

The Effect of Developing an Emotional Resilience Enhancement Program to Reduce Stress in Nursing Students at Nakhon Pathom Rajabhat University

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Abstract

Stress is a mental health problem that has increasingly become more severe. This study aimed to examine the effects of an emotional resilience enhancement program on reducing stress among students at Nakhon Pathom Rajabhat University. This study employed a quasi-experimental design. The sample consisted of 168 nursing students from the first to third years at Nakhon Pathom Rajabhat University. Data were collected using the Suanprung Stress Test-20 (SPST-20) from the Department of Mental Health. The experimental tool designed for this study was an emotional resilience enhancement program based on Grotberg's concept, comprising four activities: stress-relief podcasts, motivation-building, self-empowerment, self-encouragement, and stress-relief meditation. The research team collected data using the Suanprung Stress Test-20 (SPST-20) before and after participation in the program. The data were analyzed using Excel, and the results were evaluated using a Paired Samples t-test to compare stress levels before and after participation in the program. The findings revealed that the emotional resilience enhancement program significantly reduced stress among participants, with statistical significance at the .05 level. The study suggests that the emotional resilience enhancement program effectively reduces stress and may be applied to students in other settings.

Keywords: Nursing Students, Emotional Resilience Enhancement Program, Stress Levels.

Introduction

Mental health issues or psychological conditions manifest through changes in thoughts, emotions, and behaviors, leading individuals to lose the ability to adapt to their society and environment, resulting in an inability to live a normal and healthy life (Department of Mental Health, Ministry of Public Health, 2019). Currently, mental health problems are significant issues impacting society and the economy, (WHO, 2022). and their prevalence is increasing globally. Most mental health issues begin to develop during adolescence, a period marked by both physical and psychological changes. Adolescents undergo rapid physical growth, both externally and internally, particularly in hormonal systems and body shape changes, which can lead to what is termed "storm and stress." This period can manifest as aggression and mood swings. Furthermore, adolescence is a crucial period for social development, during which individuals seek their identity to build self-confidence and gain acceptance from others.

The Department of Mental Health has noted that common mental health issues, such as stress, anxiety, and depression, may stem from various factors, including social, psychological, and biological factors. Psychological factors include psychological processes, such as thought processes and internal mental processes resulting from facing difficult life situations (Stikkelbroek et al., 2016). Accumulated stress is also a significant contributor. Socio-demographic factors such as gender, race, age, and family status also play a role (Narmandakh et al., 2021). Biological factors include genetics, (Shadrina et al., 2018). hormonal changes during reproductive age, (Lewis et al., 2018) and neurotransmitter changes (Straub et al., 2019).

Psychological Factors was psychological processes, such as thought processes and internal mental processes resulting from facing difficult life situations, (Stikkelbroek et al., 2016) as well as accumulated stress are significant contributors. Socio-demographic factors such as gender, race, age, and family status

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(Narmandakh et al., 2021) also play a role. Biological factors include genetics, (Shadrina et al., 2018) hormonal changes during reproductive age (Lewis et al., 2018) and neurotransmitter changes (Straub et al., 2019)

The current global society is highly competitive, impacting human life in various dimensions, including physical, mental, emotional, social, and spiritual aspects. This constant need for adaptation leads to stress, a mental health problem that has been increasingly severe over time. Data from surveys indicate that 89% of the global population is affected by stress, (Cigna, 2021). which in turn causes other chronic health issues. Currently, students are experiencing rising levels of stress and mental health problems, as global statistics show an increasing trend each year. According to surveys conducted in Thailand, the country ranks 5th in the world for high stress levels out of 23 surveyed countries, with 62% of Thai people admitting to being stressed (Department of Mental Health, Ministry of Public Health, 2019). This percentage is higher than the global average of 84% and continues to increase annually. Specifically, a survey of students in Nakhon Pathom province revealed that 33.69% are experiencing stress, (Department of Mental Health, Ministry of Public Health, 2019) highlighting a pressing issue that requires preventive and corrective measures among students, who are vital future resources.

