

STRESSORS EXPERIENCED DURING CLINICAL PLACEMENT AMONG DIPLOMA NURSING STUDENTS IN KOLEJ POLY-TECH MARA, KOTA BHARU, KELANTAN

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ABSTRACT

The aim of this project was to determine stress levels and to identify the main stressors that contribute to stress among Kolej Poly-Tech Mara (KPTM) nursing students during their clinical placement in order to help them overcome it. A total of 324 respondents undergoing training at KPTM participated in this project. The questionnaire consisting of six common stressors with 30 items using a 5-point Likert Scale was used to measure the level of stress among the respondents during their clinical placement. The data collected was examined for normal distribution, and inferential statistics such as correlations were used to seek relationships. The results indicated that the main stressors that contributed to stress among KPTM nursing students were from both environment, along with assignments and workload. There was moderate level of stress among KPTM nursing students during clinical placement and the factor that contributed to stress was due to the the possibility of making an error. Clinical placement is an essential component for nursing student's training. The practice allows nursing students the opportunity to relate the theory into practice during nursing care towards the patients. Findings from this study will provide the nursing educators, clinical instructors with a meaningful understanding of the importance of clinical placement experience.

Keywords: *Stressors, Stress level, Nursing students, Clinical placement, Clinical instructor*

INTRODUCTION

The purpose of the study is to determine the main stressors that lead to stress among Kolej Poly-Tech Mara (KPTM) nursing students during their clinical practice. In KPTM, the nursing student will go for their clinical placement in all district hospitals around Kelantan and Pahang. They will be placed in the different hospitals during their study period. The findings will be used to increase awareness among academic staff at KPTM mainly the nursing academic staff to overcome the problems and give considerations about them.

Related Studies

Nursing students not only face academic stress but stress at work during their training period. Literature showed various reasons of stress among students during clinical practice; it include students' theoretical gap, students' workload, hospital environment and mode of caring for patients, place and period of clinical

rotation (Sharif & Masoumi, 2005; Gibbons *et al.*, 2008). Some of the most common stressors are time pressured workload, making decisions, continuous changes and economic mistake at work (Pulido-Martos, Augusto-Landa & Lopez-Zafra, 2012). Seyedfatemi *et al.*, (2007) in their study showed that the most stressful situation during clinical practice is new friends and working with people they did not know. Jamshidi *et al.* (2016) did a qualitative study to understand stress during clinical practice.

As clinical practice is important for future professionals to acquire competence, a group of studies has focused exclusively on the analysis of these activities as sources of stress. The studies included here focus on academic and social stressors arising from work experience in health centers because of conducting clinical practices. Chan, So & Fong, (2009) reported on their study that the most common type of stressor among students was lack of knowledge and professional skills, followed by stress of the allotted

tasks and work-load and the third most common stressor proved to be the stress resulting from patient care. On the other hand, Sheu *et al.*, (2002) found that the specific items related to most stressful situations were lack of experience and ability to provide nursing care and diagnostics, lack of familiarity with history and medical terms and concern about grades. Most of the studies found no significant changes in student's perception of the factors that lead to stress in different state of training (Edwards *et al.*, 2010; Jones & Johnson, 2006).

Study by Tehmina, Tazeen & Raisa (2014) on associated factors of stress among nursing students in their clinical setting noted that the physical condition of the patient was highly associated with stress. However, according to them, the factor of physical status of the patient became highly significant when placed in the multivariate adjusted mode due to the presence of condition of the patient assigned. In other word, the combined effect of these two factors was found highly significant in producing stress.

Nursing students experienced same stressors that practicing nurses. Like many paid workers, students work in hierarchical structure, with defined job tasks and variables level of control and support. They are required to meet deadlines and progress is dependent of performance (Cotton, Dollard & Jan de Jonge, 2002). Labrague, (2013) in his study stated that the common type of stressors identified by students was stress form assignment and workload. However, stress from lack of professional knowledge and skill was also reported as one of the major sources of stress among nursing students. Turner & McCarthy, (2017) reviewed intervention strategies in literature between 2009 and 2015.

MATERIALS AND METHODS

Population and Setting

The target population of this study was the entire Diploma in nursing students from Year 1 till Year 3 in Kolej Poly-Tech Mara (KPTM), Kota Bharu, Kelantan.

