

ระดับความเครียดของนักศึกษาพยาบาลในประเทศไทย และเขตโมโจเกโต จุมบั้ง หมู่เกาะชวาตะวันออกของประเทศอินโดนีเซีย

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บทคัดย่อ

งานวิจัยเชิงวิเคราะห์นี้มีวัตถุประสงค์เพื่อเปรียบเทียบระดับความเครียดของนักศึกษาพยาบาลไทยและนักศึกษาพยาบาลอินโดนีเซียในเขตโมโจเกโต จุมบั้ง ตามปัจจัยเพศ ชั้นปี เกรดเฉลี่ย และที่อยู่อาศัย ผู้วิจัยนำข้อมูลระดับทุติยภูมิมาจากการวิจัยในนักศึกษาพยาบาลไทยจำนวน 330 คน และงานวิจัยในนักศึกษาพยาบาลอินโดนีเซียจำนวน 414 คน เครื่องมือเก็บข้อมูล คือ แบบสอบถามระดับความเครียดและข้อมูลทั่วไป ข้อมูลทั่วไปวิเคราะห์โดยใช้สถิติเชิงพรรณนา ความแตกต่างของระดับความเครียดระหว่างเพศและที่อยู่อาศัยวิเคราะห์โดยใช้สถิติ Student t-test ความแตกต่างของระดับความเครียดระหว่างชั้นปีและเกรดเฉลี่ยวิเคราะห์โดยใช้สถิติ ANOVA ผลการวิจัยพบว่า นักศึกษาส่วนใหญ่เป็นเพศหญิง (ร้อยละ 78.00) มีเกรดเฉลี่ยระหว่าง 3.00-3.49 (ร้อยละ 55.80) และอาศัยอยู่ในหอพักในสถาบันการศึกษา (ร้อยละ 52.00) ซึ่งนักศึกษาพยาบาลไทยทั้งหมดอาศัยอยู่ในหอพักวิทยาลัย ในขณะที่นักศึกษาพยาบาลอินโดนีเซียอาศัยอยู่ในหอพักของสถาบันเพียงร้อยละ 13.80 ผลการวิจัยยังพบว่า ระดับความเครียดระหว่างนักศึกษาเพศชายและเพศหญิงมีความแตกต่างอย่างมีนัยสำคัญ ($p < 0.05$) โดยนักศึกษาหญิงมีความเครียดสูงกว่านักศึกษาชาย แต่ไม่พบความแตกต่างของระดับความเครียดระหว่างนักศึกษาพยาบาลไทยและอินโดนีเซียที่มีชั้นปี เกรดเฉลี่ย และที่อยู่อาศัยต่างกัน จากผลการวิจัยดังกล่าว ผู้บริหารสถานศึกษา อาจารย์ และบุคลากรควรให้การบริการและการช่วยเหลือที่เหมาะสมกับเพศหญิง เพื่อช่วยให้จัดการกับภาวะเครียดได้อย่างมีประสิทธิภาพ

คำสำคัญ: ความเครียด ข้อมูลทั่วไป นักศึกษาพยาบาล ประเทศไทย ประเทศอินโดนีเซีย

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Stress levels in nursing students in Thailand, Mojokerto and Jombang district, East Java Indonesia

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ABSTRACT

This analytical study aimed to compare levels of stress of Thai and Indonesian nursing students related to gender, Year, Grade Point Average) GPA, and accommodation. Data were obtained from the study of 330 Thai nursing students and another study on 414 Indonesian nursing students. Instruments were assessment of stress level, and demographic data questionnaires. Demographic data were analysed using descriptive statistics. Differences of stress level between gender and accommodations were analysed using student t-test. Differences of levels of stress between Year and GPA were analysed using ANOVA.

This study shows that the majority of nursing students were female (78.00%). More than half of the participants (55.80%) has got GPA 3.00-3.49 and stayed on campus (52.00%). All Thai nursing students stayed on campus (100.0%) while there were only 13.80% of Indonesian nursing students staying on campus. There was a statistical significant difference of stress level between male and female nursing students ($p < 0.05$). There was no difference of levels of stress between Thai and Indonesian nursing students, and among year, GPA, and accommodations of all nursing students. The results of the study demonstrated a higher stress level in female compared to male nurses. Administrators, lecturers, and staff in nursing college/institute should provide special services and support for female nursing students in order to cope better with stress.

Key words: stress, demographic characteristics, nursing students, Thailand, Indonesia

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Introduction

Stress can occur in all age groups and caused by as a response to internal and external stressors. As a result, people have tension or suffering which affects their body and mind. In general, people will adapt themselves to stress and return to a steady state. On the other hand, stress can harm persons' physical and mental well-being, if they cannot adapt appropriately¹. People who repeatedly experience long term stress may become sick sometimes, including the immune system physically leading to hives, peptic ulcer, heart disease or hypertension. They may even die from those illnesses².

