

Effectiveness of Implementing the Positive Thinking Modeling and Mindfulness Training Program in Depressed Caregivers of Autistic Children

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Abstract

Long-term caregivers of children with autism may develop to depression. This study aimed to compare the mean scores for depression and positive thinking of caregivers of autistic children at baseline and at one month after receiving the positive thinking modeling and mindfulness training program. The sample included 30 caregivers of autistic children who were purposively selected. Data were collected using the Depression Scale-9Q and the Positive Thinking Scale. Data were analyzed using descriptive statistics and the Wilcoxon signed rank test. Results of the study revealed that, Mean scores for depression in autistic children's caregivers, after receiving the positive thinking modeling and mindfulness training program, were significantly lower than before receiving the program ($p < .001$). Mean scores for positive thinking of autistic children's caregivers, after receiving the positive thinking modeling and mindfulness training program, were significantly higher than before receiving the program ($p < .001$). The results of this study show that the positive thinking modeling and mindfulness training program can reduce depression symptoms and increase the positive thinking of caregivers of autistic children. Therefore, it should be used to assist autistic children's caregivers who are depressed.

Introduction

Autism is a psychiatric disorder characterized by developmental impairments, with a prevalence ranging from 1.68% to 3.62% (Baio et al., 2018; Carpenter et al., 2017; Kim et al., 2011). A literature review conducted in 2022, encompassing 71 studies from 34 countries over ten years during 2012-2021 revealed a 1% prevalence rate of autism among children (10 in 1,000 children). The prevalence was higher in males, with a ratio of 4.2 times compared to females. The highest prevalence was reported in North America and Europe. Additionally, it was noted that 33% of individuals with autism also exhibited

intellectual disabilities (Zeidan et al., 2022). A study examining the prevalence of autistic symptoms in Thai children aged 1-4 years residing in Thailand in found a prevalence rate of 48.1 per 10,000 children (40.1, 57.7), with a ratio of 78:10,000 in males, and 16.4:10,000 in females, and a male-to-female ratio of 5:1. The highest prevalence of autistic symptoms was observed in the central region (90.6 per 10,000) and the lowest in the southern region (9 per 10,000) (Ongarjsakulman, et al., 2015). Furthermore, autism was identified as the most prevalent disorder among inpatients at the Rajanagarindra Institute of Child Development over the past three fiscal years 2020-2022

with rates of 80.03% (n=617), 52.30% (n=421), and 78.01% (n=518) for inpatient departments. In the outpatient department, autism ranked as the second most prevalent disorder after Attention Deficit Hyperactivity Disorder (ADHD) and held the top rank in Fiscal Year 2022 with a prevalence of 45.99% (N=9,942). In Fiscal Years 2020-2021 (B.E. 2563-2564), the prevalence rates were 37.21% (N=6,966) and 37.54% (N=9,486), respectively (Rajanagarindra Institute of Child Development, 2022).

The three primary symptoms of autism in children include (1) impairments in social interaction and relationships, (2) deficits in communication, and (3) abnormalities in behavior. Developmental abnormalities are typically observed between the ages of 9-18 months (American Psychiatric Association, 2015). Symptoms noted by caregivers and presented to medical professionals include delayed development, delayed speech, language peculiarities, aggressive behavior, self-injury, or harm toward others. Autism is a condition characterized by a prolonged disease course, requiring extended treatment and continuous developmental stimulation. This condition may impose a burden on caregivers, potentially leading to mental health issues. The systematic literature review and meta-analysis regarding the mental health issues of caregivers for autistic children, involving 31 studies with a sample size of 9,208 individuals, revealed that parents of autistic children experienced depression in 31%, anxiety symptoms in 33%, and obsessive-compulsive symptoms in 10% (Schnabel et al., 2020). A study in Thailand indicated that parents of adolescent autistic children exhibited high levels of anxiety, and parental anxiety was significantly correlated with caregiving behaviors for autistic children ($r = 0.43$, $p = 0.01$) (Manatae, 2013). Consequently, caring for autistic children may impact caregivers physically, mentally, and socially. Caregivers play a vital role in addressing the various physical, psychological, emotional, and social needs of autistic children as they are close to the child, resulting in substantial challenges and obstacles in their care. For instance, parents often lack the necessary knowledge to care for autistic children, leading to negative emotions and difficulties in caring for them (Thungmeephon, 2007). Additionally, the

