

Stress and Coping Behaviors in Clinical Training among Nursing Students

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Abstract

A descriptive study was conducted in a nursing faculty of private University, North-eastern of Thailand. The aim of this study was to identify the level of stress perceived by nursing students in their initial period of clinical training and to identify the coping behaviors that students used to relieve their stress. Total of 215 nursing students' representative of second year undergraduate students participated in the study. Participants were asked to complete demographic data, a perceived stress scale (PSS), and a coping behavior inventory (CBI) scale. Results revealed that of the participants 52.09 % had stress levels above the mean. The most common stressor was lack of professional knowledge and skills. Their assignment followed by stress related to patients' care and stress from nursing staff and instructors were found to be significantly associated with the stress level of nursing students. Majority of participants tend to use more of healthy coping behaviors as compared to negative or unhealthy ones. Receiving moral support from family, developing cordial relationship with nurses and praying were among the common coping mechanisms identified. "Seeking professional support" is the least common coping behaviors identified in nursing students. The results provided valuable information for clinical educators in identifying students' needs, facilitating their learning in the clinical setting, and developing effective interventions to reduce stress.

Keywords: Coping behaviors, Nursing student, Stress

Introduction

Stress is a feeling of strain and pressure (Gibbons, 2012). It affects every individual and has a major influence upon mood, our sense of well-being, behavior, and health. Individuals perceive events differently, and the same event may elicit different stress responses from different people (Feldman, 2008). Stress is widely accepted to have two opposite effects on individuals - positive and negative. Positive stress or acceptable levels of stress may be desired, beneficial, and even healthy. It also plays a factor in motivation, adaptation, and reaction to the environment whilst excessive amounts of stress or negative stress can lead to decreased performance. Stress can increase the risk of strokes, heart attacks, ulcers, and mental illnesses such as depression (Miller et al, 2009).

Stress is common among students who are expected to maintain standards and meet deadlines (Seyedfatemi et al., 2007). Nursing students especially the second year are a group particularly prone to reported higher levels of stress in conjunction with elevated external stressors, including increased responsibilities and course requirements. They must maintain high level of academic performance; adjust to heavy workload in limited time, crowded lecture halls, harsh learning conditions as well as to a new clinical training environment.

The nursing curriculum consists of clinical and theoretical courses that complement each other. The goal of undergraduate nursing education is to provide opportunities for students to become nurses with the knowledge and skills that are needed to provide high-quality care

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based on patients' needs. The courses enable students to develop the knowledge, critical thinking, communication skills, ethical principles, and competency necessary to be a professional nurse (Ministry of University Affairs, 1996). In most nursing curriculums, nursing students spend approximately half of their education within the clinical area (Sindir and Acaroglu, 2008; Altiok and Uston, 2013). Nursing education in Thailand has over one hundred year of history. After World War II, the number of nursing schools was increased due to the shortage of nurses. Currently, the lowest level nursing program in Thailand is the baccalaureate, a four-year program. Students are required to complete a total of 150 credits. At least 90 credits are for core education in nursing and three credits are for elective courses (Ministry of University Affairs, 1996). They face not only academic stress but stress at work during their training period.

One focus of interest in research on stress is the sources of stress, or stressors, which interact and contribute to the onset of stress in organizational settings (Spielberger and Reheiser 2005). Nursing students in Thailand are required to complete of clinical training throughout the program. During the first year of the program, students are taught for general education and the basic nursing skills in labs. Students start their clinical training during the second year of study. Usually, students in their clinical training rotate between different hospitals or community according to the courses they are enrolled in. With advancements in the healthcare field, course curricula must change to educate students on the continuous advancements (Ratanasiripong et al., 2012). The training of nursing students is unique and mainly involves clinical training at the hospitals or community in addition to the academic training they receive on campus. They may therefore experience unique stressors.

Numerous recent studies have explored work stress among health care personnel in many countries. However, levels of stress are higher, and there are a greater number of sources of stress among nurses, with negative consequences for their health and performance (French, 2005; Lim et al., 2010). Stress also is a psychological factors that influences the academic performance and welfare of nursing students (Burnard et al., 2008; Jimenez et al., 2010; Ratanasiripong et al., 2012). It is known that students with high levels of stress have difficulties in their education, which could lead to a variety of mental and physical health related problems. Three main groups of stressors have been identified (1) academic stressors, (2) clinical stressors and (3) personal/social stressors (Prymachuk and Richards, 2007). Experiencing fear of unknown situations, worry of testing and evaluation, fear of failure in training, problems with workload, unfriendly atmosphere, interpersonal relationships, fear of making mistakes, negative responses to the death or suffering of patients , and most importantly, unfamiliarity with clinical settings, were found to be the most common sources of clinical stress (Evans and Kelly, 2004; Chan et al. 2009). This has led to the development of research aimed at determining the levels and sources of stress in the training of nursing students.

