ปัจจัยทำนายภาวะสุขภาพจิตของนักศึกษาพยาบาล
Factors predicting mental health in nursing students

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บทคัดย่อ:

วิจัยครั้งนี้เป็นการวิจัยเชิงสหสัมพันธ์เพื่อศึกษาปัจจัยทำนายภาวะสุขภาพจิตของนักศึกษาพยาบาลศาสตร
บัณฑิต กลุ่มตัวอย่างเป็นนักศึกษาพยาบาลศาสตรบัณฑิต ที่ศึกษาอยู่ในปีการศึกษา 2558 ในวิทยาลัยพยาบาล
แห่งหนึ่ง จำนวน 403 คน เลือกกลุ่มตัวอย่างแบบอย่างง่าย เครื่องมือวิจัยประกอบด้วยแบบสอบถาม วิเคราะห์
ข้อมูลโดยใช้สถิติบรรยาย จำนวน ร้อยละ ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐาน สถิติอ้างอิงเพื่อวิเคราะห์ปัจจัยทำนาย
ใช้วิเคราะห์การถดถอยพหุ ผลการวิจัยพบว่า ปัจจัยที่ร่วมกันทำนายภาวะสุขภาพจิตของนักศึกษาพยาบาลศาสตร
บัณฑิตอย่างมีนัยสำคัญทางสถิติ ได้แก่ เหตุการณ์ที่สร้างความยุ่งยากใจ สัมพันธภาพกับเพื่อนและความแข็งแกร่ง
ในชีวิต โดยสามารถร่วมกันทำนายภาวะสุขภาพจิตของนักศึกษาได้ร้อยละ 31 เหตุการณ์ที่สร้างความยุ่งยากใจ
และสัมพันธภาพกับเพื่อนมีความสัมพันธ์ทางลบกับภาวะสุขภาพจิต และความแข็งแกร่งในชีวิตมีความสัมพันธ์
ทางบวกกับภาวะสุขภาพจิต ผลการศึกษาครั้งนี้สามารถนำไปใช้พัฒนาแนวทางในการส่งเสริมสุขภาพจิตของ
นักศึกษาพยาบาล

คำสำคัญ: เหตุการณ์ที่สร้างความยุ่งยากใจ สัมพันธภาพกับเพื่อน ความแข็งแกร่งในชีวิต นักศึกษาพยาบาล

Abstract:

This correlation study aimed to investigate the factors that impact the mental health of nursing students.
403 nursing students studying in the academic year 2015 were recruited from a Thailand government school
for this research. Simple random sampling technique was used to recruit participants. Data were collected
using questionnaire and analyzed using descriptive statistics and multiple regression analysis. Findings of this
study revealed that the negative life events were a significantly positive correlation with poor mental health,
while relation with friends showed significantly negative correlation for mental health problems. Negative life
events, resilience, relation with friends are the factors responsible for 31 percent of mental health related
issues in nursing students. Based on this study, it is recommend that nurse lecturer should develop program
for the encouragement of mental health in nursing students.

keywords: negative life events, resilience, relations with friends, mental health, nursing students

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Introduction

Rapid changes in society, economy, politics, technology and environment around the globe demand everyone to adapt themselves quicly. Of particular interest for this study, undergraduate nursing students from institutions affiliated to Praboromarajchanok Institute of Heath Workforce Development (Ministry of Public Health) have been subject to these demanding changes happening around them. In addition to aforementioned challenges, students are also required to adjust to their age related mental changes. This includes adolescence transformation, increased responsibility to the society, new friends and their changing life environment. They also have to adapt to the life in the institution.[1-2] and professional learning in the college dormitory round the clock, in which theories must be put into practice in order to provide appropriate care for patients without any errors. These harsh demands may affect the mental health of nursing students.

