Comparison of DAF Test in Children with Emotional Problems and Normal Children

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Abstract

This study compared DFA in a sample of normal school students and students with emotional problems in Tehran. The studied population included 90 girls aged 7-12 from District 15 in Tehran. The students were randomly selected. Corman's DFA test was used for the study. Independent t-test was used to analyze the data. Data analysis showed a significant difference in DFA of normal children and children with emotional problems. It was found that emotional problems are well represented in DFA of children with emotional problems.

Keywords: emotional problems, children with emotional problems, normal children.
Introduction
Among activities of children, drawing is influenced by cognitive, social and emotional development; that is why drawing is widely used in psychological diagnosis and psychoanalysis. Drawing is not only a means of expression or explanation of creatures and objects for children, but also a means of expression for their emotional life. In fact, children express their current emotions as well as their deep emotions and developments through freely, arbitrarily drawings. Similarly, children not only feel satisfaction with their expressed experiences, but also represent certain lines of their characters (Hajlou, 2012).

The work of Machover and Koppitz was primarily focused on personality assessment and diagnosis of emotional distress. However, there are hidden assumptions in this work which are related to drawing of important aspects (emotionally) of the subject.

One of the assumptions is that children will emphasis on those elements which are of particular interest and concern of children. According to some artistic contracts (for example, ancient Egyptian tomb paintings), facial size was used sometimes to show the importance of the drawn person. Some experts have claimed that children, particularly 6-year old children and younger, use size to show the importance of the subject in their drawings.

Lowenfeld is one of the most influential proponent of the theory that children use size to illustrate the importance of the subject in their drawings (Thomas & Silk, 2001). Positive emotional tendencies of children are feelings of admiration or love which lead children to invest in better subjects; that is, they give value to that subject in the drawings. On the contrary, negative emotional tendencies are contemptuous and vindictive feelings which prevent the children to invest on the subject; that is, they devaluate the subject in their drawings.

The drawing in which children exhibit their real family indicates the principle of reality. Children who invent an imaginative family follow the principle of pleasure/no pleasure. They provide a situation in their drawing in which they experience the highest level of pleasure. These two contradicting principles constitute the principles of human behaviors; there is a balance between them more or less. Children who primarily follow the principle of pleasure will gradually follow the principle of reality as they grow and develop.

Jealousy is another feeling which arises from anxiety and deprivation; jealousy together with rage is usually to emotions which lead to deprivation of children, for example a newborn in the family.

A newborn can arouse jealousy of older children; this devaluates or eliminates the competitor in drawings. Lowenfeld (1939) was the first to note that children exaggerate in the size of objects or people who are important to them (Burns & Kaufman, 1970).

Others added later that children draw the things which they are afraid of or have very limited relationship with in small sizes (Di Leo, 1983; Lowenfeld, 1974; Machover, 1949).

For example, Hammer (1997) stated that small indicators of the drawing express feelings of fear and indifference which have been very deep.

Through draw a family (DAF) test, graphical and content indicators are considered in evaluation of drawings; content indicators include:

1. Valuation: psychoanalytically, a valued person is whom children invests most of their emotional force on and exhibit in their drawings in one of the following forms:
a) The first person drawn: in fact, the first person drawn is the one children think about and pay special attention to (Bahrami, 1993).
b) The biggest person drawn: children draw the person who is more important to them biggest than others in their drawings (Corman, 2010).
c) Identification: Children clearly state that they tend to be like a certain person.

2. Devaluation: children devaluate the person who provokes their anxiety in their drawings in one of the following forms:
a) Complete elimination: children do not draw an already existing person whom they wish disappear (Bahrami, 1993).
b) The last person drawn: the last person drawn is the person who is not important for children and devaluated by children in their drawings; the last person drawn can be one of the parents, siblings, other relatives or even the children themselves (Corman, 2010).
c) Addition of a new person: sometimes children add some people to their families who may not live with them, such as relatives or even imaginary or dream characters. Dream characters are people to whom children wish to identify (Bahrami, 1993).

3. Narcissism: self-content is characterized by beauty of shapes and interest in body, clothes, jewelry and ornaments. The head is drawn in large sizes and facial lineaments (particularly the eyes) are illustrated in details.

Two types of narcissism can be distinguished; clothing narcissism (extroverted) in which there is an overriding need for approval and bodily narcissism (introverted) in which a person is attracted to himself and the figure is drawn naked (Dadsetan, 2012).

