

STRESS LEVELS AND COPING PATTERNS OF NURSING STUDENTS IN AN INTERNATIONAL PROGRAM PRACTICUM

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ABSTRACT

Background: The nursing profession is exposed to many stressful demands and pressures. Regarding appropriate coping patterns, the person must gain equilibrium with the ability to meet new demands.

Method: This study was conducted with a mixed-method research design with a sample of 78 junior nursing students based on Folkman & Lazarus's ways of coping.

Results: Nursing students at clinical practice experienced moderate level of stress (46.20%, n=36), and appraised this as a situation with emotions of challenge (\bar{x} =2.67, S.D.=0.54, 33.90%). The stressful situations could be categorized into six themes: Persons as stressors; Inadequate knowledge and skills; Low self-esteem and self-confidence in their clinical practice without instructors; Incoherent theories and practice; Novelty; Inadequate learning facilities. Regarding ways of stress coping, the predominant ways of coping were seeking social support and adopting problem solving in a planned manner.

Conclusion: Preparing a clinical-teaching program should emphasize on providing social support, and enhancing knowledge and skills readily applicable to clinical practice.

Keywords: *Stress, Coping pattern, Clinical nursing practice, International nursing program*

INTRODUCTION

Stress is a complex phenomenon which can arise from new clinical experiences, academic load, and personal stressors (Jones & Johnston, 2006). The nursing profession is exposed to many stressful demands and pressures (Roberts, 2012), and a nursing student is therefore at a maximum risk for an array of health, safety, and other problems as she or he faces many challenges and stressors. Moreover, nursing students are likely to experience even more stress than their friends and colleagues enrolled in other programs. Existing evidence indicates that nursing students have higher levels of stress than students in other disciplines; stress also varies at different education levels of nursing students and different nursing programs (Burnard *et al.*, 2008). Umereweneza *et al.*, (2011) revealed that junior nursing students experienced higher academic and clinical stress

than senior nursing students. Also, students in the international nursing program experienced higher academic and clinical stress than students in the Thai nursing program.

Even studying in the international program is an opportunity as international students enrich the cultural diversity of campuses with their home culture and ethnic experiences (Wu *et al.*, 2015). But there persists a series of transitional difficulties that can be from daily life to cultural adaptation (Constantine *et al.*, 2005). Wu *et al.*, (2015) revealed that international students deal with academic challenges, social isolation, and cultural adjustment. Specifically, academic challenges included communication with lecturers, classmates, and staff.

Clinical experiences, responsibilities and professional expectations of nursing programs further influence the

experience of stress (Prymachuk & Richards, 2007). Furthermore, during the initial clinical training experience, nursing students report increase in their levels of stress and anxiety. The stress and anxiety levels increase as nursing students learn to apply their theoretical knowledge to the clinical work and deal with their first patients in new environments while being observed by their clinical instructors and their peers (Ratanasiripong, 2012). Within their clinical practice in the fundamentals of nursing, students learn their future profession and have a small degree of training by facing difficult situations, which often produces stress, and not always does the environment where it takes place foster an entire understanding of nursing practice (Nelwati *et al.*, 2013).

The theoretical framework of this study is based on the theory of cognitive appraisal of stress as described by Lazarus and his colleagues. Lazarus and Folkman (1984) defined stress as “a particular relationship between the person and the environment that is appraised by the person exceeding his or her resources and endangering his or her well-being”. The theory of cognitive appraisal of stress consists of primary and secondary appraisal, and this current study is applied to nursing practicum. Through primary appraisal, nursing students undertaking and interacting in clinical placement are able to recognize the presence of stressors in the clinical environment that could jeopardize their resources and wellbeing. While through secondary appraisal, nursing students experiencing stress in nursing practicum reduce or eliminate stressors by making efforts to change the stressful conditions, so that they are not perceived as stressors. Even some previous studies have shown that nursing students experience stress from both academic and clinical studies, and only one study found that nursing students who study in an international program experience higher stress than students in a Thai nursing program (Burns & Grove, 2001). But till date, none of these research studies investigated the stress levels and stress appraisal of students who study in international nursing program, especially in the fundamentals of nursing practice.

The purpose of this study was to determine the stress levels, stress appraisal, stress experiences and ways of coping with stress among junior nursing students in an international program practicum. The findings of this research study can be used to improve

clinical teaching activities regarding clinical practicums for international nursing programs.

