

ผลของโปรแกรมการสร้างอารมณ์เชิงบวกต่อความสุขของผู้สูงอายุ

The Effects of a Positive-Emotion-Enhancing Program on the Happiness of the Elderly

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บทคัดย่อ

การวิจัยครั้งนี้เป็นการวิจัยกึ่งทดลองแบบสองกลุ่ม วัดสองครั้งก่อนและหลังทดลอง มีวัตถุประสงค์เพื่อศึกษาผลของโปรแกรมการสร้างอารมณ์เชิงบวกต่อความสุขของผู้สูงอายุ กลุ่มตัวอย่างคือผู้สูงอายุ อายุตั้งแต่ 60-79 ปี ทั้งเพศชายและหญิง อาศัยอยู่ในอำเภอเมืองหนองบัวลำภู จังหวัดหนองบัวลำภู และมีคุณสมบัติตามเกณฑ์ที่กำหนด จำนวน 62 คน โดยการสุ่มตัวอย่างแบบอย่างง่าย แบ่งเป็นกลุ่มทดลอง 31 คน และกลุ่มควบคุม 31 คน กลุ่มทดลองได้รับโปรแกรมการสร้างอารมณ์เชิงบวกที่สร้างขึ้นโดยผู้วิจัย ตามทฤษฎีการขยายและเสริมสร้างอารมณ์เชิงบวก เป็นระยะเวลาการทดลอง 10 สัปดาห์ และกลุ่มควบคุมได้รับการดูแลตามปกติจากโรงพยาบาลส่งเสริมสุขภาพตำบล ได้แก่ การตรวจคัดกรองสุขภาพ การตรวจรักษาพยาบาลกรณีเจ็บป่วย เป็นต้น ประเมินผลโดยใช้แบบประเมินความสุขอ็อกซ์ฟอร์ด วิเคราะห์ข้อมูลโดยใช้สถิติเชิงพรรณนาและสถิติทดสอบค่าที

ผลการวิจัยสรุปได้ ดังนี้ 1) ค่าเฉลี่ยคะแนนความสุขของผู้สูงอายุกลุ่มทดลองภายหลังการทดลอง สูงกว่าก่อนการทดลอง อย่างมีนัยสำคัญทางสถิติที่ระดับ .001 2) ผลต่างของค่าเฉลี่ยคะแนนความสุข ระหว่างก่อนและหลังได้รับโปรแกรมการสร้างอารมณ์เชิงบวกของกลุ่มทดลอง สูงกว่ากลุ่มควบคุม อย่างมีนัยสำคัญทางสถิติที่ระดับ .001

สรุปได้ว่า โปรแกรมการสร้างอารมณ์เชิงบวกทำให้ผู้สูงอายุมีอารมณ์เชิงบวกเพิ่มขึ้น มีทักษะในการกำจัดการณ์เชิงลบ และมีความพึงพอใจในชีวิต ซึ่งสิ่งเหล่านี้คือองค์ประกอบของความสุขในผู้สูงอายุ

คำสำคัญ: อารมณ์เชิงบวก, ความสุข, ผู้สูงอายุ, การส่งเสริมสุขภาพจิต

Abstract

This Quasi-experimental research had a two-group pretest-posttest design. The objective of the study was to examine the effects of a positive-emotion-enhancing program on the happiness of the elderly. The subjects used in this research were older adults aged 60-79 years living in Mueang Nong Bua Lamphu District, Nong Bua Lamphu Province in Thailand. Thus, 62 people were divided into the experimental and control groups with 31 participants each. The experimental group received the positive-emotion-enhancing program developed by the researcher according to Broaden-and-build theory of positive emotions once a week for 90 minutes

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each over ten weeks. The control group received the routine nursing care of the district health promoting hospital, such as health screening and medical examination for illness, etc. were assessed using the Oxford Happiness Questionnaire. Data were analyzed using descriptive statistics and t-test statistics.

The findings can be summarized as follows: 1) The mean happiness scores of the elderly in the experimental group that participated in the positive emotion enhancing program after the experiment was higher than their pretest scores with statistical significance at .001. 2) The mean difference between pretest and posttest in the mean happiness scores of the experimental group was higher than those of the control group with statistical significance at .001.

In conclusion, the positive-emotion-enhancing program increased positive emotions, negative emotions elimination skills, and life satisfaction, which are components of happiness in older people.

