## ผลของโปรแกรมการเสริมสร้างความแข็งแกร่งในชีวิตต่อความผาสุกของมารดาเด็กออทิสติก **Effects of Resilience-Enhancing Program on Well-being** among Mothers of Children with Autistic Disorder

นิพนธ์ตันฉบับ

**Original Article** 

ธัญญพัทธ์ ชินนาค¹, ดวงใจ วัฒนสินธุ์²\* และ ภรภัทร เฮงอุดมทรัพย์²

- นิลิตหลักสูดรพยาบาลศาสตร์มหาบัณฑิด (การพยาบาลจิดเวชและสุขภาพจิด)
  สาขาวิชาการพยาบาลจิดเวชและสุขภาพจิด
  คณะพยาบาลศาสตร์ มหาวิทยาลัยบูรพา อ.เมืองชลบุรี จ.ชลบุรี 20131

- \* Corresponding author: duangjaivat@gmail.com
- วารสารไทยเภสัชศาสตร์และวิทยาการสขภาพ 2566:18(1):77-83.

Thanyaphat Chinnak<sup>1</sup>, Duangiai Vatanasin<sup>2</sup>\* and Pornpat Hengudomsub<sup>2</sup>

- $^1$  Master of Nursing Science Student (Psychiatric and Mental Health Nursing)  $^2$  Department of Mental Health and Psychiatric Nursing  $^{1.2}$  Faculty of Nursing, Burapha University, Mueang, Chon Buri, 20131, Thailand
- \* Corresponding author: duangjaivat@gmail.com

Thai Pharmaceutical and Health Science Journal 2023:18(1):77-83.

## บทคัดย่อ

วัตถุประสงค์: เพื่อศึกษาผลของโปรแกรมการเสริมสร้างความแข็งแกร่งในชีวิตต่อ ความผาสุกของมารดาเด็กออทิสติก วิธีการศึกษา: การวิจัยแบบกึ่งทดลองมีสองกลุ่ม ประเมินความแข็งแกร่งที่ก่อน หลัง และติดตามผล 1 เดือนหลังโปรแกรม ตัวอย่าง เป็นมารดาเด็กออทิสติกที่พาบตรมากระต้นพัฒนาการที่สถาบันสขภาพจิตเด็กและ วัยรุ่นราชนครินทร์จำนวน 30 คน โดยเข้ากลุ่มทดลองและควบคุมกลุ่มละ 15 คน กลุ่ม ทดลองได้รับโปรแกรมการเสริมสร้างความแข็งแกร่งฯ สัปดาห์ละครั้งนาน 8 สัปดาห์ ส่วนกลุ่มควบคุมรับบริการตามปกติ แบบประเมินความผาสุกมีค่าสัมประสิทธิ์อัลฟา ของครอนบาคเท่ากับ 0.84 ทดสอบความแตกต่างของคะแนนความผาสุกระหว่างสอง กลุ่ม 3 ครั้ง โดยการวิเคราะห์ความแปรปรวนสองทางแบบวัดซ้ำ ผลการศึกษา: มารดา ในกลุ่มทดลองมีคะแนนความผาสูกที่ก่อนการทดลอง (59.93 คะแนน) ที่เพิ่มที่หลังการ ทดลองและที่หลังการติดตาม (72.13 และ 76.67 คะแนน ตามลำดับ) อย่างมีนัยสำคัญ ทางสถิติ (P-value < 0.001 ทั้งคู่) และสูงกว่าที่พบในกลุ่มควบคุมอย่างมีนัยสำคัญทาง สถิติ (P-value < 0.001) สรุป: โปรแกรมเสริมสร้างความแข็งแกร่งในชีวิต 8 สัปดาห์ สามารถเพิ่มความผาสกในมารดาเด็กออทิสติก

คำสำคัญ: โปรแกรมเสริมสร้างความแข็งแกร่งในชีวิต, ความผาสุก, มารดาเด็ก ออทิสติก

#### Editorial note

Manuscript received in original form: April 22, 2022;

Revision notified: May 4, 2022;

Revision completed: May 15, 2022;

Accepted in final form: June 24, 2022;

Published online: March 31, 2023.