stress and emotional burden of continuous care for autistic children often lead caregivers to feelings of helplessness and exhaustion, having to endure this responsibility for many years. On the one hand, the study conducted in Thailand by Lerthattasilp et al. (2015) found that 5.9 % of caregivers of autistic children experience depressive symptoms. On the other hand, the study conducted in other countries found that caregivers of autistic children are at a higher risk of developing depression compared to caregivers of typically developing children (Khanna et al., 2011). The main problems faced by caregivers of autistic children receiving services at the Family Mental Health Promotion Clinic, Rajanagarindra Institute of Child Development, are anxiety, frustration, and genuine distress. These emotions are often triggered by the child's lack of speech, inability to understand or respond, lack of interest in the surroundings, inability to follow instructions, loud and disruptive vocalizations, restlessness, and limited ability to perform daily activities independently (Srikosai et al., 2018). Moreover, data analysis from routine work revealed that caregivers of autistic children receiving inpatient treatment services have a 16% prevalence of depression (Somjai et al., 2017). Additionally, the severity of symptoms varies among autistic children, and this diversity may have different impacts on the mental health or depressive states of caregivers. Such depressive symptoms manifest in terms of emotions, thoughts, and behaviors occurring within a 2-weeks period. These symptoms include feelings of uneasiness, sadness, profound despair, boredom, sleep problems, lack of energy, appetite changes, negative self-perception, loss of interest in various activities, slowed thinking, speaking, or moving, restlessness, and thoughts of self-harm or suicide (Wannasewok, 2015). Therefore, the assessment of the psychological and social well-being of caregivers of autistic children is largely focused on evaluating depressive symptoms. This is due to the clinical impact of the child's symptoms, such as developmental delays, and the need for close caregiving to reduce the associated risks, such as agitation, restlessness, repetitive and potentially harmful behaviors, as well as the daily caregiving responsibilities, all of which can affect the emotional well-being of the caregiver, as mentioned earlier.

Therefore, caregivers of autistic children should receive psychosocial therapy focusing on mechanisms that allow them to accept the reality of having an autistic child. The concept of mindfulness and positive thinking might assist caregivers in responding to accustomed thoughts and negative perceptions, resulting in depression, fatigue, and abnormal adjustments leading to other associated problems. The idea of mindfulness and positive thinking aids in fostering self-awareness, understanding current realities, understanding relationships, and having compassion towards oneself and others, contributing to improved mental health or reduced depressive tendencies (Segal et al., 2002). Depression is commonly associated with negative thinking patterns, leading to difficulties in attention, interpretation, and memory processing. Negative processing and negative self-perception can lead to the development of abnormal attitudes in individuals with depression (Beck, 2020). However, adopting a positive perspective and adjusting negative thinking patterns can help alleviate depressive symptoms. The study of psychosocial therapy outcomes in mothers of autistic children, through a systematic literature review, encompassed 32 experimental studies involving a sample group of 2,336 individuals, predominantly utilizing individual-focused therapy programs. The research revealed that among these studies, 6 demonstrated reduced maternal stress in caregiving for autistic children, leading to an overall improvement in the mothers' mental health. However, there was no significant treatment impact observed in reducing depressive tendencies. Additionally, 17 studies indicated an enhancement in the relationship between caregivers and their children following the intervention. However, the variations in the studies made it challenging to pinpoint the most effective type of psychosocial therapy program (Kulasinghe et al., 2023). Moreover, caregivers of autistic children who underwent a mental health education program based on the Satir model, consisting of 6 sessions 5 individual and 1 group session showed reduced stress scores during the 16th and 28th follow-up weeks ($p < .01$ and $p < .05$, respectively). The overall alignment in their lives also increased by the 8th follow-up weeks ($p < .05$). In contrast, the group under routine care exhibited reduced stress levels only after immediate

post-intervention ($p < .05$). During the 6th session of group therapy caregivers exchanged their experiences and expressed satisfaction in having the opportunity to listen and learn from each other. They found encouragement from caregivers in similar situations and learned practical skills to manage the unwanted behaviors of autistic children, resulting in positive outcomes (Srikosai et al., 2019). Current academic evidence highlights the necessity of group-based psychosocial therapy for caregivers of autistic children, which has been shown to reduce depression levels. A semi-experimental study conducted 7 group sessions utilizing mindfulness and positive thinking programs notably reduced depression levels in caregivers of mildly to moderately depressed autistic children (Itsarapong et al., 2018).

However, this study has limitations in terms of missing samples or incomplete participation in group activities according to the program. Additionally, depression program outcomes were assessed using the original 9Q Depression Scale, which measures only symptom frequency. But now the 9Q Depression Scale has been developed into a version that assesses both severity and frequency. To provide an overall picture of the assessment of depressive symptoms consistent with the severity of depression and diagnosis (Kongsuk et al., 2018) but the concept and principles of the program that includes mindfulness training and positive thinking should be accompanied by monitoring of positive thinking. In this study the researcher modified the program 5 times by combining the 1st and 2nd times of the original program to be the 1st time and combine the 6th and 7th times of the original program to be the 5th time. Therefore, the researchers are interested in studying the outcomes resulting from the practice of positive thinking and group mindfulness training programs for caregivers of autistic children with mild to moderate levels of depression. It is hoped that these interventions will be beneficial in reducing depression among these caregivers. This research aims to compare the average depression scores of caregivers of autistic children before undergoing positive thinking and group mindfulness training and during the follow-up period of one month.

Objectives

To compare the mean depression scores of caregivers of children with autism During the period before receiving the program to practice positive thinking methods and group mindfulness training, and after 1 month follow-up.

