Increasing ego-resilience using clay with low SES (Social Economic Status) adolescents in group art therapy

Heejeong Jang (MA) a,1, Sunnam Choi (PhD) b,∗

a Clay House, 56-1, Galhyeon-dong, Gwacheon-si, Gyeonggi-do 427-100, Republic of Korea
b Dep. Art Therapy, Graduate School of Yeungnam University, 214-1 Dae-dong, Gyeongsan-si, Gyeongsangbuk-do 712-749, Republic of Korea

ARTICLE INFO

Keywords:
Clay-based group art therapy
Pottery work
Ego-resilience
Low economic social status adolescents

ABSTRACT

This study examined how clay-based group art therapy, including pottery-making, might produce effects on the ego-resilience of low SES (Social Economic Status) adolescents. The participants in this study were 16 adolescents in an educational welfare program in a city middle school in Gyeonggi Province. The participants were divided into two groups of 8 – the experimental group and the control group – and received a total of 18 sessions of the therapy program, once a week, for 80 min in each session.

The participants’ ego-resilience was measured before the first session after the last session, and in a follow-up test one month after the end of the program. Means and standard deviations from the tests were compared, and repeated measures analysis of the variance and simple main effects were computed using SPSS 18.0.

It was found that clay-based group art therapy produced positive effects on the ego-resilience of low SES adolescents. These findings are attributed to the participants’ successful experience of seeing clay becoming complete pottery through kiln firing and feeling the suppleness and plasticity of clay. The significance of this study lies in the finding that clay-based group art therapy produces positive effects on the adolescents’ ego-resilience, a personal trait that helps with mental and emotional adaptation in a changing and conflicting environment.

© 2012 Elsevier Inc. All rights reserved.

Introduction

Adolescence is a period when adolescents experience great change in their psychology and value system with the onset of secondary sexual characteristics. Adolescents develop their sense of identity as they seek meaning in life, establish their status and roles around their homes and school, and strive for their future. However, low Social Economic Status (SES henceforth) adolescents in poor or neglectful family environments often have difficulty establishing good peer relationships. They experience more stress than their peers with ordinary households and are prone to behavioral deviation. It is desirable to help these adolescents adapt to their surroundings so they can effectively cope with their stress and inner anxieties.

According to Petersen (1988), a critical transition in a person takes place both inwardly and outwardly through adolescence. Adolescents become more vulnerable to outer stress than in other growth periods. However, some seem to respond to stressful situations better than their peers, a quality that deserves attention from scholars in this field. While the focus in psychology has been on eliminating pathological aspects or treating dysfunctions, recently, interest in sustaining and strengthening positive aspects such as optimism, happiness, or plasticity has increased. Recent studies by psychologists on the adaptive abilities of humans show that people, though individually different, have the ability to cope with adverse surroundings. This human adaptability is explained in the concept of ego-resilience. Ego-resilient individuals can respond to surroundings they are not familiar with flexibly and effectively (Block & Block, 1980; Block & Kremen, 1996). In other words, ego-resilience refers to the ability to inhibit or regulate one’s ego and impulses depending on the contextual demands of given situations (Block & Kremen, 1996). This term is a concept that explains one’s process of adaptation to seemingly stressful or even threatening situations without incidence of behavioral or emotional problems (Block & Block, 1980; Shin, 2008).

Block and Block (1980) developed the concept of ego-resilience to measure adolescents’ adapting behavior in stressful situations to help them avoid inadequate adaptation to their circumstances, and further to develop effective adapting behavior patterns in them. In that regard, a psychological and emotional approach focusing on encouraging these adolescents even in bleak surroundings to view their life in a positive light as opposed to only focusing on eliminating dysfunctional aspects in their surroundings.
Adolescents share their ideas or experiences with their peers more than they do with their parents or teachers. In the process, they notice that there are other peers who have problems quite similar to their own. They also receive emotional support from their peers while sharing their problems with each other. For these reasons, group-based therapy is often employed with adolescents.

Interest has recently grown in studies demonstrating the emotional effects of art therapy on adolescents (Linish, 1988; Moon, 1999; Tibbetts & Stone, 1990) and in studies on improving their self-esteem. Various materials are used in art therapy. Clay is one of the frequently used materials because of feelings of being assimilated into nature and loosening up associated with manipulating the supple material. Working with clay can also relieve internal tension and negative feelings, while eliciting positive feelings.

Due to its plasticity, clay can be easily reshaped, broken up, or ripped off at the whim of the user, which allows the user to experience a sense of movement and spatial effects while working with it. This could act as a catalyst in helping to reveal hard feelings. Accordingly, art therapy using clay can help adolescents release their aggressive and negative emotions and eventually give them a sense of liberty and satisfaction. This is why clay has been used in treating adolescents through art therapy on an individual or group level in many counseling or educational institutions (Lee, 2004). Case and Dalley (2008) also mentioned positive effects of clay-based art therapy on young children or adolescents.