Abstract

Objective: To examine the effect of resilience-enhancing program on well-being among mothers with autistic child. Method: In this quasi-experimental research with two groups and well-being assessed before, right after and 4-week follow-up after the 8-week weekly resilience-enhancing program among 30 mothers with autistic child receiving care at the Rajanagarindra Institute of Child and Adolescent Mental Health, Thailand. Participants were assigned to the program (test group, n = 15) and usual care (control group, n = 15). Well-being questionnaire had a Cronbach's alpha coefficient of 0.84. Repeated measures ANOVA was used to compare well-being scores of the two groups before, right after and follow-up after the program. Results: Score of well-being in the test group before the program (59.93 points) significantly increased right after and at the follow-up (72.13 and 76.67 points, respectively) (P-value < 0.001 for both) and significantly higher those in the control group (P-value < 0.001). Conclusion: The 8-week resilience-enhancing program improved wellbeing scores among mothers with autistic child.

Keywords: resilience enhancing program, well-being, mothers with autistic child

Journal website: http://ejournals.swu.ac.th/index.php/pharm/index

### Introduction

Children with autism disorder or autism spectrum disorder have become a prominent and common psychiatric problem. Autistic children have been increasingly diagnosed in Thailand and worldwide. In the US, a prevalence of autistic to normal children was 1: 44.1 In Thailand, as high as 35.75% of autistic children were rehabilitated for development in 2021.2 Based on the Child and Adolescent Mental Health Rajanagarindra Institute data, 1,091 autistic children received care at the Institute in 2021. These statistics indicate a sizable public health problem.

Autistic children are those of three years of age or older diagnosed with autism spectrum disorder based on the Diagnostic and Statistical Manual of Mental Disorders-5 (DSM-V) of the American Psychiatric Association.3 The autism spectrum disorder consists of three defective developments. With social interaction

defect, autistic children avoid eye contact and play alone. With emotional and behavioral defect, they have improper and poorly controlled emotional expression such as repeating playing and staring, performing certain activities repeatedly with no flexibility.4

Effective autistic children care needs the integration of pharmacological and non-pharmacological approaches. The aim is to improve children development, reduce improper behavior, and have a normal or nearly normal daily living. At autistic therapy usually emphasizes on nonpharmacological modalities such as development stimulation<sup>5</sup>, stimulation on five sensory nerves, vice training, daily activities movement skill development, and modification.<sup>6</sup> Effective care and treatment for autistic children are essential for their development and normal living.

Mothers have critical roles in rearing and caring autistic children. With the first realization that their children have delayed or abnormal development, the mother would be anxious, frustrated, or stressed. Once the child is diagnosed with autism, the mother is usually frightened, confused, stressed, disappointed, or sad. The mother also feels the need to prepare for training her child to take care of his or herself and basic skills to live in the society. Mother of autistic child is directly impacted by the disorder, physically, psychologically, emotionally, and socioeconomically. All aspects of the impact affect the mother's well-being.

Well-being is the perception of the mother of autistic child toward their own feeling at a certain time. The feelings could be positive such as good general well-being, self-control, happiness, and liveliness; while negative ones are anxiety and depression, for example.8 The mother of autistic child with well-being has more positive than negative feelings. They perceive their good general well-being, happiness, liveliness, and self-control in daily living and problem-solving in taking care of autistic child. They could live a daily life happily, with no anxiety or depression. However, continuous care with frequent problems usually impacts the mother physically, psychologically, emotionally, and socially. Their well-being and quality of life have also been impaired. It has been known that mothers of autistic children receiving care at the ambulatory clinic of Rajanagarindra Institute of Child Development in Chiangmai province had a moderate level of well-being suggesting a need for promotion for a better quality of life.9

