1998 : 14 ; Pagana, 1988 : 422 ; Selleck, 1982, Winder, 1984, cited by Baolaong Sumdangrit, et al., B.E. 2544 : 40). The students always concern about high responsibility, much more rules, decision making when they have to do problem solving. They can not avoid an emergency situation or working with dying patients (Jones & Johnston, 1997 : 476 ; Lees & Ellis, 1990 : 951). This could cause them to be more stress if they are lack of self-confident, knowledge, or skill (Beck & Srivastava, 1991 : 130 ; Pagana, 1988 : 420 ; Vongchan Petpichetachean, et al., B.E. 2536 : 43-56 ; Nipa Rujanantakul, B.E.

2541 : abstract). During clinical practice, the 24-hour work is inevitable. A night-time working could disturb life cycle. Furthermore, the insufficient hospital resources may cause feeling of pain and suffer, resulting in education reality conflict (Admi, 1997 : 325).

In reality, nursing students need to be happy, fresh, free from stress, and valuable. However, during clinical practice, most students progressively increase their stress from different causes allowing them to be conflict and unhappy. Therefore, the adaptation is essential. To do adaptation is not quite difficult; however, the emotional intelligence is an important factor to perform. If the students could not adapt; this leads to be burden, downheart, and unproud in professional. This cause mental health problems and unhappiness in working (Manus Poonprakob & Sarika Methanawin, B.E. 2544 : 47). Although the need of research about emotional intelligence has increased, in reality, the data still is not enough. From CINAHL (1993-2000) and ERIC (1992-2000) there are no records of the research related to emotional intelligence that link directly to adaptation. However, some studies of emotional intelligence related to adaptation have been presented as follow :

It has been demonstrated that the emotional intelligence has a positive relationship with creative thinking ($r = .37$) but negative relationship with anxiety ($r = -.47$) and sad ($r = -.42$) (Orapin Choochom, et al., B.E. 2542 : 1-4) as well as with stress level (Sudarat Hnoohom, B.E. 2544 : abstract ; Narakorn Khunverapong & Pithchaya Sumransukrat, B.E. 2543 : 61 ; Pattama Lenuwat, B.E. 2544 : abstract). The total emotional intelligence has a positive relationship with problem solving and social support coping behavior score (Sudarat Hnoohom, B.E. 2544 : abstract.) Furthermore, this intelligence has a positive relationship with ability of nursing student in each skill

during psychaitric nursing practice, such as therapeutic relationship, group therapy and health education teaching (Prachan Jansuk, B.E. 2544 : abstract). The emotional intelligence had a positive relationship with ethic interaction score (Searmsri Kanjanasinit, B.E. 2539 : abstract), with success in career (Parichat Rattanarat, B.E. 2544: abstract ; Saisunee Sukorntaeme, B.E. 2543 : abstract), with result of work practice (Chaonjit Thurathong, B.E. 2544 : abstract ; Lam, 1998) as well as with study success and personal success (Ohm, 1998).

Geery (1997) had surveyed the guideline of emotional intelligence used by leadership in order to get rid of conflicts occurred in education places. The result found that the leaderships who had the emotional intelligence could understand and respond to any emotion from the others. They could face the conflict and show an adaptation to accept a nonverbal behavior of the other. Furthermore, these leaderships would encourage interdependently their team work and manage the conflict effectively. Massey (1998) found that emotional intelligence is an important factor of a modern leader to interact for successful employment.

The emotional intelligence has a relationship with stress and coping. A person must adapt for success in study and career. The factor that relates to adaptation for success is emotional intelligence. Manus Poonprakop & Sarika Methanawin (B.E. 2544 : 47) showed that the emotional intelligence could help to avoid feeling of burden, down heart, and unproud in professional that cause mental health problem and unhappiness in working. It has been shown that the emotional intelligence has a relationship to adaptation and the education performance during clinical practice of nursing students (Prachan Jansuk, B.E. 2544 : abstract).

Roy (Roy & Andrew, 1999) indicated human as adaptive systems, by which they adjust effectively to change in the environment and, in turn, affect the environment. Roy had applied the general systems theory in description of human as adaptive systems. These systems can be viewed as experiencing inputs, outputs, as well as control and feedback process. The emotional intelligence is a factor related to adaptation, the contextual stimuli. The baccalaureate nursing students at Kuakarun Nursing College had stress in education and showed the moderate mental health problem by 46.6 %, mild mental health problem by 36.7 %, and no mental health problem by 16.7 % of Kuakarun nursing students in academic year of 1990 (Jaruporn Sangpao, B.E. 2534 : abstract). In four years latter, Thunyaluk Vajanavisid (B.E. 2538 : 46) found that the percentage of mental health problem were increased in to be 56.52 % for moderate mental health problem but in the group that had no mental health problem showed a decrease of percentage (14.05 %) of Kuakarun nursing students in academic year of 1994. Therefore, these nursing students need an adaptation. In the present study, based on the adaptation model of Roy, the adaptation in these nursing students being clinical practice was evaluated to assess a difference of their emotional intelligence. The conceptual model of this research is shown in Figure 3.



Figure 3. The conceptual model of this research.

CHAPTER III

METHODOLOGY

The research design is a descriptive research that aims to study the emotional intelligence, the adaptation to clinical practice, and compare a difference of adaptation to clinical practice among Kuakarun nursing student groups according to the level of the emotional intelligence.

Population and Sample

The population was the Baccalaureate nursing students who had the experienced in clinical practice of Kuakarun Nursing College.

The sample of 215 students were selected by using the proportional stratified random sampling technique, classified by the second, the third, and the fourth year in academic year of 2002. A sample size was determined by using Yamane's sample size at the significant level of 0.05. (Yamane, 1973 : 1088)

$$n = \frac{N}{1+Ne^2}$$

n = Sample size

N = Size of population

e = The statistical significance level

$$n = \frac{463}{1+ 463 (0.05)^2}$$

$$= 214.60$$

Research Instruments

The research instruments were the emotional intelligence scale, and the adaptation in clinical practice questionnaire.