MATERIALS AND METHODS

Study design

This study was conducted with an explanatory sequential mixed method research design. Lazarus and Folkman's stress and coping model was used as the conceptual framework of the study. The first phase involved collecting quantitative data, and then the second phase of explaining the quantitative results was conducted with in-depth qualitative data. In the first phase of the study, the stress level and clinical stress appraisal was assessed by Pagana Clinical Stress Questionnaire (1989). It consists of a 20-item Likert scale and some open-ended questions. The questionnaire has four sub-dimensions, including threat, fight, damage, and benefit emotions. Lower scores indicate lower stress levels; higher scores indicate higher stress levels. An internal consistency reliability was calculated for each emotion of clinical experience categorizing harm/loss, threat, challenge, and benefit, with Cronbach's alpha coefficient at 0.84, 0.89, 0.80 and 0.81 respectively.

The Folkman & Lazarus's Way of Coping Questionnaire (WCQ, 1988) was used for stress experience and ways of coping of students who studied in the international nursing program during fundamentals of nursing practice. The WCQ is a 66-item, 4-point Likert-type instrument that assesses cognitive and behavioral coping strategies with eight subscales. The subscales are confrontation, distancing, self-control, seeking social support, accepting responsibility, escape-avoidance, planned manner of problem solving, and positive reappraisal. Cronbach alpha scores in the original study ranged from 0.61 to 0.79; in this study they ranged from 0.81 to 0.84.

For the secondary phase of the qualitative approach, a focus group was conducted to explain the stress experience. Data was collected through a semi-structured-interview questionnaire. At the second stage of recruitment, the nursing students were separated into two focus groups according to their stress scores (low and moderate stress levels, and high and severe stress levels), to assess experiences and coping strategies

according to stress levels.

Setting and sample

Purposive sampling was used in this study; the samples in the quantitative phase were 78 junior nursing students who practiced in the clinical settings of the fundamentals of nursing practicum from June to October 2014. The second phase was a qualitative approach, and these junior nursing students were separated into two focus groups according to their earlier stress scores, with 10 nursing students in each group.

Ethical considerations

The ethical committee of a private university in Thailand approved this study (registration no.40/2556) on June 20, 2014, and permission was obtained from the Dean of the college of nursing. As the research involves human participants, it was necessary to follow strict ethical principles. The participants were asked to give their consent, and they were assured that participation or information provided would not be used against them, nor would it affect their study grade. They were also assured of their right to confidentiality and anonymity, which was maintained by numbering the participants. Confidentiality was ensured by guarding against unauthorized access to the data, the data were locked in a cupboard and destroyed after completion of the research. Participants were informed of their rights to withdraw from the study at any stage (Bums & Grove, 2001).

This research received permission from Rujanantakul, (1998), who adapted the Pagana Clinical Stress Questionnaire for the Thai population, and from Siriluk Vadtanapong, who adapted the Folkman & Lazarus's Ways of Coping Questionnaire. During the study process, if the participants felt uncomfortable, they knew they could decline to answer any question or leave the study.

RESULTS

Demographic characteristics

Seventy-eight potential nursing students responded in the study. The majority of respondents were female (93.60%) and most students were 21–26 years old (75.60%). The majority of students had a grade point average of 2.00–2.50 (67.90%) while only one-third had

a grade point average of 2.50 or above (32.10%). Most of them were supported by a miscellaneous fee equal to 4000 Baht/month or more (65.40%) (Table 1).

The reasons of studying in nursing program

The respondents had several reasons for studying nursing, the most popular reasons for studying in the international nursing program were finding a job easily (84.60%), being the ideal profession (76.90%), and the family's wishes in their choosing the profession (74.40%), respectively (Table 1).

Table 1: Demographic characteristics of the nursing students in the international program

Characteristics	N	%
Age		
15-20	18	23.1
21-26	59	75.6
Gender		
Female	73	93.6
Male	5	6.4
Grade Point Average		
2.00 – 2.50	53	67.9
2.50 and above	25	32.1
Miscellaneous Fee		
≤ 4000 Baht/month	27	34.6
≥ 4000 Baht/month	51	65.4
Reason for studying in Nursing Program		
Finding a job easily	66	84.6
Being the ideal profession	60	76.9
Family's wishes in their choosing the profession	58	74.4
Being a respectable profession	41	52.4
A desire of students to help others	40	51.3
Appreciation for the Nurse's white uniform	20	25.6
The nursing profession suits my personality	17	21.8

The stress level

All of the 78 questionnaires were returned, we have gathered that most of international nursing students perceived the practice of clinical nursing in fundamentals of nursing at a moderately stressful level (46.20%). Approximately one-third (34.60%) of respondents experienced a high stress level, whereas only 5% experienced a low stress level (Table 2).