Research Hypothesis

Caregivers of autistic children had lower mean depression scores before receiving group positive thinking and mindfulness training programs during the follow-up period of 1 month.

Research Framework

Autistic spectrum disorder is a condition that requires continuous treatment due to its chronic nature. As autistic children often exhibit behaviors that pose challenges in caregiving, they require more extensive cares compared to neurotypical children. This increased demand for care often leads caregivers to experience various negative emotions, such as stress and worry from caregiving. This can result in profound feelings of exhaustion and frustration, especially given the constant and often prolonged care required for autistic children. Consequently, this scenario might contribute to the development of depressive symptoms among caregivers. The study investigated the effects of the positive thinking and mindfulness training program on caregivers of autistic children incorporating the concept of cognitive restructuring introduced by Beck (2020). Additionally, mindfulness training in the form of Anapanasati meditation, based on the basic mindfulness techniques of Ven (Siripanyaphon, 2015), has been applied as a guideline for the study. Beck (2020) suggests that emotions and behaviors arise from the perception and interpretation of stimuli unique to each individual. Thoughts contributing to the emergence of problematic emotions and behaviors are known as automatic negative thoughts.

In addition, the practice of mindfulness training, based on the Buddhist meditation technique of Anapanasati by Ven (Siripanyaphon, 2015) involves increasing self-awareness and focusing on the breath. This approach supports the contemplation of the reality of nature while breathing, which helps manage external stimuli effectively. When combined with cognitive restructuring by Beck (2020), mindfulness training Siripanyaphon (2015) based

on Buddhist principles allows individuals to learn about themselves, examine their automatic negative thoughts, explore and assess automatic thoughts, and identify reasons that support or oppose these thoughts. As a result, cognitive development is accomplished by incorporating mindful breathing, which involves mindfulness involves consistently contemplating the reality of nature during each breath and maintaining awareness throughout the inhalation and exhalation process. This process promotes awareness of one's thoughts and emotions and confidence in one's ability. Emotional strength and confidence in one's ability serve as a practical approach to dealing with depression. Continuous expression of negative emotions within a supportive group and shared learning experiences significantly aid in shifting perspectives toward a more positive outlook. Self-care across physical, mental, social, and spiritual aspects promotes self-worth and happiness in life (Ananpawet, 2020). Having a belief in oneself, emotional stability, self-control in managing stimuli, and not letting past experiences or emotions influence judgments contribute to well-being. Focusing on positive thinking and regular mindfulness practices for 30 minutes a day can help maintain continuous awareness and mindfulness, affecting brain waves and neurotransmitter functions and leading to a calm and relaxed state. Moreover, shifting negative thoughts to positive ones can effectively alleviate symptoms of depression. Therefore, the researchers applied the concepts of Beck (2020) and Anapanasati by Ven (Siripanyaphon, (2015). using a group process where caregivers shared the challenging situations they encountered while caring for autistic children. The training program consisted of five sessions conducted by Itsarapong et al. (2018). The sessions focused on positive thinking, basic mindfulness meditation following the Anapanasati approach, and movement-based meditation with 14 hand gestures in the program's first five sessions. The sessions aimed to provide knowledge regarding (1) a positive perspective on viewing the world and building confidence in one's abilities and potential, (2) the concept of commitment, (3) mindfulness and positive thinking, (4) basic mindfulness meditation in the Anapanasati tradition, and (5) movement-based meditation. Participation in these five sessions

of positive thinking and mindfulness training is expected to help caregivers transform negative automatic thoughts, as illustrated in the figure below, showing the relationship between the studied variables as follows,

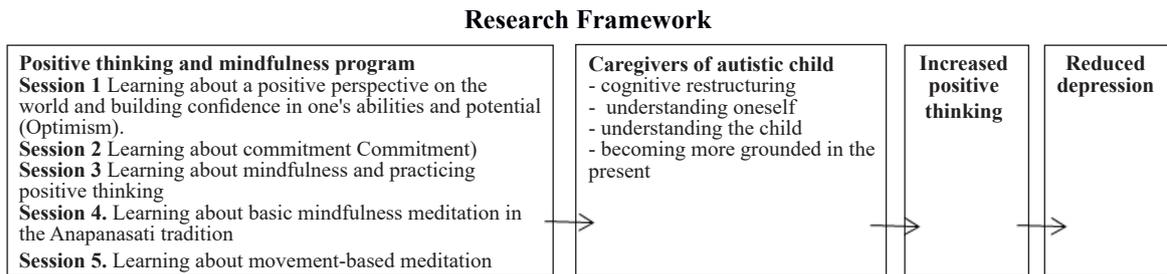


Figure1: Research Framework

Research Procedure:

Aiming to examine the effects of the positive thinking and mindfulness training program on caregivers of autistic children with depressive symptoms, the study employed a quasi-experimental one-group pre-posttest design. The evaluation encompasses pre- and post-intervention measurements regarding depressive symptoms and positive thinking before the program and during the follow-up period of one month. The experiment is structured as follows:

The sample group was selected according to specific criteria O1 X1 X2 X3 X4 X5 O2

Whereas:

- O1 represents Baseline measurement
- O2 represents the follow-up after one month
- X1 to X5 represent the 1st- 5th session of the program

Population and Sample Group

Population consists of caregivers of autistic children, including parents (fathers and mothers), grandparents (grandfathers and grandmothers), uncles, aunts, or any other relatives who serve as the primary caregivers without receiving compensation or rewards. These caregivers are responsible for taking care of the children, and ensuring they receive services at the Rajanagarindra Institute of Child Development between January and March 2023.