1. Emotional intelligence scale was first developed by Shauladda Kwanmuang (B.E. 2542) according to the conceptual model of Goleman (1998) ; Cooper & Sawaf (1997) ; and BarOn (1997). The scale composes of 2 subscales and 12 factors. Each factor composes of 5 items, thus, there are 60 items. Fifty-five items are positive statements and the rest is negative (item number 7, 17, 19, 38 and 57). The number of items in each factor and each subscale are as follow :

1. Subscale : Intrapersonal		Item number	1-35
Factor	1. Self awareness	”	1-5
	2. Self-regard	”	6-10
	3. Independence	”	11-15
	4. Self-control	”	16-20
	5. Adaptability	”	21-25
	6. Intentionality	”	26-30
	7. Optimism	”	31-35
2. Subscale : Interpersonal		Item number	36-60
Factor	1. Empathy	”	36-40
	2. Social responsibility	”	41-45
	3. Assertiveness	”	46-50
	4. Conflict management	”	51-55
	5. Interpersonal relationship	”	56-60

The Scoring System

The Likert' scale type of 5-point scale was used in each item.

The scores, assigned to each of positive statement, were :

5	=	strongly agree
4	=	agree
3	=	uncertain
2	=	disagree
1	=	strongly disagree

The reverse score was then applied to the negative statements.

According to the research work of Shauladda Kwanmuang (B.E. 2542), the total score of emotional intelligence scale, of the subscale and of each factor summated score were interpreted into 3 levels of emotional intelligence; below average, within average, and above average. The cut-point of their levels are a set at $\bar{X} \pm 1$ SD of the score distributed from the group of 1,151 College students, Faculty of Education, Northern Rajabhat Institute. In the present study, the score range of emotional intelligence level according to the research work of Shauladda Kwanmuang (B.E. 2542) was used because the scale had passed the test for validity and reliability. Moreover, the college students and the nursing students were the same developmental stage. The score range of emotional intelligence is shown as follow (Table 3):

Table 3 The score range of emotional intelligence level classified by total subscales and factors.

Emotional Intelligence	Range	Level of Emotional Intelligence		
		Below	Within	Above
		Average $<\bar{X} - 1SD$	Average $\bar{X} \pm 1SD$	Average $>\bar{X} + 1SD$
Total	60-300	<210	210-247	>247
Subscale: Intrapersonal	35-175	<121	121-144	>144
Factor: 1. Self-awareness	5-25	<19	19-22	>22
2. Self-regard	5-25	<17	17-21	>21
3. Independence	5-25	<17	17-21	>21
4. Self-control	5-25	<15	15-19	>19
5. Adaptability	5-25	<17	17-21	>21
6. Intentionality	5-25	<17	17-21	>21
7. Optimism	5-25	<17	17-22	>22
Subscale: Interpersonal	25-125	<87	87-104	>104
Factor: 1. Empathy	5-25	<17	17-20	>20
2. Social responsibility	5-25	<18	18-22	>22
3. Assertiveness	5-25	<18	18-21	>21
4. Conflict management	5-25	<16	16-20	>20
5. Interpersonal relationship	5-25	<16	16-21	>21

(Source : Shauladda Kwanmuang, B.E. 2542 : 98)

Validity and Reliability of Emotional Intelligence Scale

The emotional intelligence scale, developed by Shauladda Kwanmuang (B.E.2542), was validated by three experts. The result of item discrimination index was ranged from 2.61-6.97. When using the test for 40 college students, Faculty of Education at Naresuan University, the reliability of the test, using Cronbach's alpha coefficient, was 0.885.

In this study, the researcher had tested on 34 nursing students at Boromarajonani Nursing College, Bangkok. The reliability of total test, Cronbach's alpha coefficient was 0.941. Its intrapersonal and interpersonal subscale were 0.920, and 0.857 respectively.

2. Adaptation to clinical practice questionnaire was constructed by the researcher according to the indicators of positive adaptation and adaptation problem of the Roy's conceptual model (1999, 79-84). The researcher had applied some items from the questionnaire of the adaptation in new graduated nurses of Benjamad Titana (B.E. 2541 : 94-96) such as the item number 9, 11, 23. The questionnaire was composed of 4 subscales: 1) physiologic mode, there are 19 items (Item number 1-19); 2) self-concept mode, there are 9 items (Item number 20-28); 3) role function mode, there are 9 items (Item number 29-37), and 4) interdependence mode, there are 8 items (Item number 38-45). The total is 45 items. Eighteen items are positive statements (item number 8, 10, 16, 20, 21, 23, 26, 28, 29, 32, 33, 34, 36, 39, 40, 41, 44, 45) and the rest are negative.

The Scoring System

The 5-point rating scale was used in each item. The scores were assigned to each of positive statement as follows :

5	=	Always happened
4	=	Usually happened
3	=	Moderate happened
2	=	Sometime happened
1	=	Not happened

The reverse score was then applied to the negative statements.

The score range of adaptation in nursing students was interpreted into 3 levels of adaptation in clinical practice as follow : (Wichean Keatsing, B.E. 2538 : 8-11).

1.00-2.33	=	Low adaptation
2.34-3.66	=	Moderate adaptation
3.67-5.00	=	High adaptation

Validity and Reliability of Adaptation to Clinical Practice Questionnaire

The content was validated by five experts : one from education field, one from the typical model of Roy and the rest from clinical practice area (see Appendix).

The most agreement of the experts was 80 to 100%. The items that the expert showed less agree than 60% were improved, such as the item on activity and rest, perception, neurologic function, effective pattern of dependency and independency, and inadequate resources.

In this study, the researcher had tested in 60 nursing students from Boromarajonani Nursing College, Bangkok. The reliability of total test, Cronbach's alpha coefficient was 0.866. Its 4 modes ; physiologic, self-concept, role function, and interdependence were 0.848, 0.725, 0.733, and 0.815 respectively.

Protection of Human Rights

The subjects were informed research objectives, data collection processes, expected research outcomes, subjects rights, type of questionnaires, and rights to refuse participation. The subjects who had agreed to participate were assured that the data would be kept confidential and reported as group data. In this research study, the researcher had permission from the administrator of Department of Medical Service, Bangkok Metropolitan Administration by the researcher took the permission requested letter and research proposal to the administrator of Department of Medical Services, Bangkok Metropolitan Administration and the Ethics Committee of Department of Medical Services, Bangkok Metropolitan Administration. After that, the letter was taken to the administrator of Kuakarun Nursing College to inform the objectives and ask for permission of data collection.

Data Collection

After getting the students' name list of the sample, the researcher meet the advisor of each academic year to make the appointment with the group of nursing students. The researcher directly handed out the questionnaires to each student.

