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# The Effects of Group Art Programs On Depression and Quality of Life of Elderly People Using Day Care Facilities

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## Abstract

**Purpose:** The purpose of this study is to present basic data that can be used as a program to improve emotional stability and daily life ability by reducing depression and improving the quality of life of the elderly using day care facilities. **Research design, data and methodology:** Changes in each stage of the study subjects were observed and interviewed, and pre- and post-tests were conducted on the depression and quality of life of the elderly in the group program. The measurement tool was designed for pre- and post-test using the tools of the Korean Elderly Depression Test (K-GDS) and the elderly's quality of life test. **Results:** As a result of observing and interviewing participants, and examining attitudes and reactions to each session, the pre-test showed a negative attitude, but then communicated with each other to form a positive relationship. As a result of pre- and post-test on the depression and quality of life of the elderly in the group art program, it was found that depression decreased and quality of life improved after participating in the program. **Conclusions:** This study was conducted by dividing the physically and psychologically deteriorated elderly into a control group and an experimental group. Sharing stories from past experiences had a positive effect on relationships with group members, and the elderly who have difficulty expressing their inner feelings through art, a non-verbal medium, had a positive effect on their satisfaction with their quality of life as they felt a sense of achievement after seeing the work.

**Keywords :** Group Art Programs, Day care facilities elderly, Effects of depression, Quality of life

**JEL Classification Code :** I19, I31, I38, I39

## 1. Introduction

In Korea, economic and social problems are expected to increase as the working-age population rapidly decreases due to the increase in the elderly population. In Korea, as the form of the family has changed from large family to nuclear family due to the rapid industrialization process, it is no

longer a problem to be solved only at home due to changes in family support consciousness and values, but a problem to be solved as a social problem.

In recent years, as values in Korea have changed, it has been transformed into a responsibility of the state and society, unlike in the past, when it had to take care of the elderly and their families under traditional Confucian ideas. In this way, welfare facilities for the elderly are inevitably

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gradually increasing as they are widely expanded from the individual domain to the social domain.

In the case of Korea, with the implementation of the "Long-Term Care Insurance for the Elderly" system as social insurance in 2008, the number of institutions providing services to the elderly who received long-term care grades for the elderly increased as the area of care services for the elderly expanded. Long-term care facilities for the elderly are divided into facility benefits and home care benefits, which are detailed types of social welfare facilities divided into living facilities among social welfare facilities, such as elderly care facilities and elderly care co-living families. Home care benefits are detailed types classified as facilities used among social welfare facilities, including visiting services, day and night care services, short-term care services, and welfare equipment support services.

According to the Elderly Welfare Act, day care facilities are defined as services to provide care services for the elderly and the disabled who cannot be protected by their families due to unavoidable reasons, to maintain and improve their life stability, mental and physical functions, and to relieve the physical and mental burden of their dependents.

Daycare facilities operate various programs to the elderly, including physical activity, cognitive activity, social and adaptation activity, emotional activity, rehabilitation and physical therapy. The types of programs include health exercise, strength and brain gymnastics, music therapy, horticultural therapy, play therapy, game therapy, physical therapy, traditional fairy tales, teaching aids and blocks, and art programs to improve the physical, cognitive and emotional programs of the elderly.

The depressive symptoms of elderly living alone are 18.7% and the depressive symptoms of elderly couples are 10.4%, which is likely to cause social problems as the elderly living alone have high depressive symptoms (Statistics Korea, 2021).

As the elderly enter old age, it is reported that separation from their spouse, friends or family around them, and disconnection of communication with their children can make the elderly more lonely, and that physical aging can increase depression due to passive attitudes, introspective tendencies, and inability to express themselves. He said that he needed positive relationships in old age and the ability to properly recognize his feelings and thoughts and express what he wanted to say to the other person (Na & Jeon, 2017).

The scholars who argued for the definition of group art programs are as follows. Wadeson (1987) defined group art programs as programs that combine creative energy with group cohesiveness and dynamics of group programs by applying the characteristics of art programs to group programs.

The advantages of applying group art programs to the elderly are summarized as follows.

It is reported that it is possible to help regain and maintain memories by allowing them to recall past memories through past experiences, events, and work (Kim, 2018). It is said that the elderly can improve their self-esteem by interacting with each other, sharing their experiences and wisdom, helping other elderly people, and performing meaningful roles (Choi, 2021). Looking at the effect of group art programs in this way, group art programs can be said to be a medium through which the elderly who have difficulty expressing themselves can recall their past. Art programs as a group member, and it is expected that it will be psychologically and cognitively helpful for the elderly by reminiscing about past memories by sharing emotions and psychological treatment or communication.

Previous studies related to depression reduction in group art programs conducted on the elderly Participation in group art programs restored self-esteem, reduced depression due to emotional support, and proved to have a positive effect on self-integration and depression by expressing oneself (Choi, 2021). It was reported that the group art activity program had a positive effect on the depression of the elderly who used day care facilities (Cha, 2021). In addition, it was reported that art programs reduced the overall depression of the elderly (Park, 2021).

