

# The development and effects of the logotherapy-based ego-identity improvement program with the application of group art activities in late school-aged children



Young-Sook Lim \*

Department of Nursing, Shamyook Health University, Seoul, South Korea

## ARTICLE INFO

## Article history:

Received 27 May 2022

Received in revised form

17 August 2022

Accepted 31 August 2022

## Keywords:

Art

Children

Identity

Logotherapy

## ABSTRACT

The purpose of this study was to develop the logotherapy-based ego-identity improvement program through group art activities and to examine its effects. This program used concept synthesis. This program was exploited in accordance with the consultation and psychological education program development stages. Out of seven local children's centers in 3 Cities, 37 children in the experimental group and 33 children in the control group agreed to participate. The data collection and the program adaptation were conducted between April 1, 2019, and September 30, 2019. The effect of the program was evaluated by t-test and repeated measures ANOVA. The researches show that the ego-identity of the experimental group ( $F=23.42$ ,  $p<.001$ ), the meaning of life ( $F=27.82$ ,  $p<.001$ ), the academic stress ( $F=14.14$ ,  $p<.001$ ), the stress symptoms ( $F=15.52$ ,  $p<.001$ ) had a significant difference between the measurement period and the group interaction. Resultingly, the logotherapy-based ego-identity improvement program was indicated to be effective in improving academic stress and stress symptoms and for enhancing ego-identity formation and the meaning of life among late school-aged children. Therefore, it is expected that this program will be applied as an efficient program for the betterment of ego-identity among late school-aged children in the community.

© 2022 The Authors. Published by IASE. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

## 1. Introduction

Ego-identity is a development task that is important and required for late school-aged and adolescent students who are in the critical time of proceeding with exploring themselves and establishing the meaning and purpose of life amid the changes in biological, cognitive, and social-emotional development (Erikson, 1994). In this way, how to spend such a crucial moment is very meaningful to becoming a healthy and adaptable adult (Nam and Park, 2017).

Many children in our country are exposed to a fiercely competitive society to become a winner rather than a life of doing what they like or of pursuing their inner motivation and satisfaction (Shin et al., 2010). According to the survey result on

children's quality of life, the children in our country appeared to be under the greatest pressure on studying and competition, to think they should study more regardless of whether they have more or less time, and to feel guilty due to the academic pressure even in their free time (Lee et al., 2020). In this way, the biggest stress for school-aged children is academic stress (So and Chung, 2003). Children are less able to cope with stress compared to the amount of stress, thereby ever experiencing various forms of physical, psychological, and emotional symptoms such as school phobia, headache, and abdominal pain given being exposed to acute stress (Van Lier et al., 2012). Also, as stress is a factor of having a negative impact on ego-identity formation, there is a need to enhance the ability to deal with stress (Kim and Koh, 2016).

It is a very vital task for late school-aged children to seek the meaning and purpose of their own life in terms of ego-identity formation (Kang, 2017). Failing to recognize own uniqueness and individuality and to find the meaning and purpose of life leads to coming to a state of confusion, loss, and moratorium in the sense of identity, resulting in having no choice but to live a maladaptive life rather than planning own future (Erikson, 1994).

\* Corresponding Author.

Email Address: [bun8973@naver.com](mailto:bun8973@naver.com)<https://doi.org/10.21833/ijaas.2022.12.012>

Corresponding author's ORCID profile:

<https://orcid.org/0000-0002-0065-5328>

2313-626X/© 2022 The Authors. Published by IASE.

This is an open access article under the CC BY-NC-ND license

(<http://creativecommons.org/licenses/by-nc-nd/4.0/>)

Frankl (1988) mentioned that the fundamental characteristic of human existence that aims to seek the meaning and purpose of life is what all humans have, and developed logotherapy which is a psychotherapy technique based on existential philosophy. Logotherapy is what helps someone find logos hidden in existence (Frankl, 2006). When coming to get an answer to what's valuable in life, a human being comes to be capable of living a life that adapts to reality with specific and clear life goals.

Meanwhile, fine art is one of the methods available for visually expressing own senses and ideas, communicating with other people, and for confirming the meaning of the ego's existence, and has merit as saying of being able to verify and freely express the previously-unknown appearance and existence of 'me' (Persons, 2009). Children are more proper to express their emotions and feelings through media and color, not conscious thinking and language, and come to have an opportunity of the positive experiences such as curiosity, vitality, and a sense of accomplishment through the process of touching and completing the medium (van der Wal and Kok, 2019). Thus, art activities can be an appropriate intervention method for improving ego-identity for late school-aged children.

In the previous research works that have been conducted so far, a program with the integration of fine arts was clarified to be effective for enhancing ego-identity. But this is being carried out by targeting mainly undergraduates (Schure et al., 2008), and institutionalized adolescents (Kim and Park, 2018). Research targeting general children who are put in the critical period of forming ego-identity is in unsatisfactory condition. Also, in the research on the meaning of life targeting late school-aged children (Kang, 2017), logotherapy was proved to help children improve their self-awareness and the meaning of life in relation to ego-identity formation. Nevertheless, research on ego-identity based on logotherapy is not being conducted.

