Integrated Art Therapy for Children with Problem Behaviors: Depression, Anxiety, Emotional Intelligence, and Well-Being

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Abstract: This study aimed to explore the effects of integrated art therapy on depression, anxiety, emotional intelligence, and well-being in children with problem behaviors. For this purpose, 30 children (grades 3-6 elementary students) were selected to receive experiments at the S Children’s Family Counseling Center in Y City, J province, with 15 students randomly assigned to the experimental group to receive an integrated art therapy program, and another 15 students assigned to the control experimental group to receive a fine art therapy program. The therapies in both groups continued from August 23 to October 25, 2019, once a week, a total of 10 times in each group. The experimental results showed that the scores of depression and anxiety decreased, and the scores of emotional intelligence and well-being increased in both groups after the art treatment programs.

I. Significance and Purpose

In a competitive social atmosphere dominated by materialism and academics, children of this age have been required to complete more development tasks than in the past, and are under various pressures, resulting in increasingly serious psychological problems and inadequacy and development problems. Many studies are also reporting the severity of problem behaviors among school-age children. Besides, problem behaviors are observable behaviors of children in families or educational institutions, and it adversely affects children’s social life.

Art therapy, as one of the means of psychotherapy refers to the application of artistic activities in the field of psychological construction, including a variety of activities aimed at developing their creativity, such as music, dance, theater, painting, sculpture, ceramics, poetry, etc. Art therapy can help people vent their emotions and relieve their stress, thus ease their tension and improve their psychological state. This study applies a variety of forms for treatment, from arts, music, dance, to movement, poetry, and psychological drama, for a targeted experiment on depression, anxiety, emotional intelligence, and well-being of children with problem behaviors.

II. Research Methods and Process

1. Research Subject

The research subject was enrolled from the grades 3-6 primary children who had been entrusted to the Counseling Center by schools for various behaviors such as difficulty of adapting to school life and daily life, and difficulty in relationship with their peers.

2. Research Tools

1) Children’s Depression Inventory (CDI). The reliability factor of this evaluation standard is Cronbach’s $\alpha = 0.86$ in the case of children.
2) Revised Child Manifest Anxiety Scale (RCMAS). The evaluation standard reliability coefficient is Cronbach’s $\alpha = 0.82$.

3). EQ Testing Standard - For Primary School Students
The emotional intelligence test used in this study was based on the emotional intelligence model of Mayer, Dipaolo, and Salovey (1990). The reliability coefficient of this test tool is Cronbach’s $\alpha = 0.70$.

4) Happiness Testing Standard
A measurement standard developed by Li Zhenhua (2005) was used to determine the well-being of elementary school students. The reliability coefficient of this test standard is Cronbach’s $\alpha = 0.88$.

III. Experimental Procedures

Thirty children from grades three to six who wished to receive art therapy in the Psychological Counseling Center were selected as the experimental subjects, with 15 in the experimental group given integrated art therapy and the 15 in the control experimental group given art therapy.

Before experiment, a pre-test check was performed to assess the children’s depression, anxiety, emotional intelligence, and happiness.

The experimental group received integrated art therapy, and the control group received art therapy.

After 10 weeks of therapy, all members in the two groups were tested for their depression, anxiety, emotional intelligence, and well-being through a post-test check.

1) Program Composition
The fine art therapy program is composed of the fine art activities in the integrated art therapy program which is composed of two or more art activities.

(1) Composition and Characteristics of an Integrated Art Therapy Program
The integrated art therapy program focuses on positive and negative emotional expressions, and consists of artistic activities such as meditation, singing, writing, and stickers based on research purposes.

The specific content of the integrated art therapy program is shown in Table 1.