Before the collection, the nursing students were informed the studied detail : research objectives and consent of the study. Then, the researcher directly provided the

emotional intelligence scale, the adaptation to clinical practice questionnaire to each student in the classroom of each year. The emotional intelligence scale was the first questionnaire they did. Then, the adaptation to clinical practice was done. The time for data collection was the self-study period. It took around 30 minutes for completion two questionnaires. After these questionnaires completion, the researcher edited the data. If the answers were incomplete, the students will be asked to fill in the missing part. The data collection was performed during the last week of August, 2002 which was the end of semester. Thereafter, all data were further analyzed.

Data Analysis

The data were analyzed by using the Statistical Package for Social Science for Windows (SPSS/FW) version 10.

1. The demographic data were analyzed as frequency and percentage.
2. The levels of emotional intelligence and adaptation to clinical practice of Kuakarun nursing students were analyzed as frequency and percentage.
3. The difference of adaptation to clinical practice among Kuakarun nursing student groups at different levels of the emotional intelligence was analyzed by one-way ANOVA. But if the test assumption was not met, the Kruskal-Wallis H Test will be done.

The Scheffe's Test was selected for the post-hoc test of ANOVA and the Mann-Whitney U Test will be used after Kruskal-Wallis H Test.

Significant level for hypothesis testing was less than 0.01.

CHAPTER IV

RESULTS

The results of this study were presented in 4 topics as follow:

1. The demographic data of Kuakarun nursing students.
2. The emotional intelligence in total, subscale, and factors of Kuakarun nursing students.
3. The adaptation to clinical practice in total and each mode of Kuakarun nursing students.
4. The difference of adaptation to clinical practice among Kuakarun nursing student groups at different levels of the emotional intelligence in total and subscale.

1. The demographic data of Kuakarun nursing students

The total number of Kuakarun nursing students was 215. These samples include the nursing students from the second to the fourth year, comprising 32.09 %, 30.70 %, and 37.21 % respectively (Table 4).

Table 4 The frequency (f) and percentage (%) of Kuakarun nursing students classified by academic year (n = 215)

Academic year	f	%
2 nd	69	32.09
3 rd	66	30.70
4 th	80	37.21
Total	215	100.00

2. The emotional intelligence in total, subscale, and factors of Kuakarun nursing students

The results showed that the majority of nursing students (65.6 %) had the emotional intelligence in total score within average level, 27 % were at the above average level and only 7.4 % were at the below average level (Table 5).

When determined in intrapersonal and interpersonal subscale, the majority of the students showed the emotional intelligence within average level (64.2 and 73.0 % respectively) (Table 5).

There were between 55 and 75 % in the intrapersonal subscale category, and between 65 and 77% in the interpersonal subscale category.

In both subscales the emotional intelligence at below average level of these students was only 7 % (Table 5).

Table 5 The frequency (f) and percentage (%) of Kuakarun nursing students in each level of emotional intelligence classified by total, subscale, and factors of emotional intelligence (n = 215)

Emotional Intelligence	Level of emotional intelligence					
	Below average		Within average		Above average	
	f	%	f	%	f	%
Total	16	7.4	141	65.6	58	27.0
Intrapersonal subscale	15	7.0	138	64.2	62	28.8
Factor : 1. Self-awareness	14	6.5	119	55.3	82	38.1
2. Self-regard	32	14.9	136	63.3	47	21.9
3. Interdependence	13	6.0	161	74.9	41	19.1
4. Self-control	20	9.3	143	66.5	52	24.2
5. Adaptability	12	5.6	149	69.3	54	25.1
6. Intentionality	23	10.7	155	72.1	37	17.2
7. Optimism	23	10.7	153	71.2	39	18.1
Interpersonal subscale	15	7.0	157	73.0	43	20.0
Factor : 1. Empathy	28	13.0	149	69.3	38	17.7
2. Social responsibility	6	2.8	140	65.1	69	32.1
3. Assertiveness	18	8.4	150	69.8	47	21.9
4. Conflict management	20	9.3	165	76.7	30	14.0
5. Interpersonal relationship	8	3.7	147	68.4	60	27.9

3. The adaptation to clinical practice in total and each mode of Kuakarun nursing students

The results revealed that the majority of Kuakarun nursing students was able to adapt to clinical practice at the high level in both total adaptation (86.5 %) and in four modes of physiologic mode (73.5 %), self-concept mode (71.6 %), role function mode (92.6 %), and interdependence mode (92.6 %) (Table 6).

Table 6 The frequency (f) and percentage (%) of Kuakarun nursing students in each level of adaptation to clinical practice classified by the total adaptation and each mode (n = 215)

Adaptation to clinical practice in total and by mode	Level of adaptation in clinical practice					
	High		Moderate		Low	
	f	%	f	%	f	%
Total	186	86.5	28	13.0	1	0.5
Mode						
Physiologic mode	158	73.5	56	26.0	1	0.5
Self concept mode	154	71.6	60	27.9	1	0.5
Role function mode	199	92.6	15	7.0	1	0.5
Interdependence mode	199	92.6	15	7.0	1	0.5

4. The difference of adaptation to clinical practice among Kuakarun nursing students groups at different levels of the emotional intelligence in total and subscale

The assumption for ANOVA were not met in finding the normality and homogeneity of variance (see Appendix), Then the Non-parametric Statistic was used for hypothesis testing.

4.1 The comparison of differences in adaptation to clinical practice among Kuakarun nursing student groups at different levels of the **emotional intelligence**. It was found that the nursing students who had different level of the emotional intelligence were statistically significant difference in adaptation to clinical practice in total adaptation, self-concept, role function, and interdependence modes ($P < 0.01$). For physiologic mode, there was no statistically significant difference in adaptation to clinical practice ($P > 0.01$) (Table 7).

By the Two-Sample Test of each pair by Mann-Whitney U test, it was found that the nursing students who had the above average levels of emotional intelligence had significant differences in adaptation to clinical practice when compared with the group having within and below average level of emotional intelligence in total adaptation, and in 3 out of 4 modes of adaptation ; self-concept, role function, and interdependence. In addition, the within average group of emotional intelligence showed significant differences in total adaptation, self-concept, role function, and interdependence modes when compared with the below average group ($P < 0.01$) (Table 8).