Keywords: positive emotions, happiness, elderly, mental health promotion

Introduction

Modern global society has become an aging society, and Thailand is no exception. Furthermore, according to a 2021 survey of the elderly population, more than 13 million people, or 19.6% of the country's population, are expected to fully enter an aging society in 2023. A fully aged society means that the elderly population accounts for 20% of the entire population.¹ Elderly people are mentally vulnerable.² Because the elderly have to experience degenerative changes in many aspects, both physically, mentally and socially. Physically, degeneration occurs in all organs and systems. As a result, older people are exposed to chronic diseases, while changes in society, such as changing social roles and the inability to pursue a career, also occur. If the elderly is unable to adapt to these changes, the situation can affect the mind, causing many negative emotions, such as feelings of worthlessness in depending on others.³ These findings are consistent with the 2021 Survey of Happiness Levels of Thai Elderly People, which found that 35.5% of seniors have low to moderate levels of happiness.¹

Happiness refers to feelings a person self-appraisal based on perceived overall life satisfaction, perceived positive emotions such as fun,

joy pride Inspiring and no perceived negative emotions.⁴ When a person is happy, the person gains self-awareness with a sense of self-worth and optimism for their futures.⁵ It has also been found that being happy makes a person healthier and live longer.⁶ It can be concluded, therefore, that happiness is important for individuals of all ages and derived from the creation of positive emotions, particularly among the elderly who are exposed to degenerative changes in many ways, including physical, mental and social changes.² Happiness is also what older people need most at the end of their lives.⁷ It is absolutely necessary, therefore, to promote good mental health, which will lead to good health overall.

Positive emotions are good feelings formed by cognitive perceptions of one thing through cognitive processes. Their value is assessed based on experiences and expressed as positive behaviors (Action), such as joy, gratitude, serenity, interest, hope, pride, amusement, inspiration, awe, and love.⁸ According to Fredrickson's broaden-and-build theory of positive emotions,^{8,9,10,11,12} the following components are involved: 1) cognitive and positive emotions 2). Stimulating positive emotions. 3) Coping skills and 4) social support in which a person perceives social support, develop stable emotions,

be motivated to solve problems, and minimizes stress.^{13,14} When a person perceives positive emotions, the field of thought will widen in the form of creativity and collective thinking as the person embraces new information and expands perspectives on events in a broader context. On the contrary, negative emotions narrow a person's thoughts and actions. As a person perceives positive emotions, the person will not be able to recognize any negative emotions, so it is said that having a positive mood reduces exposure to negative emotions and the impact of negative events.^{7,8,9,10,11} Positive emotions are also linked to dopamine levels in the brain, resulting in higher levels of dopamine.¹⁵ where dopamine stimulates positive feelings and enhances concentration. Sensitivity to stimuli in the surrounding environment makes it easier for a person to experience success, thereby resulting in feelings of life satisfaction¹⁶ in which a person has positive emotions and is free from negative emotions. Thus, the person has a certain satisfaction in life. In other words, he/she is a happy person.⁴

Several previous studies have been studying the ability of positive emotions. For example, a study of the emotional impact of positive events on happiness found that people's perception of positive emotions emanating from momentary positive events can increase a person's level of happiness.¹⁷ A study of the influence of positive mood on the balance between cognitive stability and resilience found that positive mood was positively correlated with cognitive stability and resilience, with increased dopamine in the brain.¹⁸ Studies have shown that positive emotions influence a person both physically and mentally. The psychological aspect of positive emotions decreases the person's perception of negative emotions, thereby increasing happiness levels. Therefore, encouraging individuals to have positive emotions is essential for all age groups, especially

the elderly whose happiness tends to decrease gradually as they age.¹⁹

Nong Bua Lamphu Province has a large elderly population with 15.5% of the province's population. Most of the elderly live alone because their working-age children have to work outside the area, causing them to feel lonely.²⁰ Loneliness is a negative emotion that decreases happiness and quality of life for the elderly.²¹ Therefore, the researcher designed a program to promote positive emotions to promote happiness in the elderly in Nong Bua Lamphu Province to promote well-being at the end of life and a better quality of life.

Research Objectives

1. To compare the pre- and posttest happiness of older adults in the experimental group who received a positive emotion-enhancing program.
2. To compare the posttest happiness of the elderly in the experimental group after receiving the positive emotion-enhancing program with that of the control group receiving routine nursing care.

Research Hypotheses

1. The mean happiness scores of the elderly in the experimental group that participated in the positive emotion enhancing program after the experiment were higher than before receiving the positive emotion program.
2. The mean difference between the pretest and posttest in the mean happiness scores of the experimental group participating in the positive-emotion-enhancing program was higher than the control group.