The purpose of this study was to see if adolescents would feel more confident in controlling their feelings after participation in pottery making, and furthermore, to see if this experience would be of any benefit in improving the ego-resilience of low SES adolescents. If this study proves beneficial to ego-resilience, the therapy could be performed to help low SES adolescents respond to their unfavorable circumstances effectively and positively.

Method

Participants

The participants in this study were 16 low SES adolescents attending a middle school in Gyeonggi Province. These adolescents were in an educational welfare program sponsored by the city and were chosen based on considerations from their teachers as needing emotional and psychological help. 8 participants who agreed to participate in the study were designated the experimental group and the other 8 were the control group. All of the participants were ages 13–15, with 4 female and 4 male students in each group. Before the participants received the group art therapy, an independent t-test was conducted to check the homogeneity of ego-resilience between the experimental and control group, the results of which are presented in Table 1.

Measurements

Ego-resilience test instrument

The test instrument used in this study was Shin’s (2004) ego-resilience scale, a modified version of Park’s (1996) ego-resilience scale, which was developed based on the studies of O’Connell-Higgins (1983) and Block and Kremen (1996). Park’s (1996) scale consisted of 40 items rated on a scale of 1–4. Shin (2004) deleted three items from Park’s scale which were deemed as not correlating with the other items and produced overlapped responses. Each item of the new ego-resilience scale is rated on a scale of 1–5, with 1 indicating never, 2 not so, 3 usually so, 4 so, and 5 very much so. A high score on the scale means high ego-resilience. Cronbach’s α, performed to check the intra reliability of the ego-resilience scale, was .93.

Procedures

The clay-based group art therapy program lasted from May 2010 to September 2010. The therapy program consisted of a total of 18 weekly 80 min sessions held in a middle school educational welfare room. The participants were divided into a control and experimental group. The ego-resilience of the two groups was measured before the first session and at the last session, and in October as a follow-up test, one month after the end of the program.

Data analysis

The data was computed on SPSS (Statistical Package for the Social Sciences) 18.0. An independent t-test was conducted for the means, standard deviations, and homogeneity of the ego-resilience of the experimental and control groups before the experimental group received the therapy program.

Second, descriptive statistics of the ego-resilience of the two groups were computed before, during, and after the clay-based group art therapy. To test the effects of the therapy program, descriptive statistics and repeated measures analysis of variance were computed. When an interaction between the time and group occurred, the main effects analyses and multiple comparisons of the analysis were conducted.

Results

The effects of clay-based group art therapy on the ego-resilience of low SES adolescents

Table 2 shows the results of the pre-, post-, and follow-up tests to show the effects of clay-based art therapy on the ego-resilience of low SES adolescents. The mean scores of the experimental group increased from 3.07 at pretest to 3.72 at posttest. While the mean score 3.38 at the follow-up test was still more than that of the pretest, it came a little short of that of the posttest. The mean scores of the control group decreased from 3.09 at pretest to 2.81 at posttest, and finally to 2.64 at the follow-up test.

Based on the means and standard deviations, a repeated measures analysis of variance was conducted to check for statistical significance between groups or test periods. The statistics are presented in Table 3.

As Table 3 shows, between-group main effects (F = 22.99, p < .001), between-test periods main effects (F = 6.21, p < .001), and interactions between the groups and test periods (F = 45.21, p < .001) were statistically significant. Table 4 shows the results of simple main effects between the variables.

According to Table 4, significant differences were found between the groups at posttest (F = 20.55, p < .001) and at follow-up test (F = 70.48, p < .001). Significant differences between the test periods were also found both from the experimental group (F = 7.27, p < .01) and from the control group (F = 12.48, p < .001). The experimental group’s ego-resilience score on the posttest was higher than on the pre- and follow-up tests. The control group on the other hand showed decreasing scores from pre- to post- to follow-up tests.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>The homogeneity test of ego-resilience between the experimental and control groups before receiving the group art therapy.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groups</td>
<td>Number</td>
</tr>
<tr>
<td>The experimental</td>
<td>8</td>
</tr>
<tr>
<td>The control</td>
<td>8</td>
</tr>
</tbody>
</table>
Table 2
Means and standard deviations of ego-resilience by group and test periods.

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Group</th>
<th>Pretest M</th>
<th>Pretest SD</th>
<th>Posttest M</th>
<th>Posttest SD</th>
<th>Follow-up test M</th>
<th>Follow-up test SD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Experimental</td>
<td>3.07</td>
<td>.21</td>
<td>3.72</td>
<td>.53</td>
<td>3.58</td>
<td>.24</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>3.09</td>
<td>.16</td>
<td>2.81</td>
<td>.18</td>
<td>2.64</td>
<td>.19</td>
</tr>
</tbody>
</table>

Table 3
Repeated measures of analysis of variance of ego-resilience.