Table 7 The comparison of differences in adaptation to clinical practice among Kuakarun nursing student groups at different levels of the **emotional intelligence** analyzed by Kruskal-Wallis H Test (n = 215)

levels of the Emotional intelligence	Adaptation to clinical practice				
	Total	Mode			
		Physiologic	Self- concept	Role function	Interdepen- Dence
		Mean Rank	Mean Rank	Mean Rank	Mean Rank
Below average n = 16	48.59	86.44	32.91	41.94	56.72
Within average n = 141	101.09	103.30	104.02	103.52	100.56
Above average n = 58	141.18	125.37	138.40	137.10	140.24
df	2	2	2	2	2
H	32.851 **	7.265 ^{ns}	38.014 **	31.695**	28.762 **

** P < 0.01, ns = not significant

Table 8 The Two-Sample Test of adaptation to clinical practice in total and each mode between Kuakarun nursing student groups at different levels of the **emotional intelligence** by Mann-Whitney U Test (n = 215)

Emotional intelligence groups	Adaptation to clinical practice	Emotional intelligence groups			
	Mean Rank	Below average	Within average	Above Average	
	Total adaptation				
	Below average	48.59	—	*	*
	Within average	101.09	—	—	*
	Above average	141.18	—	—	—
	Self-concept mode				
	Below average	32.91	—	*	*
	Within average	104.02	—	—	*
	Above average	138.40	—	—	—
	Role function mode				
	Below average	41.94	—	*	*
	Within average	103.52	—	—	*
	Above average	137.10	—	—	—
	Interdependence mode				
	Below average	56.72	—	*	*
	Within average	100.56	—	—	*
Above average	140.24	—	—	—	

** P < 0.01

4.2 The comparison of differences in adaptation to clinical practice between Kuakarun nursing student groups at different levels of the **emotional intelligence in intrapersonal subscale**. It was found that the nursing students who had different levels of the emotional intelligence had the statistically significant difference of adaptation to clinical practice in total adaptation, physiologic, self-concept, role function, and interdependence modes ($P < 0.01$) (Table 9).

By the Two-Sample Test of each pair by Mann-Whitney U test, it was found that the nursing students who had above average levels of emotional intelligence had significant differences in adaptation to clinical practice when compared with the group having within and below average level of emotional intelligence in total adaptation, self-concept, role function, and interdependence modes. In addition, the within average group of emotional intelligence demonstrated significant differences in total adaptation and in 2 modes of adaptation; self-concept and role function when compared with the below average group ($P < 0.01$). The physiologic mode showed no differences of each pair (Table 10).

Table 9 The comparison of differences in adaptation to clinical practice among Kuakarun nursing student groups at different levels of the **emotional intelligence in intrapersonal subscale** analyzed by Kruskal-Wallis H Test (n = 215)

Levels of the Emotional intelligence in intrapersonal subscale	Adaptation to clinical practice				
	Total	Mode			
		Physiologic	Self-concept	Role function	Interdependence
	Mean Rank	Mean Rank	Mean Rank	Mean Rank	Mean Rank
Below average n = 15	47.20	83.53	30.10	40.27	61.70
Within average n = 138	98.86	101.23	104.30	104.00	95.79
Above average n = 62	143.06	128.99	135.07	133.29	146.39
df	2	2	2	2	2
H	37.032 **	11.040 **	36.010 **	28.807 **	37.618 **

** P < 0.01

Table 10 The Two-Sample Test of adaptation to clinical practice in total and each mode between Kuakarun nursing student groups at different levels of the **emotional intelligence in intrapersonal subscale** by Mann-Whitney U Test (n = 215)

Emotional intelligence in intrapersonal subscale groups	Adaptation to clinical practice	Emotional intelligence in intrapersonal subscale groups			
		Below average	Within average	Above average	
	Total adaptation				
	Below average	47.20	—	*	*
	Within average	98.86	—	—	*
	Above average	143.06	—	—	—
	Physiologic mode				
	Below average	83.53	—	—	—
	Within average	101.23	—	—	—
	Above average	128.99	—	—	—
	Self-concept mode				
	Below average	30.10	—	*	*
	Within average	104.30	—	—	*
	Above average	135.07	—	—	—
	Role function mode				
	Below average	40.27	—	*	*
	Within average	104.00	—	—	*
Above average	133.29	—	—	—	

Table 10 The Two-Sample Test of adaptation to clinical practice in total and each mode between Kuakarun nursing student groups at different levels of the **emotional intelligence in intrapersonal subscale** by Mann-Whitney U Test (Continue)

Emotional intelligence in intrapersonal subscale groups	Adaptation to clinical practice	Emotional intelligence in intrapersonal subscale groups		
	Mean Rank	Below average	Within average	Above average
Below average	61.70	—	—	*
Within average	95.79	—	—	*
Above average	146.39	—	—	—

** P < 0.01

4.3 The comparison of differences in adaptation to clinical practice among Kuakarun nursing student groups at different levels of the **emotional intelligence in interpersonal subscale**. It was found that the nursing students who had different levels of the emotional intelligence had the statistically significant different in adaptation to clinical practice in total adaptation, self-concept, role function, and interdependence modes ($P < 0.01$). For physiologic mode, there was no statistically significant difference in adaptation to clinical practice ($P > 0.01$) (Table11).

By the Two-Sample Test of each pair by Mann-Whitney U test, it was found that the nursing students who had above average levels of emotional intelligence had significant differences in adaptation to clinical practice when compared with the group having within and below average level of emotional intelligence in total adaptation, self-concept, role function, and interdependence modes. In addition, the within average group of emotional intelligence showed significant differences in total adaptation and in 3 out of 4 modes of adaptation ; self-concept, role function, and interdependence when compared with the below average group ($P < 0.01$) (Table 12).