The late school age is not the period of preparing for adulthood to be faced down the road. Still, the happiness of the time itself is paramount (Lee et al., 2020). Accordingly, what helps children in this period to find the meaning of life is considered to be likely helpful for revving up the positive adaptability in the stressful environment they are experiencing and for forming a healthy ego-identity through the values and meanings that were found in it. Consequently, to help the ego-identity formation in late school-aged children, research is needed that verifies its effects by combining logotherapy, which is conducive to seeking the meaning of life hidden inside oneself, and the art activity, which proved a very easy effect on self-expression.

Hence, this study aimed to lay the groundwork for the intervention applicable to the practical field by developing the logotherapy-based ego-identity improvement program with the application of group art activities and then grasping its impacts.

The purpose of this study is to identify its effects by developing and applying for the logotherapy-

based ego-identity improvement program through group art activities (hereunder called LEIGA) targeting late school-aged children.

The hypotheses of this research are as follows:

- Hypothesis 1: The experimental group with participation in LEIGA will be improved their ego-identity level more than the control group with no participation.
- Hypothesis 2: The experimental group with participation in LEIGA will be enhanced the meaning-of-life level more than the control group with no participation.
- Hypothesis 3: The experimental group with participation in LEIGA will be reduced the academic stress level more than the control group with no participation.
- Hypothesis 4: The experimental group with participation in LEIGA will be decreased the stressful symptom level more than the control group with no participation.

## 2. Methods

This study is a quasi-experimental research that used the nonequivalent control group non-synchronized pre-post test design.

The subjects were recruited according to the following selection criteria and exclusion criteria so that there can be no difficulty in advancing the program among children in grades 4-6 who are registered in seven local children's centers of N city and P city which are located in Seoul Metropolis and capital area. The selection criteria were set to include the children who understand the objective of the research, agreed to join, and received parental consent, the children (experimental group) who are emotionally free from group activities, the children (experimental group) who have no difficulty in art activities using their hands due to physical problems such as hand injuries, and the children who don't have difficulty in reading and writing, and the children (experimental group) who are free from communication. It excluded the children who take part in another psychological intervention program during the research period and the acute-phase children who are undergoing treatment with ADHD, etc.

As for the number of subjects, the sampling number corresponded to a total of 54 people by a group as what was calculated by setting up significance level ( $\alpha$ )=.05, effect size (d)=.50, power (1- $\beta$ )=.95, group number with 2, and repetition number with 3 times based on the research (Kang et al., 2013) of the influence in a life respect program with the application of logotherapy as the repeated measures ANOVA method using G\*power 3.1.9.7 program upon the meaning of life in elementary school students. Totally 80 subjects were gathered with 43 people in the experimental group and 37 people in the control group based on convenience sampling in consideration of the 20% dropout rate. Before the pre-survey, 5 people withdrew their

participation in the research. Five people were eliminated during the intervention. Thus, the responses of a total of 70 people 37 people in the experimental group and 33 people in the control group were finally analyzed.

### 2.1. Theoretical framework of research

This study established the theoretical framework according to a relationship between the main concept of logotherapy (Frankl, 1988), and the sub-elements of ego-identity by using the concept

synthesis (Oh et al., 2014) among the strategy development theories for nursing. The 'Journey to Find Me' program with the application of group art activities as an expression method leads to promoting the meaning of life in late school-aged children. In addition, it diminishes academic stress and the stressful symptom as the factors inhibiting ego-identity that were disclosed through a literature review, thereby resulting in ultimately helping the improvement in ego-identity (Fig. 1).



Fig. 1: Conceptual framework of this study

### 2.2. Procedure of research

LEIGA was developed after passing through 4 stages such as the objective establishment, the program composition, the pilot research, the program implementation, and improvement according to the consultation and psychological education program model by Kim et al. (2011).

- At the objective establishment stage, it confirmed the effect and necessity of the program through a literature review and selected subjects as children in a local children’s center based on a survey of demands from elementary schools and local children’s centers. Also, based on the fundamental concept of logotherapy that was presented by Frankl (2006), it elicited major elements of the ego-identity improvement program and set specific goals and session-based aims in accordance with this.
- At the program composition stage, it established a specific program strategy and produced educational media by reflecting the interview results with 2 local children’s center operators and 3 children.