Resilience is an internal factor helping individuals overcome problems and difficulties. Resilience could be developed and strengthened throughout the life. Mothers of autistic child with resilience could overcome the difficulties and achieve wellbeing. Resilience is a capability or potential of individuals in encountering and overcoming critical situations. 10 Resilience consists of three facets. With the "I am" aspect, the individuals have feeling, attitude, belief toward themselves, self-esteem, freedom and responsibility on their own actions, hope, trust, and faith in themselves. With the "I have" aspect, the individuals perceive external source of support including good relationship, good support for carrying out any tasks, access to health services, and safety in life. With the "I can" aspect, the individuals perceive themselves have social skills such as the ability to communicate in problem-solving and emotion management. Resilient individuals understand themselves, have good attitude toward themselves, have self-esteem, perceive their source of support, have skills in communication, problemsolving, and emotion management. When facing crisis, resilient persons could face difficulties and recuperate from the defeat, hence less likely to experience depression<sup>11</sup> and maintain well-being.<sup>12</sup>

Resilience affects caregivers of schizophrenic patients positively. <sup>13</sup> Mothers of autistic child with resilience usually have low stress and no depression. <sup>14</sup> However, a study revealed a moderate level of resilience among mothers of autistic child. <sup>15</sup> With strengthened resilience, mothers of autistic child have more understanding, knowledge, and self-efficacy in caring the child. <sup>16</sup> Mothers with resilience could help their child to gain better development and demand care. As a result, the mothers have more free time to relax and do other activities, better physical health, self-control, happiness, and liveliness, and have less anxiety and depression. These benefits indicate more well-being for mothers of autistic child.

Mothers hold a crucial role as a caregiver for their autistic child. They promote the child's development including social skill for the child to be able to live normally with others. With the long-term care for their child, these mothers' well-being is impaired and needs enhancement. The mothers could take a good care of the autistic child. The child could live normally in the society and the mother could have a good well-being. However, studies on well-being promotion in the mother of autistic child have been scarce. Most studies involve the promotion of knowledge and understanding of the mother which is necessary for taking care of the child, and the skills for stress management.

Well-being could not be promoted directly but indirectly through internal factors. Self-efficacy could be enhanced which could further promote well-being. Previous research suggests that resilience is also an internal factor influencing well-being of the mother of autistic child. There have been no studies of enhancing resilience to promote well-being among the mother of autistic child. There was a need to examine a program to enhance resilience to promote well-being in the mother of autistic child. The program was developed based on the resilience concept of Grotberg (1995) 10 and related literature. This present study aimed to compare well-being of the mother of autistic child after the resilience promoting program and one-month follow-up between the mothers who attended the program (test group) and those who received only the usual care (control group). The study also compared well-being before, after and one-month after the program in

the mothers participating the program. Accordingly, it was hypothesized that the mothers in the test group had higher well-being scores than those in the control group after and one-month after the program, and those in the test group had different well-being scores at before, after and one-month after the program.ng capacity.

### **Methods**

In this quasi-experimental study, pre-test, post-test and one-month follow-up measurements in the two groups were planned. Sample was 30 mothers of autistic child receiving ambulatory development care at the out-patient clinic of the Child and Adolescent Mental Health Rajanagarindra Institute in Bangkok. To be eligible, the mother had to be the person responsible for taking care of her autistic child, have a child of 3 – 6 years of age diagnosed with autism of at least 6 months with a severity requiring a moderate help as indicated by physicians of the institute, be 20 years or older, and be able to communicate and write in Thai language.

The recruitment was carried out through a campaign two weeks before the experiment using a direct approach to individual mothers. A list of 10 – 12 mothers with potential for participation per service day was compiled. Mothers attending the clinic on Monday and Wednesday were assigned to the test group while those on Tuesday and Thursday to the control group. Potential participants were asked for willingness and convenience to participate and the list of those eligible was made. A simple random sampling without replacement was made to select 8 and 7 participants on Monday and Wednesday, respectively to the test group, and 8 and 7 participants on Tuesday and Thursday, respectively to the control group. A total of 30 participants, 15 in each group, were recruited.