Previous studies related to the quality of life of group art programs conducted on the elderly reported that they used various art media to focus on art programs and experience a sense of accomplishment and satisfaction (Jeon, 2019). The pre- and post-test results of the elderly's life satisfaction showed a statistically significant difference, proving that group art programs have a positive effect on life satisfaction (Lee, S. G, 2020). In addition, it has been demonstrated that group art programs have a significant effect and contribute to improving the quality of life of the elderly (Min, 2021).

As such, group art programs showed high satisfaction with the elderly's depression and quality of life, but there were previous studies on the depression reduction and quality of life satisfaction of group art programs in nursing facilities, but prior studies on the elderly in day care facilities are insufficient. Group art programs targeting the elderly in day care facilities can provide psychological comfort by talking, empathizing, and expressing each other with art programs that have positive interactions physically, cognitively, and emotionally. Group art programs are expected to improve the elderly's depression and quality of life through emotional support and therapeutic programs by understanding, caring, and sharing the feelings of others. Therefore, the purpose of this study is to present basic data to improve the emotions and interpersonal relationships, thereby improving emotional stability and improving their daily living skills.

## 2. Theoretical Background

### 2.1. Long-term Care Facilities for the Elderly

#### 2.1.1. Long-Term Care Insurance System and benefits for the elderly

In July 2008, Korea implemented the “Long-Term Care Insurance for the Elderly” (hereinafter referred to as this system). This system is called the Long-Term Care Insurance for the Elderly by providing social care services for the elderly in need of help and protection due to elderly or senile diseases. Pursuant to Article 1 of the Elderly Long-Term Care Insurance Act, long-term care facilities for the people by prescribing matters concerning long-term care benefits such as physical programs or daily life support that provide care services to the elderly who are unable to perform their daily lives alone due to reasons such as old age or senile diseases.

Long-term care benefits are largely classified into home care benefits, facility benefits, and special cash benefits, and cannot be used in duplicate. However, in the case of persons eligible for special cash benefits, other home care benefits may be additionally used. Home care benefits, other home care benefits may be additionally used. Home care benefits, other home care benefits may be additionally used. Home care benefits are divided into home visit benefits (visiting care, visiting baths, visiting nursing), day and night care, short-term care, and other home care benefits. In principle, home visit benefits shall be provided at the recipient’s home, but in cases where are special reasons, such as hospital companionship, market viewing, or visiting government offices directly related to the physical activity and household programs of the recipient, the benefit may be provided outside the home, but the benefit may not be provided to accompany the recipient to travel or hobbies.

According to Article 38 of the Welfare of the Elderly Act, a day care facility is one of the welfare facilities for the elderly at home, and it is a facility that provides care services to promote stability of life and maintenance of physical and mental functions through daily life, domestic support services, physical and cognitive programs, and to ease the burden on dependents. The detailed types of physical activity support include wash assistance, oral care, hair washing, bath assistance, toilet use, grooming, changing clothes, meal assistance, maintenance and promotion of physical functions. The detailed type of nursing and treatment include blood pressure, pulse and body temperature measurement and observation, skin care, pain care, excretion care, respiratory care, other treatment, and medical assistance services. The detailed types of function recovery training include physical function training, basic motion training, physical therapy, work therapy, family

support, social adaptation, cognitive training, and other services.

#### 2.1.2. Criteria for providing long-term care benefits

In accordance with Article 23 (3) of the Long-Term Insurance Act, the standards for providing long-term benefits are entrusted to be determined and publicly announced by the Minister of Health and Welfare. Long-term care institutions shall respect the recipient’s individual right to choose the types and contents of long-term benefits, support them to live independently, and provide appropriate benefits. The scope of long-term care benefits refers to expenses determined and publicly announced by the Minister of Health and Welfare that it is appropriate to bear the burden on the recipient as expenses for meal materials, additional expenses for the use of advanced bedrooms, teeth and beauty expenses, and other expenses necessary for daily life. Other than this scope, programs for the recipient’s family, programs that support the livelihood of the recipient or the recipient’s family, and programs that do not interfere with the daily life of the recipient do not fall within the scope. Long-term care benefits are prohibited from receiving duplicate benefits. Recipients cannot receive home care benefits, facility benefits, and special cash benefits in duplicate. However, this is excluded from cases where other home care benefits are received among recipients of family care expenses. Recipients may not receive more than one type of benefits, such as visiting care, visiting baths, visiting nursing, day and night care, and short-term care, at the same time. However, visiting baths, visiting care, visiting nursing are recognized for overlapping salaries even though they are the same time if they are insufficient for the recipient’s smooth use of benefits.

### 2.2. Senior Citizens using Day Care Facilities

As Korea enters an aging society from an aging society to an aging society, the number of elderly people is increasing, and the number of people using long-term care institutions is increasing. According to the Ministry of Health and Welfare’s announcement of long-term care conditions, the statistics of household types of home care benefit users are divided by gender, age, region, and long-term care recognition level. In terms of gender, women were superior to men, and by age, those aged 80 to were higher.