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Source</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>F-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Between subjects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Group</td>
<td>4.47</td>
<td>1</td>
<td>4.47</td>
<td>22.99**</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>2.72</td>
<td>14</td>
<td>.19</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Within subjects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Time</td>
<td>.33</td>
<td>2</td>
<td>.16</td>
<td>6.21**</td>
</tr>
<tr>
<td></td>
<td>Group x time</td>
<td>2.41</td>
<td>28</td>
<td>.02</td>
<td>45.21**</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>.74</td>
<td>28</td>
<td>.02</td>
<td></td>
</tr>
</tbody>
</table>

** p < .01.
*** p < .001.

Table 4
Simple main effects and multiple comparisons of ego-resilience by groups.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Source</th>
<th>Sum of squares</th>
<th>df</th>
<th>Means of sums of squares</th>
<th>F value</th>
<th>Post hoc</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Group @ pretest</td>
<td>.002</td>
<td>1</td>
<td>.002</td>
<td>.06</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Group @ posttest</td>
<td>3.32</td>
<td>1</td>
<td>3.32</td>
<td>20.55**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Group @ follow-up test</td>
<td>3.55</td>
<td>1</td>
<td>3.55</td>
<td>70.48**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Time @ experimental group</td>
<td>1.92</td>
<td>2</td>
<td>.96</td>
<td>7.27**</td>
<td>a &lt; b, b &gt; c</td>
</tr>
<tr>
<td></td>
<td>Time @ control group</td>
<td>.822</td>
<td>2</td>
<td>.41</td>
<td>12.48**</td>
<td>a &lt; b, a &lt; c</td>
</tr>
</tbody>
</table>

a = pretest, b = posttest, c = follow-up test.
** p < .01.
*** p < .001.

Phases of group art therapy

Each session consisted of the following phases: introduction, activity, and closing. In the introduction phase, the participants greeted one another, did some warm-up clay activities, and were introduced to theme-related clay techniques. In the activity phase, they did individual or group-based activities making shapes using clay. In the closing phase, feedback about their performance was exchanged.

The beginning stage (1–6 sessions)

The beginning stage aimed at fostering the self-exploration of the participants, providing understanding of the group therapy program, and building rapport within the group. At the 6th session, the last of the beginning stage, the participants displayed their pottery work, and exchanged feedback.

At the beginning stage, three participants A, D, and G were seen having difficulties building rapport with the others and not actively involving themselves in the activity. Participant A was somewhat subdued because of her parents’ divorce and poor family circumstances. She looked depressed and her voice was low. She answered very briefly with “Yes” or “No” when responding to the therapist’s questions (Fig. 1).

D seemed somewhat listless and found it hard to decide on a theme. During an activity, D often said, “I am not good at this! I feel like I am the clumsiest here. I don't like this. I am going to smash this.” D was quite negative in the appreciation and judgment of his work, and also had some trouble regulating his emotions.

G spoke in a low voice, responded slowly, and showed lack of confidence in deciding on the theme and the colors of colored slip clay to be used for decoration. G nodded more often than he responded orally to the therapist’s questions, indicating his lack of self perception. Considering the problems these participants showed at the beginning stage, achieving goals such as building rapport with others and exploring themselves was expected to be difficult.

Most of the other participants were able to explore and express themselves as well as build rapport among themselves during the sessions. At the 6th session when they presented their work and exchanged feedback, they were all amazed and content with the results of their efforts. Participant D said, satisfied, “I can't believe I've made this myself.” (Fig. 2).

The middle stage (7–14 sessions)

This stage aimed at self perception, interpersonal relationship, and emotional regulation. The last session (14th session) included the display and appreciation of their work and feedback exchange. The participants worked either in teams of two or in two groups divided by gender through the sessions. The members had to

![Fig. 1. D and G in the activity at the second session.](image-url)
Participants A and G did not assert themselves much; rather, they lacked self-expression, whereas participant D seemed to have difficulty regulating his emotions to some degree. At the 10th session, D led his male team in building a tower of clay, but his team failed to do so due to top-down communication and poor interaction among the members. Their tower collapsed twice during the activity, which led to losing the game due to their frustration (Figs. 4 and 5).

After losing the game, D complained, saying, “I am so frustrated! I lost the game because the members did poorly.” On the other hand, the female group succeeded in building the tower without having it collapse, as they planned ahead and assigned roles to each member. Participants F and H, leaders of the female team, communicated with the team members effectively, promoting collaboration among the members. They also made efforts to regulate their emotions, showing concern about how anyone else may have felt. Participant A said, “it was fun working with them because they cared about me feeling comfortable.” (Fig. 6)

The final stage (15–18 sessions)

The final stage aimed at promoting optimism and positive self perception. At the last session (18th) the participants had the time...
to appreciate the work they had done and to exchange their evaluations of their team members, which was intended to help them see others in a positive light and develop an optimistic attitude toward their future.