The sample size was estimated based on power analysis using the software program G\*Power. The effect size of 0.40 was from the study of Chitrak et al<sup>16</sup> which was comparable to a medium effect size in health science research described by Polit and Beck.<sup>17</sup> With a power of 80% and a type I error of 5%, a sample of 12 participants per group was required. To compensate for a 20% attrition rate, 15 participants per group, or a total of 30 participants were needed.

#### Research instruments

Instruments in this study were the resilience promoting program and questionnaire. The program was developed based on the

resilience concept of Grotberg (1995) consisting of 8 activities as follows. The first activity of "To know you and autism" aimed to develop relationship of the researcher with group members and among group members. The resilience of being self, i.e., "I am," aimed to allow group members to know and bond with each other, and understand their own emotion and feeling, the relationship between well-being and resilience, autism and its treatment and care, and obstacles in caring the child and problem-solving management. Activities included those aiming at understanding their own emotion such pondering on their own emotion at present and in the last 2 weeks with a scale of 0 "the saddest" to 10 "the happiness" written on a ruler accompanied with the drawing of their own face. Participants were encouraged to share about situations causing such emotions with group members.

In the second activity of "development suitable for the age giving happiness," it aimed to enhance strength based on the "I can" and "I have" aspects of the resilience. It focused on the members examining their own feeling, frustration, and problems and obstacles arising from caring the autistic child. Members were trained to understand their stress and its cause, be relaxed in different situations, stimulate the five sensory nerves for the child, encourage the activities of daily living for the autistic child, and be familiar with support sources for autistic care, education, service access, and social welfare. Activities included relaxation training where members were allowed to examine their stress in the last week and written down on a ruler with 0 "not stressed at all" to 10 "the most stressed" with the causes of their stress. For mental health education, causes, signs and symptoms, impacts and alleviations of the stress were provided with group discussions and sharing.

The fourth activity "a mother with a child with social skill is a happy moth" based on the aspect of "I can" and "I have" aspects of resilienc7e aimed at developing skills to solve problems of training five sensory stimulation in autistic child. Members learned about the child's activities of daily living and were trained to stimulate the child's necessary social skills. Members also learned about resources for social support for autistic childcare. Activities included reviewing resources for social support surrounding the mother and the resources each mother had inside and outside of her family. The member was asked to document about such review, share their resources and opinions, and encourage each other about the available resources.

In the fourth activity of "happy child, happy mother," resilience with the aspects of "I can" and "I have" was promoted. It allowed the members together to identify problems relating to how to

stimulate autistic child for social skill development, and ways to solve such problems. The members were also trained for stimulating the play and emotion development in the autistic child. Role models were provided. Activities included training the members to stimulate the development of the autistic child in social skill, play, and emotion perception. The members were also allowed to ponder about advice and warning given by trusted significant others. They were encouraged to document their participation and group learning and sharing.

The fifth activity of "every problem has solution" was in accordance with the "I can" aspect of resilience. The activity also focused on skills to stimulate playing and emotion perception in the autistic child. The members were also trained to manage problems all situations in everyday life. Activities included having the members to examine problems arising in their daily life, causes of the problems, impacts of the problems, managements used, and results of the management. They were trained to solve problems logically by identifying ways to solve the problem with advantages and disadvantages and choosing the best way. They were encouraged to document their participation and group learning and sharing and applying ways to solve problems in their daily life.

The sixth activity of "good communication bringing a good life" represented the "I have" and "I can" aspects of resilience. The activity focused on implementing means for problem solving to stimulate the autistic child. The members were encouraged to realize their potential in caring the autistic child and availability of social support in the family and community. They were trained with communication skill for daily life situations. Activities included communication skill training where the members were allowed to discus and share with group members about communication problems they had, and causes and impacts of the problems. They were trained with the "I message" communication to ask for help from others. They were encouraged to document their participation and group learning and sharing.

In the seventh activity of "my awaiting goal" which represented the "I am" aspect of resilience, the members were encouraged to be able to solve problems in daily communication, have hope, and understand their future expectations. They were trained to have more positive outlook on life, find more ways to take care of autistic child, and know how to plan the care for the child with their existing potential and reality. Activities included examining and seeking their realistic goal in life with discussion and sharing with the group members. They documented the short-term and future goals of caring the child.