By region, when divided into large cities, small and medium-sized cities, and rural cities, the number of recipients of long-term care level 4 was the highest, and the second was level 3. The most difficult points in the lives of the elderly who use day care facilities are meals (8.8%), housekeeping programs (13.1%), daily programs (29.2%), going out (16.4%), pain (11.3%), free (13.8%), and others (7.5%), daily life programs were the highest at 29.2%. The

second highest was free at 13.8%.

Most of the elderly who use day care facilities are elderly people who live alone during the day at the facility spend one's time at home, protecting one's new environment during the day. It is difficult for the elderly who enter the facility to adapt to the environment, so to support positive emotions various physical, emotional, and social programs are needed. In addition, the elderly feel helpless physically and psychologically due to aging. In order to improve the lowered self-esteem of the elderly who perceive themselves as incompetent due to the loss of status and role in society or home, it seems necessary to form intimacy, positive emotional support, and bond formation among group members. It also plays an important role in psychological problems such as anxiety, fear, and depression in the personal environment. The elderly can experience physical rehabilitation and visual perception coordination while doing art programs with small muscles such as coloring, scissors, tearing, attaching, folding, and drawing, and expressing self-emotions suppressed through art programs, feeling a sense of psychological stability and improving quality of life.

It can be said to be a very useful activity for people who are afraid of exposure to self-emotional expression because they allow the elderly to experience voluntarily through group art programs and express their feelings.

### 2.3. Collective Art Programs

The term of collective art activity was first used by Ulman in 1961. Ulman is defined as a place where a person's outer world and inner world meet as an art expression. Art programs are widely used in various fields such as education and rehabilitation mental therapy, and self-integration is possible using the means of visual art. In addition, it is possible to diagnose and treat a person's psychology through art programs for those who have psychological difficulties in the field of psychotherapy using art as a medium.

The advantages of group art programs are summarized in the arguments of the Korean Art Therapy Association and scholars as follows. The Korean Art Therapy Association (2020) repeatedly implemented group art programs as non-verbal communication techniques, and self-expressed themselves, thereby discovering their own values and enhancing self-identification and self-realization through art supporting each other with group members and helping solve problems, promoting empathy or self-understanding from other group members, and promoting sociality to induce positive energy.

According to Wenge (1993) art programs for the elderly can elicit the emotional expression of the self that was not expressed, alleviating physical and mental disorders in old age, and helping to recover.

Group programs seem to be much more effective in expressing the self than individual programs because they can share individual stories with group members and provide mutual help. Therefore, group art programs will be a tool for programs that are physically and cognitively effective for the elderly, and in this study, it is estimated that the elderly's physical, emotional, intellectual, social, and sensory abilities will be improved through group art programs. Group art programs are programs that express the inner side through creativity, which can alleviate conflict and ease my confused feelings by grasping an individual's psychological and emotional state and expressing the psychological and emotional elements of the conflict that exist inside through art programs.

### 2.4. Depression and Quality of Life in the Elderly

#### 2.4.1. The depression of the elderly

Depression is one of the diseases that a large number of people suffer to the extent that it is called a psychiatric cold. According to the American Psychiatric Association (2013)

「Diagnostic and Statistical Manual Disorders」, the classification of mental illness DSM-5 defines depression as one of the mental disorders and "depression" when five symptoms persist for two consecutive weeks, including lethargy, decreased enjoyment of interest, weight loss, no value, indecision, and thoughts of death. In general, depression is characterized by less talk, avoiding interpersonal relationships, crying alone and grieving.

Depression has an emotional state such as unhappiness, guilt, frustration, and nihil in terms of emotion, depression persists due to the absence or loss of a spouse, and in terms of cognition, they perceive themselves as incompetent and inferior and continue to have negative thoughts. Physiological aspects often feel tired, physical changes lead to weight loss and increased appetite, and decreased interest or desire for sex (Cha, 2014).

The elderly's anxiety are uncertainties about what the elderly fear most, and the cause is worries about lack of economic preparation, and such worries lose psychological stability and develop into depression for the elderly, and psychological worries about health or economic instability affect depression (Kim, 2011).

This Previous study also reported that the elderly's depressive symptoms were helplessness, unhappiness, anxiety, cognitive decline, and decreased activity. The elderly's depression may cause depressive symptoms due to physical aging, but may also cause mental depression due to the death of a spouse and indifference of children. The elderly's depression is regarded as a result of old age, and they are often left unattended without appropriate treatment. It seems that the elderly's depressive symptoms need



appropriate diagnosis and treatment and social attention, rather than thinking of them only as old age.

#### 2.4.2. The quality of life of the elderly

Rotten viewed the concept of the quality of life of the elderly in four areas: the first area includes daily life performance ability, cognitive function, and mental symptoms as social behavioral ability, and the second area is about the environment divided by indicators with physical means. For example, it is an evaluation area of objective characteristics such as how much personal space was secured in elderly welfare facilities and how much consideration was given to the convenience of the elderly.