Table 11 The comparison of differences in adaptation to clinical practice among Kuakarun nursing student groups at different level of the **emotional intelligence in interpersonal subscale** analyzed by Kruskal-Wallis H Test (n = 215)

Levels of the Emotional intelligence in interpersonal subscale	Adaptation to clinical practice				
	Total	Mode			
		Physiologic	Self-concept	Role function	Interdependence
	Mean Rank	Mean Rank	Mean Rank	Mean Rank	Mean Rank
Below average n = 15	54.17	89.80	52.73	56.00	51.53
Within average n = 157	101.21	104.33	102.29	100.97	103.38
Above average n = 43	151.57	127.73	148.12	151.79	144.56
df	2	2	2	2	2
H	34.218 **	6.169 ^{ns}	31.267 **	34.035 **	28.361 **

** $P < 0.01$, ns = not significant

Table 12 The Two-Sample Test of adaptation to clinical practice in total and each mode between Kuakarun nursing student groups at different levels of the **emotional intelligence in interpersonal subscale** by Mann-Whitney U Test (n=215)

Emotional intelligence in interpersonal subscale groups	Adaptation to clinical practice	Emotional intelligence in interpersonal subscale groups			
		Below average	Within average	Above average	
	Total adaptation				
	Below average	54.17	—	*	*
	Within average	101.21	—	—	*
	Above average	151.57	—	—	—
	Self-concept mode				
	Below average	52.73	—	*	*
	Within average	102.29	—	—	*
	Above average	148.12	—	—	—
	Role function mode				
	Below average	56.10	—	*	*
	Within average	100.97	—	—	*
	Above average	151.79	—	—	—
	Interdependence mode				
	Below average	51.53	—	*	*
	Within average	103.38	—	—	*
Above average	144.56	—	—	—	

** P < 0.01

CHAPTER V

DISCUSSION

The discussion of the research results of emotional intelligence and adaptation to clinical practice was presented according to the follow research hypothesis :

Research hypothesis : There are differences of adaptation to clinical practice among Kuakarun nursing student groups at different levels of emotional intelligence in total and subscale.

Emotional Intelligence in Total

The research result partially supports the hypothesis in that the nursing students who were in the groups at below, within, and above average levels of emotional intelligence had statistically significant difference of adaptation to clinical practice in total adaptation, self-concept, role function, and interdependence modes ($P < 0.01$). For physiologic mode, there was no statistically significant difference in adaptation to clinical practice ($P > 0.01$).

This result congruent with the emotional intelligence in that it was related to an adaptation (Ministry of Public Health, B.E. 2543 : 27, 52; Verawat Pannitamai, B.E. 2542 : 12; Thodsaporn Prasertsuk, B.E. 2543 : 97). Furthermore, Goleman (1998) found that the emotional intelligence had a relationship with the ability in working and it also affects on professional success, especially nurse professional, which used the

emotional intelligence more than the others. In addition, Goleman (1998) showed that the nurse must use their emotional intelligence more than the intelligence quotient by four fold to be success in profession. This also agrees with Verawat Pannitamai (B.E. 2542 : 132) in that a nurse professional in work must had a high level of emotional intelligence. The higher emotional intelligence of woman results in a good adaptation to problem (Ministry of Public Health, B.E. 2543 : 24).

It has been shown that the emotional intelligence links directly to adaptation. Warinee Kunnathamsathaporn (B.E. 2545 : abstract) studied the relationships between emotional intelligence, hope and adjustment among first year Chiangmai University students. The data demonstrated that the emotional intelligence had positive relationship with the adjustment of the students ($r = 0.585$, $P < 0.01$). The emotional intelligence could predict the adjustment of the students ($P < 0.01$). However, the both research tools were different from the present study. Therefore, the comparison is limited.

In addition, there were some studies show a relationship between emotional intelligence and adaptation (Massey, 1998 ; Rodriguez, 1991, cited by Lukkana Pattanant, B.E. 2542:10 ; Gotteman, 1986, cited by Lukkana Pattayanant, B.E. 2542:81).

Massey (1998) studied the new leader's role : engaging dialogue and emotional intelligence at entry for successful adapting change. The main finding was that the members of dialogue groups who have a high level of emotional intelligence also tend to be seen as leaders in dialogue by other members of the group. The groups whose members'score of emotional intelligence test being higher would adapt in dialogue more effectively.

Rodriguez (1991, cited by Lukkana Pattayanant, B.E. 2542 : 10) studied the factors that affect adaptation and work success. The data showed that family factor, personal health, social factor, relationship, emotion, motivation, and attitude in working have positive relationships to adaptation and personal work success. Gotteman (1986, cited by Lukkana Pattayanant, B.E. 2542 : 81) demonstrated the effect of skill training on emotional intelligence to student's learning. The results showed that the students who get skill training on emotional intelligence have learning score higher than those of the students who do not. The well-trained students on emotional intelligence also perform good interpersonal relationship, self-control, as well as adapt to conflict and stress well.

The results of adaptation in physiologic mode do not support the hypothesis. The nursing students who had different level of emotional intelligence had no difference in adaptation to clinical practice in physiologic mode. This could explain that if a person has physiologic imbalance within the system, the regulator system will work automatically to maintain homeostasis.

Emotional Intelligence in Intrapersonal Subscale

The research result supports all hypothesis in that the nursing students who were in the groups at below, within, and above average levels of emotional intelligence in intrapersonal subscale showed statistically significant differences in adaptation to clinical practice in total adaptation, physiologic, self-concept, role function, and interdependence modes ($P < 0.01$).

The present finding related to emotional intelligence in intrapersonal subscale showed the same result as presented in emotional intelligence in total. This could explain in the same manner of emotional intelligence in total (Ministry of Public Health, B.E. 2543:27, 52 ; Verawat Pannitamai, B.E. 2542:12 ; Thodsaporn prasertsuk, B.E. 2543:97 ; Goleman, 1998 ; Massey, 1998 ; Rodriguez, 1991, cited by Lukkana Pattayanant, B.E. 2542:10 ; Gotteman, 1986, cited by Lukkana Pattayanant, B.E. 2542:81). Moreover, the result congruent with Manus Boonprakob & Sarika Methanawin (B.E. 2544: 41-52) said that nurses need a free from stress, an autonomy, a value. Mean while, in the characteristic of work, the nurse is suffering in the patients' needs, such as a closed care. A night-time work, especially, might disturb the circadian rhythm. These impact factors would lead to conflict in working and unhappiness if the nurse could not adapt. To solve the problems, nurses must have self-awareness, self-regulation, stress management, motivation, self-emotional development, and optimism. This implies that nurses showed develop an emotional intelligence in intrapersonal. Evan & Allen (2002 : 41-42) revealed that the intrapersonal intelligence is an important part of nursing, especially self-awareness. The key of self-knowledge is in the intrapersonal intelligence as well as the way to access to one's own feeling. It is also the ability to discriminate among patients and to guide some behavior to them. When people are not aware of their own emotion, they will be limited in their responses to those express by other. Therefore, the students who have more self-awareness are able to identify their own values, morals, beliefs and emotion. Their situation is challenging their inner life. Furthermore, Schnoll et al (2002) studied the correlation of adjustment among cancer survivors. The results showed that the survivors who got higher level of optimism could perform a better adjustment. However, the research tool of adjustment used of the Psychosocial Adjustment to Illness, was different from this study, so the comparison is limited.