In the eighth activity of "moving the life with strength," the "I am" aspect of resilience was enhanced. The members were to review and summarize all skills learned in the program to use in their daily life especially for solving the problems and obstacles. They had positive outlook on life and clear goals in caring the autistic child. They were able to evaluate their own emotion, feeling, resilience, and well-being. Activities included self-esteem promotion by self-examination, self-assurance with positive words, identification and documentation of life goal, and ways to reach the goal. Sharing and discussion in the group was encouraged.

The second tool was the questionnaire. The first part asked participants about their demographic characteristics. For the mother, the questions asked about age, education level, occupation, marital status, monthly family income, history of physical medical problems, and duration of autistic childcare. About the autistic child, questions asked about age, gender, duration since diagnosis of autism, and duration the illness.

The second part was the well-being questionnaire based on Dupuy's concept (1977)<sup>8</sup>. It was translated into Thai language by Hanucharoenkul and colleagues. 18 The questionnaire consisted of 18 items. The first 14 items evaluated feeling and situations relating to well-being within the last month in six well-being domains specifically general health (1 item), self-control (3 items), happiness (3 items), liveliness, (3 items), anxiety (3 items), and depression (3 items). Of these 14 items, there 6 and 8 positive and negative items, respectively. The response was a 6-point rating scale ranging from 0 "the least well-being" to 5 "the highest well-being." Scores of negative items were reversed resulting in a total score of 0 - 70 points. The other four items were also questions about anxiety, stress, liveliness, and well-being but with a visual analog scale of 0 "no well-being" to 10 "the highest well-being." The total score of these four items were 0-40 points. The total score of the two parts combined was 0 - 110 points where higher scores again indicated higher well-being.

### Research instrument quality assurance

Content validity of the program and the questionnaire on well-being was examined by five experts, specifically one psychiatrist for child and adolescent mental health, two nurses specialized in caring autistic child, and two instructors in psychiatric nursing. All experts agreed with all elements. Slight revision was made according to the experts' recommendations.

For internal consistency reliability, the questionnaire of wellbeing was tested in 30 mothers with autistic child with characteristics comparable to the study participants. The questionnaire was found to have an acceptable-to-high internal consistency reliability with a Cronbach's alpha coefficient of 0.84.

#### Participants ethical protection

The study protocol was approved by the Ethics Committee for Human Study of Burapha University (approval number: G-HS 060/2563; approval date: September 16, 2020) and Ethics Committee of the Child and Adolescent Mental Health Rajanagarindra Institute (approval number: IRB 2564/001; approval date: October 22, 2020). The researcher provided participants the objective, process, and voluntary and anonymity nature of the study. The mothers could withdraw from the study at any time with no negative consequences of the regular care they received at the institute.

#### Experiment and data collection procedure

The permission to conduct study was granted by the director of the Child and Adolescent Mental Health Rajanagarindra Institute. A research assistant, which was a nurse, was trained by the researcher for data collection process. The researcher approached the prospective participants to provide information as described previously. Once they agreed to participate, a signed informed consent was obtained. Time and place for the program sessions were scheduled. All measures for Covid-19 prevention were strictly followed. One week before the first session, participants in the two groups were asked to complete the pre-test self-administered questionnaire. Participants in the test group attended one activity of eight weekly-sessions previously described, 60 - 90 minutes per session. Of the 15 participants in the test group, 7 participants were placed on the Wednesday sessions while 8 on the Wednesday session. Participants in the control group received regular care only. At the end of the 12-week study period, participants in the control group were provided with the program similar to those in the test group with the voluntary nature. However, with a more severe Covid-19 pandemic, all onsite activities were prohibited by the institute, and online sessions were instead. At the end of the program at the 8th week, participants were asked to complete the questionnaire for the post-test evaluation. At 12nd week (or the end of the 4-week follow-up), participants were asked to complete the questionnaire for the follow-up evaluation.