Mental health is a health condition of human mind. Those with good mental health do not experience any symptoms of mental disorders and can easily adapt to problems and difficulties. The work demonstrated here can be beneficial to both nursing students and the society. Individuals with mental health problems were found to lack the ability to adapt to the problems of life and are prone to serious illness with various symptoms, including somatization, anxiety, depression, psychotic symptoms and social dysfunction.[3-4] Mental health in nursing students is dependent on several factors. As demonstrated in the literature review, the factors that impact mental health of nursing students are summarized below: (1) Negative life events, e.g., difficulty in

the course work, time pressure to complete the assignments before the deadline, preparation for examinations, and clinical nursing practice with patients at an unfamiliar environment. 2) Relationships between students and people around them such as family members, teachers and classmates. 3) Problems associated with playing various roles and managing conflicts among different roles. 4) Financial issues and 5) Health problems.[5] The factor that helps strengthen the minds of impacted students also helps them to effectively deal with problems and maintain a good mental health is "Resilience".

Resilience is the potential or the ability of a person to adjust to difficult situations that occur in their life, able to tackle those situations in quick time, and make better changes The development of Resilience starts from childhood[2,5-7] and continue to evolve. Several studies were conducted on resilience based on the concepts of Grotberg,[8] Which defines resilience an ability consisted of 3 main elements, namely, *"I have" "I am "and" I can "*. *"I have"* implicit an external resource supporting resilience, e.g. I am a person who is capable of providing support and encouragement to myself and I have a stable family and community. Prior studies found that students who had received support from family, friends and teachers had been subject to low stress in life. *"I am..."* stands for the inner residence of an individual (such as being proud of their own responsibility and actions). Examples of this category include, "I am being the person loved by everyone", "I am a person with a good temper", and "I am a person with self-esteem and ready to accept and respect others". The study found that those students who were proud of themselves and had the

ability to control emotions were able to adapt to the situation very well when subjected to critical situation. *"I can..." represents* the management skills that are useful in solving problems and interpersonal issues. For example: I can strive to do the work until it is accomplished, I can tell my opinions and my feelings to others, and I can find a solution or new ways of handling problems. The study revealed that students with the good skills in problem management were associated with low stress. Besides these factors, relations with friends also impact their mental health. Findings of the study illustrates a model of relationship among mental stress, anxiety, family atmosphere, hardiness in life that impacts mental health of nursing students. The research hypothesis was consistent with empirical data. Unpleasant events, family atmosphere, and mental strength in facing life explain the variance of mental health by 52 percent. Disruptive events have direct effects on life and mental health and indirect influence on mental health by influencing the mental strength in facing life.[1-2,5]

Relation with friends is the individual's behaviors in expressing themselves to friends in order to enable a good relationship through assistance, support, encouragement, and accepting individual differences and opinions. Since the nursing students studying in colleges affiliated to Praboromarajchanok Institute of Heath Workforce Development are required to live in dormitories provided by the institutions, relations with friends are built throughout their career. Students being successful or fail in life will depend on how they handle their relationship. Some people have good knowledge and high social status, but have inappropriate communication with their friends. This may lead to bad relations and led to awkward feeling, uncomfortable mindset, and lack of confidence. As a result, they either try to isolate themselves from society or fail in life [7]. Relation with friends depends on the perception of relationships and behaviors of adolescents expressing to their friends in order to achieve a good relationship.[7-8] Such behaviors are the expressions of an individual to interact with others with love, intimacy, harmony, good understanding, and mutual support. It also includes individual behavior to express the patience to live with other people, transition from independence to interdependence by having the patience to live with others including the ability to accept the differences between others and being generous. The transition from independence to interdependence includes trust, support, giving and receiving .The behaviors of adolescents are expressed through having relations with both type of gender. It is also considered from speech, gestures in helping each other, working together, and recognizing the differences of individuals.[9]