The third is the subjective quality of life as a subjective characteristic evaluation, and Cambell (1976) emphasized the importance of subjective and mental aspects by recognizing the fact that a happy life is possible even in poor material and economic situations. The fourth area is the physiological well-being part evaluated by the elderly themselves by covering all of the above-mentioned contents (Kim, 2021).

As an approach to the quality of life in old age, it can be divided into the objective characteristic area that divides the environment by physical indicators and the ability to perform daily life approached through cognition and social behavior, the subjective characteristic area that evaluates satisfaction with one's life, and finally, the psychological area that one evaluates by covering all of these.

Looking at the quality of life in old age, it is largely divided into subjective quality of life and objective quality of life, and the quality of life can vary due to various factors, and from this point of view, quality of life is also an important topic for the elderly (Choi, 2014).

Looking at the previous studies related to this, empowerment programs centered on self-positivity, problem-solving ability improvement, and active attitude promotion programs were conducted for the elderly with dementia to find out the effectiveness of overcoming helplessness, increasing self-esteem, and consequently improving the quality of life for the elderly with mild dementia (Choi, 2014). A cognitive integration program consisting of recollection, cognition, body, senses, and daily programs was conducted to find out the effectiveness of the elderly with mild dementia, but the effectiveness was higher in the group that repeatedly conducted the program compared to the group that did not and the group that did not. Currently, research data on the quality of life of the elderly in Korea are too insignificant and require a lot of research (Ko & Kim, 2018).

A recall program that can help the happiness and well-being of the elderly, and the creation of an environment and positive emotional support are needed to help the elderly

who lack the expression of their opinions feel the quality of life and stable emotions.

#### 2.5. Major Prior Research

The preceding studies of this study were divided into the effects of group art programs on depression in the elderly and the effects on the quality of life of the elderly, and presented in two ways as follows. First, looking at previous studies on the effects of group art programs on the depression of the elderly, by expressing the sincerity that the elderly could not express with art, a depression scale test of the elderly was conducted before and after the art activity was conducted to prove the effect of reducing depression in group art programs (Moon, 2020; Cha, 2021; Kim, 2021; Yoon, 2022).

Combining these preceding studies, there are many studies that have been reported that group art programs have a positive effect on reducing depression in the elderly with dementia and stroke, but studies in the category of the elderly who use day care facilities are insufficient, and studies that reduce depression in the elderly by reviving and recalling old memories with group art programs are insufficient.

According to previous studies on the quality of life of the elderly, by talking with the group members, they formed a positive relationship with the group members and talked with the group members based on their past experiences after the art programs, so they had time to recall their past memories and recall their happy and sad memories, proving that the elderly have a positive social, psychological, and physical effect. However, studies on the quality of life of the elderly by group art programs were in complete compared to previous studies on depression. In addition, there are many objective research results on the reduction of depression and satisfaction with the quality of life of the elderly, but studies through subjective interviews with the elderly are insufficient. Although there are studies showing that the quality of life of the elderly has improved by sharing and empathizing with others through group art programs, there have been few studies on the effect of group art programs using recall therapy on the quality of life of the elderly using day care facilities.

Therefore, through the review and analysis of previous studies on the depression and quality of life of the elderly, this researcher measured the reduction of depression and quality of life of the elderly who used day care facilities through pre- and post-testing, and observed changes in behavior after each session according to the introductory, active, and ending periods of the elderly through interviews to prove the effectiveness of reducing the elderly's depression and perform group art programs. It can be used as a basic data as a psychological activity that can improve

the quality of life of the elderly by sharing emotions with group members through communication and interaction, and by recalling old memories through group art programs.

### 3. Research Method

#### 3.1. Research Participants

This study targets 7 of the elderly who use N city OO day care facilities. The age was selected from elderly men and women in their 70s to early 90s with elderly diseases who received long-term care grades from 2<sup>nd</sup> to 5<sup>th</sup>. The experimental period of the study is a total of 7 months from September 2021 to March 2022. They are willing to participate in group art programs through interviews with researchers, and through group art programs, they will evaluate and study the depression and quality of life of the elderly.

#### 3.2. Research Hypothesis and Composition

This study started on December 13, and until January 31, a total of 10 sessions of about 1 and a half months were conducted, and started once a week, at 2 pm, an afternoon time of about 40 to 60 minutes per session. The pre-depression test of this study was conducted on November 10, 2021, and the post-test was conducted on February 2, 2022 after the end of the session on January 31, 2022. The pre-depression test of this study was conducted on November 10, 2021, and the post-test was conducted on February 2, 2022 after the end of the session on January 31, 2022. As for the method of conducting the test, 3 out of 7 elderly people were burdened with reading the text, so the questions were checked in the form of the researcher reading and answering individually one by one.

#### 3.3. Research Model and Analysis Method

This study model compares the two groups by conducting a pre-depression scale test and a life satisfaction test in the experimental group and the control group was the group that did not conduct group art programs. After that, the two groups were compared to the experimental group and the control group through a post-depression scale test and a life satisfaction test (See Figure 1).