- At the preliminary research stage, constructed a 12-session program and developed educational materials after going through the evaluation stage by one logotherapy expert, seven nursing professors, and one mental health specialist (Table 1). The program-purpose validity evaluation accounted for 93% (87.5~97.5). The validity evaluation of the program contents by session amounted to 95% (88.8~100). The validity evaluation of a program help level by session came to 94.4% (90~97.5). Thus, the outcome in more than 80% was shown in all items. Accordingly, the content validity by session was verified. A preliminary survey was conducted targeting 4 children in a local children’s center. Based on the effects of the previous research (Faramarzi and Bavali, 2017), LEIGA was composed of twice a week, 40 minutes for each session, a local children’s center classroom for each place, and 5 below 10 people for a number of students per class.
- During the program implementation and improvement stage, it carried out LEIGA and evaluated the educational effect of targeting children at a local children’s center.

**Table 1:** The session-specific composition of LEIGA (Logotherapy-based ego-identity improvement program through group art activities)

Stage	Session	Educational program			Theoretical concept	
		Learning objective by session	Learning topic by session	Group art activities	Main concept of ego-identity	Main concept of logotherapy
Beginning stage	1	To form orientation and rapport and to have an interest in the program	Nice to meet you. (Program guidance and rapport formation)	Alias name tag	Intimacy	Experiential value
	2	To think about oneself and to express oneself	Introducing myself. (Expressing me)	Mind map Expression fan	Intimacy Self-acceptance	Experiential value Creative value
	3	To be closer to a friend and to realize the importance of a friend	Friend, let's become familiar (Getting close to the next-door friend)	Drawing a friend's face	Affinity	Experiential value
	4	To think of people who are important and precious to me and to think about positive interpersonal relationships	I am not alone. (Looking around me)	Cotton glove doll	Intimacy	Experiential value
Working stage	5	To reflect on my experience and to explore the reasons for happiness and sadness, and my reactions	When having been happy, When having been sad (Recalling my experiences)	Inside and outside of me	Subjectivity Self-acceptance Stress exploration	Attitudinal value Creative value
	6	To express and resolve the things that make me suffer, and the uncomfortable emotions of being felt at this time	I am getting angry. (Expressing my emotion)	Feelings Colored salt	Self-acceptance Subjectivity Stress exploration Stress relief	Attitudinal value Creative value
	7	To change negative emotions into positive ones through the process of the energy expression and recreation	A good thing about me, a negative point because of being me myself (Changing my thought)	Newspaper activity Emotional balloon	Subjectivity Self-acceptance Stress relief	Attitudinal value Creative value
Conversion stage	8	To look for my current self and strengths, to fortify the strong points, and to dream of positive future	A favorite thing to do, What I work well (Checking my emotion)	Plain puzzle	Self-acceptance	Creative value
	9	To make a list of my dreams and to proceed with finding my dream.	My dream is (Exploring my dream)	Colored clay Picture frame	Initiative	Choice and responsibility
	10	To draw up an action plan to achieve my future dream	My future self is~ (Planning my future self)	Written future plan	Future certainty Goal orientation	Meaning of life Freedom of the will Attitudinal value
Ending stage	11	To feel confident and valuable through the process of finding own role and cooperating with others	Let's make together (Creating the world we live in together)	Village of life	Initiative Intimacy	Choice and responsibility Experiential value
	12	To enhance the plan and commitment to the future, and to value the time spent together and the experiences one has discovered	Keep it for a long time (Remembering precious)	My value album	Subjectivity	Attitudinal value

**2.3. Research tool**

The research model consists of the following items:

- General characteristics: General characteristics were surveyed school year, family history, birth order, school record, economic condition, friend, family affinity, number of private academies, and primary care provider.
- Ego-identity: Ego-identity was used as a tool for elementary school students' ego-identity by Kim (2014). The tool comprises 6 sub-domains (subjectivity, self-acceptance, future certainty, goal orientation, initiative, intimacy) and a 5-point scale for 24 questions (1 point: Not so at all, 2 points: Not so much, 3 points: Moderate, 4 points: So a little bit, 5 points: Very much so). A higher score means a higher ego-identity. At the time of the development, Cronbach's  $\alpha$  stood at .95. In this study, Cronbach's  $\alpha$  came to .86.
- Meaning of life: The meaning of life was used as a tool for children's meaning of life by Kang et al. (2007). The tool is composed of 5 sub-domains (relational experience, positive attitude, satisfaction/hope, goal seeking, family-love

experience) and a 4-point scale for 23 questions (1 point: Not so at all, 2 points: Not so, 3 points: So, 4 points: Very much so). A higher score implies a higher meaning in life. At the time of the development, Cronbach's  $\alpha$  stood at .87. In this study, Cronbach's  $\alpha$  amounted to .90.