4. Aggression: very strong and bold lines; very large bodily size; broad and thick lips; distortion, wrong place of components; distortion, disconnected components; weapons or sharp components; very apart legs

5. Depression: small bodily size; drawing in the margin and lower paper; omitted mouth; reduced members; template, faceless, long and thin figures; hidden or short arms; the arms attached to the body

6. Impulsivity: omitted items; leftward standing figures; lack of proportionality; aggressive content; elimination of important components; short time spent for the drawing; poorly drawn shoulders

7. Incompatibility: reduced head; reduced body; poor overall quality, artistic quality and accuracy; omitted toes, thighs, calves and arms; distortions; vertical imbalances in standing

8. Anxiety: Fine, incomplete and fast drawn lines; additional details; too dark shades; slight distortions; small and unstable legs; linear, disordered mouth having a nervous laugh; use of eraser; very apart hands.

Until recently, emotional needs of children and adolescents were met at home. Family members sat together at night and spent time to strengthen emotional bonds through paying attention, reassuring and loving each other. In current lifestyle, most family members sit together once or twice a week. In troubled families, parents and their children spend less time together; children spend most of the time in their rooms, playing videogames or watching TV, and spend less time with their parents (Sousa, 2010).
Hypotheses
1. There is a difference between normal children and children with emotional problems.
2. There is a difference between normal children and children with emotional problems in small drawn objects.
3. There is a difference between normal children and children with emotional problems in elimination of competitors.
4. There is a difference between normal children and children with emotional problems in self-elimination.
5. There is a difference between normal children and children with emotional problems in devaluation.
6. There is a difference between normal children and children with emotional problems in narcissism.
7. There is a difference between normal children and children with emotional problems in obsessive modes.
8. There is a difference between normal children and children with emotional problems in added character.

Materials and Methods
Draw a Family (DFA) Test
DFA reflects both personality traits and family relations and requirements of the subject. This test is particularly useful for children and adolescents who have difficulties in talking about their families. DFA was first suggested by Dapple and Wolf and developed by Hals (1951). Based on instructions of drawing of a family, Corman attempts to determine relational problems (Dadsetan, 2012).
DFA test and its interview is a projective method by interpretation based on psychoanalytic expression of family problems and conflicts. DFA is widely used in diagnostic and psychoanalytic activities of children, because DFA distinguishes stable and unstable changes in a personality of children and shows the development caused by therapy (Groth-Marnat, 1995).

Results
1) There is a significant difference between normal children and children with emotional problems in DFA test.
   Independent t-test was used to test this hypothesis; the results are listed in Table 1.

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t</th>
<th>Degree of freedom</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal children</td>
<td>1.04</td>
<td>0.67</td>
<td>-10.02</td>
<td>88</td>
<td>0.001</td>
</tr>
<tr>
<td>Children with emotional children</td>
<td>3.07</td>
<td>0.18</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As shown in Table 1, there is a significant difference between normal children and children with emotional problems in DFA test \( t(88) = -10.02; p<0.05 \). Thus, the mean of children with emotional problems is significantly higher than normal children in DFA test.
2) There is a significant difference between normal children and children with emotional problems in small drawn objects.
Independent t-test was used to test this hypothesis; the results are listed in Table 2.

Table 2: results of independent t-test for comparison of the mean of groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t</th>
<th>Degree of freedom</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal children</td>
<td>0.2</td>
<td>0.41</td>
<td>-10.65</td>
<td>88</td>
<td>0.1</td>
</tr>
<tr>
<td>Children with emotional children</td>
<td>0.36</td>
<td>0.48</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As shown in Table 2, there is no significant difference between normal children and children with emotional problems in small drawn objects in DFA test \( t(88) = -10.65; p<0.01 \).

3) There is a significant difference between normal children and children with emotional problems in self-elimination.

Independent t-test was used to test this hypothesis; the results are listed in Table 3.

Table 3: results of independent t-test for comparison of the mean of groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t</th>
<th>Degree of freedom</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal children</td>
<td>0.11</td>
<td>0.32</td>
<td>-4.24</td>
<td>88</td>
<td>0.001</td>
</tr>
<tr>
<td>Children with emotional children</td>
<td>0.49</td>
<td>0.51</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As shown in Table 3, there is a significant difference between normal children and children with emotional problems in DFA test \( t(88) = -4.24; p<0.01 \). Thus, the mean of children with emotional problems is significantly higher than normal children in self-elimination in DFA test.

4. There is a significant difference between normal children and children with emotional problems in devaluation in DFA test.

Independent t-test was used to test this hypothesis; the results are listed in Table 4.