Nursing students at the university are a group with high-stress levels. Students aged 18-22 are adapting to various changes, such as moving from living with parents to living in dormitories and adjusting to the academic environment and curriculum. This adjustment period can lead to stress due to heavy coursework and practical training under pressure and expectations from family and others, resulting in higher stress levels than other professional groups (Srinuan, 2019). The nursing curriculum includes both theoretical and practical components, preparing nursing students to be competent in both academic and practical skills, in line with the standards of the Nursing Council. The stress problem among nursing students at Nakhon Pathom Rajabhat University is becoming increasingly severe and widespread. Preliminary surveys indicated that students at Nakhon Pathom Rajabhat University face stress, anxiety, and depression. Some students had to take a break from their studies, struggled to adapt to their peers, waited to re-enroll, or sought medical consultation for medication and continuous monitoring due to rising stress levels among adolescents (Srinuan, 2019).

A study by the Department of Mental Health (2024) revealed that 35.1% of high school students experience high levels of stress. Additionally, 60.6% of university students in some institutions reported feeling stressed (Department of Mental Health, Ministry of Public Health, 2019). Therefore, the research team is interested in studying the stress levels among nursing students to understand the basic characteristics and stress levels across different academic years and demographic variables. This information will be useful in organizing the educational process and developing nursing students at Nakhon Pathom Rajabhat University to successfully achieve optimal mental health, preventing and efficiently addressing more complex mental health problems..

These issues arise from internal factors of individuals, thus we utilized Grotberg's theory of emotional resilience and self-value enhancement, adapting its components appropriately within each aspect of the program. Psychological Aspect (I have): We incorporated self-care autonomy to improve the participants' ability to care for themselves better. Self-esteem Aspect (I am): Emphasizing self-esteem to boost personal pride and motivation. When adolescents realize their importance, they gain self-pride, believe in their abilities and achievements, and resist letting others devalue them. This self-awareness helps them navigate life challenges. Additionally, fostering hope, faith, and confidence encourages responsibility and moral integrity, contributing to a positive self-concept. Capability Aspect (I can): Managing emotions and stimuli to better control responses in various situations, reducing stress triggers. Studies indicate that nursing students often feel stressed due to self-imposed pressure. By introducing stress management models, students can develop better stress coping behaviors, thereby improving their social adaptability (Grotberg, 2003).

Research on emotional resilience has been widely conducted for its preventive and therapeutic benefits in adolescent psychiatric issues, both domestically and internationally. For instance, training programs to enhance emotional resilience have shown reductions in anxiety (Sangsai et al., 2020). and depression, as

well as suicidal tendencies (Dubow, 2016). Moreover, resilience-building methods help adolescents avoid risky behaviors and handle conflicts appropriately during crises without resorting to aggression. An update of the recent literature search identified 25 studies consistently demonstrating that greater resilience is linked to fewer mental health issues. Factors influencing resilience encompass social, cultural, family, and individual aspects, supporting the multisystem approach of recent resilience theories. Such as adolescents involved in the programs exhibit increased self-esteem, emotional strength, positive outlook towards others, better understanding and acceptance of peers, and improved decision-making (Mesman, 2021) Recognizing the importance of stress management for first to third-year nursing students, this research aims to develop an emotional resilience enhancement program to reduce stress levels among nursing students at Nakhon Pathom Rajabhat University.

Objectives

This study aimed to examine the effects of an emotional resilience enhancement program on reducing stress among students at Nakhon Pathom Rajabhat University.