Conceptual framework

According to Fredrickson's broaden-and-build theory of positive emotions, the following components are involved: 1) cognitive and positive

emotions in which cognition determines the emotions occurring in different situations and causes different emotions to occur;²² 2) Stimulating positive emotions creates positive emotions and positive experiences.²³ 3) Coping skills are the cognitive and behavioral methods of a person used to deal with personal needs, aiming to correct the causes of stress or distressing emotions, and maintaining balance of mind²⁴ and 4) Social support in which a person perceives social support, recognizing that they receive love, empathy and acceptance, thereby enabling the person to effectively face life-threatening events, develop stable emotions, be motivated to solve problems, and minimize stress.^{13,14} In which a person perceives positive emotions, the person will not be able to recognize any negative emotions and be satisfied with life. So, it can be said that the person is a happy person. Happiness is an individual's self-assessment based on their perception of overall life satisfaction, their perception of positive emotions and their absence of perception of negative emotions.⁴

Material and Methods

This sample for the study was selected by simple random sampling by the lottery method from both male and female elderly people aged 60 to 79 years old who were living in a community in Mueang Nong Bua Lamphu District, Nong Bua Lamphu Province and met the following criteria: persons with normal perceptions of person, time and place and when assessed with The Mini-mental State Examination;²⁵ ability to communicate, read and write in Thai; no history of mental illness, and no physical illness hindering data collection such as audio or visual impairments. There were also criteria for discontinuation: relocating, requesting to withdraw from the study, and participating in the program less than 80%. The sample size was calculated by the G* Power program, the effect size was .80, the

statistical significance level was .05 and the test power .90, which resulted in a sample size of 56 people. However, the researcher has increased the number of samples by 10 percent to replace dropout, which obtained a total of 62 samples divided into experimental and control groups of 31 cases each.

Research Instruments

1. The instrument used in the experiment was the positive emotion-enhancing program created by the researcher based on Fredrickson's broaden-and-build theory.^{8,9,10,11,12} The intervention consisted of the following 10 activities: 1) Knowing Me, Knowing You; 2) Self-Exploration; 3) Positive Experiences; 4) The Power of Laughter; 5) Gratitude; 6) Eliminating Negative Emotions; 7) Mindfulness Guides for Life; 8) Overcoming Problems; 9) A Determined Life and 10) Creating Happiness Every Day. Each activity corresponded with the following four positive emotion-boosting factors: cognition. positive emotional stimulation, problem management skills and social support. The activities had a 90-minute duration, scheduled to do the activity every week for 10 weeks. Furthermore, after each activity, the researcher assigned homework for the samples to continue training every day for 15 minutes per day, totaling 30 hours and 45 minutes.

2. Data collection instruments-The Oxford Happiness Questionnaire by Hills & Argyle,⁴ translated by Wangmanee,²⁶ consisting of the following three structures: 1) Life satisfaction means considering a person's happiness and evaluating it based on personal satisfaction standards and comparing it to the environment in which people generally set a custom standard of perception; 2) Positive emotions mean happy moods caused by external environmental conditions such as cheerfulness, pleasure and 3) Absence of negative emotions at the time means the absence of depression, which is

considered the main symptom of negative emotions, as well as regret, fear, anger, anxiety and stress, all of which are associated with life satisfaction. The instrument contains 29 questions divided into 17 positive questions and 12 negative questions. The scale model was a 6-point semantic differential scale, with positive questions: high scores mean high levels of happiness and low scores mean low levels of happiness. For the negative question, high scores mean low levels of happiness and low scores mean high levels of happiness. The index of item-objective congruence (IOC) was 1.00,²⁶ and the researcher determined instrument reliability by analyzing Cronbach's alpha coefficient at 0.79, which was acceptable.²⁷

Ethical Considerations

The study was approved by the Human Research Ethics Committee of Thammasat University (Science) No. 111/2564. Once the participants agreed to participate in the study, they were asked to sign a consent form. The participants were informed about study objectives, procedures, and rights, including the right to withdraw from the study at any time without any effect on their quality of service. The protection of confidentiality and anonymity of participants and data was assured throughout the study.

Research Procedures

This research was Quasi-experimental based on a pre-posttest two-group design. Data were collected for the first time by using personal data questionnaires and happiness assessments. Then, the experimental group participated in the positive-emotion-enhancing program once a week for 90 minutes each over ten weeks. Then, the experimental group participated in the positive-emotion-enhancing program once a week for 90 minutes and after each activity, the researcher assigned homework for the

samples to continue training every day for 15 minutes per day over ten weeks. At the end of the 10-week activity, data were collected for the second time by using a happiness assessment. The control group received the routine nursing care of the district health promoting hospital, such as health screening and consultation about vaccination against COVID-19 and medical examination for illness, etc. Data were collected for the second time by using a happiness assessment 10 weeks apart from the first. After the end of the study, the researcher gave the program to a control group who wished to participate in the program individually due to the COVID-19 epidemic in the area where the government had a policy to refrain from participating in group activities.