Table 2: The stress level of the nursing students in the international program

Level of Stress*	N	%
Low	4	5.10
Moderate	36	46.20
High	27	34.60
Severe	11	14.10
Total	78	100.00

*Note: *A higher score represents a higher stress level. Levels of Stress scoring are Never (0), Low (1), Moderate (2), High (3) and Severe (4)*

Clinical stress appraisal

It was found that about 65% of the nursing students appraised their clinical stress in a positive way, with challenge and benefit. Approximately one-third (33.90%) appraised this as a situation with emotions of challenge (\bar{x} =2.67, S.D.=0.54). Similarly, around 32% of the nursing students appraised the clinical stress with benefits (\bar{x} =2.54, S.D.=0.57) (Table 3).

Table 3: Clinical stress appraisal of the nursing students in the international program

Stress Appraisal	\bar{x}	SD	Percentage
Harm	0.90	0.72	11.42
Threat	1.77	0.69	22.44
Challenge	2.67	0.54	33.90
Benefit	2.54	0.57	32.24

*Note: *A higher average score represents a stress appraisal of that type higher level. The scoring of clinical stress appraisals is 0 = "none," 1 = "a little bit," 2 = "moderate," 3 = "much," 4 = "too much."*

Stress experience

The stressful experience could be categorized as having both positive and negative situations into six major themes, as follows: (1) persons as stressors, (2) inadequate knowledge and skills, (3) low self-esteem and self-confidence in the clinical practice without instructors, (4) incoherent theories and practice, (5)

novelty, and (6) inadequate learning facilities.

Theme 1: Persons as stressors

Most of the nursing students from both focus groups stated that the clinical instructors, nurses, and group mates, were the stressors. The students have high expectation from the clinical instructors and nurses for academic help as the demonstrated to the students the different techniques and practices at a nursing laboratory. Several students in the high-stress level group said that the nurses at the hospitals were rude with unwelcoming attitude during their practice. The behaviour of their group mates also caused them stress. If the students could practice with kind and considerate group mate, they would feel less stressful than if they practiced with selfish group mates who did not help each other.

Typical comments were, “The instructor looked like she expected much of the students and she compared us with the other institutions”, “Why can't you do this procedure, who has been teaching you?”, and “The clinical instructors have different nursing techniques from those learned at the nursing laboratory.”

Theme 2: Inadequate knowledge and skills

Several students from both groups felt that their nursing knowledge and nursing skills were inadequate, as some they were taught different techniques in the laboratory which differed from theoretical information of the textbook.

“I felt I did not have enough nursing knowledge and skills, as the steps and techniques of some procedures are different from the clinical setting and not similar to the Thai nursing program.”

Theme 3: Low self-esteem and self confidence

Several nursing students from both focus groups felt unsure; they stated they could not do the procedures alone, even basic nursing care.

“I felt low self-esteem and low self-confidence to practice without an instructor, even if she just went out to the toilet.”

Theme 4: Incoherent theories and practice

The content of teaching in the textbook for the international program regarding nursing procedures was different from the nursing techniques at the hospitals.

“When I approached poor nursing practice, I felt that it was incoherent between the theories and practice.”

Theme 5: Novelty

The nursing students narrated that the practical classes were a new experience for them. To practice for the first time in a real situation, in which they had to deal with real patients with many tubes, who were unconscious, and so on, increased their stress.

“When I have seen the patients with suction and a big bed sore, I felt a lot of pressure taking care of them.”

Theme 6: Inadequate learning facilities

As the nursing students experienced incoherent theory and practice at the hospital the students in the international program need the learning facilities, such as a textbook and CD of nursing procedures with nursing techniques being used in the hospitals.

“As we approached with incoherent theories and practice situations, clinical handbooks in English with updated procedures through a CD are needed.”

Coping stress pattern

Regarding coping with stress, the predominant ways of coping were seeking social support ($\bar{x}=1.96$, S.D.=0.41, 15.94%), which is in the emotion-focused coping pattern, and planned problem solving ($\bar{x}= 1.91$, S.D.= 0.42, 15.54%), which is in the problem-focused coping pattern (Table 4).

Table 4: Coping stress pattern of the nursing students in the international program

Coping stress pattern	\bar{x}	SD	Relative percentage
Problem-focused coping			
Confrontive coping	1.35	0.12	11.01
Planned problem solving	1.91	0.42	15.54
Emotional - focused coping			
Positive reappraisal	1.70	0.35	13.79
Accepting responsibility	1.50	0.50	12.22
Self-controlling	1.40	0.40	11.39
Seeking social support	1.96	0.41	15.94
Distancing	1.21	0.43	9.83
Escape - Avoidance	1.26	0.32	10.28

DISCUSSION

The findings of the present study revealed that even if the students experienced a moderate to high level of stress, they still appraised the clinical stress as a challenge and benefit. This result was different from Chan *et al.*, (2009), who found that high levels of stress inhibit learning, whereas low stress levels seem to motivate students (Chan *et al.*, 2009). Conversely, Tumwijit *et al.*, (2009) showed that most junior level students experienced a severe level of stress and evaluated the practicum of nursing in the clinical area as a threat. Pagana (1989) underlined that feelings of harm and benefit can be expected to emerge in the long term as a result of feelings of the past experiences. The current study investigated stress on the first and last day of clinical practice so as to evaluate the feelings of harm and benefit clearly.