Methods

Study Design and Participants

This study utilized a quasi-experimental design, specifically a one-group pretest-posttest study design, to measure outcomes before and after the intervention was conducted with 168 nursing students from the 1st to 3rd year. The study was conducted from April to June 2024. Inclusion criteria included nursing students aged 18 years or older from first to third-year at Nakhon Pathom Rajabhat University during the academic year 2023, with a score of 24 or higher on the Suanprung Stress Test-20 (SPST-20) (Department of Mental Health, Ministry of Public Health, 2016). Willing to participate in the entire research process. Exclusion Criteria included Nursing students who do not complete the program at least four times as stipulated by the researchers and a score of 62 or higher on the Suanprung Stress Test-20 (SPST-20) or experiencing severe stress during the program who require referral for close supervision by a psychiatrist.

Data Collection Methods / Research Instruments

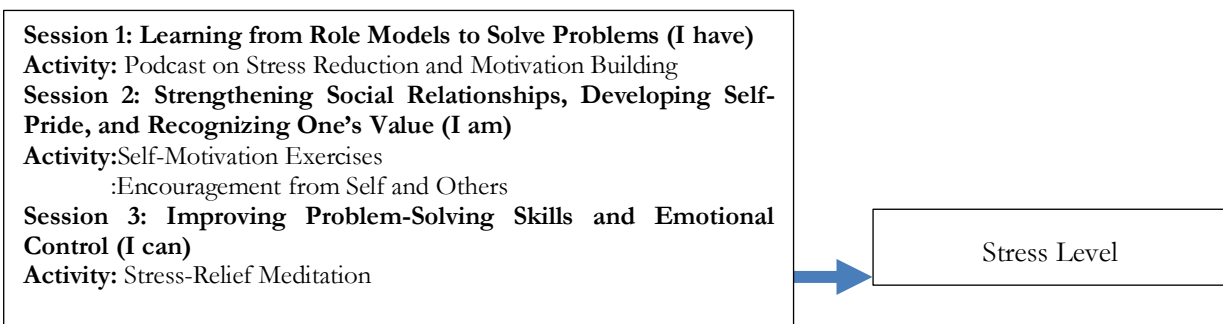
The researcher established agreements and explained the research objectives and procedures to the sample group, and had them complete a stress assessment before participating in the program. The emotional resilience enhancement program was conducted according to the predetermined activities, with each session lasting 60 minutes, held twice a week for 6 weeks, totaling 1 month and 2 weeks.

A questionnaire on demographic characteristics as well as the MFI and the MSQ were used to collect the study data. The demographic characteristics questionnaire included questions on participants' gender, marital status, education level, age, and Cumulative Grade Point Average (GPA). The SPST-20 from the Department of Mental Health, consisting of 20 items is self-administered questionnaire for assessing stress test. An emotional resilience enhancement program created by the researcher based on Grotberg's concept. Emotional resilience refers to the ability to recover mentally after facing stress. It stems from three key benefits: what one has (I have), what one is (I am), and what one can do (I can). Promoting emotional resilience involves fostering the belief in one's capabilities, significance, and empowerment, which enhances life skills and problem-solving abilities. The program consists of four activities, each lasting different durations. Activity 1: 55 minutes. Activity 2: 1 hour and 10 minutes. Activity 3: 1 hour and 35 minutes. Activity 4: 55 minutes. Activities were conducted once a week for four weeks.

The questionnaire and research instruments were reviewed by three experts to ensure content validity (IOC). The experts suggested modifications to align the content with the sample group. The resulting IOC score was 0.76.

Intervention

The emotional resilience enhancement program was implemented as follows: Activity 1: Stress-relief podcast and motivation-building. Students listened to one podcast daily and summarized key takeaways. Activity 2: Self-motivation. Students closed their eyes, took deep breaths, recalled difficult events, and answered questions about who helped them and how they overcame those events. Activity 3: Encouragement from others. Students wrote down statements that caused stress, reflected on how they would rephrase them to reduce stress, listened to audio clips, and selected their favorite quotes, explaining why they liked them and providing personal motivational quotes. Activity 4: Stress-relief meditation and mindfulness. Students practiced meditation and mindfulness, recited mantras before meditation, meditated, and recited a prayer of loving-kindness for themselves (Duar), and all beings. After completing the program, students were reassessed using the same stress assessment tool.