#### Data analysis

Descriptive statistics including frequency with percentage and mean with standard deviation were used to summary demographic

characteristics and study variables. Difference in pre-test well-being score between the two groups was tested using independent *t*-test. Differences in well-being scores of the two groups at pre-test, post-test and four-week follow-up were tested using two-way repeated measure analysis of variance. Pairwise comparisons were adjusted for by Bonferroni's adjustment. Statistical significance was set at a type I error of 5%. All statistical analyses were conducted using the software program SPSS version 25.0.

### **Results**

Mothers of the autistic child in the test group were 35.60 (SD = 7.92) years of age by average. The majority were married (46.67%), with a bachelor's degree (40.00%), and Buddhist (86.67%). They had a monthly family income of 22,200 Baht and a monthly expense of 18,533 Baht by average. The income was sufficient for the expense. Most of them had an assistant in caring the child (93.30%). They had been taking care of the child for 3.80 (SD = 0.56) years by average. Most of them had no chronic illnesses or substance abuse. In the control group, the mothers were 39.27 (6.94) years of age by average. The majority were married (80.00%), with a bachelor's degree (66.67%), and Buddhist (100.00%). They had a monthly family income of 32,233 Baht. The income was sufficient for the expense. Most of them had an assistant in caring the child (93.33%). They had been taking care of the child for 4.00 (SD = 0.65) years by average. Most of them had no chronic illnesses or substance abuse. There was no statistical difference between the two groups in any of the characteristics.

For the autistic child, in the test group, most were male children (93.33%), with the age of 5 years (40.00%), with a duration since diagnosed with autism of 1-2 years (46.67%). In the control group, most were male children (86.60%), with the age of 6 years (33.33%), with a duration since diagnosed with autism of 1-2 years (60.00%). There was no statistical difference between the two groups in any of the characteristics.

Well-being scores in the test group increased sizably from 59.93 points at pre-test, to 72.13 and 76.67 points at post-test and follow-up, respectively; while those in the control group increased slightly from 61.20 points at pre-test, to 62.87 and 63.80 points at post-test and follow-up, respectively (Table 1). At pre-test, the scores of 59.93 and 61.20 points in the test and control groups, respectively were not statistically different (P-value = 0.71). Regardless of time points, the overall well-being score in the test group was significantly different from that in the control group ( $F_{1.28}$ 

= 9.73, P-value = 0.004). Overall, the scores of well-being significantly increased over time ( $F_{1.19,33.36}$  = 31.63, P-value < 0.001). The overt increase over time in the test group and the slight increase over time in the control group were statistically significant ( $F_{1.19,33.36}$  = 17.18, P-value < 0.001) (Table 1).

**Table 1** Scores of well-being at pre-test, post-test and follow-up of participants in the two groups (N = 66).

Study variables	Test group (n = 15)		Control group (n = 15)		<i>P</i> -value*
	mean	SD	mean	SD	-
Depression					
Pre-test	59.93	11.12	61.20	6.66	0.71
Post-test	72.13	7.01	62.87	5.51	
Follow-up	76.67	6.57	63.80	5.23	
	Repeated measures ANOVA:				
	Between group: F <sub>1,28</sub> = 9.73, P-value = 0.004				
	Between time point: F <sub>1.19,33,36</sub> = 31.63, P-value < 0.001.				
	Group x time point: F <sub>1.19,33.36</sub> = 17.18, P-value < 0.001.				
	Within the test group over time:				
	F <sub>1,28</sub> = 40.49, P-value < 0.001				

\* Independent t test.

Within the test group, the increase from pre-test (59.93 points) to post-test (72.13 points) which was 12.20 points and to 4-week follow-up (76.67 points) which was 16.74 points were statistically significant (*P*-value < 0.001 for both). However, the increase from post-test to 4-week follow-up which was 4.54 points was not statistically significant.