The effects of stress are directly linked to coping, the specific efforts which individual employ to master, tolerate, reduce, or minimize stressful events. Effective coping behaviors are very important and can turn a highly stressful situation into a manageable one (Chan et al., 2009; Pu et al., 2012). Coping with stress is understood as continual cognitive and behavioral effort to deal with external and internal demands, which are assessed as excessive or overwhelming. Various coping behaviors include ventilation, diversion, relaxation, self-reliance, social peer group support, avoidance, praying, day dreaming listening to music and smoking, drinking, joking etc. Failure to identify and use good coping behaviors can result in serious personal and professional negative consequences (Seyedfatemi et al., 2007).

Inspite of the information available on stress and coping behaviors, there is limited research has been done in Thailand on clinical training-related stress and coping behaviors of nursing students. Therefore, the aim of the current study is to assess stress levels among nursing students at their initial period of training and stressor in clinical training, as well as

identifying the coping behaviors used by undergraduate nursing students in private university, north-eastern of Thailand.

Design

A descriptive, survey method was used to gather data in this study to assess students' stress and stressor among nursing students as well as identifying the coping behaviors used by students.

Target population for the study involved the second year nursing students of the baccalaureate nursing program academic year 2015 participated in this study. Researchers have determined the size samples using the Conventional approach defines the size medium influence (effect size Medium) $R^2 = 0.13$ (Polit and Beck, 2008) by the level of confidence at .05, a power of .08 the required sample size is 86 lists the total number of samples. The final sample size was 215.

The tools used for data collection were a self-reported questionnaire consisted of three main sections. Section A consisted of items on Socio-demographic data such as age, gender, parent's education and occupation, and family income. Section B consisted of 29 items of Perceived Stress Scale (PSS) was developed by Sheu and his colleagues (1997) in order to assess the perception of stressful experiences by asking the respondent to rate the frequency of feelings and thoughts related to events and situations that occurred over the previous month. It is a 5-point likert scale varying from 0=Never, 1=Almost Never, 2=Sometimes, 3=Fairly Often to 4=Very Often. To determine the level of stress, the following scaling was used; 2.67 – 4.00 for High Stress, 1.34 – 2.66 for Moderate Stress, and 0 – 1.33 for Low Stress (Sheu, 2002). The total score range from 0-116. A lower score means lower degrees of stress while the higher score means higher levels of stress. In the current study reliability revealed Cronbach's alpha of .86. Lastly, Section C consisted of 19 items of Coping behaviour Inventory (CBI), 5-point Likert-type (0=never; 1= infrequently; 2=sometimes; 3=frequently; 4=always). CBI was developed by Sheu et al. (2002). Nineteen items are divided into four subscales included avoidance behaviours, problem-solving behaviours, optimistic coping behaviours, and transference behaviours. Higher scores of each factor indicate more frequent use, and greater effectiveness of a certain type of coping behaviour. The reliability of the tool revealed Cronbach's alpha coefficient of .80.

The tools were first pretested on a group of 20 nursing students who did not from part of the actual sample to check its clarity, feasibility and practicality. This enabled the researchers to assess the suitability of the tool in this study. The Thai versions of tools were used as participants are Thai nursing students. An official permission was obtained from the Dean of the Faculty of Nursing to collect data from students in the faculty. In order to conduct the study, the researchers approached students during clinical training, so that the data collected could prove to be more representative for the perceived stress. A questionnaire was given to students in break time between clinical lectures after taking their written consent to participate in the study. All students were reassured that information obtained will be confidential and used only for the purpose of the study. It took respondents about twenty minutes to answer the questionnaire.

Data were analyzed using the Statistical Package. Descriptive statistics, appropriate to the level of measurement, were used to describe the study variables.

Findings

A total of 215 students were approached. Studies found that majority of the nursing students were females (89.30 %). Students' ages ranged between 19 and 28 years with a mean of 20.7 (SD±1.5). Further data indicated that only 25.6% and 12.8% nursing student's father and mother respectively had their education up to graduation. Around 52.3 % student's fathers were farmers and 66.2% student's mothers were house wife. About 55.6 % of the subjects

belong to families having monthly income more than 15, 000 Baht. Study indicates that 67.3 % of the students resided in the college campus. Table 1 represents participants' demographic characteristics.

