Psycho-art-drama: development and testing a new integrated complementary method of psychiatric treatments for hospitalised children with cancer (a case study)

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Psycho-art-drama: development and testing a new integrated complementary method of psychiatric treatments for hospitalised children with cancer (a case study)

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ABSTRACT
Objective: Art therapy as a psychotherapy method using art, and psychodrama as a therapeutic method using role play, have different roots, principles, techniques and different effect mechanisms and advantages. Integrated psychotherapies are aimed to maximise each of the component advantages, as well as minimising disadvantages. Therefore, the main objective of this study was to develop a new integrated psychotherapy method, named psycho-art-drama (PAD) for hospitalised children with cancer and testing its effectiveness.

Methods: After designing the PAD protocol, five hospitalised children with cancer accompanied with their mothers selected based on inclusion and exclusion criteria to participate in this single-subject study.

Results: The results showed that PAD was significantly effective in reducing the bio-psycho-social expressions of incompatibility in the hospital (BPSEIH) in all of the five children.

Conclusions: Findings of this study give preliminary support using the PAD model in similar conditions.

Introduction

Cancer is characterised by the uncontrolled growth and distribution of abnormal body cells (American Cancer Society 2017). The incidence of cancer among children is increasing worldwide. Children with cancer usually face numerous psycho-social problems (Reisi-Dehkordi et al. 2014; Schulte et al. 2019). Since children with cancer usually have to be hospitalised for a long time or repeatedly, express their worries and discomforts as maladaptive symptoms, e.g., internalising behaviour problems, somatic complaints, reduced motor functioning and autonomy and impaired positive emotional functioning (Landolt et al. 2006; Tsai et al. 2013). Such a serious condition calls for more close clinical attention, as well as more psychological interventions specialised for children suffering cancer. In some patients, internal or external barriers inhibit the verbal expression of thoughts, feelings and emotions about the disease or its consequences and the hospital environment. Therefore, applying of psychotherapies with alternative methods of expression, including painting (in the art therapy) and role play (in the psychodrama), maybe a better choice for such patients, especially children (Ferrara 1991; Amendt-Lyon 2001; Malchiodi 2003; Rollins 2005; Durulup and Altay 2012).

Art therapy and psychodrama, have different roots, principles and techniques, but both are based on art. Art therapy is an interdisciplinary mix of visual arts and psychology (Gussak and Rosal 2016). Drawing, painting, clay and collage, are the traditional media and materials of art therapy (Malchiodi 2011). According to the media, material, or the aim of any stages of treatment, art therapy has several techniques such as mood warm-up, drawing with two hands, the five senses, body scan, pain management, healing collage, self-care, aligning and mind/body etc. (Buchalter 2009). Applying a drawing intervention or other forms of art into the holistic care of a paediatric oncology patient may assist in maximising quality of life and allow for a more tolerable lifestyle (Aguilar 2017). The results of various research have shown art therapy is an effective way in helping children and adults to cope with cancer, psychologically and physically, by improving the quality of life (Councill 1993; Domnick et al. 2017; Abdulla and Abdulah 2018), enhancing the therapy motivation (Gold et al. 2013), improving the social relationships through artistic expression rather than verbal expression (Rollins 2005; Massimo and Zarri 2006; Woodgate et al. 2014), strengthening of the patients’ sense of self (Teglbjaerg 2011) and increasing the pain tolerance (Favara-Scacco et al. 2001; Nesbitt and Tabatt-Haussmann 2008).