Instrument

The questionnaire consist of 30 questions from six common stressor factor using Perceived Stress Scale (PSS) by Cohen & Williamson, (1988) and was modified to make it suitable for this study. The surveys form consist of TWO sections which Section A is

about the demographic data and Section B is about stressor perceived by nursing students during clinical practice. The demographic data concerning age, gender, qualification, year of study, current semester, frequency of clinical practice and the respondent feel about nursing. In Section B, there are SIX stressor factors that are common in the clinical practice session for the nursing students which are: Stress from taking care of patient; Stress from assignment and workload; Stress from lack of professional knowledge and skills; Stress from environment; stress from peers and daily life; and Stress from clinical instructor and hospital staff. A Likert scale measurement on 5 point scale measurement will be used to examine how often respondent faced the stress from the six common stressor factors.

RESULTS

Data Analysis

Distribution of Scores

Scores of items measuring each stressor during nursing students' clinical placement were added up to give the sub-scores for all stressors. Graphs were plotted to show the distribution of the six common stressors in this study.

(a) Stress from Taking Care of Patients

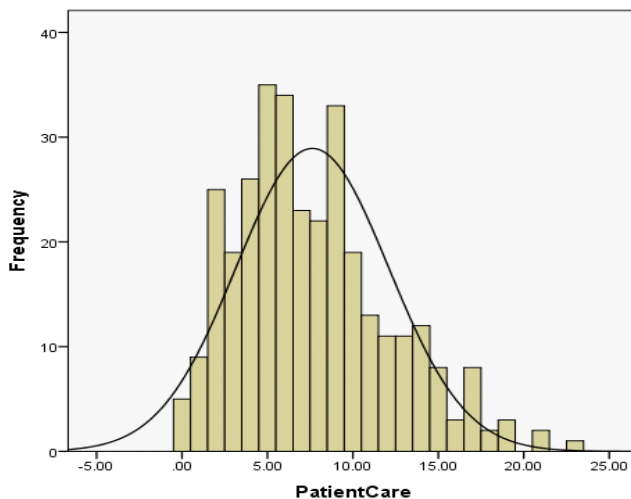


Figure 1: Distribution of Stress from Taking Care of Patients

Stress from taking care of patients during clinical placement shows a normal distribution with mean of 7.63 and standard deviation of 4.47. The mean is slightly higher than the median of 7.00 as presented in Figure 1.

(b) Stress from Assignment and Workload

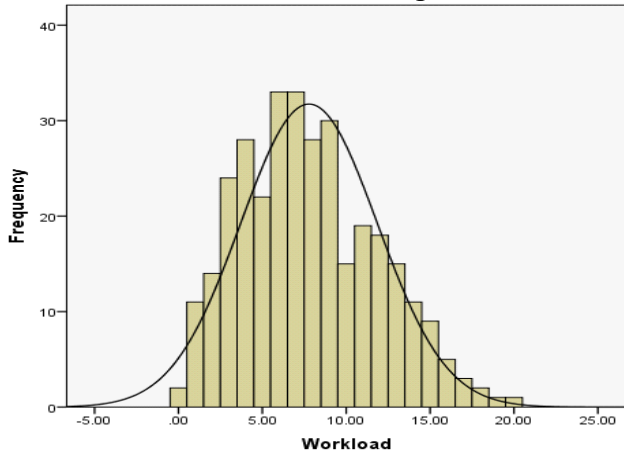


Figure 2: Distribution of Stress from assignments and workload
 Stress from assignment and workload during clinical placement follow a normal distribution with mean of 7.78 and standard deviation of 4.07. The mean is slightly higher than the median of 7.00 scores as shown in Figure 2.

(c) Stress from Lack of Professional Knowledge and Skills

Stress from lack of professional knowledge and skills during clinical placement present a distribution with mean of 8.70 and standard deviation of 4.66. The mean is higher than the median of 8.00 and the distribution is negatively skewed indicating high score as shown in Figure 3.