(2) Implementation of Integrated Art Therapy
The research was arranged in the order of proposal of goals, themes selection, execution and guidance, activities, and feelings sharing. The specific details were as shown in Table 2.
<table>
<thead>
<tr>
<th>Stage</th>
<th>Phase No.</th>
<th>Theme</th>
<th>Objective</th>
<th>Activity Plan</th>
<th>Materials Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>1</td>
<td>Open My Heart to The Wonderful World</td>
<td>Building of Trust</td>
<td>Come up with a nickname while listening to the music; Describe and introduce the nickname with pictures or texts that can represent it</td>
<td>Music, colored paper, a pen</td>
</tr>
<tr>
<td>Middle</td>
<td>2</td>
<td>Angry animals</td>
<td>Directing the Expression of Positive Emotions</td>
<td>Imagine an animal standing for positive and negative emotions while listening to music; Use drawing paper to select an animal mask and decorate it, Role playing with the animal mask</td>
<td>Music, drawing paper, colored crayons, colored pencils</td>
</tr>
<tr>
<td>3</td>
<td>Strong trees</td>
<td>Fragile trees</td>
<td><strong>Know Ourselves Objectively, and Understand Two Emotions</strong></td>
<td><strong>Divide a piece of colored paper into two halves, and paint a strong tree on one side and a fragile tree on the other.</strong> <strong>Dress the fragile tree as the proud me and the strong tree as the me I want to hide from the outside world.</strong> <strong>Present the pictures by using poetry and share feelings.</strong></td>
<td><strong>Color pigment, glue, a pair of scissors, color paper, A4 paper, colored cloth</strong></td>
</tr>
<tr>
<td>4</td>
<td>Symbolic Self-portrait</td>
<td><strong>Recognize and Understand My Abilities and Emotions</strong></td>
<td><strong>Talk to the past me. On three-sided film-type drawing paper, draw a self-portrait that can symbolize yourself on the first film, a me in other’s eyes, and make a self-portrait with a photo and a picture</strong></td>
<td><strong>Paper, colored clay, a pair of scissors, glue, colored pencils, photos</strong></td>
<td></td>
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<tr>
<td>5</td>
<td>Expressing Feelings to Family Members - Decorating the Family Handkerchief</td>
<td>Develop the Ability to Deal with Emotional Problems in Life</td>
<td>Use a variety of natural materials to make handkerchiefs for families who you want to express your gratitude and joy to and those you want to express sadness and regret for.</td>
<td>Handkerchief, natural materials (flowers, stones, leaves, etc.), glue</td>
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<tr>
<td>6</td>
<td>Build Our Home</td>
<td>Identify personal roles in the family and accept family needs and desires</td>
<td>Build my house with clay. Record what the family members look like, what they think, and how they speak. Imagine a dual self among the family members, record what to say to yourself and what do you want to hear from them.</td>
<td>Clay, pigment, color decorative materials, A4 paper, a pencil, an eraser</td>
<td></td>
</tr>
<tr>
<td>Middle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Exchange Game</td>
<td>Self-understanding, Know your place in your relationships with your peers</td>
<td>Write and decorate your cherished character and that you want to disappear on each side of the acrylic board. Show to each other what you have and exchange what you want with others to make a psychological drama for the game.</td>
<td>Acrylic board, photo, word cards, colored tape</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Affection Mosaic - Working Together</td>
<td>Accept Both Positive and Negative Emotions</td>
<td>Vertically divide a piece of cardboard into two colored sections for positive and negative emotions, and work together to create a work that expresses “Us”. Appreciate the work, fill the lyrics, and sing together.</td>
<td>Cardboard, a pair of scissors, woodworking tools, music</td>
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<td>------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Making of A Happy Sock</td>
<td>Creating a positive emotional experience through successful work</td>
<td>Make a happy sock with natural materials. Write the poem “To My Happy Blue Bird” and put in the sock as a letter to yourself. Recite the poem with music, then share your feelings.</td>
<td>A sock, natural materials, thread, needles, stationery, watercolor pens, music</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>My Future is Up to Me</td>
<td>Building Self-confidence</td>
<td>Imagine the self you want to be in 5 years. Use some colored paper to make the decoration with photos or picture cards. Develop a concrete life plan to fulfill your dream.</td>
<td>Color cardboard, photos, cards, stickers, colored crayons, glue, signature pens</td>
<td></td>
</tr>
</tbody>
</table>
Table 2. Content and Time Required for Each Phase of Activities

<table>
<thead>
<tr>
<th>Process</th>
<th>Content</th>
<th>Time Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead-in</td>
<td>Notice of the things important to know</td>
<td>10 min</td>
</tr>
<tr>
<td></td>
<td>Relieving the children’s physical and mental tension and stimulating</td>
<td></td>
</tr>
<tr>
<td></td>
<td>their interest in the activities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Introduction of specific activities</td>
<td></td>
</tr>
<tr>
<td>Unfolding</td>
<td>Implementing the activity</td>
<td>30 min</td>
</tr>
<tr>
<td>End</td>
<td>Sharing and feedback</td>
<td>20 min</td>
</tr>
<tr>
<td></td>
<td>Wind-up activates</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Collecting the tools and materials</td>
<td></td>
</tr>
</tbody>
</table>

4. Data Analysis
   The SPSS 20.0 program was used to verify the statistical data, and p<0.05 serves as the basis for judgment for significant difference.

IV. Research Results

1. Homogeneity comparison between the two groups
   Before implementing the procedures, the scores of depression, anxiety, emotional intelligence, and sense of well-being evaluation between the two groups were compared for homogeneity, and there was no statistically significant difference in the results. The results were as shown in Table 3.

   Table 3. Homogeneity comparison between the two groups

<table>
<thead>
<tr>
<th></th>
<th>Integrated art therapy (n=11)</th>
<th>Fine art therapy (n=13)</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>25.36 (6.65)</td>
<td>24.00 (9.22)</td>
<td>0.408</td>
<td>0.687</td>
</tr>
<tr>
<td>Anxiety</td>
<td>19.82 (2.75)</td>
<td>20.46 (4.24)</td>
<td>-0.432</td>
<td>0.670</td>
</tr>
<tr>
<td>Emotional Intelligence</td>
<td>83.91 (6.40)</td>
<td>87.69 (3.52)</td>
<td>-1.834</td>
<td>0.080</td>
</tr>
<tr>
<td>Sense of Well-being</td>
<td>79.00 (12.52)</td>
<td>78.38 (17.58)</td>
<td>0.097</td>
<td>0.924</td>
</tr>
</tbody>
</table>