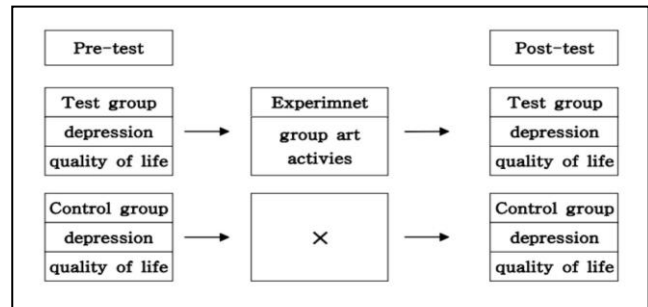


Figure 1: Research model

The analysis methods of this study are as follows. First, observe and interview the changes of the study subjects by stage for each activity. Second, group programs conduct pre- and post-tests of depression and quality of life of the elderly. The experimental group of study participants was 7 people, and the control group was 8. Pre-test and Post-test were designed using two measurement tools: the Korean Elderly Depression Test (K-GDS) and the Elderly Quality of Life Scale Test (GQOL). For the experimental design, the experimental group treated with group art programs was marked with Y and Separated from the non-treated group.

#### 3.4. A Measuring Tool

##### 3.4.1. Korean Form of Geriatric Depression Scale

In this study, the Korean Form of Geriatric Depression Scale (K-GDS); KGDS used K-GDS, a Korean elderly depression test standardized by Jeong In-in, Kwak Dong-il, Cho sook-haeng, and Lee Hyun-soo (1997) for the elderly depression test developed by Yesavage et al. Although the elderly have physical weakness due to aging, there are some who do not know how to write, so a simple and rapid evaluation paper is needed. K-GDS is a test that can be conducted in a short time. In addition, the subject can simply answer “Yes” and “No” and it consists of a total of 30 questions, including 16 negative questions and 14 positive questions. Negative questions (1, 2, 3, 4, 14, 17, 18, 24, 25, 27, 28, 29) can be obtained from the lowest 0 point to the highest 30 points by converting them into 1 point for “Yes” and 0 point for “No” for positive questions (6, 7, 8, 9, 10, 11, 12, 15, 16, 20, 21, 22, 23) and 1 point for “No”. A score of 14 is considered appropriate, and a score of 14 to 18 indicates depression, suspicion and mild depression, a score of 19 to 21 indicates moderate depression, and a score of 22 or higher indicates severe depression.

##### 3.4.2. Geriatric Quality of Life Scale-Dementia

To measure the quality of life of the elderly, the Geriatric Quality of Life-Scale-Dementia (GQOL-D) was used as a measurement tool. It consists of 13 questions that measure physical and psychological health and social relationships

and environment, and a total of 15 questions that measure overall health and life satisfaction. The total score ranges from 15 to 60. The higher the score, the higher the satisfaction of the quality of life (Korean Association of Geriatrics, 2003). The clinical process is conducted by a clinician, and it is a self-report equation consisting of 4 points of 'very satisfied (4 points), satisfied (3 points), and dissatisfied (1 point)' with the quality of life or satisfaction of each question by the clinician and the subject. In this study, we measured whether group art programs have a positive effect on the quality of life of the elderly by using the Quality of Life Scale Test (GQOL-D) tool for the elderly in day care facilities.

### 3.5. Research Hypothesis and Composition

The purpose of this study is selected by selecting a picture book that the elderly can recall the past, and express their political statement through the target objectives. Also, I think you're aware of what he knows, and feel negative emotions. Looking at various internal use of painting books, thinking about his childhood experience, thinking, thinking of his experience, thinking and expression and feelings through art programs.

The program's composition was selected in three categories. First, "Introducing Me", "My Hometown is a Blooming Mountain", Second, "My Beloved family", "My Beloved Brothers, Sisters, and Siblings", "My Shoulder Companion", "Proud Me", "My Wonderful Life Panorama", third, "Things I want to Tell the Future", and "About My precious Life and Oldness." The purpose of this study is to prevent the deterioration of mental function and cognitive function of the elderly as much as possible, and to promote the maintenance and rehabilitation of residual cognitive function in the case of the elderly with dementia.

The following is a brief summary of the programs from sessions 1 to 10 of the group art programs. The art activity in the first session is to draw the 12th year of the family tree. This activity is an art activity to draw the subject's family members on a family tree and draw the family bands. The art activity in the second session is to draw a hometown house. It is an activity to draw a house where old parents and brothers lived or a house where husbands and children lived together.

The art activity in the 3rd session is to draw my hands. This activity involves touching the drawing paper and drawing one's hands with a pencil. It is an activity to color the colors of fingernails and hands. The art activity in the 4th session is Chilgyo Nori. After coloring the pieces of Chilgyo Nori according to each color, draw them up and complete the pieces according to the hat of the Chilgyo design boy. The art activity in the 5th session is to color play. This activity is to reminisce about the games played in the

neighborhood in the past, and to choose and color designs for plays such as playing gravestones, tops, and beads. The art activity in the 6th session is to color the school uniforms of memories. This activity is to color boys and girls wearing school uniforms while reminiscing about my past school days. The art activity in the 7th session is to make my mask. This activity is an activity where I paint the mask with a color I like and try to wear a mask by attaching a rubber band to the ring next to it. The art activity in the 8th session is to make flower shoes. This activity is to paint one's own shoes beautifully in the flower god design and decorate the flower god with shiny stickers on the flower shoes.