- Academic stress: Academic stress was measured with a tool for elementary school students' academic stress by Kim (2009). The tool consists of 4 sub-factors (school-class stress, school-record stress, parental pressure stress) and a 5-point scale for 15 questions (1 point: Not so at all, 2 points: Not so much, 3 points: Moderate, 4 points: So a little bit, 5 points: Very much so). A higher score means higher academic stress. In the research by Kim (2009), Cronbach's  $\alpha$  stood at .91. In this study, Cronbach's  $\alpha$  came to .90.
- Stressful symptom: Stressful symptom was gauged with a tool for elementary school students' stressful symptoms by So and Chung (2003). The tool comprises 3 sub-factors (physical symptom, emotional symptom, behavioral symptom) and a 5-point scale for 30 questions (1 point: Not so at all, 2 points: Not so much, 3 points: Moderate, 4 points: So a little bit, 5 points: Very much so). A higher score implies a higher stressful symptom.

In the research by So and Chung (2003), Cronbach's  $\alpha$  stood at .77. In this study, Cronbach's  $\alpha$  came to .92.

## 2.4. Data collection

This study was carried out from March 1, 2019, to September 30 at 7 local children's centers in 3 cities where are located in Seoul Metropolis and the capital area. This researcher visited the centers, submitted a research plan, and explained the objective and procedure of the program. After obtaining consent from the directors of the Centers, a program brochure and a parental consent form were sent to each home. The parental consent was collected through the centers. It assigned the children available for the program according to a situation of a center or an individual child to the experimental group and the children with the difficulty participating in the program due to cram school classes, etc. to the control group. With regard to the allocation of experimental and control groups, the time-series design was made in order to prevent the spread of test effects that may result from contacting each other in the same center. The selection of subjects in this study was decided according to the situation of a local children's center or an individual child and to the consent of the parents. Thus, the blindness of the subjects was not conducted. Two research assistants in charge of a research survey and the research assistant in charge of sub-serving the progress of experiments were explained the purport and objective of the research and were trained to understand a research method in accordance with the manual the researcher. The research assistant who participated in the pre and post-survey was set to fail to know to which group the subjects belonged. Based on the time-series design, the control group implemented the pre-post-further test from April 3, 2019, to May 29. The control group was not provided with a separate intervention. The experimental group was composed of a total of 7 groups with 4-7 people per group from June 7 to September 3 and was provided once a week (2 sessions, 40 minutes per session) for each center. The treatment of the experimental group progressed depending on the manual of the program researcher. The researcher continued to monitor compliance with the manual. The experimental group executed the pre-survey before carrying out the program, the post-survey right after the completion of the six-week program, and the further survey three weeks after the program ended.

## 2.5. Data analysis method

Materials were analyzed by using the IBM SPSS Statistics 32-bit version. The subjects' socio-demographic characteristics were parsed by using descriptive statistics (frequency, percentage, mean, standard deviation) and  $\chi^2$ -test. The impacts of the LEIGA were analyzed by using the repeated measures ANOVA and the paired t-test. A test for

difference in the pre-post-further score change value over time between the experimental group and the control group was parsed with the paired t-test.

## 2.6. Ethical execution and safety consideration of research

The research progressed after being approved by the Bioethics Review Board of the University before conducting this study (IRB-NO: 2-700173-AB-N\_012019005HR). After explaining the objective and procedure of this study, only the children who desire to take part in the research and who obtained consent from their parents and local children's center directors were chosen as the research subjects. Also, it obtained voluntary consent from children after explaining that the research results are not used for purposes other than research and that the maximum privacy of the participating children will be ensured. Even if one has expressed the intention to participate in the research, one can quit at any time during the research. The participants who expressed their inclination to stop were allowed to immediately quit. In addition, it was asked not to be forced to participate in the program the person in charge of the institution. There was an explanation about what the research materials will be coded to be used, what the materials will be kept safely in the research data storage file with a locking device, and what materials will be incinerated after the completion of the research. And the research assistants who participated in the experiment were also pledged to keep confidentiality under the Personal Information Protection Act. All the subjects in the experimental group and the control group that participated in the experiment were offered a small gift (snack) for every data collection. Three centers wishing to proceed with the program out of the control group provided the program after the completion of the further test.

## 3. Results

### 3.1. Homogeneity test of the subjects

As a result of the homogeneity test on general characteristics, the general features in the experimental group and the control group had no statistically significant difference in all variables. Thus, the two groups were verified to be homogeneous groups. The meaning of life, academic stress, the stressful symptom, and the ego-identity before carrying out the program in the research subjects had no statistically significant difference in all variables. In this way, two groups were proved to be the homogeneous group (Table 2).

### 3.2. Effect test of the intervention

As a consequence of executing the repeated measures, ANOVA that was implemented to test a difference in the pre-post-further ego-identity score

changes over time between the experimental group and the control group, the ego-identity ( $F=23.42, p<.001$ ), the meaning of life ( $F=27.82, p<.001$ ), the academic stress ( $F=14.14, p<.001$ ), and the stressful

symptom ( $F=15.52, p<.001$ ) showed a significant difference in the measurement time and the group interaction. Thus, Hypotheses 1, 2, 3, and 4 were supported (Table 3).