On the other hand, Psychodrama is an experiential psychotherapy in which clients use guided role-play to work on their personal and interpersonal problems and possible solutions through actions rather than words alone (Corey 2011; Moreno et al. 2013; Moreno 2014; Enelow 2015; Orkibi and Feniger-Schaal 2019). Specific psychodrama techniques such as soliloquy (a monologue of the protagonist/patient in which she/he represents her/his hidden thoughts and feelings, parallel with overt thoughts and actions), doubling (placing side by side with the patient and trying to establish her/his identity—verbally and behaviourally—in order to discover the unknown problems), mirroring (copying a patient’s behaviour patterns by the therapist or auxiliary ego when he or she is unable to perform the role on the stage), role-reversal...
(patient’s from outside and the position of the other) and empty chair (putting an empty chair on the stage to give the patient a chance to talk to anyone or something that is not present right now) (Moreno 1966; Cruz et al. 2018) are special templates for emotional, behavioural and cognitive catharsis. Catharsis, as a concept, was introduced by Aristotle to express the peculiar effect of the Greek drama on the spectators. Moreno recognised that there are three basic forms of mental catharsis, in the psychodrama: the one in the protagonist, the other in the auxiliary egos and the third one in the audience which co-experiences the events. So, all the individuals involved in the session have to be considered in the treatment (social and network catharsis). Creative catharsis, intellectual and analytic catharsis as well as social and network catharsis may each play a role in the different stages of the psychodrama (Cukier 2007). Despite these unique catharsis types as healing qualities, the psychodrama has been used very few in hospital settings (Grange-Segeral and Griot 2012; Iren Akbiyik et al. 2012; Lamiani et al. 2016; Menichetti et al. 2016).

Experienced clinical trials in our studies on children with cancer showed that art therapy and psychodrama have distinct differences in mechanisms and speed of effectiveness or effect time: the time to achieve therapeutic goals (Purrezaian 2019). Our clinical and research experience shows that starting stage of treatment in art therapy was easier than the psychodrama. When children are asked to start painting or drawing, they do not need any explain on the process of the art /making. But the starting stage in psychodrama is more difficult usually, because everyone cannot handle the role play without any training and we have to explain exactly how the process works to children. However, we found that the effect time of the psychodrama was better than that of art therapy after the initial sessions. It seems that in the psychodrama, the therapist leads a therapeutic session with more power towards healing goals. In addition, painting-based art therapy, generally produces two-dimensional and maximum three-dimensional products, and only engages in some parts of the child’s body: usually hands and eyes. While the psychodrama employs almost all organs of the child’s body. Children’s psychodrama, considers the fostering of an expressive, creative personality to be its central purpose. Therefore, it integrates all of the sensory organs, as well as affect and physicality, in order to facilitate the free expression of emotions and physical impulses (Aichinger and Holl 2017). This multi-dimensional feature is especially important in children with physical illness. Discovering these findings was the first step in developing PAD, an integrated psychotherapy. We, then, hypothesised the mentioned problems in art therapy and psychodrama can be solved through PAD by applying the art therapy techniques at the start phase of each session, and the psychodrama techniques at the second phase of the session. This study aimed to introduce this method, and to evaluate its effectiveness in incompatibility or maladjustment of children with cancer in the hospital.

**Materials and methods**

**Design**

The present research undertook in a single-subject study (A–B type) design, which is placed in the category of experimental research.

**Participants**

Statistical population: All children aged 9–14 years with cancer admitted to the Children’s Medical Centre (CMC) of Tehran.

Sample: Using purposeful sampling five children with cancer who were hospitalised in the CMC were selected based on the following inclusion and exclusion criteria. Table 1 includes the demographic or descriptive characteristics of the participants.

**Inclusion criteria**

1. Age between 9 and 14;
2. Detection of cancer within the last 6 months;
3. The first or second stage of cancer progression;
4. Being hospitalised;
5. Detection of the need for psychological treatment due to signs of BPSEIH;
6. Having ability of reading and writing;
7. Informed consent of the child and her/his parents (supervisor);
8. Participation of her/his mother in the treatment process; and

**Exclusion criteria**

1. Leaving the research by the child or her/his mother;
2. Presence of an acute physical illness, accompanied with cancer;
3. Presence of an acute psychiatric disorders and using any psychiatric drug;
4. Having serious motor difficulties and/or need for absolute rest;
5. Having obvious perceptual problems; and
6. Existence of any obvious family problems (including parental divorce in the last two months).