Emotional Intelligence in Interpersonal Subscale

The research result partially supports the hypothesis in that the nursing students who were in the groups at below, within, and above average levels of emotional intelligence in interpersonal subscale had statistically significant difference of adaptation to clinical practice in total adaptation, self-concept, role function, and interdependence modes ($P < 0.01$). For physiologic mode, there was no statistically significant difference of adaptation to clinical practice ($P > 0.01$).

This results show an equal to emotional intelligence in total. The explanation of results is the same as others. (Ministry of Public Health, B.E. 2543:27, 52 ; Verawat Pannitamai, B.E. 2542:12 ; Thodsaporn prasertsuk, B.E. 2543:97 ; Goleman, 1998 ; Massey, 1998 ; Rodriguez, 1991, cited by Lukkana Pattayanant, B.E. 2542:10 ; Gotteman, 1986, cited by Lukkana Pattayanant, B.E. 2542:81). Furthermore, the emotional intelligence in interpersonal is the ability to live with the others. The nursing service is a cooperated work system ; therefore, the relationship problem may occur. This is a important problem to work effectively. The nursing service must use an endurance, such as a high social skill. Sometime a nurse must bottle up feeling from interaction between a cooperated work, service receiver, and nursing team. This leads to stress. If nurses had no the emotional intelligence in interpersonal, such as sensitivity, empathy, caring, and communication, they could not adapt and lead to burden in working, dishearted feeling, and unproud in professional. This could bring to be a weaken status of mental health and unhappiness in working (Manus Boonprakob & Sarika Methanawin, B.E. 2544:47-49). Varunee Ketin (B.E. 2542 : abstract) investigated the helping-trust relationship and stress in clinical practice among nursing students in college of nursing, Ministry of Health. The results showed

that the helping-trust relationship was statistically correlated to stress in clinical practice and the dimension of threat was negatively related at a low level ($r = -0.20$, $P < 0.01$). While the dimension of harm was negatively related at a moderate level ($r = -0.33$, $P < 0.01$), the dimension of challenge and benefit were positively related at a moderate level ($r = 0.50$ and 0.48 respectively, $P < 0.01$). However, the relationship between helping relationship and stress in clinical practice of Naval nursing students was in controversy. The results showed that there were no statistically significant correlation between the helping relationship of clinical instructors and the students' levels of stress (Sujittra Pasupat, B.E.2542 : abstract).

CHAPTER VI

CONCLUSION AND RECOMMENDATION

Conclusion of the study

This present research is a descriptive research. The aims of the study were :

1. To study the emotional intelligence of Kuakarun nursing students.
2. To study the adaptation to clinical practice in total and each mode of Kuakarun nursing students.
3. To compare the differences of adaptation to clinical practice among Kuakarun nursing student groups at different levels of the emotional intelligence in total and subscale.

The sample of 215 nursing students were selected by using a proportional stratified random sampling technique, classified by the second, third, and fourth year in academic year of 2002. The data collection was performed during the last week of August, 2002 by using the questionnaires. The questionnaires compose of 2 parts. These were : 1) Emotional Intelligence Scale 2) The Adaptation to Clinical Practice. This questionnaire was constructed by the researcher according to the Roy adaptation model (1999). The researcher apply some items from the questionnaire of the adaptation in new graduate nurses of Benjamad Titana's study (B.E. 2541: 94-96), such as the item number 9,11,23. The content was validated by five experts. The reliability of all instruments, using Cronbach's alpha coefficients, was 0.941 for

Emotional Intelligence Scale, and 0.866 for the Adaptation to Clinical Practice Questionnaire.

The result of the study showed as follow :

1. The emotional intelligence of Kuakarun nursing students revealed that the majority of nursing students (65.6 %), had the emotional intelligence in total score within average level, 27 % was at the above average level and only 7.4 % was at the below average level.

2. The adaptation to clinical practice of Kuakarun nursing students showed that the majority of Kuakarun nursing students was able to adapt in clinical practice at a high level in both total adaptation (86.5 %) and in four mode of physiologic mode (73.5 %), self-concept mode (71.6 %), role function mode (92.6 %), and interdependence mode (92.6%).

3. The nursing students who were in the groups at different levels of emotional intelligence in total had statistically significant differences of adaptation to clinical practice in total adaptation, self-concept, role function, and interdependence modes ($P < 0.01$). For physiologic mode, there was no statistically significant difference in adaptation to clinical practice ($P > 0.01$).

The nursing students who were in the groups at different levels of emotional intelligence in intrapersonal subscale had statistically significant differences of adaptation to clinical practice in total adaptation, physiologic, self-concept, role function, and interdependence modes ($P < 0.01$).

The nursing students who were in the groups at different levels of emotional intelligence in interpersonal subscale had statistically significant differences of

adaptation to clinical practice in total adaptation, self-concept, role function, and interdependence modes ($P < 0.01$). For physiologic mode, there was no statistically significant difference of adaptation to clinical practice ($P > 0.01$).

Recommendations

1. Implication for nursing education

There were 86.5 percent of nursing students who had adaptation to clinical practice in total at a high level. When determine in each mode, the majority of nursing students showed the adaptation at a high level. There were between 71.6 and 92.6 %. However, there were some nursing students who had adaptation to clinical practice at a moderate and a low level. The research result found that the adaptation to clinical practice was related to emotional intelligence. Therefore, the instructors and administrators ought to promote the emotional intelligence for nursing students to be, at least, within average level. This could be performed by guidance, support, and skill training program.

2. Implication for nursing research

There was no an emotional intelligence scale, especially for Thai nursing student groups. A further development of the emotional intelligence scale should be investigated to set a better norm for nursing student groups.