The art activity of the 9th session is the painting activity of mandala. This activity is similar to the model of the wheel of a cart, which means that mandala has the center and essence and is true in the mind, and it is also widely used as a psychotherapy method by Yong, a renowned psychology master. It can be said that it is a mirror that reflects the inner world of humans by discovering that the circle expresses the unconsciousness and experiencing self-healing while drawing a circle, the basic form of mandala. The art activity of the 10th session is the activity of painting balsam. Although this activity is old age, the subjects who are still boys and girls at heart are colored with pretty nails, and the external and inner beauty work in harmony to communicate with the group members.

## 4. Analysis Results

### 4.1. Research Participants

The overall evaluation from the 1st to the 10th session of each session showed that the elderly were embarrassed by the questionnaire and unfamiliar questions that they had encountered for the first time in the pre-test. In the introduction period, they showed a passive attitude and negative reactions. In the activity period, as they gradually adapted, they communicated with other group members, and when empathetic topics came up, they talked to each other, provided empathetic support, and formed positive relationships. In the final period, the subjects who showed a passive attitude showed that their depression was reduced by expressing their inner feelings in words, and their quality of life improved as they relieved their frustrations and created an empathetic atmosphere by communicating with group members. After conducting group art programs for each session, the researcher interviewed the subjects, and the researcher and observer analyzed the behavioral changes of the research participants after the group art programs based on the participants' attitudes, expressions, and reactions. The results are as follows (see table 1).

**Table 1:** Total Study Participants' Step-by-Step Changes

Research Subjects	Total step-by-step change
Research Participant A	He showed a passive attitude during the pre-examination, and his expression answering the question on the inspection paper on a 1:1 basis looked distrustful. After the pre-examination, he responded to the art programs of the introductory period, but he showed a willingness to gradually engage in programs. He smiled brightly as he worked on his work every session.
Research Participant B	He scored high on the pre-depression scale test and said, "My legs hurt," and "My back hurts." He initially had low motivation for programs and low participation. As his body became healthier, he actively participated in programs, talked frequently while looking at the works he had created, and formed positive relationships by talking with other group members.
Research Participant C	Overall, he had good cognitive ability, but he did not talk much with other group members and was reluctant to receive help from a research assistant. When he participated in group art programs, he recalled old times and expressed them through art, and he shared stories with other group members verbally. When other group members had difficulty with the programs, he helped them, which increased his interest and satisfaction in the programs. When he showed his works to other group members, he showed improved confidence.
Research Participant D	During the pre-test, he did not answer difficult questions, was passive in programs, did not try to do well, and had a blank expression. During the activity period, he showed an active attitude in programs. When I took a picture of him holding his finished work, he smiled and took a picture, and he often talked while reminiscing about old memories.
Research Participant E	He showed a negative reaction to the pre-test and activity participation. He sat down and stood up repeatedly, had a blank expression, and showed a weak will. He saw other group members participating in the activity, and the research assistant helped him participate in the activity. At the end of each session, we had an interview and exposed his story, forming a bond and making him interested in the activity.
Research Participant F	During the pre-test, he said that he had auditory hallucinations while answering

The depression level score using the Korean Geriatric Depression Scale (K-GDS) can range from a low of 0 to a high of 30. 14 points is considered the optimal score, 14 to 18 points are classified as depression, suspected depression, and mild depression, 19 to 21 points are classified as severe depression, and 22 points or more are classified as severe depression. The higher the score, the more severe the depression.

Looking at the results, the pre- and post-depression tests of experimental group subjects A, B, C, D, E, F, and G showed that A's depression decreased by 2 points in the pre- and post-tests, C's depression decreased by 1 point in the

	questions one-on-one because he had difficulty hearing. He used a coloring program or coloring books for programs, and he looked proud when he saw his work. When the researcher praised his work, he smiled brightly. He often communicated with other group members, and when he said that he had not been hearing auditory hallucinations well these days, he had a relaxed expression and smiled.
Research Participant G	He is passive, doesn't talk much, and has a blank expression, so I always encourage him to participate in programs. He writes Chinese characters and Korean, but he doesn't do programs that fit the program. He had to be helped by a researcher to participate in programs, but he showed voluntary participation in programs and talked comfortably with group members about his work.

#### 4.2. The Effect of Group Art programs on Depression in the Elderly

The changes in the depression scale of the experimental group of elderly people using day care facilities after group art programs are as follows based on the results of individual pre- and post-depression tests (see table 2).