Negative life events, problems with friends, problems with partners, problems with teachers, problems with parents, problem with other students, problems with relatives / brothers, financial problems, problems with the learning process, and other health problems were negatively and significantly related to resilience ($p < .01$). Problems in learning, poor interest in subjects such as the difficulty of learning, managing multiple assigned workloads over a specified period of time, exam preparation, and practice with patients directly in an unfamiliar environment, and financial problems affect mental health, especially increase their stress levels.[5,7]

Previous research studies in Thailand and internation studies on the mental health of nursing students demonstrates that negative life events, relation with friends, and resilience are primary factors associated with mental health of nursing students. However, these factors have not been studied enough to predict mental health in nursing students At the College of Nursing Khon Kaen, a region located in northeastern Thailand, most nursing students and their parents are poor and do not have sufficient education. Therefore, the researchers were interested in studying the factors that are useful in predicting mental health of these nursing students. The results of the study have potential to act as an important basis for the development of programs to enhance mental health of nursing students and enable them to be better qualified personnel in the future. Herein we wanted to study the situation of nursing students as to how they are useful in predicting their mental health status and how they are different or in line with previous studies both in Thailand and abroad.

Objective

To investigate the factors predicting mental health in nursing students, including negative life events, resilience and relation with friends.

Hypothesis

Negative life events, resilience and relation with friends can be used to predict mental health in nursing students.

Methods

The sample of this correlational research was chosen from nursing students studying at a Nursing College in the Northeast region of Thailand. To have a deeper understanding of the situation, a population based research study was conducted. Because all nursing students stayed in dormitories of nursing colleges, it was easy to provide information to researchers. Simple random sampling technique was used to recruit 403 nursing students studying in the academic year 2015 (1st year – 4th year). The study was conducted in group and the questionnaire was given to students at the same time to prevent any leakage of questionnaire that may create prejudice to their assessment.

Protection on samples' rights

This research had been reviewed and approved by the human research ethics committee, Faculty of Medicine, Ramathibodi Hospital University; No. 2559/57. The permission to collect information was obtained from the Director of Nursing College before collecting the data. Before the data collection was administered jn each class, the researcher alternated the data collected in each year and had informed all the participants about the objective, the method of data collection and the rights to participate in the research. The participants were free to refuse or discontinue the participation and it would not give any impact on their study. The data collection using questionnaires was taken after the students signed the consent to participate in the study. The names of the participants were kept confidential. The researchers asked participants to answer to questionnaires in the classroom after school hours and their names were

not revealed. It took about 40 minutes. The partici-pants answered the questionnaires in the classroom after school and dropped them in the box provided. The overall data were presented at the end of the research study

Research tools and the quality of the research tools

The four standard tools developed by researchers in Thailand and widely used in Thailand are as below:

1. Thai Mental Health Questionnaire: TMHQ It was developed from Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) [3] It consisted of 70 questions used to measure mental health in 5 aspects: somati-zation: 10 questions, depression: 20 questions, anxiety: 15 questions, psychotic 10 questions, and social function: 15 questions. Each question consisted of choices representing the symptoms in 5 levels, in which 0 referred to not having symptoms while 5 referred to having severe symptoms. The interpretation was done by calculating the total T-score and then compared it to the benchmark T-score. The analysis of the cronbach's alpha coef-ficient are ranged from 0.82- 0.94 [3]. Also, the results of the confirmatory factor analysis of the negative life events revealed that the model was consistent with the empirical data variables. Mental health can be measured by the model ($2 = 1.27$, df = 2, p = .53, GFI = .99, AGFI = .99, RMSEA = .00).

2. The Negative Event Scale: It was adapted[4] from the Negative Event Scale created by Mayberry in 2003. This questionnaire consisted of 24 questions. Each question inquired about the

negative life events occurring in their everyday routines of students during the past month of their life. The choices in each answer started from zero which referred to the event that did not occur, 1 which referred to the event that had occurred, but with no troublesome and 5 referred to the event that had occurred with the most troublesome. The high score of the negative event referred to the high level of the negative life event. According to the use of this assessment with adolescents and students, Cronbach alpha coefficient was found to be 0.94[2,4] 0.96 – Moreover, the results of the Confirmatory Factor Analysis of the negative life events revealed that the model was consistent with the empirical data variables. Mental health can be measured by the model ($2 = 22.05$, df = 22, p = .46, GFI = .99, AGFI = 0.98, RMSEA = 0.00) and the negative life events variables had nwohs construct validity.