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CONSENT TO PARTICIPATE IN RESEARCH STUDY

(การพิทักษ์สิทธิผู้เข้าร่วมการวิจัย)

คำชี้แจง สำหรับนักศึกษาพยาบาลที่เข้าร่วมในการวิจัยทุกท่าน

เรื่อง ขอความร่วมมือในการตอบแบบสอบถาม

เรียน นักศึกษาพยาบาล

ดิฉัน นางสาวสมบัติ ธิยาพันธ์ นักศึกษาพยาบาลปริญญาโท สาขาการพยาบาลจิตเวชและสุขภาพจิตคณะแพทยศาสตร์ โรงพยาบาลรามาธิบดี มหาวิทยาลัยมหิดล ขณะนี้กำลังทำวิทยานิพนธ์เรื่อง ความฉลาดทางอารมณ์และการปรับตัวในการเรียนภาคปฏิบัติของนักศึกษาพยาบาล วิทยาลัยพยาบาลเกื้อการุณย์ เพื่อนำผลการศึกษาวิจัยไปใช้เป็นประโยชน์ในการส่งเสริมการปรับตัวในการเรียนภาคปฏิบัติ ของนักศึกษาพยาบาลให้เป็นไปอย่างมีประสิทธิภาพในรุ่นต่อ ๆ ไป

ดิฉันจึงใคร่ขอความร่วมมือจากนักศึกษา ในการตอบแบบสอบถามทั้งหมด 2 ชุด คือแบบวัดความฉลาดทางอารมณ์ และแบบสอบถามการปรับตัวในการเรียนภาคปฏิบัติ เวลาที่ใช้ในการตอบแบบสอบถามทั้ง 2 ชุด ประมาณ 30 นาที

ในการตอบแบบสอบถามนี้ ไม่มีข้อใดถูกหรือผิดข้อมูลที่ท่านตอบจะถูกปกปิดเป็นความลับและจะนำสรุปผลโดยรวม โดยไม่รายงานเป็นรายบุคคลและจะไม่มีผลต่อคะแนน หรือผลการเรียนของผู้ตอบแต่อย่างใด นักศึกษามีสิทธิจะตอบรับหรือปฏิเสธการเข้าร่วมการวิจัยครั้งนี้ได้โดยอิสระ ถ้าท่านยินดีเข้าร่วมวิจัย โปรดเซ็นชื่อในที่ว่างในแบบฟอร์ม และตอบแบบสอบถามทั้ง 2 ชุด โดยครบถ้วน

ยินดีเข้าร่วมวิจัย

ลงชื่อ.....

()

ขอขอบคุณที่ให้ความร่วมมือ

.....

(นางสมบัติ ธิยาพันธ์)

ผู้วิจัย

QUESTIONNAIRES

รหัสประจำตัว.....

(แบบสอบถาม)

คำชี้แจง แบบสอบถามมี 2 ชุด ประกอบด้วย

ชุดที่ 1 แบบสอบถามความฉลาดทางอารมณ์

ชุดที่ 2 แบบสอบถามการปรับตัวในการเรียนภาคปฏิบัติ

ชุดที่ 1 แบบวัดความฉลาดทางอารมณ์

คำชี้แจงการตอบ แบบสอบถามฉบับนี้ประกอบด้วยข้อความจำนวน 60 ข้อ ขอให้นักศึกษาอ่านข้อความแล้วเลือกตอบ โดยทำเครื่องหมายถูก (✓) ตรงกับระดับความคิดเห็นของท่านเพียงระดับเดียว โดยคำตอบในแต่ละช่องมีความหมาย ดังนี้

เห็นด้วยอย่างยิ่ง หมายถึง ท่านมีความคิดเห็นตรงกับข้อความนั้นเป็นอย่างมาก

เห็นด้วย หมายถึง ท่านมีความคิดเห็นตรงกับข้อความนั้น

ไม่แน่ใจ หมายถึง ท่านไม่แน่ใจในความคิดเห็นของท่าน

ไม่เห็นด้วย หมายถึง ท่านมีความคิดเห็นไม่ตรงกับข้อความนั้น

ไม่เห็นด้วยอย่างยิ่ง หมายถึง ท่านมีความคิดเห็นไม่ตรงกับข้อความนั้นเป็นอย่างมาก

ตัวอย่าง

ข้อที่	ข้อความ	ระดับความคิดเห็น				
		เห็นด้วย อย่างยิ่ง	เห็นด้วย	ไม่แน่ใจ	ไม่เห็นด้วย	ไม่เห็นด้วย อย่างยิ่ง
00	ข้าพเจ้าสามารถระบุถึงอารมณ์หลาย ๆ อย่างที่เกิดขึ้นพร้อม ๆ กันได้อย่างชัดเจน	✓				

แบบสอบถามความฉลาดทางอารมณ์

ข้อความ	ระดับความคิดเห็น					ช่องนี้ สำหรับ ผู้วิจัย
	เห็นด้วย อย่างยิ่ง	เห็นด้วย	ไม่แน่ใจ	ไม่เห็นด้วย	ไม่เห็นด้วย อย่างยิ่ง	
1. ข้าพเจ้าสามารถระบุถึงอารมณ์หลาย ๆ อย่างที่เกิดขึ้นพร้อม ๆ กันได้อย่างชัดเจน						☐ 1
2. ข้าพเจ้ารับรู้การเปลี่ยนแปลงทางกายที่เกิด จากความรู้สึกของตน						☐ 2
3. เมื่อมีอารมณ์โกรธข้าพเจ้าสามารถรู้ได้ว่า กำลังโกรธ						☐ 3

รหัสประจำตัว.....

ชุดที่ 2 แบบสอบถามการปรับตัวในการเรียนภาคปฏิบัติ

คำชี้แจงการตอบ แบบสอบถามชุดนี้ประกอบด้วยข้อความเกี่ยวกับการปรับตัวในการเรียนภาคปฏิบัติ จำนวน 45 ข้อ ให้นักศึกษาอ่านข้อความแต่ละข้อ แล้วเลือกตอบตามความเป็นจริงที่เหตุการณ์นั้นเกิดขึ้นกับตัวของท่านมากน้อยเพียงใด ในช่วงการฝึกปฏิบัติการพยาบาลในคลินิก/ชุมชนในภาคการศึกษาปัจจุบัน โดยทำเครื่องหมายถูก (✓) ตรงกับระดับการเกิดเหตุการณ์เพียงระดับเดียว คำตอบในแต่ละช่องมีความหมาย ดังนี้

เกิดเป็นประจำ	หมายถึง เหตุการณ์นั้นเกิดขึ้นกับท่านมากที่สุด
เกิดบ่อยครั้ง	หมายถึง เหตุการณ์นั้นเกิดขึ้นกับท่านมาก
เกิดปานกลาง/พอดี	หมายถึง เหตุการณ์นั้นเกิดขึ้นกับท่านไม่มากไม่น้อย
เกิดบางครั้ง	หมายถึง เหตุการณ์นั้นเกิดขึ้นกับท่านเป็นส่วนน้อย
ไม่เกิด	หมายถึง เหตุการณ์นั้นไม่เคยเกิดขึ้นกับท่านเลย