Data Analysis

Personal data of the samples were analyzed with descriptive statistics and personal data between groups were analyzed with Chi-square and Fisher's Exact Test. The pre- and posttest mean happiness scores of the elderly were then compared with dependent t-test statistics.

The mean differences between the pretest and posttest in the mean happiness scores of the elderly were then compared between the experimental group and the control group with independent t-test statistics. Statistical significance was set at .05. Test the preliminary agreement of the t-test statistics using the Kolmogorov-Smirnov test found that the data were normally distributed.

Results

According to the findings, the experimental group had more females (83.9%) than males (16.1%), and the control group also had more females (80.6%) than males (19.4%). The mean age in the experimental group was 69.58 years, while the control group had a mean age of 70.16 years. Most of the

experimental and control groups were married, and 100% were Buddhists. In terms of level of education, the experimental and control groups had graduated from primary school at 87.1% and 80.6%, respectively. The majority of the experimental group lived in extended families rather than nuclear families, accounting for 61.3% and 38.7%, respectively. For the control group, living in extended families accounted for 71.0% and nuclear families accounted for 29.0%. Both the experimental and control groups had chronic diseases at 51.6% and 64.5%, respectively. In terms of monthly family income, it was found that most of the experimental group (54.8%) had family incomes under 5,000 baht per month, followed by those with incomes of 5,000-10,000 (38.7%), and those

with incomes of 10,000 or more (6.5%). Similarly, most of the control group (51.6%) had monthly family incomes under 5,000 baht per month, followed by incomes in the range of 5,000-10,000 and 10,000 and up at, 41.9% and 6.5%, respectively. When comparing the data on the personal characteristics of the samples in the experimental and control groups. According to the findings, the personal characteristics of the two groups differed without statistical significance.

The results revealed that the mean posttest happiness scores of the older adults who received the positive emotion-enhancing program ($M = 142.81$, $SD = 12.18$) was higher than their mean pretest scores ($M = 121.29$, $SD = 15.63$) with statistical significance ($t = 10.2$, $p < .001$), as shown in Table 1.

Table 1 Compares the mean pre- and posttest happiness scores of the elderly in the experimental group

Happiness Scores	M	SD	df	t	p- value
Pretest	121.29	15.63	30	10.2	.000
Posttest	142.81	12.18			

$p < .05$

In the control group, the mean posttest happiness score ($M = 113.42$, $SD = 10.98$) for the elderly was found to be no different from the pretest score ($M = 115.45$, $SD = 10.76$) ($t = 1.66$, $p = .05$), as shown in Table 2.

Table 2 Compares the mean pre- and posttest happiness scores of the elderly in the control group

Happiness Scores	M	SD	df	t	p- value
Pretest	115.45	10.76	30	1.66	.05
Posttest	113.42	10.98			

$p = .05$

When comparing the mean difference in the mean happiness scores between pretest and posttest of the experimental group and the control group, the mean difference of mean happiness scores of the experimental group receiving the positive emotion-enhancing program ($\bar{D}_1 = 21.52$, $SD = 11.74$)

was higher than that of the control group receiving routine nursing care ($\bar{D}_2 = -2.03$, $SD = 6.81$) with statistical significance ($t = 9.66$, $p < .001$). According to Table 3, when the elderly in the experimental group received the positive emotion-building program, the changes in the happiness levels in the experimental

group were in a positive direction. In other words, there was an increase in happiness scores after receiving the program in the experimental group.

In contrast to the control group that receiving routine nursing care, the elderly had few changes in the happiness scores.

Table 3 Compares the difference in the mean happiness scores between pretest and posttest of the experimental group and the control group.

Happiness Scores	Experimental Group (n = 31)			Control Group (n = 31)			df	t	p-value
	M	$\bar{D}_1$	SD	M	$\bar{D}_2$	SD			
Pretest	121.29			115.45					
		21.52	11.74		-2.03	6.81	48.15	9.66	.00
Posttest	142.81			113.42					

p<.05

Discussion

The results of the study support both hypotheses as follows. Research hypotheses 1: The mean happiness scores of the elderly in the experimental group that participated in the positive emotion enhancing program after the experiment were higher than before receiving the positive emotion program. Following participation in the positive emotion-enhancing program developed by the researcher based on Fredrickson's broaden-and-build theory.^{8,9,10,11,12} The researcher applied the concept of factors promoting positive emotion-enhancement and designed the activities, which consisted of four factors: 1) Cognition – With cognition, the elderly understand the difference between positive and negative emotions and the effects of emotions with awareness of their emotional state and ability to deal with the thought resulting in negative emotions²²; 2) Stimulating positive emotions through three periods of self-revision, namely past self-reconstruction, current self-revision, and future expectations.²³ Older people have the skills to stimulate positive emotions in themselves through different periods through reviewing past events, practicing mindfulness in the present^{28,29}, and setting positive life goals³⁰; 3) Coping