Table 1: Students Demographic Characteristics

Variable	N	%
Gender		
- Male	23	10.70
- Female	192	89.30
Age		
- ≤ 19 years	52	24.19
- 20-21 years	136	63.25
- ≥ 22 years	27	12.56

Stress and Types of Stressors Perceived by Nursing Students in their Clinical Training

The mean of stress perceived by the students was 1.61 (SD = 1.05). Of the participants, 148 (68.97%) had stress levels above the mean. The most common type of stressors perceived was stress from Lack of Professional Knowledge and skills ($\bar{x} = 2.37$, $SD=0.99$), followed by stress from teachers and nursing staff ($\bar{x}=1.83$, $SD= 1.18$) and from assignments and workload ($\bar{x} =1.66$, $SD=1.06$). The major stress event students experienced was Unfamiliar with professional nursing skills ($\bar{x}= 2.74$, $SD=0.86$), followed by Unfamiliar with patients' diagnoses and treatments. ($\bar{x} = 2.35$, $SD=1.01$) and Unfamiliar with medical history and terms ($\bar{x} = 2.03$, $SD=1.12$). Minor stress the students experienced was related to communication with patients ($\bar{x}=1.18$, $SD= 1.07$); Experience difficulties in changing from the role of a student to that of a nurse ($\bar{x}= 1.20$; $SD=0.95$); and Experience competition from peers in school and clinical practice ($\bar{x}=1.25$; $SD=1.12$) (Table 2)

Table 2: Stressors Perceived by Nursing Students in Clinical Training

Stress factor	Factor ranking	Item ranking	\bar{x}	SD
1.Stress from taking care of patients	4			
- Lack of experience and ability in providing nursing care and in making judgments		16	1.48	1.21
- Do not know how to help patients		15	1.50	0.93
- Unable to reach one's expectations		20	1.35	1.3
- Unable to provide appropriate responses to doctors', teachers', and patients' questions		18	1.42	1.22
- Worry about not being trusted or accepted by patients		17	1.45	1.03
- Unable to provide patients with good nursing care		19	1.39	0.83
- Do not know how to communicate with patients		29	1.18	1.07
- Experience difficulties in changing from the role of a student to that of a nurse		28	1.20	0.95
2.Stress from assignments and workload	3			
- Worry about bad grades		5	1.95	1.06
- Experience pressure from the quality of practice		12	1.60	1.03
- Feel that one's performance does not meet teachers' expectations		11	1.66	1.21
- Feel that the requirements of clinical practice exceed one's physical and emotional endurance		14	1.52	1.03
- Feel that dull and inflexible clinical practice affects one's family and social life		13	1.57	0.96

3. Stress from Lack of Professional Knowledge and skills	1			
- Unfamiliar with medical history and terms		3	2.03	1.12
- Unfamiliar with professional nursing skills		1	2.74	0.86
- Unfamiliar with patients' diagnoses and treatments.		2	2.35	1.01
4. Stress from the environment	5			
- Feel stressed in the hospital environment where clinical practice takes place		21	1.34	0.89
- Unfamiliar with the ward facilities		23	1.29	1.01
- Feel stressed from the rapid change in patient's condition		22	1.30	0.95
5. Stress from peers and daily life	6			
- Experience competition from peers in school and clinical practice		27	1.25	1.12
- Feel pressure from teachers who evaluate students' performance by comparison		25	1.27	1.05
- Feel that clinical practice affects one's involvement in extracurricular activities		24	1.28	1.05
- Cannot get along with other peers in the group.		26	1.26	0.93
6. Stress from teachers and nursing staff	2			
- Experience discrepancy between theory and practice		4	1.98	1.26
- Do not know how to discuss patients' illness with teachers or medical and nursing personnel		6	1.89	1.15
- Feel stressed that teacher's instruction is different from one's expectations		10	1.68	1.05
- Doctors lack empathy and are not willing to help		9	1.77	1.21
- Feel that teachers do not give fair evaluation on students		7	1.85	1.14
- Lack of care and guidance from teachers		8	1.78	1.30

Coping Behaviours' Students Utilized in Clinical training

The most common coping behaviour utilized by the students was Transference (\bar{x} = 2.65, SD= 1.01), followed by Problem Solving (\bar{x} = 2.49, SD = 1.08) and Stay Optimistic (\bar{x} = 1.93, SD=1.03). Avoidance was less frequently utilized (\bar{x} = 1.30; SD= 1.08) (Table 3). The most common coping behaviour of the students was Problem Solving, To employ past experience to solve problems (\bar{x} = 2.85, SD=1.01); To feast and take a long sleep (\bar{x} = 2.72, SD=0.96); To relax via TV, movies, a shower, or physical exercises (\bar{x} = 2.65, SD=1.13); To save time for sleep and maintain good health to face stress (\bar{x} = 2.58, SD=0.95); and To keep an optimistic and positive attitude in dealing with everything in life (\bar{x} = 2.56; SD=1.12) (See Table 3).