ตัวอย่าง

ข้อที่	ข้อความ	ระดับการเกิดเหตุการณ์				
		เกิดเป็นประจำ	เกิดบ่อยครั้ง	เกิดปานกลาง/พอดี	เกิดบางครั้ง	ไม่เกิด
00	ฉันมีอาการหน้ามืดหรือเวียนศีรษะ			✓		

แบบสอบถามการปรับตัวในการเรียนภาคปฏิบัติ

ข้อความ	ระดับการเกิดเหตุการณ์					ช่องนี้ สำหรับ ผู้วิจัย
	เกิดเป็น ประจำ	เกิดบ่อย ครั้ง	เกิดปานกลาง /พอดี	เกิดบาง ครั้ง	ไม่เกิด	
1. ฉันมีอาการหน้ามืด หรือเวียนศีรษะ						☐ 1
2. ฉันรู้สึกหายใจไม่อึด และเหนื่อยหอบ						☐ 2
3. ฉันรู้สึกเบื่ออาหาร						☐ 3

LIST OF EXPERT FOR INSTRUMENT VALIDITY

The content validity of adaptation in clinical practice was determined by five experts who included :

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2. Associate Professor Dr. Yupapin Sirapo-ngam.

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4. Dr.Sopin Sangon.

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5. Mrs. Niyada Puanusasn

Department of Psychiatric Nursing, Kuakarun Nursing College.

**Table 13 A POPULATION FRAME FOR PROPORTIONAL
STRATIFIED RANDOM SAMPLING TECHNIQUE**

Academic year of student	Population size	Sample size
2 nd	149	69
3 rd	142	66
4 th	172	80
Total	463	215

Table 14 THE SCORE RANGE OF EMOTIONAL INTELLIGENCE
LEVEL OF KUAKARUN NURSING STUDENTS
CLASSIFIED BY TOTAL, SUBSCALE, AND FACTORS

Emotional Intelligence	Range	Level of Emotional Intelligence		
		Below Average $<\bar{X}-1SD$	Within Average $\bar{X} \pm 1SD$	Above Average $>\bar{X} + 1SD$
Total	60-300	<216	216-258	>258
Subscale: Intrapersonal	35-175	<124	124-151	>151
Factor: 1. Self-awareness	5-25	<19	19-24	>24
2. Self-regard	5-25	<16	16-22	>22
3. Independence	5-25	<18	18-22	>22
4. Self-control	5-25	<15	15-21	>21
5. Adaptability	5-25	<17	17-23	>23
6. Intentionality	5-25	<17	17-22	>22
7. Optimism	5-25	<17	17-23	>23
Subscale: Interpersonal	25-125	<90	90-108	>108
Factor: 1. Empathy	5-25	<16	16-21	>21
2. Social responsibility	5-25	<19	19-24	>24
3. Assertiveness	5-25	<18	18-22	>22
4. Conflict management	5-25	<16	16-21	>21
5. Interpersonal relationship	5-25	<18	16-23	>23

TEST OF NORMALITY AND HOMOGENEITY OF VARIANCES

Table15 Normality and homogeneity of variance testing of adaptation to clinical practice in total and each mode in each group of emotional intelligence in total (n=215)

Adaptation to clinical practice	Emotional intelligence in total groups	Kolmogorov-Smirnov Test	Levene's Test
Total adaptation	Below average	.123 ^{ns}	5.372 ^{**}
	Within average	.069 ^{ns}	
	Above average	.139 ^{**}	
Physiologic mode	Below average	.164 ^{ns}	.684 ^{ns}
	Within average	.119 ^{**}	
	Above average	.126 ^{ns}	
Self-concept mode	Below average	.106 ^{ns}	5.225 ^{**}
	Within average	.084 ^{ns}	
	Above average	.161 ^{**}	
Role function mode	Below average	.161 ^{ns}	9.071 ^{**}
	Within average	.124 ^{**}	
	Above average	.189 ^{**}	
Interdependence mode	Below average	.185 ^{ns}	2.245 ^{ns}
	Within average	.140 ^{**}	
	Above average	.165 ^{**}	

** P < 0.01, ns = not significant

Table16 Normality and homogeneity of variance testing of adaptation to clinical practice in total and each mode in each group of emotional intelligence in intrapersonal subscale (n=215)

Adaptation to clinical practice	Emotional intelligence in intrapersonal subscale groups	Kolmogorov-Smirnov Test	Levene's Test
Total adaptation	Below average	.168 ^{ns}	5.434 ^{**}
	Within average	.080 ^{**}	
	Above average	.094 ^{ns}	
Physiologic mode	Below average	.160 ^{ns}	.988 ^{ns}
	Within average	.140 ^{**}	
	Above average	.091 ^{ns}	
Self-concept mode	Below average	.147 ^{ns}	4.817 ^{**}
	Within average	.084 ^{ns}	
	Above average	.138 ^{**}	
Role function mode	Below average	.205 ^{ns}	6.018 ^{**}
	Within average	.117 ^{**}	
	Above average	.133 ^{**}	
Interdependence mode	Below average	.157 ^{ns}	3.356 ^{ns}
	Within average	.121 ^{**}	
	Above average	.192 ^{**}	

** P < 0.01, ns = not significant

Table17 Normality and homogeneity of variance testing of adaptation to clinical practice in total and each mode in each group of emotional intelligence in interpersonal subscale (n=215)

Adaptation to clinical practice	Emotional intelligence in interpersonal subscale groups	Kolmogorov-Smirnov Test	Levene's Test
Total adaptation	Below average	.203 ^{ns}	2.944 ^{ns}
	Within average	.086 ^{**}	
	Above average	.162 ^{**}	
Physiologic mode	Below average	.228 ^{ns}	.270 ^{ns}
	Within average	.100 ^{**}	
	Above average	.167 ^{**}	
Self-concept mode	Below average	.150 ^{ns}	6.655 ^{**}
	Within average	.093 ^{**}	
	Above average	.124 ^{ns}	
Role function mode	Below average	.176 ^{ns}	13.574 ^{**}
	Within average	.107 ^{**}	
	Above average	.222 ^{**}	
Interdependence mode	Below average	.259 ^{**}	4.107 ^{ns}
	Within average	.157 ^{**}	
	Above average	.135 ^{ns}	

** P < 0.01, ns = not significant

BIOGRAPHY

NAME	Mrs. Sombat Riyaphun
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