3. The Relation with Friends Scale: It was developed based on the concept discussed in Ninchen et al. work [7] There were 23 questions and were divided into 6 aspects: 1) assisting or supporting when friends need help, 2) giving and receiving 3) respecting the rights of others, 4) caring friends' feelings, 5) recognizing the differences of individuals and 6) listening to friends' opinions. The answers were a 5- rating scale with 1-5 points. The total score was 1.00 -5.00 points. Those with higher scores meant having a good relationship with friends while those with low scores meant having a poor relationship with friends. As per this questionnaire with 30 adolescents having similar qualifications with the samples, the cronbach alpha coefficient was 0.86.

4. The Resilience Inventory: It was developed [8] based on the concept of Grotberg, EH.

(1995) It consisted of 28 items with 3 components: 1) I have …, 2) I was …, and 3) I can do it…. The answers were a 5- rating scale with 1-5 points. The total score ranged from 28-140 points. Higher scores indicates higher resilience. As per this questionnaire with 30 adolescents having similar qualifications with the samples, the Cronbach alpha coefficient was found to be 0.89.

Data analysis

Analyze the characteristics of the samples and the variables in the study. Descriptive statistics was used. Parameters such as percentage, mean and standard deviation were used to analyze the data and inferential statistics were employed to analyze the predicting factors using multiple regression analysis.

Findings

Characteristics of the samples

For this study, a samples of 403 nursing students studying in 1st year - 4th year and enrolled in the academic year 2015 were recruited. They were willing to participate in the study and respond to the questionnaires. Most of them were females (92.6 percent) and aged from18 to 24 years. The average age was 21 (SD = 1.42). BMI was in the normal weight range (67.00 percent). They also had an adequate income (49 percent). Their parents still lived together (74.9 percent) and fought with each other for some time (77. 09 percent). Also, 15.60 percent indicated that in the past 12 months, they were upset or hopeless almost every day and stopped doing certain routine activities for two weeks or more and 1.5percent indicated that in the past 12 months, they seriously thought of committing suicide. The most negative life event of the samples was about the subjects they were studying which the average score was 9.53 and the standard deviation was 5.07, followed by the financial problem which the average score was 4.70 and the standard deviation was 4.37. Relatives caused the least negative life event. The average score was 2.04 and the standard deviation was 3.53. On the whole, the average score of resilience of the samples was 114.27 (SD = 11.83). Moreover, 55.6 percent of the samples have the score of resilience less than the overall average score and the samples having mental health were more likely to have the problem of somatization (33.8 percent) on the most of cased followed by anxiety (19.3 percent). The students who were more likely to have problems in social function was found to the least (1.3 percent. For the relation with friends, 77.4 percent had relation with friends in a good level and 18.8 percent of them had relation with friends at a moderate level.

Table 1: Factors predicting mental health in nursing students(n = 403)

Factors	Beta	t	p-value
Negative life events	0.36	6.57	<0.001
Relations with friends	-19.03	-5.85	<0.01
Resilience	-0.581	-3.40	<0.001
Constant (a) = 192.63, R=0.55, R^2=0.31, R2adj=0.30, F =50.54, <0.001			

According to the results of this study, the equation for predicting the factors impacts mental health of nursing students of standardization score was as the following.