**Table 2:** Individual pre- and post-test depression test (experimental group)

Division	Total score (out of 30)		Reduced depression
	Pre-test	Post-test	
A	18	16	-2
B	15	15	0
C	15	14	-1
D	14	14	0
E	20	17	-3
F	15	14	-1
G	16	15	-1
<b>Total</b>	<b>113</b>	<b>105</b>	<b>-8</b>

pre- and post-tests, and E's depression decreased by 3 points in the pre- and post-tests. F's depression decreased by 1 point in the pre- and post-tests, and G's depression decreased by 1 point in the pre- and post-tests. B and D's depression did not increase or decrease in the pre- and post-tests. Among the subjects, E's depression decreased significantly in the pre- and post-tests. The total pre-test score of the experimental group was 113 points and the total post-test score was 105 points, showing a decrease of 8 points in the pre- and post-test difference.

The changes in the depression scale of the control group of elderly people using day care facilities after group art



programs are as follows (see table 3).

Results of pre- and post-depression tests for the subjects of the control group, H, I, J, K, L, M, N, and O.

H and O's pre- and post-test results showed an increase of 1 point in their depression, and K, L, and N's pre- and post-test results showed a constant level of depression and no change. I's pre- and post-test results showed a decrease of 2 points in their depression, and M's pre- and post-test results showed an increase in their depression. The total pre-test score of the control group was 97 points and the total post-test score was 98 points, indicating an increase of 1 point in their depression. The results of this study indicate that the difference between the pre- and post-depression test results of the experimental group was an 8-point decrease in their depression, and the difference between the pre- and post-depression test results of the control group was an increase of 1 point in their depression, indicating that group art programs are effective in reducing depression in the elderly in day care facilities.

**Table 3:** Results of individual pre- and post-depression tests (control group)

Division	Total score (out of 30)		Reduced depression
	Pre-test	Post-test	
H	14	15	+1
I	11	9	-2
J	10	9	-1
K	13	13	0
L	12	12	0
M	13	15	+2
N	14	14	0
O	10	11	+1
<b>Total</b>	<b>97</b>	<b>98</b>	<b>+1</b>

### 4.3. The Impact of Group Art Programs on the Quality of Life of the Elderly

The Quality of Life Scale (GQOL-D) was used to measure the quality of life of the elderly using day care facilities. The total score ranges from 15 to 60 points, and the scores were calculated by adding up the items selected as 'very satisfied (4 points), satisfied (3 points), average (2 points), and not satisfied (1 point). Looking at the results, the changes in the quality of life scale after the group art programs of the experimental group among the elderly using day care facilities are as follows (see table 4).

The results of the pre- and post-tests of experimental group subjects A, B, C, D, E, F, and G showed that A's quality of life improved by 3 points, and B's quality of life

improved by 2 points. C and G's quality of life improved by 1 point, and D and F's quality of life improved by no change. The difference in the quality of life improvement before and after the pre-test was 9 points higher than before.

**Table 4:** Results of individual pre- and post-quality of life tests (experimental group)

Division	Total score (out of 30)		Degree of improvement in quality of life
	Pre-test	Post-test	
A	25	28	+3
B	22	24	+2
C	26	27	+1
D	28	28	0
E	21	23	+2
F	27	27	0
G	22	23	+1
<b>Total</b>	<b>171</b>	<b>180</b>	<b>+9</b>

The results of the pre- and post-tests of experimental group subjects A, B, C, D, E, F, and G showed that A's quality of life improved by 3 points, and B's quality of life improved by 2 points. C and G's quality of life improved by 1 point, and D and F's quality of life improved by no change. The difference in the quality of life improvement before and after the pre-test was 9 points higher than before.

The changes in the quality of life scale after group art programs in the control group among the elderly using day care facilities are as follows (see table 5).

**Table 5:** Results of individual pre- and post-quality of life tests (control group)

Division	Total score (out of 30)		Degree of improvement in quality of life
	Pre-test	Post-test	
H	41	42	+1
I	35	34	-1
J	45	44	-1
K	51	51	0
L	48	50	+2
M	53	55	+2
N	50	50	0
O	47	49	+2
<b>Total</b>	<b>370</b>	<b>375</b>	<b>+5</b>

The results of the pre- and post-tests of the control group

subjects H, I, J, K, L, M, N, and O showed that H's quality of life improvement level improved by 1 point, I and J's quality of life improvement level decreased by 1 point, and K and N's quality of life improvement level did not change. L, M, and O's quality of life improvement level improved by 2 points. The difference in the quality of life improvement level between pre- and post-test was 5 points higher than before.

As a result of this study, when comparing the pre- and post-test quality of life improvement level of the experimental group, it improved by 9 points, and when comparing the pre- and post-test quality of life improvement level of the control group, it improved by 5 points, indicating that group art programs had a positive effect on the quality of life of the elderly using day care facilities.

## 5. Conclusions and Implications

As a result of observing and interviewing the participants for each session and examining their attitudes and reactions, the participants showed a generally confused expression and negative attitude and reaction during the pre-test. In the beginning of the introductory period, the participants were divided into those who showed interest in the picture book they were encountering for the first time and those who made unknown expressions, but overall, there was no negative reaction to the activity with the help of the researcher and research assistant, and they began to recall old memories and talk with other group members by encountering the medium and art programs for the first time. In the final period, they formed positive relationships by showing interest and concentration in art programs and picture books and communicating with each other.