Nursing students face stressful conditions during their study. This includes intensive theoretical lessons, crowded classes, the negative behaviours of the nurses/doctors or the patients, fear of failure or making mistakes during the clinical practice, seeing a dying patient³, and workload⁴. These conditions affect the students and lead them to experience stress. A study about stress in Thai nursing students found that 50.50% had high level of stress⁵. A similar study in Indonesia found that 61.10%⁶ of nursing students had severe stress.

Praboromarajchanok Institute of Health Workforce Development (PIHWD), Thailand is operating 29 nursing colleges around the country. Nursing administration should investigate stress levels of students in order to adapt teaching and learning activities, as well as to set rules and regulations to help students explore their causes of stress and manage it. Therefore, the first three authors have conducted the study on the relationship between causes of stress, and levels of stress in nursing students in ten nursing colleges under the jurisdiction of

PIHWD, Thailand.⁷ The study found that 48.20% of nursing students had normal stress level. Around 38.00% had slightly higher stress level than normal. The study also revealed that stress was significantly related economic worries (80.30%), and time management problems (70.40%). Institutional rules and regulations had to impact on participants' stress levels (0.30%).

As a result of the previous study described above, the researchers have expanded the research on stress in Indonesia in collaboration with Stikkes and Poltekkes Majapahit Mojokerto, East Java. These institutes have signed collaboration with Boromarajonani College of Nursing, Changwat Nonthaburi to develop academic, educational, and research program. Therefore, a minor study following the main research was conducted in Mojokerto and Jombang District of East Java, Indonesia⁸. It aimed to investigate stress levels in nursing students in the area. The study found that 57.2% of nursing students had normal stress level. Thirty-two point one percent of students had slightly higher stress level than normal. The rest of the students had lower stress levels than normal.

Given that elevated stress levels in nursing students had been found, nursing administration should provide help and support for students to cope with and to manage stress. To continue the collaborative work on developing education for students, the data of stress levels and demographic characteristics of these two studies will be used to analyse and compare. As a result, the institutions will have a possibility to plan the policy to work collaboratively in providing help and support for nursing students in both countries.

Methods

Objectives:

1. To compare levels of stress between Thai and Indonesian nursing students.
2. To compare levels of stress between nursing students with different gender, GPA, Year class, and accommodations.

Design:

Analytical research study

Scope of the study:

The study examined levels of stress and demographic characteristics of nursing students of the nursing colleges under the jurisdiction of PIHWD, Thailand and Mojokerto and Jombang District, East Java Indonesia in the academic year 2014.

Samples:

Secondary data were extracted from the study on 330 Thai nursing students and another study on 414 Indonesian nursing students. In Thailand, there are 29 nursing colleges in five networks under the jurisdiction of PIHWD. The participants were selected using multi-stage sampling: (1) selecting 2 nursing colleges/network (by drawing), and (2) calculating the proportion of nursing students in each year class of each college by comparing the total sample size. For Indonesian participants, they were selected from seven nursing colleges in the district using simple random sampling by means of randomization percentage based on the number of students per institution.

Ethical consideration:

The two original studies have got ethical approvals from the Ethics Committee of Boromarajonani College of Nursing Changwat Nonthaburi Thailand (Number:

8/2014) and the Ethics Committee of Universitas Muhammadiyah Yogyakarta Indonesia (Number: 733/EP-FKIK-UMY/II/2015) respectively. The current study has got ethic approvals from the Ethics Committee of Boromarajonani College of Nursing Changwat Nonthaburi Thailand (Number: 9/2015).

Tools:

There were two instruments used in the two original research studies, the demographic data questionnaires and the level of stress questionnaires modified from the Stress Questionnaires of the Department of Mental Health, Thailand⁵. In Thailand, three nursing lecturers in mental health areas reviewed its validity. The questionnaires were then translated by a professional translator, to be used to collect data in Indonesia. The validation was done by three Indonesian experts, 2 psychiatrists, and 1 lecturer of mental health nursing department. Cronbach's coefficient alpha was used to assess the reliability of the questionnaires, which was 0.81 (Thailand) and 0.776 (Indonesia).

Data collection:

The researchers extracted stress levels and demographic data of nursing students of each country from the two original research studies' dataset.

Data analysis:

1. Extracted stress levels and demographic data were merged in order to compare differences of stress levels and demographic data.
2. Differences of stress levels between Thai and Indonesian nursing students and by gender and accommodation of nursing students were analysed using

student t-test. Differences of levels of stress between Year and GPA were analysed using ANOVA.

Results

The majority of nursing students was female (78.00%). More than half of nursing students (55.80%)

has got GPA 3.00-3.49 and stayed on campus (52.00%). All Thai nursing students stayed on campus (100.00%) while the majority of Indonesian nursing students stayed off campus (86.20%).

Table 1 Levels of stress of nursing students who had different gender, GPA, Year class, and accommodations.