Sample Group:

A purposive sampling method was employed to select a specific and targeted sample group. The sample included 30 individuals who met the specified criteria for selection as follows.

Inclusion Criteria:

1. Have a depression score between 7-17 points

(indicating mild to moderate depression) based on the Depression Assessment Questionnaire (9Q) by Kongsuk et al. (2018).

2. Able to communicate effectively in Thai without communication or hearing impairments.
3. Able to participate in all five sessions of the group program.

Exclusion Criteria:

1. Diagnosed with any significant mental health disorders, such as major depressive disorder, schizophrenia, bipolar disorder, or substance use disorders
2. Currently categorized as a patient under investigation (PUI) or undergoing treatment for respiratory infections

Research Tools

1. Data Collection Instruments:

Part 1: Personal Information Questionnaire consisting of age, gender, educational level, occupation, income, marital status and relationship with the child

Part 2: Depression Assessment Questionnaire (9Q) - Thai Version (Kongsuk et al., 2018) consisting of nine questions and two parts of answers assessing the severity and frequency of depressive symptoms. Scores range from 0-27 points. The cut-off score is 7 points.

- < 7 points: No depressive symptoms or minimal symptoms.
- 7-12 points: Mild depressive symptoms.
- 13-17 points: Moderate depressive symptoms.
- ≥ 18 points: Severe depressive symptoms.

2. Experimental Instruments: Included a structured program designed to enhance positive thinking and mindfulness skills in caregivers of autistic children who are dealing with depression. The program is conducted in a group format, with each group consisting of 6 participants. There are 5 groups, and the program content is delivered over 5 sessions, occurring 2 times a week, each session lasting 45-60 minutes.

3. Monitoring and Following – Up Instruments:

The instrument utilized for monitoring positive thinking is the 'Positive Thinking Scale' developed by Chansuk et al. (2017). It was developed based on Ventrella (2001) conceptual framework, utilizing a 5-level Likert scale. The scale comprises five dimensions, including 1) optimism, 2) belief, 3) commitment, 4) confidence, and 5) resilience, with each dimension consisting of 10 items totaling 50 questions. The questionnaire is in the form of a 5-level rating scale. The participants were asked to engage in the program until a positive change in the positive thinking score was observed. The Positive Thinking Questionnaire scores range from 50 to 250 points, with three levels determined by percentiles and quartiles (Srisa-at, 2010) as follows:

50-116 points: low level of positive thinking

117-183 points: moderate level of positive thinking

184-250 points: high level of positive thinking

The participants were asked to engage in the program until a positive change in the positive thinking score was observed before progressing to the next stage.

Assessment of Instrument Quality

The quality of the research instrument was assessed through its content validity and reliability.

Content validity:

1. The positive thinking and mindfulness training program is an adaptation of the program developed by Itsarapong et al. (2018), originally consisting of 7 sessions. In this study, the researchers assessed the adapted program, which now comprises five sessions. The evaluation, focusing on content validity and linguistic comprehension, was conducted by qualified individuals - two Advanced Practice Nurses (APNs) specializing in psychiatric nursing with practical experience at Rajanagarindra Institute of Child Development and one social worker.

2. The Positive Thinking Measurement questionnaire

developed by Chansuk et al. (2017), is a 5-level rating scale questionnaire consisting of five dimensions: 1) optimism, 2) beliefs, 3) commitment, 4) confidence, and 5) resilience, each comprising ten statements, totaling 50 items. The questionnaire format is a 5-level rating scale and has been examined for content validity by three qualified experts in positive thinking. The Content Validity Index (CVI) was determined to be 0.93.

Reliability:

1. The 9Q Depression Assessment Form (Thai Version), developed by Kongsuk (2018) consists of 9 questions with two parts for each response: severity and frequency. Scores range from 0 to 27 points, with a cutoff point at 7. Score interpretation is as follows: <7 points: No depression symptoms or minimal symptoms; 7-12 points: Mild depression symptoms; 13-17 points: Moderate depression symptoms; ≥ 18 points: Severe depression symptoms. The researchers assessed the tool's reliability in a sample group similar to the study's sample, consisting of 12 individuals. The Cronbach's alpha coefficient for the sample group was 0.96.