Table 3: Coping Behaviours Students' Utilized

Factor	Factor ranking	Item ranking	\bar{x}	SD
1. Avoidance	4			
- To avoid difficulties during clinical practice		13	1.52	1.14
- To avoid teachers.		18	1.01	1.12
- To quarrel with others and lose temper.		17	1.08	1.22
- To expect miracles so one does not have to face difficulties		15	1.42	0.96
- To expect others to solve the problem.		16	1.34	1.03
- To attribute to fate.		14	1.45	1.03
2. Problem Solving	2			
- To adopt different strategies to solve problems		6	2.48	1.11

- To set up objectives to solve problems		8	2.42	1.14
- To make plans, list priorities, and solve stressful events		7	2.45	0.83
- To find the meaning of stressful incidents		10	2.35	1.18
- To employ past experience to solve problems		1	2.85	1.01
- To have confidence in performing as well as senior schoolmates		9	2.40	1.21
3. Stay Optimistic	3			
- To keep an optimistic and positive attitude in dealing with everything in life		5	2.56	1.20
- To see things objectively		12	2.14	0.93
- To have confidence in overcoming difficulties		11	2.25	1.03
- To cry, to feel moody, sad, and helpless		19	0.75	0.97
4. Transference	1			
- To feast and take a long sleep		2	2.72	0.96
- To save time for sleep and maintain good health to face stress		4	2.58	0.95
- To relax via TV, movies, a shower, or physical exercises		3	2.65	1.13

Discussion

Stress is a global phenomenon and affects everyone. Stress in nursing students is an area of growing concern and it may result in psychological distress, physical complaints, behavior problem and poor academic performance. The present study was conducted in one of the private nursing faculty situated in Ubon Ratchathani province, to assess the stress level and coping behaviors used by nursing students. Knowledge of the stressors and their severity among nursing students in the nursing training colleges can be helpful in effective management and counselling of the students on how to cope and adapt to stressors.

Findings revealed that out of 148 nursing students 68.97% had high stress respectively which was slightly consistent with the study conducted among undergraduates students of CMH Lahore medical college, Pakistan on 200 students which reported 30.84 overall mean perceived stress (Shah et al., 2010). The findings were consistent with the findings of an Iranian study conducted by Seyedfatemi et al., (2007) among nursing students. This may be because the students face more of stressors when they come to university during first year of their training because of being placed in an unfamiliar environment, and the demand of making new social groups apart from academic pressures and clinical training. However, the nursing students were constantly facing demands and challenges of the curriculum which had been a source of stress during their total training program.

Coping strategies refer to the specific efforts, both behavioral and psychological, that people employ to master, reduce tolerate or minimize stressful events. Coping with stress for a student nurse is a dynamic and on-going process, aimed at survival, growth and maintenance of the individual integrity. They try to restore the imbalance and disequilibrium within them by attempted adjustment through the use of various coping strategies which can be healthy or unhealthy. WHO/EHA guidelines have stated that there are no standard for coping behaviors; rather they were depending on socio-economic factors. In the present study, majority of subjects tend to use more of healthy coping strategies as compared to negative or unhealthy ones. "Seeking diversion" is the most common and "Seeking professional support" is the least common coping strategy identified in nursing students which are consistent with the findings of a similar study among nursing students at Chiang Mai University which revealed that the most frequently used coping behaviors were seeking social support (62.25%), planful problem solving (23.73%) and accepting responsibility (8.47%) (Hsiao et al., 2010). Another study reported the five most frequently used coping strategies were positive thinking, listening to the music/radio, indulging in creative activities, talk to parents and pray more

(Dar et al., 2009). However, the study findings was inconsistent with the findings of the study done on Iranian students which reported solving family problems and being humorous as the most common and least common used strategy respectively (Seyedfatemi et al., 2007).

Recommendation

Our findings may be helpful for clinical educators and clinical staff in appreciating the complexity of students' responses to stress and should not follow general principles in dealing with students in their clinical training. More specifically, findings indicated that Stress has become a chronic and pervasive condition in the world today. Every person experience different forms of stress throughout their life, therefore a student nurse is no exception as she has to adjust to an entirely new environment on joining a training course in nursing. It has been concluded that the nursing students perceived different levels of stress due to academic, clinical and other psychosocial factors. Further, they use a mix of coping strategies to overcome stress so as to maintain a balance on a wellness-illness continuum. Understanding and identifying patterns of students' coping strategies is crucial in promoting a healthy supportive learning environment. Faculty members and clinical instructors should build a rapport relationship with their students so as to be able to understand their personalities and appreciate the individuality of each student. As clinical instructors, understanding how their students cope with stress can play a major role in promoting a supportive healthy environment. Finally, instructors need to give continuous and more positive feedback along with the negative ones.

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