### **Discussions and Conclusion**

In this quasi-experimental study in the mothers of autistic child, scores of well-being increased over time (i.e., before, right after, and 4-week follow-up after the 8-week program) in those who attended the resilience promoting program and were higher than those who did not (*P*-value < 0.001). It is consistent with a previous study in nursing students participating in a resilience promoting where their well-being right after and 1-month follow-up after the program were higher those in the control group (*P*-value < 0.001). <sup>18</sup>

The finding could be attributable to the resilience promotion of Grotberg. <sup>10</sup> The mothers participated in the program that enhanced their resilience in their three aspects namely "I am," "I have," and "I can" through group activities which allowed for sharing autistic childcare experience among group members. With learning from others, their perspectives changed and their resilience could be strengthened. They understood more in themselves and had better skills in caring the child, problem solving, and accessing useful resources of social support. Hence, they felt a more positive outlook on themselves, better general health, better sleep, less physical illness, better control on daily life activities, happier, livelier, less

anxious, and less depressed. These attributes indicated a better well-being.

Among participants attending the program, their wellbeing scores right after and 4-week follow-up after the program were significantly higher than that before the program. This indicated that the resilience promoting program could improve well-being and the benefit was sustained at a short follow-up period. The finding is consistent with a previous study showing that resilience promoting program could improve resilience<sup>19</sup> and happy learning<sup>20</sup> among nursing students.

Based on the resilience concept of Grotberg<sup>10</sup>, the mothers trained with the 8-week resilience promoting program could have enhanced their own resilience in three aspects of "I am," "I have," and "I can." Each activity offered gradual enhancement on each aspect of resilience. In each session, the mothers expressed happiness, relationship with others, relaxed and delighted when sharing experience of stimulating the child development with others. They were pleased when reporting their child's improvement with more skills and confidence in caring their autistic child. They could set a clear plan and goal in caring their child. They expressed their realistic expectation toward their autistic child. These allowed them to have better mental health. These mothers could also manage situations more effectively, have more rest time, have better physical health, have better control on themselves, be more lively and less anxious and depressed. The assignment to apply what learned in their daily care for the autistic child would allow these mothers gain more skills, realize their own feeling and emotion, have more self-esteem, and have faith and hope in caring their child. They could also make a good use of their resources of social support inside and outside of their family. They also developed better communication skills to better their problem solving which heightened the belief in their potential in caring the child. As a result, the mothers could in turn take good care of themselves, have better physical health, have more free time for relaxation and other activities, be able to control situations and their emotion, feeling, thought, and behavior. Ultimately, their well-being was enhanced and lasted longer.

However, the increase in well-being scores was relatively moderate. This could be attributable to the fact that a brief improvement in well-being is influenced by various internal and external factors. Resilience promotion could not solely improve well-being at the fullest effect. Other factors should be enhanced as well, for example, relationships among family members and social support.

Our study has certain limitations. The effectiveness of group activities could have been limited with the restrictions of Covid-19

pandemic prevention measures and a limited availability of instruments such as those for smell sensory testing. Since this was a quasi-experimental study, a certain bias could have been inherited.

Based on our finding and study conduct, nurses could apply the program to help enhance well-being in mothers caring their autistic child. Nursing students could be trained using the program to be ready for coaching the mother with autistic child. More studies could use and/or modify our study conduct in other group of patients, with longer follow-up period (i.e., 3 and 6 months) for a long-term effect of the program, and with more enhancing factors to be tested. Full experimental studies should also be conducted.

In conclusion, an 8-week resilience promoting program could significantly improve well-being scores right after and at 4-week follow-up when compared with no program among mothers with autistic child.