2. Regarding 1. The 9Q Depression Assessment Form (Thai Version) by Kongsuk et al. (2018), the researchers examined internal consistency by analyzing Cronbach's alpha coefficient within a sample group possessing characteristics similar to the sample group. The Cronbach's alpha coefficient for the Depression Symptoms Assessment 9Q within this sample of 12 individuals was determined to be 0.96

3. The Positive Thinking Measurement questionnaire to assess the reliability of the positive thinking measurement questionnaire, it was administered to a group of nursing students at Boromarajonani College of Nursing of Chai Nat, consisting of 30 individuals with characteristics similar to the sample group. The reliability, determined using Cronbach's alpha coefficient, yielded an average coefficient of 0.89. No modifications were made to the assessment tool by the researchers.

Data Collection:

After receiving ethical approval for the research from the Research Ethics Committee of the Faculty of Nursing at Chiang Mai University, with certification number 2563-FULL025, and from the Research

Ethics Committee for Mental Health, Department of Mental Health, with certification number DMH.IRB 040/2564 BRM_Ful, the researchers collected data using a questionnaire. The data collection process involved the following steps:

1. The researchers approached the nurses in the outpatient department to seek their collaboration in selecting a sample group that met the specified criteria. The researchers then requested permission to meet with the selected sample group to provide them with detailed information about the project, its objectives, the benefits of participation, and the procedures involved. If the sample group agreed to participate, the researchers collected their signed consent forms and scheduled group program sessions.
2. The researchers conducted data collection for the baseline assessment.

3. The research team conducted a series of 5 group sessions as follows:

Session 1. Learning about a positive perspective on the world and building confidence in one's abilities and potential (Optimism).

Session 2. Learning about commitment

Session 3. Learning about mindfulness and practicing positive thinking

Session 4. Learning about basic mindfulness meditation in the Anapanasati tradition

Session 5. Learning about movement-based meditation

4. The research team collected data after completing the 5-program sessions during the 1-month follow-up period.

5. The researchers thoroughly examined the completeness and integrity of the collected data before proceeding with data analysis and research report preparation.

Data Analysis

Data analysis was conducted as follows:

1. Analyzed the personal information of the sample group who are the caregivers of autistic children through distributing frequency values and calculating percentages, means, and standard deviations

2. Analyzed the depression scores before and after receiving the follow-up program for one month using the Wilcoxon Signed Rank Test, as the data exhibited a non-normal distribution.

3. Analyzed the positive thinking among caregivers of

autistic children scores before and after receiving the follow-up program for one month using the Wilcoxon Signed Rank Test, as the data exhibited a non-normal distribution

Research Participant's Rights Protection:

The researcher ensured that the rights of the sample group were protected by submitting the research framework for the thesis to the Research Ethics Committee of the Faculty of Nursing, Chiang Mai University, to review and approve. Once certified, the researcher obtained permission from the Director of the Rajanagarindra Institute of Child Development to collect data from the sample group. The research protocol underwent a review by the ethics committee of the Rajanagarindra Institute of Child Development. According to the committee, the research needed to be certified for ethical standards, particularly in research involving human subjects, by the Department of Mental Health. Therefore, the researcher requested certification by submitting the research framework to the Research Ethics Committee for Research Involving Human Subjects at the Department of Mental Health. Upon approval, the researcher sought permission to meet with the Director of the Rajanagarindra Institute of Child Development to introduce themselves and explain the research's objectives, procedures, and benefits. The researcher also met with the participants to obtain consent from them. During the meeting, the researchers clarified the right to refuse participation or withdraw from the research project at any time without providing reasons. The researcher emphasized that such decisions would not impact the Sample group of 30 people. Information sheets were provided to help participants make informed decisions. Participants were informed that their participation was voluntary, and they were required to sign the consent form if willing to participate. In the questionnaire section, participants were encouraged to respond voluntarily and to skip any questions they found uncomfortable. The collected data, identified by code rather than real names, was treated confidentially and stored securely with access restricted to the researcher. The analysis of research results and the presentation of data were conducted in an overall format to ensure the confidentiality and anonymity of the participants. The documents were kept in a locked cabinet or password-protected computer. The researcher respon

sible for data analysis would destroy all data one year after the completion of the research once the findings were published. The data was stored for the specified duration to validate post-study data or conduct additional analyses for research accuracy. If any participant experienced harm or illness due to the research, the researcher committed to coordinating and providing appropriate care. The researcher would cover travel expenses up to 150 Baht and be responsible for medical treatment costs. If participants continued to exhibit mild to moderate depressive symptoms after the research project, they would be referred for regular services.

Research Findings

Part1: Personal Data of Caregivers of Autistic Children

Caregivers of autistic children participating in the Positive Thinking and Mindfulness Training program totaled 30 people. They were categorized based on gender, age, marital status, education level, occupation, relationship with the child, and income, using frequency statistics and percentages. The findings indicate that all participants are females, with an average age of 37.7 years. The majority are married (28 individuals, 93.3%), have a bachelor's degree (15 individuals, 50%), and are engaged in private business and trade (10 individuals, 33.3%). Most of them are mothers of autistic children (27 individuals, 90%), followed by grandmothers (3 individuals, 10%). Their income is at a sufficient level (27 individuals, 90%), with an average monthly income of 16,420 baht.