**Procedure**

This study was carried out in two general phases:

**Phase 1: To design the therapeutic protocol**

At this phase, after a general and comprehensive study in techniques and protocols of psychodrama and art therapy, a new creative integrated family-based psychotherapy (psycho-art-drama (PAD)) was designed for hospitalised children with cancer (see online supplemental materials). Family-based PAD is not a family therapy, but an integrated psychotherapy from the combination of art therapy and psychodrama. Just as ‘family-based art therapy’, e.g. is not the same as ‘family art therapy’ which is a kind of

<table>
<thead>
<tr>
<th>Identification code</th>
<th>Age</th>
<th>Sex</th>
<th>Diagnosis</th>
<th>Length of recent hospitalisation</th>
<th>Hospitalisation planning</th>
<th>Number of hospitalisations remaining</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>12</td>
<td>F</td>
<td>Lymphoma</td>
<td>5 days</td>
<td>Once a month</td>
<td>At least five times</td>
</tr>
<tr>
<td>P2</td>
<td>11</td>
<td>F</td>
<td>Leukemia</td>
<td>6 days</td>
<td>Once a month</td>
<td>At least seven times</td>
</tr>
<tr>
<td>P3</td>
<td>9</td>
<td>F</td>
<td>Leukemia</td>
<td>14 days</td>
<td>Once a month</td>
<td>At least ten times</td>
</tr>
<tr>
<td>P4</td>
<td>13</td>
<td>M</td>
<td>Leukemia</td>
<td>7 days</td>
<td>Once a month</td>
<td>At least eight times</td>
</tr>
<tr>
<td>P5</td>
<td>10</td>
<td>M</td>
<td>Leukemia</td>
<td>10 days</td>
<td>Once a month</td>
<td>At least six times</td>
</tr>
</tbody>
</table>
family therapy with art (Kwiatkowska 2001; Landgarten 2013).
Family-based psychotherapies can be useful when the presence of the family is necessary in treatment due to some physical, psychological or social problems of the patient, or in order to increase the achievements and effects of psychotherapy.

**Phase 2: Implementation of the protocol**

At this phase, after selecting the participants in the study (based on the inclusion and exclusion criteria) an introductory session was held with the parent(s) on the basis of the treatment plan, and then the family-based PAD was applied by the first author of the present article (psychodramatist and art therapist), in eight sessions for all children, separately but similarly. The duration of each session varied from 40 to 60 min. The sessions were conducted in the child’s inpatient room or in the children’s play room in the hematology-oncology ward of the hospital.

**Measures**

**Bio-psycho-social expressions of incompatibility in hospital (BPSEIH)**

A checklist was created especially for this study to monitor the biological, psychological and social expressions of incompatibility in the hospital, including 10 items (see online Supplemental Materials). Each item has three response options in Likert scale from zero (absence of the expression) to two (extreme expression) which should be answered by the therapist or researcher and confirmed by the patient’s attendance. Validity and reliability of this checklist have been confirmed in this study. Cronbach’s Alpha was 0.81 in an unpublished research on Iranian sample (Purrezaeian 2020). The total number of measurements was 11: 3 times at baseline (A), 7 at intervention (B) and once at follow-up (1 month after the intervention when the child was admitted to the hospital).

**Data analysis**

The present research’s data, as well as all of the single-subject studies, are presented in the form of graphs. These graphs, drawn using Excel software, indicate changes in the score of participants from condition A to B. Table 2 presented after the graphs, includes between conditions visual analysis of data. Calculations in the mentioned table are based on a step by step guide to visual analysis (Gast 2010). The effect size (ES) and reliable change index (RCI) are also reported in addition to the customary values.