# References

- Center for Disease Control and Prevention. Prevalence and characteristics of autism spectrum disorder among children aged 8 years-autism and developmental disabilities monitoring. 2021. (Accessed on Feb. 9, 2022, at https://www.cdc.gov/mmwr/volumes/70/ss7011a1.htm)
- Ministry of Public Health. HDC system Ministry of Public Health. 2022. (Accessed on Jan. 25, 2022, at https://hdcservice.moph.go.th/hdc/main/index.php) (in Thai)
- American Psychiatric Association. Neurodevelopmental disorders. Autism spectrum disorder. In: Diagnostic and statistical manual of mental disorders, 5<sup>th</sup> ed.. Arlington, VA. American Psychiatric Association, 2013.
- Lortrakul M, Sukanich P. Ramathibodi psychiatry, 4<sup>th</sup> ed. Bangkok. Ramathibodi Hospital, Mahidol University, 2019: pp. 206-213. (in Thai)
- Manatae P. The relationship between parent's anxiety and autism adolescents rearing behavior. Master degree thesis (Development Psychology). Bangkok. Srinakharinwirot, 2013. (in Thai)
- Siriratraka T. Autism spectrum disorder: Integrated care. 2018. (Accessed on Jan. 3, 2018, at http://www.specialchild.psu.ac.th/artical/41-autism/69-2011-02-07-06-45-16.html) (in Thai)

- Rinjun N, Rotjanalert N. Training parents to train their autistic children in daily routine activites. Veridian E J 2015;8(2):1765-1782. (in Thai)
- Dupuy HJ. The general well-being schedule. In: McDowell I, Newell C (eds.).
  Measuring health: A guide to rating scales and questionnaire, 2<sup>nd</sup> ed. New York.
  Oxford University Press, 1977: pp.206-213.
- Kasemsook W. Well-being among caregiver of delayed development children at Northern Child Development Center 2002. Chiangmai. Chiangmai University, 2002. (in Thai)
- Grotberg EH. A guide to promoting resilience in children: Strengthening the human spirit. Hague. The Bernard van Leer Foundation, 1995.
- Taylor TL. Sense of coherence in mothers of children with autism spectrum disorder: Autistic symptoms, behavior problems and risk of maternal depression.
   2016. (Accessed on Dec. 12, 2020, at https:// media.proquest.com/media/ hms/ORIG/2/httM3H?\_s=J1GsdiM3Fo5rU3hpZGWSpQaBYsk%3D)
- Harms PD, Brady L, Wood D, Silard A. Resilience and well-being In: Handbook of well-being. Salt Lake City, UT. DEF Publishers, 2018.
- Dethchaiyot P, Vatanasin D, Hengudomsub P. Factors influencing psychological well-being among caregivers of patients with schizophrenia. *Nurs J Ministry Public Health* 2020;30(3):170-181. (in Thai)
- Ismael BA, Jacoub SM. Determination of parents' resilience with autistic child in Baghdad City. J Fac Med Baghdad 2012;54(4):325-330.
- 15. Kotera Y, Pope M, Chircop J, Kirkman A, Bennett-Viliardos L, Sharaan S. Resilience intervention for families of autistic children: Reviewing the literature. ResearchGate 2021. (Accessed on Dec. 12, 2021, https://www.Researchgate.net/publication/351824741\_Resilience\_Intervention\_for\_Families\_of\_Autistic\_Children Reviewing the Literature)
- Chitrak W, Nintachan P, Taweekoon T. The effect of resilience enhancing program on depression and resilience of nursing students in a nursing college in the northeast region of Thailand. J Psychiatr Nurs Mental Health 2015; 29(3):42-60. (in Thai)
- Polit DF, Beck CT. Nursing research: Generating ang assessing evidence for nursing (9th ed). Philadelphia, PA. Wolters Kluwer Health, 2012.
- Hanucharoenkul S, Intarasombat P, Puttawattana P. Daily hassles sense of coherence and perception of the well-being of university nurses. *J Nurs* 1989; 38(3):169-190. (in Thai)
- Thipsungnoen T, Thoin P, Sangsai W. The effects of a resilience-enhancing program on psychological and academic resilience among the first-year students at Nakhornratchasima College of Nursing. South Coll Net J Nurs Public Health 2019;6(s):153-166. (in Thai)
- Bundasak T, Nabkason C, Vatanasin D. The effects of resilience enhancement program on happy learning among nursing student. *J MCU Peace Stud* 2017;5(3):195-208. (in Thai)