Research Framework*Ethical Considerations*

This study was approved by the Human Research Ethics Sub-Committee, approval number 040/2566. All nursing students provided written informed consent, and were informed of the purpose of the study. The researcher assured the nursing students of voluntary participation, anonymity, and the right to withdraw from the study at any time. All methods were conducted in compliance with the relevant ethical guidelines and regulations. All documents and data would be securely stored by the research team.

Data Analysis

The data collected from the questionnaires were analyzed using Excel, employing Paired Sample t-tests to evaluate the effectiveness of the intervention.

Results

The development of the emotional resilience enhancement program to reduce stress among nursing students at Nakhon Pathom Rajabhat University is presented in three sections, as detailed below.

Data Analysis of the Sample Group

The study revealed the following general characteristics of the sample group. The majority of participants were female (N=151), accounting for 89.88%. Most participants were first-year students (N=61), representing 36.30%. The majority of participants were aged 18-20 years (N=146), comprising 86.90%. The most common GPA range was 2.51-3.00 (N=69), which is 41.07%. Most participants lived in dormitories (N=165), representing 98.21%. The most common income range was 5,000-10,000 baht (N=89), accounting for 52.98%. Most participants reported that their parents lived together (N=128), making up

76.19%. The majority rated their relationships with friends as very good (N=90), representing 53.37%. Details are provided in Table 1.

Table 1. General Information of the Sample Group (N = 168)

General Information	General Information	General Information
Gender		
Male	17	10.12
Female	151	89.88
Total	168	100.00
Academic Year		
Year 1	61	36.30
Year 2	58	34.52
Year 3	49	29.18
Total	168	100.00
Age		
18 - 20 years	146	86.90
21 - 23 years	14	8.34
Over 24 years	8	4.76
Total	168	100.00
Cumulative GPA		
1.50 -2.00	2	1.19
2.01 – 2.50	19	11.31
2.51 – 3.00	69	41.07
3.01 – 3.50	60	35.76
3.51 – 4.00	18	10.07
Total	168	100.00
Residence		
Total	165	98.21
Dormitory	3	1.79
Total	168	100.00
Economic Status (Average Monthly Income)		
Less than 5,000 Baht	66	39.29
5,001 – 10,000 Baht	89	52.98
10,001 – 15,000 Baht	9	5.36
More than 15,001 Baht	4	2.38
Total	168	100.00
Family Relationships		
Parents living together	128	76.19
Living with mother or father	20	11.90
Parents divorced	7	4.17
Father or mother deceased	9	5.36
Parents separated	2	1.19
Living with relatives or guardians	2	1.19
Total	168	100.00
Peer Relationships		
Very Good	90	53.37
Good	68	40.47
Fair	10	5.96
Total	168	100.00

Section 2: Comparison of SPST-20 Stress Assessment Results Before and After the Emotional Resilience Enhancement Program

The sample group before the Emotional Resilience Enhancement Program had a high stress level (N=129) at 76.78%. After participating in the program, the high stress level decreased (N=112) to 66.66%. This indicates a real reduction in stress levels after participating in the program, as detailed in the respective tables.

Table 2. Number, Percentage, and Interpretation of Stress Assessment (SPST-20) Results of the Sample Group Before-After Participating in the Emotional Resilience Enhancement Program (N = 168)

Stress Assessment (SPST-20)		Before		After	
Score Range	Number (People)	Percentage	Number (People)	Percentage	Interpretation
Below 23	3	1.78%	9	5.37	Low stress level
24 – 41	36	21.42%	47	27.97	Moderate stress level
42 – 61	129	76.78%	112	66.66	High stress level
Total	168	100.00%	168	100.00	

Table 3. Average Stress Scores Before and After the Emotional Resilience Enhancement Program

Activity	N	Mean	Std. Deviation	Std. Error Mean
After Activities	168	33.64	11.95	2.22
Before Activities	168	40.40	12.54	1.61