Part 2: Pre-and Post-Positive Thinking and

Details are provided in Table 1.

Table 1 : The number and percentage of personal data of caregivers of autistic children. (n = 30)

Data		Number (person)	Percentage
Gender	Female	30	100.00
Age	Mean = 37.7, SD = 8.6, Min = 25, Max = 55		
Marital status	Married	28	93.40
	Divorced	1	3.30
	Separated	1	3.30
Educational level			
	Primary	3	10.00
	Secondary	9	30.00
	Diploma	3	10.00
	Bachelor's degree	15	50.00
Occupation	Unemployed	5	16.70
	Trades	10	33.30
Relationship with the child	Government service	2	6.70
	Employee	3	10.00
	Other	10	33.30
	Mother	27	90.00
	Grandparents	3	10.00
Sufficiency of income			
	Sufficient	27	90.00
	Insufficient	3	10.00
	≤ 5,000 Baht	4	13.30
	5,000 – 10,000 Baht	10	33.30
	10,000 – 15,000 Baht	8	26.70
	≥ 15,000 Baht	8	26.70

Mindfulness Training Program Depression Scores

The researcher compared the average depression scores of caregivers of autistic children before and after participating in the positive thinking and mindfulness training program for one month. The distribution of the sample data was assessed using the Kolmogorov-Smirnov test, indicating a non-normal distribution. Therefore, the data were analyzed by using the Wilcoxon Signed Rank Test. The analysis

revealed that the mean depression score of caregivers of autistic children before receiving the positive thinking and mindfulness training program was 10.10 (Median=8.00). After participating in the program for one month, the mean depression score decreased to 4.80 (Median=4.00). The Wilcoxon Signed Rank Test showed a statistically significant difference in depression scores with a significance level of .001.

It was found that the average score of positive

Table 2 : Pre- and Post-Positive Thinking and Mindfulness Training Program Depression Scores

Data	Pre-Program		One Month Post Program		Wilcoxon Signed Rank Test	p-value
	Range	Median (Mean [SD])	Rang	Median (Mean [SD])	Z	
Depression level	7.00-17.00	8.00 (10.10 [3.09])	0.00-12.00	4.00 (4.80 [3.43])	-4.81***	<.001

*** $p < .001$

thinking among caregivers of autistic children before receiving the positive thinking skills training and mindfulness program was 178.70 (Median=180.50), and after receiving the program, it was 202.50 (Median=202.00). When comparing these scores using the Wilcoxon Signed Rank Test, a statistically significant difference in the average positive thinking

scores was found ($p < .001$). This indicates that the average positive thinking score among caregivers of autistic children increased significantly one month after receiving the positive thinking skills training and mindfulness program. Following this, the researchers proceeded to measure the depression symptoms.

Research Discussions

Part 3: Positive thinking scores before and after receiving the positive thinking and mindfulness training program.

Data	Pre-Program		One Month Post Program		Wilcoxon Signed Rank Test
	Range	Median (Mean [SD])	Rang	Median (Mean [SD])	Z
Positive thinking	116.00-210.00	180.50 (178.70 [22.69])	180.00-250.00	202.00 (202.50 [13.84])	4.54***

*** $p < .001$

This study adopts a quasi-experimental one-group pre-post-test design, measuring before and after the intervention, to investigate the outcomes of a positive thinking and mindfulness group training program in caregivers of autistic children with depressive symptoms. The study also includes a 1-month follow-up. The results of the data analysis are presented below based on the study hypotheses.

Hypothesis 1: Caregivers of autistic children have a lower mean score of depressive symptoms after receiving the positive thinking and mindfulness group training program, compared to before the intervention, during the 1-month follow-up.

The study found that the average score of depressive symptoms among caregivers of autistic children after receiving the positive thinking and mindfulness

training program (mean = 4.80, SD = 3.43 was significantly lower than before the program (mean = 10.10, SD=3.09 [median=8.00]) with statistical significance ($p < .001$). This implies that the positive thinking and mindfulness training program can effectively reduce depressive symptoms among caregivers of autistic children. The use of group processes, sharing of problem situations, and focusing on positive thinking, basic mindfulness training, and movement-based mindfulness training with 14 hand movements in sessions 1-5, which involve learning about (1) a positive perspective on viewing the world and building confidence in one's abilities and potential, (2) the concept of commitment, (3) mindfulness and positive thinking, (4) basic mindfulness meditation in the Anapanasati tradition, and (5) movement-based meditation, may have contributed to these positive outcomes. After completing all five sessions of the positive thinking and mindfulness training group, caregivers can expect to change automatic negative thoughts, better understand themselves, and promote cognitive development through mindfulness techniques. This process leads to increased focused awareness and a heightened perception of one's reality. Practicing mindfulness results in staying present and being aware of emotions, fostering belief in one's abilities. It can reduce distress, enhance emotional stability, and improve coping with stimuli. Importantly, it prevents past experiences or emotions from influencing judgments. The program focuses on continuous positive thinking and mindfulness training, ideally for 30 minutes daily. This ongoing mindfulness practice affects brain waves and neurotransmitters, promoting relaxation and transforming negative thoughts to alleviate depressive symptoms.