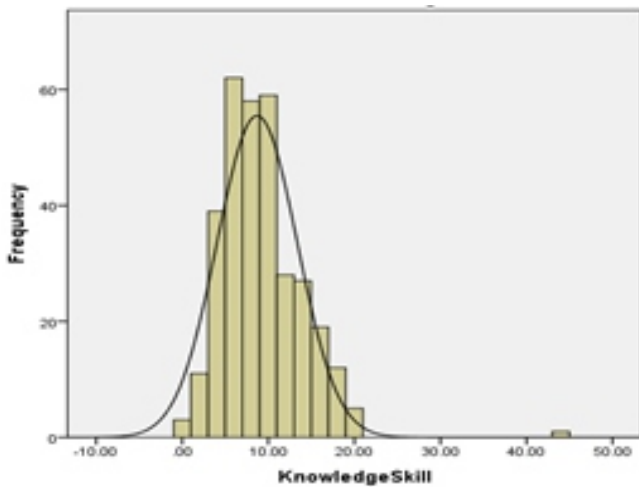


Figure 3: Distribution of Stress from Lack of Knowledge and Skills

(d) Stress from the Environment

Stress from environment among nursing students during their clinical placement shows a negatively skewed with mean score of 6.39 and standard deviation of 4.11. The mean is slightly higher than the median of 6.00 as presented in Figure 4.

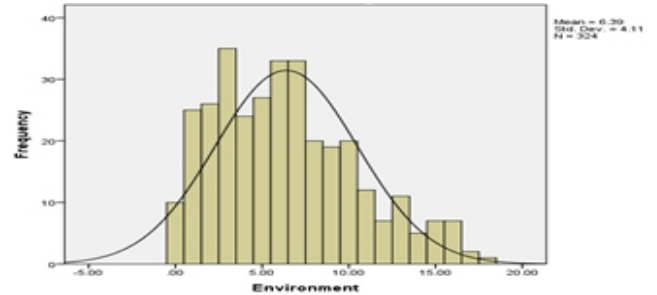


Figure 4: Distribution of Stress from the Environment

(e) Stress from Peers and Daily Life

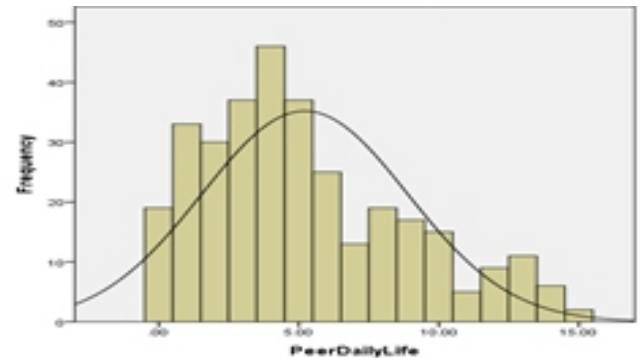


Figure 5: Distribution of Stress from Peers and Daily Life

Figure 5 shows the negatively skewed distribution of stress from peers and daily life with the mean score of 5.21 and standard deviation of 3.67 which is the mean is higher than the median of 4.00.

(f) Stress from Clinical Instructor and Hospital Staff

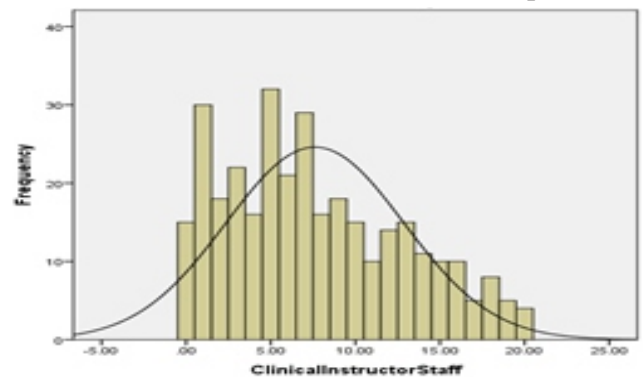


Figure 6: Distribution of Stress from Clinical Instructor and Hospital Staffs

Stress from clinical instructor and hospital staff among nursing students during their clinical placement shows a normal distribution with mean of 7.61 and standard deviation of 5.25. The mean is higher than the median of 7.00 as shown in Figure 6.

All the scores for the six stressors follow roughly a normal distribution which is the basic assumption to fulfill to enable use of inferential statistics.

Levels of stress

When the total score for stress is divided into three levels of stress were obtained; low, moderate and high.

Table 1: Frequency According to Stress Levels among Respondents

Level of Stress	Frequencies	Percentage
Low level of stress	1	0.3
Moderate level of stress	222	68.5
High level of stress	101	31.2
	324	100.0

Table 1 shows the frequencies according to the level of stress among KPTM nursing students during their clinical placement. Majority of KPTM nursing students had moderate level of stress with a total of 222 respondents (68.5%), followed by 101 respondents (31.2%) with high level of stress and only one respondent had low level of stress.