**Table 2: Homogeneity test of general characteristics (N=70)**

General characteristics		Whole (n=70)	Experimental group (n=37)	Control group (n=33)	$\chi^2$ or t	p
		Frequency (%)	Frequency (%)	Frequency (%)		
Gender	Male	37(52.9)	19(51.4)	18(54.5)	0.07*	.815
	Female	33(47.1)	18(48.6)	15(45.5)		
School year	4 <sup>th</sup> grade	25(35.7)	13(35.1)	12(36.4)	0.04*	.982
	5 <sup>th</sup> grade	22(31.4)	12(32.4)	10(30.3)		
	6 <sup>th</sup> grade	23(32.9)	12(32.4)	11(33.3)		
Number of siblings	1 person	27(38.6)	14(37.8)	13(39.4)	0.02*	.989
	2 persons	26(37.1)	14(37.8)	12(36.4)		
	More than 3 persons	17(24.4)	9(24.4)	8(24.2)		
Sibling position	Firstborn	13(18.6)	7(18.9)	6(18.2)	0.05*	.997
	Middle	12(17.1)	6(16.2)	6(18.2)		
	Youngest	28(40.0)	15(40.5)	13(39.4)		
School record	Only child	17(24.3)	9(24.3)	8(24.2)	0.14*	.934
	High rank	18(25.7)	9(24.3)	9(27.3)		
	Middle rank	44(62.9)	24(64.9)	20(60.6)		
Number of private academies	Low rank	8(11.4)	4(10.8)	4(12.1)	0.08*	.959
	1 piece	36(51.4)	19(51.4)	17(51.5)		
	2 pieces	20(28.6)	11(29.7)	9(27.3)		
Subjective Economic Level	More than 3 pieces	8(11.4)	4(10.8)	4(11.1)	0.12*	.944
	None	6(8.6)	3(8.1)	3(9.1)		
Family Attention	High class	18(25.7)	9(24.3)	9(27.3)	0.04*	.980
	Medium class	45(64.3)	24(64.9)	21(63.6)		
Friend	Low class	7(10.0)	4(10.8)	3(9.1)	0.04*	.978
	Tend to have nothing.	10(14.3)	5(13.5)	5(5.2)		
Main caregiver	Many.	28(40.0)	15(40.5)	13(39.4)	0.09*	.993
	So many	32(45.7)	17(45.9)	15(45.5)		
Ego-identity	Tend to have nobody.	8(11.4)	4(10.8)	4(12.1)	-0.70	.942
	Many	24(34.3)	13(35.1)	11(33.3)		
Meaning of life	So many	38(54.3)	20(54.1)	18(54.6)	-0.00	.997
	Mother	39(55.7)	21(56.7)	18(25.7)		
Academic stress	Father	16(22.9)	8(21.6)	8(11.4)	0.53	.601
	Grandparents	11(15.7)	6(16.3)	5(7.1)		
Stressful symptom	Others	4(5.7)	2(5.4)	2(2.8)	1.12	.267
		3.67±0.54	3.67±0.56	3.68±0.51		
		3.40±0.38	3.40±0.41	3.40±0.35		
		2.24±0.88	2.29±0.95	2.18±0.79		
		1.71±0.48	1.77±0.50	1.64±0.45		

\* Fisher's exact test

**Table 3: Effects of the logotherapy-based ego-identity improvement program (N=70)**

Variables	Groups	Pre-test	Post-test	Follow up test	Sources	F/(p)
		Mean±SD	Mean±SD	Mean±SD		
Ego Identity	Exp.	3.67±0.56	3.94±0.47	3.86±0.47	group	8.58 (.005)
	Cont.	3.68±0.51	3.47±0.39	3.39±0.45	time	2.14 (.146)
					group*time	23.42 (<.001)
Meaning of life	Exp.	3.40±0.41	3.65±0.24	3.60±0.24	group	4.76 (.033)
	Cont.	3.40±0.35	3.38±0.34	3.38±0.34	time	16.76 (<.001)
					group*time	27.82 (<.001)
Academic stress	Exp.	2.29±0.95	1.92±0.67	2.00±0.65	group	0.64 (.427)
	Cont.	2.18±0.79	2.21±0.77	2.26±0.78	time	9.45 (.002)
					group*time	14.14 (<.001)
Stressful symptom	Exp.	1.77±0.50	1.62±0.43	1.65±0.42	group	0.42 (.517)
	Cont.	1.64±0.45	1.79±0.40	1.80±0.39	time	0.29 (.600)
					group*time	15.52 (<.001)

**3.3. Continuity of the program impact**

A significant difference was reflected in all ego-identity (pre-post ( $t=4.78, p<.001$ ), post-further ( $t=-6.76, p<.001$ ), pre-further ( $t=3.31, p=.002$ )), the meaning of life (pre-post ( $t=5.90, p<.001$ ), post-

further ( $t=-6.67, p<.001$ ), pre-further ( $t=4.37, p<.001$ )), the academic stress (pre-post( $t=-4.11, p<.001$ ), post-further ( $t=5.64, p<.001$ ), pre-further ( $t=-3.06, p=.004$ )), the stressful symptom (pre-post( $t=-4.91, p<.001$ ), post-further ( $t=5.18, p<.001$ ), pre-further ( $t=-3.83, p=.001$ )). Thus, the effects of

the improvement in ego-identity, on the betterment in the meaning of life, on the reduction in academic stress, and on the decrease in the stressful symptom

of the experimental group lasted up to three weeks after the end (Table 4).