The findings of this study are consistent with the research conducted by Itsarapong et al. (2018), which revealed that caregivers of children with autism who experienced depressive symptoms, totaling 23 individuals, showed a significant reduction in depression scores when assessed by the older version of 9Q after participating in a positive thinking and mindfulness training program. The program consisted of seven sessions, each lasting 45-60 minutes. The statistically significant reduction in depression scores demonstrated the effectiveness of positive thinking and mindfulness training,

particularly in the program's third session. During this session, participants were encouraged to exchange thoughts and share experiences related to their past depressive symptoms. The facilitator explained the connections between mindfulness, positive thinking, and the Buddhist approach to problem-solving. The assessment of members' readiness for implementing practices to reduce distress was emphasized, leading to mindfulness training. Caregivers were encouraged to assess their confidence in problem-solving, potential obstacles, and strategies for resolution. The continuous focus on the importance of ongoing positive thinking and mindfulness training, with sessions lasting 30 minutes each day, resulted in a reduction in depressive symptoms. Additionally, the findings of this study also align with the study conducted by Ananpitiwet (2017), which employed a program based on positive psychology concepts developed according to Seligman's ideas (Seligman, 2002). This program was aimed at training individuals with autism spectrum disorder in conjunction with their caregivers, helping caregivers develop mental resilience and abilities. The study found that the average happiness scores of caregivers in the experimental group were significantly higher than those in the control group at a statistical significance level of .001. Furthermore, it was found that the average depression scores of caregivers in the experimental group were significantly lower than those in the control group at a statistical significance level of .01. This was due to a continuous release of negative emotions in the group and significant shared learning experiences in transforming negative perspectives to be more positive. These findings align with a study conducted by Saengsong and Phonyiam (2023). The study utilized a program that aimed to develop mental resilience and mindfulness training through group therapy. The program was designed to teach caregivers of autistic children how to manage depression by emphasizing self-care in terms of physical, mental, social, and spiritual aspects. This approach promoted self-worth, happiness, and preparedness to face future challenges, significantly reducing depression.

Application of Research Findings

In Nursing Practice: The program is applicable in routine nursing practice as the study's results confirm

that the positive thinking and mindfulness training program effectively reduces depressive symptoms and increases positive thinking in caregivers of autistic children. In Nursing Policy: The study's findings serve as valuable data for nursing administrators to consider implementing policies that support positive thinking and mindfulness training programs in supporting caregivers of autistic children experiencing depressive symptoms. This program can be integrated into the healthcare services offered at the Rajanagarindra Institute of Child Development, Chiang Mai.

Reference

- American Psychiatric Association. (2015). *Feeding and eating disorders: DSM-5® selections*. Arlington, VA: American Psychiatric Association; 2013: 51-9.
- Ananpattiwet, S. (2017). Effectiveness of application programs under the concept of positive psychology on Happiness and negative emotions of sick parents About the autism spectrum disorder. *Journal of Mental Nursing Medicine and Mental Health*, 31(3), 31-44.
- Beck, J. S. (2020). *Cognitive behavior therapy: Basics and beyond*. Guilford Publications.
- Baio, J., Wiggins, L., Christensen, D. L., Maenner, M. J., Daniels, J., Warren, Z., et al. (2018). Prevalence of autism spectrum disorder among children aged 8 years – autism and developmental disabilities monitoring network, 11 sites, United States, 2014. *MMWR Surveill Summ*. 67.
- Carpenter, L. A., Boan, A. D., Wahlquist, A., Cohen, A., Charles, J., Jenner, W., & Hill, E. G. (2017). The prevalence of autism spectrum disorder in school aged children: Population based screening and direct assessment. *In Poster session presented at the meeting of the International Foundation for Autism Research*, San Francisco, CA.
- Chansuk, C., Chansuk, N., & Rodphrom, P. (2017). *Results of using the program. Group processes that influence positive thinking among nursing students. Conference Abstracts 14th*. National Academic Conference Kasetsart University, Kamphaeng Saen Campus (E-book). Kasetsart University, Kamphaeng Saen Campus. (in Thai).
- Rajanagarindra Institute of Child Development. (2022) *Family Mental Health Promotion Clinic. Report on the analysis of data from routine work*. Family intervention clinic, fiscal year 2018-2022. (in Thai).
- Itsarapong, P., Sarakan, K., & Arunyananon, L. (2018). Promoting the positive thinking and Mindfulness training for autism caregiver with depression. *International Journal of Child Development and Mental Health*, 6(1), 75-86. (In Thai)
- Kim, Y. S., Leventhal, B. L., Koh, Y. J., Fombonne, E., Laska, E., Lim, E. C., ... & Grinker, R. R. (2011). Prevalence of autism spectrum disorders in a total population sample. *American Journal of Psychiatry*, 168(9), 904-912. doi:10.1176/appi.app.2011.10101532
- Khanna, R., Madhavan, S. S., Smith, M. J., Patrick, J. H., Tworek, C., & Becker-Cottrill, B. (2011). Assessment of health-related quality of life among primary caregivers of children with autism spectrum disorders. *Journal of autism and developmental disorders*, 41, 1214-1227. https://doi.org/10.1007/s10803-010-11406.
- Kulasinghe, K., Whittingham, K., Mitchell, A. E., & Boyd, R. N. (2023). Psychological interventions targeting mental health and the mother-child relationship in autism: Systematic review and meta-analysis. *Developmental Medicine & Child Neurology*, 65(3), 329-345. https://doi.org/10.1111/dmcn.15432.
- Kongsuk, T., Arunpongpaisal, S., Janthong, S., Prukkanone, B., Sukhawaha, S., & Leejongpermpoon, J. (2018). Criterion-related validity of the 9 questions depression rating scale revised for Thai central dialect. *J Psychiatr Assoc Thailand*, 63(4), 321-334.
- Lerthattasilp, T., Charernboon, T., Chunsuwan, I., & Siriumpunkul, P. (2015). Depression and burden among caregivers of children with autistic spectrum disorder. *J Med Assoc Thai*, 98(Suppl 2), S45-52.
- Manatae, P. (2013). *The Relationship between Parent's Anxiety and Autism Adolescent Rearing Behavior*. Master's Project, M.Ed. (Developmental Psychology). Bangkok; Graduate School, Srinakarinwirot University. (in Thai).
- Ongarjsakulman, R., Chammak, C., Muensoontorn, S.,