Variables	Level of Stress								
	Thailand			Indonesia			Total		
	n	\bar{X}	SD	n	\bar{X}	SD	n	\bar{X}	SD
Gender									
Male	36	15.77	5.35	122	15.57	6.41	158	15.62	6.17
Female	294	17.36	7.14	292	17.66	5.90	586	17.51	6.55
Year class									
1	83	18.22	7.27	92	16.66	5.76	175	17.40	6.55
2	84	18.15	7.38	104	17.07	6.50	188	17.55	6.91
3	96	16.87	6.63	113	16.63	5.49	209	16.74	6.02
4	67	15.14	6.19	105	17.81	6.69	172	16.77	6.61
GPA									
2.00-2.49	5	16.20	6.14	0	-	-	5	16.20	6.14
2.50-2.99	99	16.94	6.97	8	16.00	5.31	107	16.87	6.85
3.00-3.49	161	16.70	6.72	254	17.12	5.96	415	16.96	6.26
3.50-3.99	65	18.83	7.55	152	16.99	6.46	217	17.54	6.84
Accommodations									
Off campus	0	-	-	357	17.17	6.41	357	17.17	6.41
On campus	330	17.19	6.98	57	16.28	3.82	387	17.05	6.61
Total	330	17.19	6.98	414	17.05	6.12	744	17.11	6.51

There was no difference between Thai and Indonesian nursing students, as shown in table 2.

Table 2 Differences of levels of stress between Thai and Indonesian nursing students.

Countries	n	\bar{X}	SD	Mean difference	t	p
Thailand	330	17.19	6.98	0.15	0.29	0.771
Indonesia	414	17.04	6.13			

There was a statistically significant difference between male and female nursing students ($p < 0.05$). Female nursing students had higher stress levels than male nursing students, as shown in table 3.

Table 3 Differences of levels of stress between male and female nursing students.

Gender	n	\bar{X}	SD	Mean difference	t	p
Female	586	17.51	6.55	1.89	3.36	0.001
Male	158	15.62	6.17			

** $p < 0.01$

There was no difference between each Year of nursing students, as shown in table 4.

Table 4 Differences of levels of stress between each Year of nursing students.

Stress levels	Sum of Squares	df	Mean Square	F	Sig
Between Groups	99.574	3	33.191	0.781	0.505
Within Groups	31459.715	740	42.513		
Total	31559.289	743			

There was no difference between each GPA group of nursing students, as shown in table 5.

Table 5 Differences of levels of stress between each GPA group of nursing students.

Stress levels	Sum of Squares	df	Mean Square	F	Sig
Between Groups	59.851	3	19.950	0.469	0.704
Within Groups	31499.438	740	42.567		
Total	31559.289	743			

There was no difference between nursing students who stayed on or stayed off campus, as shown in table 6.

Table 6 Differences of levels of stress between nursing students who stayed on or stayed off campus.

Accommodations	n	\bar{X}	SD	Mean difference	t	p
On campus	387	17.05	6.61	-0.11	-0.250	0.803
Off campus	357	17.17	6.42			

Discussion

The study found that there was no difference of stress level between Thai and Indonesian nursing students. This might be due to nursing education systems in Thailand and Indonesia being similar. The students studied in nursing programme for 4 years, eight semesters consisting of studying theory in classroom, laboratory, and field practice. They were required to have at least 2.00 for grade point average accumulative to graduate.¹⁰⁻¹¹

The study showed that there were significant statistical difference of stress level between male and female nursing students, female students having higher stress levels than male. Similarly, the study on stress sources and coping behaviors during initial period of clinical training of undergraduate nursing students found that there was a significant difference between female and male.¹² Female students had a higher level of stress than male students. The reason may be that males are normally do not like to discuss their concerns.¹³

In contrary, the results of public health undergrad students revealed that male and female students did not differ in stress level.¹⁴ Another study on university students' stress factors, and techniques and problems in managing stress showed that different personal characteristics did not lead to different amount of stress.¹⁵

The results of the study also showed that the stress level of students who were in different academic year, having different academic achievement, and those who stayed in different accommodations was similar. These results are similar to previous studies. The study on the relationship between stress and stress coping of

undergrad students revealed that students who were in different academic year had no significant difference of stress level.¹⁴ In addition, students who had different academic achievement had no significant difference of stress level. Another study in Indonesia also found that there was no significant influence on the level of academic stress and grades among nursing students.¹⁶ In contrast, nursing students who had low GPA had a higher stress level than those with high GPA.¹⁷ Moreover, students who stayed in different accommodations had no significant difference of stress level.¹⁶

Suggestions

The findings of the study could be reference for designing a strategies to prevent or reduce stress of nursing students. This applies specifically to student with high stress level and female gender.

1. Administrators and nursing lecturers should provide preventive stress intervention, stress management programme and support that fit with students' gender and stress levels. For example, increased family support is an effective tool.¹⁸

2. Further research should examine various demographic data related to stress levels as well as how to prevent stress.

Acknowledgement

The researchers would like to express sincere thanks to Praboromarajchanok Institute of Health Workforce Development, Thailand and Politeknik Kesehatan Majapahit Mojokerto, East Java Indonesia for

financial support. In addition, we are grateful for the Directors of Boromarajonani College of Nursing Changwat Nonthaburi Thailand and Politeknik Kesehatan Majapahit, Mojokerto Indonesia for their support.

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