**Table 4:** Persistence of program effects (N=37)

Variables	Pre-test	Post-test (6wks)	Follow up test (9wks)	Pre-test and Post-test	Post-test and Follow up test	Pre-test and Follow up Test
	Mean±SD	Mean±SD	Mean±SD	t(p)	t(p)	t(p)
Ego-identity	3.62±0.60	3.94±0.47	3.86±0.47	4.78 (<.001)	-6.78 (<.001)	3.31 (.002)
Meaning of life	3.40±0.41	3.65±0.24	3.60±0.24	5.90 (<.001)	-6.67 (<.001)	4.37 (<.001)
Academic stress	2.29±0.95	1.92±0.67	2.00±0.65	-4.11 (<.001)	5.64 (<.001)	-3.06 (.004)
Stressful symptom	1.77±0.50	1.62±0.43	1.65±0.42	-4.91 (<.001)	5.18 (<.001)	-3.83 (<.001)

#### 4. Discussion

This study aimed to help the improvement in the ego-identity formation of late school-aged children and confirmed the effects by synthesizing the main concepts of logotherapy and the concept of sub-elements in ego-identity and by applying group art activity as an expression method. In this chapter, the objective is to discuss the impacts of LEIGA focusing on the verified hypotheses.

First, as for ego-identity, the experimental group with participation in LEIGA significantly increased ego-identity over time compared to the control group. A direct comparison is difficult because there is no research result that applied group art activities based on logotherapy. But this research result backs up the outcome of the existing research (Smriti et al., 2022), which improved ego-identity by carrying out the group art activity program in various subjects. Besides, the ego-identity level given in the preliminary survey in this study was shown to be an average of 3.67 (5-point perfection). Thus, the pre-score was interpreted to have not been low. Nevertheless, the ego-identity level was enhanced significantly in children of having been provided LEIGA. Its effect could be identified to be continued even 3 weeks after the conclusion of the program. This seems that the promotion of ego-identity formation was influenced by the experience of emotional stability and support in the process of executing the program and by the offer of an opportunity to recognize and express own inner energy in the structured program (Smriti et al., 2022).

The late school age can be considered to be the time of experiencing the mentally biggest change in the process of human development and to be the important period to form a sense of ego-identity and build the basis for objectively identifying and accepting oneself. Considering this, the ego-identity formation improvement program for late school-aged children is thought to be necessarily made more diversely and actively. In this sense, LEIGA which was developed in this study offers the appropriate and more systematic nursing intervention for late school-aged children, thereby

being regarded as being likely able to give help the promotion of children's ego-identity formation.

Second, the meaning of life may be varied depending on each situation. But every human being wants to find meaning in their current lives (Kang et al., 2013). Compared to the control group, the experimental group with participation in LEIGA significantly grew the meaning of life over time. Moreover, the effect on the meaning of life lasted until three weeks after the end of the program. This result supports the outcome of the research by Kang et al., (2013) that improved the meaning of life by executing the logotherapy-based program in elementary school students. Seeing the findings of the logotherapy-based program targeting children and adolescents (Kang et al., 2009; 2011), most cases are reporting that there was an effect by measuring the meaning of life. Thus, along with the existing findings, the result of this study is showing that LEIGA can elevate the meaning of life in late school-aged children.

Seeing the late school age in the developmental aspect, as the unique existence simultaneously with experiencing a conflict for forming ego-identity, it comes to face the question of what meaning and value one has in own life (Kang et al., 2013) and tries to find an answer to this. The meaning of logotherapy is not to be created but to discover. Starting from the work of seeking the meaning to find own true value, what evaluates exactly where one stands in the present life leads to recognizing the potential capability and resource for future growth and to being able to move forward to achieve someone one wants through this (Schulenberg et al., 2008). From this point of view, it can be said that ego-identity and the meaning of life are deeply related to each other. Therefore, an opportunity of thinking about the meaning of own life should be provided to late school-aged children who begin to ask about their own sense of identity. Continuous interest and education are thought to be necessary for possibly having the appropriate purpose awareness in the future through discovering own meaning and existential value in association with ego-identity formation.