- & Peeneum, P. (2015) *Prevalence of Thai autism spectrum disorders, 1-4 year: preliminary study*. Samutprakarn: Yuwaprasart Waithayopatham Hospital. (in Thai).
- Srikosai, S., & Piangjai, K. (2018). *Comparing mental health problems of parents and children Autism and parents of ADHD children receiving services at family mental health promotion clinics Rajanagarindra Child Development Institute*. Abstract from the Child and Adolescent Mental Health Conference 1st time. Rajanagarindra Child Development Institute. (in Thai).
- Somjai, J., Kamfu, C., Pimta Wong, S., & Srikosai, S. (2017). *Prevalence of the condition Depression in parents of autistic and developmentally delayed children*. Conference Abstracts International Mental Health Academic; (E-book). n.p.
- Srikosai, S., Dornnork, P., Somchai, C., Sriseub, P., Taweewattanaprecha, S., & Saipanish, R. (2019). Effect of the satir model-based psychoeducational program on parents and children with autism spectrum disorder. *International Journal of Child Development and Mental Health*, 7(2), 41-54.
- Schnabel, A., Youssef, G. J., Hallford, D. J., Hartley, E. J., McGillivray, J. A., Stewart, M., et al. (2020). Psychopathology in parents of children with autism spectrum disorder: A systematic review and meta-analysis of prevalence. *Autism*, 24(1), 26-40. <https://doi.org/10.1177/1362361319844636>.
- Segal, Z. V., Williams, J. M. G., & Teasdale, J. D. (2002). *Mindfulness-based cognitive therapy for depression*. Guilford Press.
- Seligman, M. E. P. (2002). *Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfillment*. New York: Simon & Schuster, Inc.
- Siripanyaphon S., (2015). *Learning model according to Buddhism to develop creativity for primary school students*. Under the jurisdiction of the Maha Sarakham Primary Educational Service Area Office, Area 2. In the Doctor of Philosophy Thesis. Department of Buddhism. Mahachulalongkornrajavidyalaya University. (in Thai).
- Srisa-at, B. (2010). *Preliminary research*. 8th printing. Bangkok: Suwiriyan.
- Saengsong, S., & Phonyiam, K. (2023). Original research article: Results of the building program Mental strength combined with practice Consciousness of depression in patients Depression. *Research journals and Health development for Nakhon Ratchasima Provincial Public Health Office*, 9(1), 91-120.
- Thungmeephon P., (2007). *Social support, caregiving preparedness and stress among mothers of autistic children*. Graduate School Chiang Mai University. <https://cmudc.library.cmu.ac.th/frontend/Info/item/dc:105809>.
- Ventrella, S. W. (2001). *The power of Positive Thinking in Business*. London: Vermilion.
- Wannasewok, K., Wannarit, K., Phookittayakamee, P., Apinantawet, S., & Ketman, P. (2015). *Siriraj Psychiatry DSM-5*. Department of Psychiatry, Faculty of Medicine Siriraj Hospital Mahidol University. (in Thai).
- Zeidan, J., Fombonne, E., Scoria, J., Ibrahim, A., Durkin, M. S., Saxena, S., et al. (2022). Global prevalence of autism: A systematic review update. *Autism Research*, 15, 778–790.