Correlation between stressors

Pearson correlation test is used to examine the relationship between all the stressors that are commonly occurring among nursing students during their clinical placement. Table 2 shows high correlations between stressors and stress

Table 2: Correlation between Stressors and Stress

	Patient	Workload	Knowledge & Skill	Peers & Daily Life	Environment	CI or Staff	Stress
Patient	1	0.696	0.572	0.523	0.550	0.477	0.767
Workload		1	0.643	0.639	0.642	0.651	0.856
Knowledge & Skill			1	0.581	0.641	0.570	0.810
Peers & DailyLife				1	0.709	0.746	0.835
Environments					1	0.726	0.856
CI & Staff						1	0.848
Stress							1

Main stressors among nursing students

The stressors were entered stepwise in the Linear Regression analysis.

Table 3: Main stressors

Stressor	R	R Square	Adjusted R Square
Environment	0.856	0.732	0.732
Environment & Workload	0.944	0.892	0.891
Environment, Workload & CI and staff	0.966	0.932	0.932
Environment, Workload, CI and staff & Knowledge	0.983	0.967	0.967
Environment, Workload, CI and staff, Knowledge & Patient care	0.995	0.990	0.989
Environment, Workload, CI and Staff, Knowledge, Patient care & Peers and daily life	1.000	1.000	1.000

Table 3 shows the important stressors that influenced stress among respondents. Both environment and workload were highly correlated with stress; Stepwise Linear Regression was done to determine the relative contribution of main stressors towards stress. Environment alone with R square value 0.732 contributed 73.2% towards stress while Environment with Workload with R square value 0.891 contributed 89.1% towards stress. Thus Environment and Workload were considered the main stressors that contributed to stress among nursing students during clinical placement.

DISCUSSION

Main Stressors

The outcome of this study indicates that from the total of 324 participants, the result show that the main stressors during clinical placement were from the environment and from the assignment and workload. The specific items related to this environment stressor were exposure to contagious diseases followed by feeling of stress due to the rapid changes in patient's condition. This is maybe due to the fact that students were still in the process of learning and the nursing student still lacked knowledge in how this contagious disease are spreading to others. They are worried and scared to handle the patient with contagious disease such as HIV, AIDS, Pulmonary Tuberculosis and other diseases that can spread to them. The clinical learning environment can influence nursing students learning process both positively or negatively and the environment that positively influences learning such a staff are happy, friendly with good morale and attitude,

cooperative and willing to teach and guide students to provide quality nursing care (Chuan & Barnet, 2012).

The stress from the assignment and workload had the same score like the environmental factors in this study. The most specific items that are related to this stressor were their concern about bad grades and feel that their performance does not meet clinical instructor (C.I) expectation. This is because clinical placement is the core subject in nursing that enables the student to prepare themselves to face the working challenge when they graduate. The second most stressful sub item was that the respondent felt that their performance doesn't meet their CI's expectation with the total of 92.5% of the respondent felt slightly stressful to extremely stressful. Every CI's has the different expectation towards their students. Students are stressed because in KPTM the nursing students are not supervised by the same CI throughout their three years in college. As a result student felt stressed as they are unable to cope with the different mode of teaching for different CI's.

When compared to previous study about main stressor that contributed to stress among nursing student in clinical placement, the study done by Sheu, Lin & Hwang (2002) find that the most common stressors were related to the lack of knowledge and professional abilities followed by taking care of patients. The specific item related to this stressful situations were lack of experience and inability to provide nursing care and diagnostics, lack of familiarity with history and medical terms and concern about poor grades. This is similar with the study done by Chan, So & Fong (2009) which reported that the most common type of stressors among their student was lack of knowledge and professional skill, followed by the stress due to the task and workload. This finding had some similarity with the present study. In addition, the study by Chan (2006) found that students are stressed because they lack professional knowledge and skill, followed by stress from assignment and workload and stress from taking care of patient. In other study, Kim (2003) stated in her study that clinical situation that caused higher level of anxiety among the students was the fear of making mistakes. In conclusion, different study in different country proven that the clinical practice was the stressful part in nursing education. Worry about grades is cited as a top source of stress for some students (Shaban, Khater & Akhu-Zaheya, 2012). Poor grades, not achieving their desired grades or not meeting CI's

and family expectation in this regard, can leave students feeling inadequate and risk for depression (Dzurec, Allchin & Engler, 2007). The stress associated with clinical practice occurred before, during and after the clinical day. Feeling unprepared was a common thread. Students not only felt anxious in anticipation of clinical practice but also thought about their clinical experiences after they were over (Chernomos & Shapiro, 2013). Students' experiences in a clinical learning environment may have profound impact on their learning both positively and negatively.