Third, in terms of academic stress, the academic stress following the intervention in the case of

children with the offer of LEIGA was reduced significantly. And it continued until three weeks after the intervention. This research outcome showed the same direction as the previous research saying that academic stress becomes a factor in raising children's helplessness (Cha and Yoo, 2010), but that active support from parents and society lowers children's stress and helps them have a healthy coping method (Song et al., 2010). The late school age is the transition period to adolescence, is the time with the high potential for stress experience due to psychological and emotional instability, and is the time when even various stress-induced adaptation problems can easily occur (Kim, 2009). Schulenberg et al. (2008) mentioned that the neurotic response caused by a psychological conflict requires a meeting of satisfying emotional needs and that creative activity such as fine art or song leads to being capable of finding meaning and uniqueness in life and gaining a sense of ego-identity. In this context, LEIGA helped children discover their own merit and have self-confidence and value, with a focus on helping the health of late school-aged children through discovering the meaning and positivity of life rather than striving to find and remove a cause of the problem. This research result demonstrates that the logotherapy-applied program may become an effective alternative plan that is helpful for a decline in the stress of elementary school students.

Fourth, concerning stressful symptoms, the stressful symptom in the case of the children with the offer of LEIGA declined significantly. And it continued until three weeks after the intervention. This research result has the same context as the finding by Chiang et al. (2019) having shown that the strengthening in art-related stress-coping behavior has an impact on dwindling the stress-induced defensive and atrophic symptoms and increasing the self-concept and positive self-awareness. A rise in positive emotional experiences and expression opportunities in the crucial process of what children perceive themselves as personality with growing up diminishes the somatic symptom caused by stress (Cha and Yoo, 2010). This study helped children recognize their own inner emotions through LEIGA and strived to lower subjects' stressful symptoms through group art activity, which enhances the attachment relationship with family and friends. If this program can promote a long-term effect, the late school-aged children come to take the attitude of looking at their own life more affirmatively even if the social situations and conditions do not change, thereby being expected to be likely able to elevate a sense of well-being even slightly that is felt subjectively toward inevitable difficulties.

## 5. Conclusion

Logotherapy-based Ego-Identity Improvement Program through Group Art Activities (LEIGA) increased the meaning of life in late school-aged children, thereby having shown it has an effect on

decreasing academic stress and stressful symptom and improving ego-identity. Resultingly, this program is thought to be likely able to be applied as an effective program to enhance late school-aged children's ego-identity in the community. As this study is what this researcher developed and applied for the program and proved the effects by forming the theoretical framework based on prior literature of ego-identity, logotherapy, and group art activities, it is a case that demonstrates a relationship among academic stress, stressful symptom, ego-identity and logotherapy of having not been theorized yet, and is considered to be possibly conducive to the theory refinement with the effective logotherapy as the ego-identity intervention. Furthermore, it can be seen to have verified the role of group art activity as a nursing intervention tool proper for late school-aged children and to have increased the accessibility to nursing. Especially is applied to the program in a small group unit by supplementing the limitations of the existing group-based programs and integrating the art expression activity with the 'journey to find me,' which is the logotherapy-based activity available for contemplating and expressing an individual, thereby being thought to have a great significance in regard of being an intervention that attempted a systematic approach for children.

However, considering that the improvement in ego-identity is the temporal development process according to human development, a short-term program can be reckoned to have limitations. In consideration of this, there is a need to develop a program in a longer-term dimension. It is thought to be likely more efficient given developing and providing a program appropriate for that by analyzing a periodic change according to the child's development stage and a type depending on individual characteristics.

## Compliance with ethical standards

## Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## References

- Cha JR and Yoo MS (2010). Children's somatic symptoms and related parent and child variables. *Journal of Families and Better Life*, 28(2): 193-202.
- Chiang M, Reid-Varley WB, and Fan X (2019). Creative art therapy for mental illness. *Psychiatry Research*, 275: 129-136. <https://doi.org/10.1016/j.psychres.2019.03.025>  
PMid:30901671
- Erikson EH (1994). *Identity: Youth and crisis*. W. W. Norton and Company, New York, USA.
- Faramarzi S and Bavali F (2017). The effectiveness of group logotherapy to improve psychological well-being of mothers with intellectually disabled children. *International Journal of Developmental Disabilities*, 63(1): 45-51. <https://doi.org/10.1080/20473869.2016.1144298>