Table 4: results of independent t-test for comparison of the mean of groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t</th>
<th>Degree of freedom</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal children</td>
<td>0.18</td>
<td>0.18</td>
<td>-7.46</td>
<td>88</td>
<td>0.001</td>
</tr>
<tr>
<td>Children with emotional children</td>
<td>0.8</td>
<td>0.80</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As shown in Table 4, there is a significant difference between normal children and children with emotional problems in devaluation in DFA test \( t(88) = -7.46; p<0.01 \). Thus, the mean of children with emotional problems is significantly higher than normal children in devaluation in DFA test.

5. There is a significant difference between normal children and children with emotional problems in narcissism.

Independent t-test was used to test this hypothesis; the results are listed in Table 5.

Table 5: results of independent t-test for comparison of the mean of groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t</th>
<th>Degree of freedom</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal children</td>
<td>0.18</td>
<td>0.39</td>
<td>-0.27</td>
<td>87.82</td>
<td>0.8</td>
</tr>
<tr>
<td>Children with emotional children</td>
<td>0.2</td>
<td>0.41</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As shown in Table 5, there is no significant difference between normal children and children with emotional problems in narcissism in DFA test \( t(87/82) = -0.27; p<0.05 \).

6. There is a significant difference between normal children and children with emotional problems in added person in DFA test.

Independent t-test was used to test this hypothesis; the results are listed in Table 6.
Table 6: results of independent t-test for comparison of the mean of groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t</th>
<th>Degree of freedom</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal children</td>
<td>0.04</td>
<td>0.21</td>
<td>-2.04</td>
<td>88</td>
<td>0.04</td>
</tr>
<tr>
<td>Children with emotional children</td>
<td>0.18</td>
<td>0.39</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As shown in Table 6, there is a significant difference between normal children and children with emotional problems in added character in DFA test \([t(88) = -2.04; p<0.05]\). Thus, the mean of children with emotional problems is significantly higher than normal children in added character in DFA test.

7. There is a significant difference between normal children and children with emotional problems in elimination of surrounding factors in DFA test. Independent t-test was used to test this hypothesis; the results are listed in Table 7.

Table 7: results of independent t-test for comparison of the mean of groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t</th>
<th>Degree of freedom</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal children</td>
<td>0</td>
<td>0</td>
<td>-3.08</td>
<td>88</td>
<td>0.003</td>
</tr>
<tr>
<td>Children with emotional children</td>
<td>0.18</td>
<td>0.39</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As shown in Table 7, there is a significant difference between normal children and children with emotional problems in elimination of surrounding factors in DFA test \([t(88) = -3.08; p<0.01]\). Thus, the mean of children with emotional problems is significantly higher than normal children in elimination of surrounding factors in DFA test.

8. There is a significant difference between normal children and children with emotional problems in obsessive modes in DFA test. Independent t-test was used to test this hypothesis; the results are listed in Table 8.

Table 8: results of independent t-test for comparison of the mean of groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t</th>
<th>Degree of freedom</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal children</td>
<td>0.18</td>
<td>0.39</td>
<td>-2.37</td>
<td>88</td>
<td>0.02</td>
</tr>
<tr>
<td>Children with emotional children</td>
<td>0.4</td>
<td>0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As shown in Table 8, there is a significant difference between normal children and children with emotional problems in obsessive modes in DFA test \([t(88) = -2.37; p<0.05]\). Thus, the mean of children with emotional problems is significantly higher than normal children in obsessive modes in DFA test.

**Discussion and Conclusion**

This study compared normal children and children with emotional problems in DFA test. The results showed a significant difference between children with emotional problems and normal children in DFA test. Testing the third hypothesis showed that people with emotional problems eliminate themselves in DFA test, suggesting a depressed reaction and severe depression.

Testing the fourth hypothesis showed that children with emotional problems devaluate people who are a source of stress, distress, discomfort and dissatisfaction. Children draw these people partially or uglier than others.

Testing the sixth hypothesis showed that added character less occurs in drawings of normal children than children with emotional problems. It was concluded that children who suffer
emotional problems add characters to their drawings, reflecting demands which the child is not able to express directly. This added character is sometimes an infant, suggesting regression or the tendency to be that infant. For children, this regression is a savior.

Testing the eighth hypothesis showed that children with emotional problems are inflexible and perfectionist, which suggest higher obsessive modes. These children constantly erase and redraw; that is why their drawings are usually dirty.

In this study, it was concluded that early diagnosis of emotional problems in younger children may prevent later development of the problems which makes the academic achievement difficult. It is recommended to identify and treat these problems at childhood in schools.
References
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