For the stress experience, the present study also found that the students' stress experience was caused by internal stressors such as inadequate knowledge and skills, and feelings of low self-esteem and self-confidence, as well as external stressors such as other persons acting as stressors, incoherent theories and practice, novelty, and inadequate learning facilities. These results of the present study were similar to Hoel *et al.*, (2007), who had conducted a study about the student nurses' experience of negative behavior and bullying during their clinical practicum. Hoel's qualitative study revealed that due to a staffing shortage, the students reported that they were often being used as extra staff to carry out simple, repetitive tasks, which hindered their learning process. In some cases, students were given a level of responsibility beyond their experience level, which was difficult to deal with. Hoel's study also discovered that students were made to feel uninvited and were ignored by the staff. Besides, the guidance provided by the staff was also less than optimal. Thus, fear of making mistakes and also fear of litigation were often expressed by the students in response to the diminished staff supervision during the clinical practicum. Apart from that, the nursing students reported they had experienced abusive behavior and felt belittled and humiliated by the staff (Hoel *et al.*, 2007). In Iran, a similar study was conducted by Shariff and Masoumi (2005), which revealed that students' dissatisfaction resulted due to the presence of gap between theory and practice, lack of supervision in the clinical area, and role conflict with the nursing staff. For the theory-practice gap, students felt it was difficult to incorporate learned

knowledge into their practice. The majority of students felt anxious at the beginning of their clinical practicum, which was caused by a lack of knowledge in clinical practicum, and resulted in the students being worried about giving wrong information to the patients, and having fear of harming the patients. Therefore student feared of performing nursing procedures incorrectly. Shipton's (2002) study utilized a grounded theory methodological approach, and aimed at determining the stressful clinical situations encountered by the nursing students, either at a private college or a state university in western Pennsylvania. It further explored the stages undergone by students in dealing with the stressful clinical situations and the emotions generated in each stage. Based on the findings, there were six important categories of stressors identified: (1) actions of clinical faculty, (2) actions of the nursing staff, (3) actions of peers, (4) implementing nursing procedures, (5) preparing for clinical assignments, (6) encountering new clinical rotations. The findings of the present study about the six categories of stress experiences of nursing students were clearly similar to most of the previous studies with a qualitative approach.

In regards to coping with stress, the present study found that the predominant way of coping was seeking social support, which was emotion-focused pattern. Emotion-focused coping appeared to be most prevalent utilization pattern by nursing students, as indicated by previous studies. In a study in Taiwan, Tsai (2003) reported that the predominant way of coping came from positive reappraisal, which is a coping strategy in emotional-focused coping (Tsai, 2003). Similarly, some studies in Thailand found that the most frequently used coping pattern was the emotional-focused pattern of seeking social support (Phochum, 2001). Tumwijit *et al.*, (2009) also found that most junior nursing students frequently sought social support, as well as positive reappraisal, which are in the emotional-focused pattern.

CONCLUSION

The international nursing students experienced stress at a moderately traumatic level. This was appraised as a situation with emotional challenges. The stressful situations were categorized into positive and negative situations. In light of findings from the current study, nursing instructors should be aware that students experience high and moderate levels of stress during the clinical course in the fundamentals of nursing therapeutics, so they can be more understanding of what the students are going through. Factors that may increase students' stress levels should be eliminated if possible. As the social support strategy was the most frequently used coping pattern, clinical instructors and peer groups should provide suggestions to help students to cope with stressors that they may encounter during clinical courses. Prior to the clinical practice, students should be informed about possible stressors and difficulties they may experience, and about the best ways to cope with these stressors.

RECOMMENDATIONS

The findings of this research study can be used to improve clinical teaching activities regarding clinical practicums for international nursing programs. Nursing instructors should consider preparing the clinical-teaching program that puts emphasis on providing social support, enhancing knowledge and skills readily applicable to clinical practice, and providing appropriate learning facilities so that the program can help reduce stress-levels and improve the clinical practicum experience.

Further research should investigate stress and ways of coping in all other areas of clinical nursing practice or the correlation of stress level and stress coping pattern. Also, the preparation program for clinical practice may be developed as an experimental research study to help students to reduce stress-level and consequent clinical improvement.

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