Skills-This is when the elderly have coping tactics aimed at correcting stressors or correcting the emotions causing them to suffer from stress. When the elderly is able to deal with the problems they face, a sense of self-esteem is created²⁴ and 4) Social Support-This happens when the elderly has good relationships with their friends and a network of elderly happiness is created to encourage them to maintain good relationships and provide social support in various areas, since happiness can be passed from happy individuals to those around them.^{13,14} Furthermore, social support in various areas can create a perception of being loved and cared for. The resulting self-esteem enables individuals to effectively face life-threatening events.

Research hypotheses 2: The mean difference between the pretest and posttest in the mean happiness scores of the experimental group participating in the positive-emotion-enhancing program was higher than the control group. The results of this study showed that when the elderly received the positive emotion-enhancing program, there were more changes in happiness levels than in the control group. The changes in the happiness levels in the experimental group were in a positive direction.

Having positive emotions also minimizes the impact of negative events and can also reduce exposure to negative emotions. When the elderly experience positive emotions, they are not disturbed by negative emotions such as anxiety, sadness, anger, and despair. Positive emotions also have the effect of strengthening mental resilience. By accumulating positive emotional exposure experiences, mental resilience will make older people more satisfied with their lives.^{10,11,12} In addition, studies have shown that positive emotions are linked with dopamine levels in the brain, thereby resulting in higher levels of dopamine.¹⁵ Dopamine triggers positive feelings, such as pleasure, love, and greater ability to focus. Sensitivity to the stimuli around them was also a reason why it was easier for some people to succeed in things. As a result, people gained a sense of life satisfaction in being able to meet goals and intentions.¹⁶ The fact that elderly have positive emotions and no negative emotions at any given time give them satisfaction in life. Thus, these elderly people were happy individuals, since happiness refers to a person's self-appraisal according to the perception of overall life satisfaction. Perceived positive emotions such as fun, joy, pride and inspiration with an absence of perceived negative emotions.³ For this reason, older people who experience positive emotions were happier. The findings of the present study correspond with the findings of several previous studies supporting the ability of positive emotions to help increase a person's happiness levels. For example, a study by Paul, Bee and Fred¹⁷ examined the relationship between experiencing positive emotions and happiness. The results indicated that the slope of experiencing positive events was significantly and positively correlated with momentary happiness. The slope of the severity level of positive emotions was also significantly associated with momentary emotions of

pleasure, and the slope of experiencing positive events was significantly correlated with the severity level of positive emotions. According to the findings, therefore, it could be concluded that experiencing momentary positive emotions acts as a medium between momentary positive events and momentary happiness on a day-to-day basis.

In addition, a study by Nunchatsan et al.³¹ explored the effects of positive psychological activity on the happiness and social adaptation of secondary school students in boarding schools. The findings of the above study indicated that students who participated in positive psychology group activities had increased levels of happiness and social adaptation. Both the posttest and follow-up phases were compared to the statistically significant pretest phase. The students who participated in the positive psychology group activities to develop happiness, shared their experiences in suffering with their peers, who reflected on the value and beauty within their lives. In addition, more favorable social adaptations resulted from creating interactions with new friends and creating more intimate feelings with friends.

Limitations of the study

This research collects data during the COVID-19 outbreak, which must comply with the measures of the agency responsible for disease control in the area, namely organizing joint activities as necessary. The researcher has reduced the number of Group down by conducting group activities with 15-16 members, causing some sample groups to not express their opinions on some questions. Including restrictions on group activities from social distancing measures such as keeping a distance from people while doing activities, avoiding personal contact and wearing a mask while doing activities.

Recommendation

Recommendation from the research

1. The positive emotion-enhancing program can be used as a guideline for developing community mental health promotion practices to establish a standardized system of work.

2. The results of this research can use as a guideline for training those who care for the elderly to promote the happiness of the elderly so that the elderly will have well-being.

3. The results of this research can use as a guideline for the design of a mental health promotion policy in the community.

Recommendation for further research

1. Long-term follow-up studies should be conducted to assess the effectiveness of a positive emotion-enhancing program.

2. Positive emotion-enhancing program should study other populations to promote mental health care.

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