Stress Levels

The result showed that the KPTM nursing student had moderate level of stress during their clinical placement. Several studies have examined the level of stress among nursing students in clinical practice. The result show that the level of stress varies according to students' seniority, the types of nursing program and the particular specialties they are allocated to during their clinical placement (Kim, 2003). Furthermore, evidence from literature suggest that there is a gap in integrating theory to practice which has been of concern for a long time in nursing education. This impact on student's learning regarding clinical skills (Ip & Chan, 2005; Sharif & Masoumi, 2005; Kelly, 2007). Students become anxious and confused if they practice something different from what they learnt in the classroom (Sharif & Masoumi, 2005). This is because they are unable to apply the theory into clinical practice throughout their clinical placement. Learning takes place in the classroom and they only practiced in a simulation laboratory and they face the reality of nursing. According to various reports by occupational health institutions, stress affects almost every profession. However, levels of stress are higher and there are a greater number of sources of stress among health professionals, especially nurses (Lim, Bogossian & Ahern, 2010). Stress is a psychological factor that influences the academic performance and welfare of nursing students and has lead to development of a large body of research aimed at determining the levels and sources of stress in the training of future nurses (Polido-Martos, Agosto-Landa & Lopez-Zafra, 2011). Students who perceived a higher level of stress were more likely to have poorer physio-psycho-social health Lazarus & Folkman's (1984). Moreover stress can affect people's physical, psychological and social health if adaptation outcomes

cannot be achieved.

Factors Contributing to Stress

From all sub items in this study, the factor that really contribute to stress among KPTM nursing student come from their fear of making an error with a total of 97.1% of the respondent responses to slightly stressful to extremely stressful. This is followed by their tension about bad grade (95.1%), feeling that their performance does not meet CI's expectation, unfamiliar with patients' medical history and medical terms (90.4%) and lack of experience and ability in providing nursing care and in making judgments (90.1%). According to Polido-Martos, Augusto-Landa & Lopez-Zafra, (2011) three main groups of stressors have been identified of which the first one is academic stressors such as testing and evaluation, fear of failure in training and problem with workload, second is clinical stressors such as work, fear of making mistake and negative responses like death or suffering of patient; and the third stressors is personal or social stressors such as economic problems.

Stress and Demographic Data

The result showed that the year one and year three had a same level of stress during clinical placement. This is because of the year one students is new in this field and scared of handling the patient. But stress for the year three is because they are nearly to be qualified and the staff threats them as they are junior nurses. At this level they need to use their own critical thinking in order to complete the task given to them. They just need minimal supervision from the CI's and the high expectation from people around them can lead to stress. This finding is similar to finding from the study done by Chan (2006) which stated that in Hong Kong nursing students' overall mean score for stress was at moderate level because it may be due to inadequate preparation for clinical practice. Furthermore, the first year student might not be enough experienced in taking care of

patients with multiple health problems and handling unexpected circumstances in a clinical setting. Students might be afraid of making mistake and lack of confidence in taking care of patients.

The various clinical placement experiences also had the significant effect causing different levels of stress. The first experience in clinical placement reported to be stressful for the first year students especially the students in the first semester. This is because, nursing students, having entered school at the beginning of their adulthood, have almost no experience in being responsible for the health and well-being of others. Student found that the semester prior to graduation was the most stressful time in term of clinical practice. It can be seen that junior and senior nursing students experienced different level of stress in clinical learning. Furthermore, according to Yang (2013), as they are leaving the safe and supportive teaching environment of their school, they are placed into clinical environments that are perceived as unfamiliar and complex with diverse human relations they need to deal with. Such experiences can present difficulties in various aspects, since the students would need to deal with the nursing problems of their assigned patients in an unfamiliar environment, different from that of their school environment.

CONCLUSION

The outcomes of this study indicate that the nursing students of Kolej Poly-TechMara, Kota Bharu, Kelantanare mainly face the environmental and workload stress. But student's, academic, clinical and environmental stressors also have great impact on student's learning process. The study proposes that teaching and learning modalities and the workload of nursing students must be evaluated. Therefore further studies are necessary to understand stress factors upon nursing students for their better understanding of the nursing processes and for their professional development.

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