Participant D, who had often behaved negatively until the middle stage showed interest in his fellow members at the 16th and 17th session, asking questions like “what do you want to have?” He even pointed at and said good things about a member, and said in a loud voice what he wanted to say during the clay activity. Participant G did not show much change, but he was seen responding to his members such as laughing at his member’s stories and making a present to be given to himself with care.

G became more positive about himself as the sessions progressed. He expressed himself voluntarily and asked questions or asked for help when the activity did not turn out the way he wanted. Other participants also became more serious with the progress of the program as they continued their pottery work, and when they had seen their completed work. More expressions of satisfaction about their works were made with the progress of the program.

At the last session, while appreciating their mobile work, they exchanged expressions and words they had not said in the previous sessions. D said, “I thought I wouldn’t be able to make even one piece, but I am pleased that I have learned that I would benefit from holding out until the end rather than giving up in the middle.” G said, “It was fun. I am glad that I have learned something new, and working with soil, I think, makes people feel relaxed and comfortable.”

A said, “I am glad that I’ve met good people, and now I think I can do things well.” F wrote everyone’s name on the clay and painted them neatly because she wanted to give a cheerful message for all these nice friends of hers. Most of the participants said they had felt a positive change and were content with the pottery work they had created.

Discussion

In this study, the pottery work-centered group art therapy aimed at promoting and strengthening positive elements in adolescents by engaging them in creating pottery using natural clay, a difference from counseling or group therapy programs mainly intended to eliminate pathological elements in adolescents. In addition, the study sought to find a way of improving ego-resilience in adolescents so they could better adapt to their circumstances to live happy lives. A comparison of the findings of this study with those of similar previous studies was made.

This study found that low SES adolescents who received the pottery work-centered group art therapy showed a statistically significant increase in ego resilience between the pre, post, and follow up test. The experimental group showed an increase in average scores as it went from the pre to post to follow up test. These findings are in line with the findings of previous studies such as Kim’s (2006) and Shin’s (2008), both of which used ego-resilience improvement training: Heo’s (2010) group play therapy study; Kim’s (2008) study, which implemented a reality therapy program for adolescents; Kim’s (2006) transactional analysis-based study; Yeoum’s (2007) study which used Tarot cards to explore the ego of the participants; and Lee’s (2009) study, which used group art therapy for obese adolescents.

Greengerg and Stone (1992) claimed that physical activities such as patting, assembling, or throwing clay pieces facilitated a release of suppressed emotions, contributing to physical and psychological well-being. The present study also confirmed this finding: the participants were able to shed a sense of helplessness or depression with their physical movement of patting or throwing clay pieces in the activities.

The continued and repeated experience of pottery-making throughout the sessions contributed to bringing about a positive change in the regulation and expression of emotions. In addition, the plasticity of clay made it easy for the participants to finish their clay work successfully. Curiosity, toward the process through which a clay piece was transformed into glassy pottery and molding techniques or kiln firing that were learned in each session were factors that contributed to the positive changes.

The plasticity of clay also enabled the participants to get a sense of control over the material because they could change the shape as they wished, which contributed to a positive evaluation of their own performance. In addition, witnessing the transformation of a piece of clay to complete, glassy pottery, combined with the positive feedback given to the participants, caused a sense of achievement and optimistic outlook on the future.

On the whole, clay-based group art therapy proved that clay as a pottery material had the effects of causing emotional loosening and positive interactions among the participants, which led to the improvement of the interpersonal relationships among them. They became more energetic through the physical activity of playing with clay. There was also a positive effect on the regulation and release of their emotions. In addition, they developed curiosity toward things they did not know such as pottery making skills. Their sense of achievement and optimism grew as they experienced success in making pottery.

With the findings in this study in mind, if this clay-based group art therapy could prove effective in helping not only low SES adolescents but also adults or children with emotional problems through subsequent studies, this therapy could be used as a valid art therapy technique. If this therapy can be modified for use at schools or educational institutions, more people can benefit from it.

The significance of this study is that it could bring about a shift from the focus of many previous art therapy studies, the elimination of pathological factors or poor surroundings affecting low SES adolescents, to a new trend of promoting adaptive behavior or resilience in participants from a positive psychology standpoint (Seligman & Csikszentmihalyi, 2000). The clay-based group art therapy introduced in this study is in line with studies focusing on resilience in the context of positive psychology. In this therapy, natural clay and the process of pottery making promoted the development of positive elements in the participants. Based on the findings of this study, more studies of this kind such as studies reinforcing the positive qualities of the participants should be carried out.

References