2. Effect of Integrated Art Therapy on Depression in Children with Problem Behaviors
   The results were as shown in Table 4. For comparison of the pre-test and post-test depression scores of the integrated art therapy experimental group, a corresponding t-test was performed, and the result showed that there was a statistically significant difference in depression (t=4.589, p<0.5). In the integrated art therapy experimental group, compared with the pre-test result, the post-test depression score was lower, which indicated that the implementation of integrated art therapy and fine art therapy reduced the depression of children with problem behaviors to some extent. The results were as shown in Figure 1.
3. Effect of Integrated Art Therapy on Anxiety in Children with Problem Behaviors

The results were as shown in Table 5. For comparison of the pre-test and post-test anxiety scores of the integrated art therapy experimental group, a corresponding t-test was performed, and the result showed that there was a statistically significant difference in anxiety (t=4.028, p<0.05). In the integrated art therapy experimental group, compared with the pre-test result, the post-test anxiety score was lower, which indicated that the implementation of integrated art therapy and fine art therapy reduced the anxiety of children with problem behaviors to some extent. The results were as shown in Figure 2.

Table 5. Effect of Integrated Art Therapy on Anxiety in Children with Problem Behaviors

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-test Results</th>
<th>Post-test Results</th>
<th>Research Subject</th>
<th>Time</th>
<th>Research Subject×Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M(SD)</td>
<td>M(SD)</td>
<td>F</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental Group</td>
<td>19.82(2.75)</td>
<td>13.18(5.49)</td>
<td>0.795</td>
<td>26.526***</td>
<td>0.711</td>
</tr>
<tr>
<td>Control Group</td>
<td>20.46(4.24)</td>
<td>15.69(6.76)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***p<0.001
4. Effect of Integrated Art Therapy on Emotional Intelligence in Children with Problem Behaviors

The results were as shown in Table 6. For comparison of the pre-test and post-test emotional intelligence scores of the integrated art therapy experimental group, a corresponding t-test was performed, and the result showed that there was a statistically significant difference in emotional intelligence ($t=4.028$, $p<0.05$). In the integrated art therapy experimental group, compared with the pre-test result, the post-test anxiety score was lower, which indicated that the implementation of integrated art therapy and fine art therapy increased the emotional intelligence of children with problem behaviors to some extent. The results were as shown in Figure 3.

Table 6. Effect of Integrated Art Therapy on Emotional Intelligence in Children with Problem Behaviors

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-test Results</th>
<th>Post-test Results</th>
<th>Research Subject</th>
<th>Time</th>
<th>Research Subject×Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M(SD)</td>
<td>M(SD)</td>
<td></td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>Emotional</td>
<td></td>
<td></td>
<td></td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>Intelligence</td>
<td></td>
<td></td>
<td></td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>83.91(6.40)</td>
<td>104.82(6.40)</td>
<td>0.737</td>
<td>69.385***</td>
<td>8.643*</td>
</tr>
<tr>
<td>Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>87.69(3.52)</td>
<td>97.69(8.80)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p<0.05  ***p<0.001
5. Effect of Integrated Art Therapy on Well-being in Children with Problem Behaviors

The results were as shown in Table 7. For comparison of the pre-test and post-test well-being scores of the integrated art therapy experimental group, a corresponding t-test was performed, and the result showed that there was a statistically significant difference in sense of well-being ($t=4.028$, $p<0.05$). In the integrated art therapy experimental group, compared with the pre-test result, the post-test well-being score was lower, which indicated that the implementation of integrated art therapy and fine art therapy increased the well-being of children with problem behaviors to some extent. The results were as shown in Figure 4.

**Table 7. Effect of Integrated Art Therapy on Well-being in Children with Problem Behaviors**

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-test Results</th>
<th>Post-test Results</th>
<th>Research Subject</th>
<th>Time</th>
<th>Research Subject×Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M(SD)</td>
<td>M(SD)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Well-being Experimental Group</td>
<td>79.00(12.52)</td>
<td>106.82(8.02)</td>
<td>1.026</td>
<td>40.132***</td>
<td>0.824</td>
</tr>
<tr>
<td>Control Group</td>
<td>79.83(17.58)</td>
<td>99.23(13.68)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***$p<0.001$
V. Conclusions and Discussions

This study aimed to understand the effects of integrated art therapy programs on depression, anxiety, emotional intelligence, and well-being in children with problem behaviors.

The scores of depression and anxiety in the experimental group that implemented the integrated art therapy program were lower, and emotional intelligence and well-being higher than those in the control group that implemented the fine art therapy program. This showed that integrated art therapy is with significant effect.

The art therapy activities are with certain value for the treatment of various problems. From the experts’ point of view, only by selectively using more meaningful planning programs can give full play of its potentials. To this end, systematic researches should be continued to develop and activate emotionally-oriented art therapy programs. It is hoped that this research can serve as a basis for the research of art therapy systems, so as to develop and activate emotion-oriented art therapy programs to give full play of its potentials.

References