The pre- and post-test results were organized into tables and charts to compare and analyze the changes in depression and quality of life. The effects of group art programs on the depression and quality of life of the elderly using day care facilities are as follows.

First, group art programs were found to have reduced the depression of the elderly using day care facilities. The results of the pre- and post-test depression scale test (K-GDS) showed that the experimental group's total post-test depression score decreased by 8 points, which was a significant decrease from the pre-test depression score. The control group's depression increased by 1 point, which was a significant increase from the pre-test depression score.

Second, group art programs were found to have a positive effect on the quality of life of the elderly using day care facilities. The results of the pre- and post-test quality of life scale (GQOL-D) showed that the experimental group improved by 9 points, which was higher than the pre-test quality of life total score, and the control group improved by

5 points, which was higher than the pre-test quality of life total score. Both groups improved their quality of life, but the experimental group's quality of life was about 4 points higher, showing a significant difference. Third, the stage-by-stage changes in the elderly using the day care facility after the group art activity were observed. In the pre-test, they showed anxious expressions and negative language to unfamiliar questions, causing a rejection reaction to the activity. As time passed, they enjoyed the art programs that applied recollection and the art programs that utilized picture books for each session, and participated in the programs with a curious expression on the unfamiliar picture books. After the activity, they talked with other group members and expressed their stories through art, which reduced their depression and interacted with group members through empathic support and positive relationships.

In order to find out the effect of group art programs on reducing depression and improving the quality of life of the elderly using day care facilities, the following discussion is proposed. The purpose of this study is to reduce depression and improve the quality of life of the elderly using day care facilities, and it was verified by conducting group art programs on 7 elderly people in day care facilities in N city. The researcher conducted a pre-test targeting elderly people with physical and psychological decline and divided them into a control group and an experimental group. Although it was easy to approach art programs by applying them to the elderly through picture books, most of the participants showed fear and rejection. Since they were doing group art programs and interacting with the group members, they shared stories about their past experiences, which had a positive effect on their relationships with the group members. In addition, the elderly who had difficulty expressing their inner selves showed a decrease in depression by expressing themselves through art, a nonverbal medium, and felt a sense of accomplishment by looking at their own work, which had a positive effect on their satisfaction with their quality of life.

Coloring is an easy activity for the elderly who have difficulty expressing their emotions. It was similar to the part where they felt emotional stability and relieved negative thoughts and anxiety by expressing their emotions through drawing pictures (Cha, 2021).

In the introduction stage of the activity, it was proven that the study results were significant in that it helped cognitive function by eliciting recollections of life experiences at each session and was effective in reducing depression. It can be seen that the results are consistent with the context of the study by Kim Kyung-hwa (2021), as depression was reduced by thinking about the current self and sharing stories of one's experiences and forming positive emotional support and bonds with group members (Kim, 2017).

Group art programs were found to have a positive effect on the life satisfaction of the elderly in day care facilities. The results of the pre- and post-tests showed that the experimental group's life satisfaction improved compared to the control group by participating in group art programs. These results are similar to the study by Jin Seong-hee (2008), who compared and analyzed the changes in the quality of life of the elderly after implementing group art programs by dividing them into pre- and post-tests. She said that the awkward and stiff relationships among the initial members occurred as they moved to the middle stage and shared stories with each other, resulting in positive interactions. In Jeon Ji-young's (2019) study, she said that while engaging in art programs and sharing stories contained in the artworks within the group, the depression and frustration caused by dementia were relieved, and their emotions and feelings that were initially negative within the group changed to positive ones.

By expressing their emotions and feelings, initially negative reactions were changed to positive ones, and in line with previous studies on reducing elderly depression and improving quality of life in the research subjects, this study approached the elderly with unfamiliar picture books, selected topics that they could express their emotions and share with group members, and conducted interaction. In addition, pre- and post-tests were compared between the control group and the experimental group. The results of the pre- and post-tests in the experimental group that conducted the experiment were similar to the results of previous studies. When doing art programs with group members and exhibiting their works, they shared the stories contained in the works during the activity time, and expressed the stories they had in their hearts through art programs, which helped them find emotional stability and improve their quality of life.

Based on the results and discussions of this study, the following suggestions are made regarding the direction of future research. First, this study was conducted on 7 elderly people using day care facilities, so there are limitations in generalizing the results. In follow-up studies, research should be conducted on a group that can generalize the results rather than the elderly using the facilities. Second, long-term care workers, who are caregivers, are required to perform specialized tasks in providing assistance with daily life and individually tailored programs to recipients. Although the work of caregivers is limited, the actual work of providing assistance with movement and daily life is too much to handle, making it burdensome. In this regard, it seems necessary to support long-term care institutions in providing customized programs by recreation instructors and external instructors in order to improve the treatment of caregivers and provide high-quality programs for long-term care facilities. It is judged necessary to provide high-quality

day care services to elderly people using day care facilities by applying the long-term care insurance premium payment. Third, after the study period, follow-up management and verification of the decrease in depression and improvement in quality of life of the elderly who used the day care facility, who were the subjects of this study, are needed.

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