The comparison of stress levels before and after the emotional resilience enhancement program, which included activities such as stress-relief podcasts, self-motivation, self-encouragement, and stress-relief meditation, yielded a t-test statistic of 1.14. The alternative hypothesis was accepted, indicating that after participating in the emotional resilience enhancement program for four weeks, there was a significant reduction in stress levels at the 0.05 level, as detailed in Table 4

Table 4. Paired Samples t-test Results

	Paired Differences							
				95% Confidence Interval of the Difference				
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
After Activities - Before Activities	6.89	0.58	0.60	2.43	4.87	1.14	167	.000

P>.05

The Results

The results indicate a reduction in high stress levels among participants after undergoing the program, demonstrating the program's effectiveness in lowering stress levels. Further details are available in Tables 2 which compare the stress assessment results before and after the program.

When comparing the stress levels before and after participating in the emotional resilience enhancement program, it was found that the average stress level was 40.40 before the program and 33.64 after the program. Initial agreement checks yielded Zskewness = 0.38, Zkurtosis = 1.27, and Kolmogorov-Smirnov = .131 (sig = 0.199), indicating that the dependent variable distribution closely approximated a normal curve. The relationship between pre- and post-program stress levels was statistically significant ($r = .578$, sig = .000). The initial data confirmed the appropriateness of using the Paired Samples t-test for analysis, as shown in Table 4.

Discussion

The research findings indicated that factors related to stress included gender, monthly income, family relationships, academics, romantic relationships, economic status, social factors, and environmental factors. These factors were moderately related to stress levels (Tran, 2018). The results showed that all these factors were interconnected with the factors that helped reduce stress after receiving the emotional resilience enhancement program (Volanen, 2020). The most common stress management strategy was attempting to relieve stress through activities such as listening to music, playing games, watching movies, and encouraging themselves that everything would be okay. A systematic review and meta-analysis of resilience training programmes and interventions found that mindfulness-based interventions or mixed Interventions, those combining CBT and Mindfulness training were positive effect of resilience to reduce stress (Joyce, 2018; Toqan, 2023). Highlighted that factors affecting student stress during clinical practice included relationships and communication, lack of knowledge, supervision style, and relationships with instructors (Toqan, 2023). However, after implementing the Flipped Classroom preparation program, stress levels decreased significantly (Admi, 2018).

Comparing the average stress scores of the sample group before and after the emotional resilience enhancement program, the average score decreased from 40.40 to 33.64. This indicates that the average stress level of the sample group significantly decreased after participating in the program. The program provided students with experiences and understanding that helped them meet the program's objectives accurately, leading to improved emotional resilience and reduced stress (Liu, 2021; Aryuwat, 2023). These results align with the study by Chiangkhuntod (2019). Another study by Suwatthana, C and team (2019) examined the short-term effects of meditation on stress reduction among 4th and 5th-year medical students at Nakornping Hospital. The research found a significant reduction in average stress scores from 42.21 to 36.95 ($P = .029$).

highlighted that the program enhanced participants' feelings of having three key benefits: what they have (I have), what they are (I am), and what they can do (I can). Participants felt that they had supportive families, were aware of their emotions, and felt proud and capable of solving problems through relaxation techniques and breathing exercises. The study found a significant reduction in stress levels after the program, suggesting that the emotional resilience enhancement program effectively reduces stress and may be applied to students in other faculties (Masten, 2021). These findings demonstrate that the emotional resilience enhancement program effectively reduced stress among the nursing students, corroborating similar results in other studies.

Recommendations

- **Educational Institutions:** The emotional resilience enhancement program may be extended to reduce stress among students in other faculties with both theoretical and practical courses.

- **Nurses:** Nurses can use the emotional resilience enhancement program with patients to reduce stress or organize groups to implement the program for patients.
- **Healthcare Services:** The emotional resilience enhancement program may be adapted for activities with target groups to prevent future mental health issues.

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