Z (mental health) = 0.36Z (negative life event) – 19.03Z (relation with friends) –0.581 (resilience)

Findings of the study on factors predicting mental health in nursing students a preliminary agreement in using multiple regression analysis was tested in this study. The results of the analysis of the variables by Stepwise revealed that the factors predicting mental health of nursing students with statistical significance were negative life events, relation with friends and resilience. They could also jointly explain the variances of mental health as of 31 percent with a statistically significant level at 0.001 (Table 1). Negative life events had a significantly positive correlation with poor mental health while resilience and relation with friends had negative correlation to poor mental health, in other words showed a positive impact on good mental health.

Discussion

The findings of this study revealed that negative life events, relation with friends and resilience could jointly explain the variances of mental health as of 31 percent at a statistically significant level. Relation with friends and resilience were the factors having high power to predict mental health, followed by negative life events. Findings of this study were consistent with the previous studies which found that relation with friends, resilience and negative life events contributed to mental health of individuals.

Relation with friends the samples in this study were undergraduate nursing students studying in the institutions affiliated by Praboromarajchanok Institute of Heath Workforce Development, Ministry of Public Health. These institutions are focused on providing education that can produce graduates with multi learning capabilities who can work as a team and were ready to learn to step into the 21st century. The teaching was, therefore, designed for students to achieve cooperative learning, peer group and small group discussion. These teaching methods allowed the samples to have good relationships with friends leading to accepting and helping in learning, living, working and doing activities together. However, the study found that 1.5 percent of the samples indicated that in the past 21 months, they seriously thought of committing suicide. So, it was indicated that some samples had mental health problems that help was needed.[7,9-11]

The study also found that resilience also had power to predict mental health. The samples with high resilience were likely to have good mental health than those who had lower resilience. The samples with high "I have", "I am" and "I can" had normal mental health condition. Resilience is a person's ability to recover, maintain or strengthen the physical and mental health when facing with difficulties in life. This was consistent with the previous studies which found that the students who received social support (I have) such as support or help from family, friends, teachers had low mental health problems. The students with the skills to solve problems (I can) had a normal mental health condition which was consistent with the students who had high resilience (I am) that would well adapt to situations and had

low mental health problems. Strengthening life is the ability or potential of a person to stand up effectively in a stressful environment or situation, and to recover quickly, resulting in a good change in oneself and a better understanding of life. Teachers play an important role in facilitating and empowering learners. Organizing learning processes and designing activities that focus on the learner to practice to gain direct experience and confidence in the practice of nursing, both theoretical and practical, were found to be very helpful for the student. Belief and good attitude leads to proper practice. The instructor demonstrates to the learner, helping the student to fostering resilience and creating a conducive environment for caring relationships, high expectations, and opportunities to participate,[13] According to the findings, 1.5% of students have had suicidal thoughts in the past 12 months. Therefore, caring for learners with love and continuous care monitoring system (24 hours) through the process of having an advisor, house consultant in virtual family systems, nursing instructors in nursing colleges are very critical. These changes can help to find and help learners in a timely and appropriate manner, and to create a guideline for reviewing the instructor's knowledge of the counseling system.

Negative life events were in accordance with the previous studies which revealed that income affected the occurrence of negative life events. In this study, the samples had adequate income while studying in the college (49.00 percent) and it was the factor that had high power to predict mental health. The study found that insufficient income will make a person weak and schools should provide a system of demand surveys and financing for their livelihoods. Findings of this study showed that negative life events were important risk factors that contributed to poor mental health in the studied samples. However, the factors predicting the problems of poor mental health of the samples were relation with friends and resilience. These factors enhanced the samples to have good mental health. [12-14]

Recommendations

The finding of this study showed that negative life events and relation with friends had a significantly negative correlation with mental health while resilience had shown significant positive impact on mental health. Therefore, Institutions should provide a campus environment that is conducive to student learning. They should study the development of activities to promote the prevention of mental health problems for students. The nursing program should provide measures to help nursing students to build relations with friends, develop programs to promote resilience of nursing students and support them with assistance that can respond to the problems and obstacles in life such as support for education or funding resources.

Acknowledgement

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