- Frankl VE (1988). *The will to meaning: Foundations and applications of logotherapy*. Revised Edition, Plume, New York, USA.
- Frankl VE (2006). *Man's search for meaning*. Beacon Press, Boston, USA.
- Kang KA (2017). Experiences of meaning in life among elementary school students: Content analysis based on major concepts of logotherapy. *Child Health Nursing Research*, 23(1): 37-47. <https://doi.org/10.4094/chnr.2017.23.1.37>
- Kang KA, Kim SJ, and Song MK (2009). A study on the relationship between self-esteem and meaning of life in higher grade elementary school students. *Journal of Korean Academy of Community Health Nursing*, 20(3): 269-276.
- Kang KA, Kim SJ, and Song MK (2011). Development and evaluation of a finding meaning in life CD program for life-esteemed education of older school-age children. *The Journal of Korean Academic Society of Nursing Education*, 17(3): 487-500. <https://doi.org/10.5977/JKASNE.2011.17.3.487>
- Kang KA, Kim SJ, Song MK, and Kim MJ (2013). Effects of logotherapy on life respect, meaning of life, and depression of older school-age children. *Journal of Korean Academy of Nursing*, 43(1): 91-101. <https://doi.org/10.4040/jkan.2013.43.1.91> PMID:23563072
- Kang KA, Song MK, Sim SY, Kim SH, and Kim SJ (2007). Development of an instrument to measure meaning of life (MOL) for higher grade primary school children. *Child Health Nursing Research*, 13(3): 308-317.
- Kim CD, Kim HS, Shin EJ, Lee SH, and Choi HN (2011). Development and evaluation of counseling and psychological education program. Hakjisa, Seoul, Korea.
- Kim EK and Koh CK (2016). The relation of parenting stress, anger and somatization symptom of mothers. *Korean Journal of Stress Research*, 24(3): 151-160. <https://doi.org/10.17547/kjsr.2016.24.3.151>
- Kim KH and Park SA (2018). Horticultural therapy program for middle-aged women's depression, anxiety, and self-identify. *Complementary Therapies in Medicine*, 39: 154-159. <https://doi.org/10.1016/j.ctim.2018.06.008> PMID:30012387
- Kim MH (2009). A study on the differences of children's mental health by academic stress level and stress coping styles. Ph.D. Dissertation, Seoul National University of Education, Seoul, Korea.
- Kim YW (2014). The effects of the classroom teachers' communication effectiveness on elementary students' formation of ego-identity. MA Thesis, Seoul National University of Education, Seoul, Korea.
- Lee B, Kim S, Ahn J, Yoo J, Yoo M, Park H, and Cha E (2020). A report on Korean children's quality of life IV. SNU Institute of Social Welfare, Seoul, Korea.
- Nam MH and Park UI (2017). The effects of a logotherapy group counseling program on life purpose, self-esteem, and school adjustment among middle school students. *Korean Journal of Child Studies*, 38(1): 5-15. <https://doi.org/10.5723/kjcs.2017.38.1.5>
- Oh KS, Lee IS, Lee JE, Lim ES, and Cho SY (2014). Strategies for theory construction in nursing. Jungdam Media, Seoul, Korea.
- Persons RW (2009). Art therapy with serious juvenile offenders: A phenomenological analysis. *International Journal of Offender Therapy and Comparative Criminology*, 53(4): 433-453. <https://doi.org/10.1177/0306624X08320208> PMID:18678735
- Schulenberg SE, Hutzell RR, Nassif C, and Rogina JM (2008). Logotherapy for clinical practice. *Psychotherapy: Theory, Research, Practice, Training*, 45(4): 447-463. <https://doi.org/10.1037/a0014331> PMID:22122533
- Schure MB, Christopher J, and Christopher S (2008). Mind-body medicine and the art of self-care: Teaching mindfulness to counseling students through yoga, meditation, and qigong. *Journal of Counseling & Development*, 86(1): 47-56. <https://doi.org/10.1002/j.1556-6678.2008.tb00625.x>
- Shin HG, Yoo IY, and Oh EG (2010). Relationship between quality of life and parenting attitude and parent-child communication patterns of school age children. *Child Health Nursing Research*, 16(3): 220-229. <https://doi.org/10.4094/jkachn.2010.16.3.220>
- Smriti D, Ambulkar S, Meng Q, Kaimal G, Ramotar K, Park SY, and Huh-Yoo J (2022). Creative arts therapies for the mental health of emerging adults: A systematic review. *The Arts in Psychotherapy*, 77: 101861. <https://doi.org/10.1016/j.aip.2021.101861>
- So H and Chung YS (2003). The relationship between stress and stress symptoms among elementary school students. *Journal of the Korean Society of School Health*, 16(1): 91-104.
- Song HO, Park AC, and Choi SY (2010). A structure model analysis between a family environment, perceived social support, self-efficacy and ego-identity of adolescents. *Korean Journal of Youth Studies*, 17(2): 109-129.
- van der Wal CN and Kok RN (2019). Laughter-inducing therapies: Systematic review and meta-analysis. *Social Science & Medicine*, 232: 473-488. <https://doi.org/10.1016/j.socscimed.2019.02.018> PMID:31029483
- van Lier PA, Vitaro F, Barker ED, Brendgen M, Tremblay RE, and Boivin M (2012). Peer victimization, poor academic achievement, and the link between childhood externalizing and internalizing problems. *Child Development*, 83(5): 1775-1788. <https://doi.org/10.1111/j.1467-8624.2012.01802.x> PMID:22716904