**Ethical considerations**

The participants and their mothers were given information about the purpose and importance of the study at the introductory meetings. Written informed consent was obtained from the parents and children before the first session and they were allowed to withdraw from the study at any time.

**Results**

The following graphs in Figures 1–5 contain data on the frequent measurements of BPSEIH in children with cancer at the A and B conditions. These graphs provide visual analysis of the change in the scores of participants’ BPSEIH. Table 1 contains data that can be used to analyse the inferential graphs.

According to the first column of Table 2 (P1), the mean BPSEIH rate of participant 1 after intervention ($\overline{X} = 8.25$) is significantly lower than the same score at baseline ($\overline{X} = 15.33$). In addition, the direction of the trend has been changed from accelerating to decelerating, by maintaining stability in both A and B conditions. The PND and POD indicate that 100% of the data points in condition B are outside the range of condition A. The amount of effect size (ES = 12.42) shows that PAD has had high effectiveness in reducing BPSEIH score of the participant. As well, the amount of RCI (0.69 < 7.08) indicates that change in the BPSEIH score from A to B is statistically significant.

Based on the second column of Table 2 (P2), the mean BPSEIH rate of participant 2 after intervention ($\overline{X} = 9.62$) is significantly lower than the same score at baseline ($\overline{X} = 18.66$). Furthermore, the direction of the trend has been changed from accelerating to decelerating, by maintaining stability in both conditions (A and B). The PND and POD indicate that 100% of the data points in condition B are outside the range of condition A. The amount of effect size (ES = 15.86) shows that PAD has had a high effectiveness in reducing incompatibility score of the participant. Additionally, the amount of RCI (0.69 < 9.04) indicates that change in the BPSEIH score from A to B is statistically significant.

According to the third column of Table 2 (P3), the mean BPSEIH rate of participant 3 has been significantly reduced from baseline ($\overline{X} = 12.5$) to post intervention state ($\overline{X} = 20$). The PND and POD indicate that 100% of the data points in condition B have been significantly reduced from baseline ($\overline{X} = 15$) to post intervention state ($\overline{X} = 19$). The direction of the trend has been changed from accelerating to decelerating, by maintaining stability in both A and B conditions. The PND and POD indicate that 100% of the data points in condition B have been significantly reduced from baseline ($\overline{X} = 12$) to post intervention state ($\overline{X} = 19$). The amount of effect size (ES = 8.25) shows that PAD has had high effectiveness in reducing BPSEIH score of the participant. Additionally, the amount of RCI (0.69 < 7.08) indicates that change in the BPSEIH score from A to B is statistically significant.

According to the fourth column of Table 2 (P4), the mean BPSEIH rate of participant 4 has been significantly reduced from baseline ($\overline{X} = 15$) to post intervention state ($\overline{X} = 19$). The PND and POD indicate that 100% of the data points in condition B have been significantly reduced from baseline ($\overline{X} = 8$) to post intervention state ($\overline{X} = 12$). The amount of effect size (ES = 12.42) shows that PAD has had high effectiveness in reducing BPSEIH score of the participant. Additionally, the amount of RCI (0.69 < 7.08) indicates that change in the BPSEIH score from A to B is statistically significant.

According to the fifth column of Table 2 (P5), the mean BPSEIH rate of participant 5 has been significantly reduced from baseline ($\overline{X} = 13.5$) to post intervention state ($\overline{X} = 19$). The PND and POD indicate that 100% of the data points in condition B have been significantly reduced from baseline ($\overline{X} = 15$) to post intervention state ($\overline{X} = 19$). The amount of effect size (ES = 15.86) shows that PAD has had a high effectiveness in reducing incompatibility score of the participant. Additionally, the amount of RCI (0.69 < 9.04) indicates that change in the BPSEIH score from A to B is statistically significant.

**Table 2. Summary of between conditions visual analysis of data plotted in Figures 1–5.**

<table>
<thead>
<tr>
<th>1. Number variable changed</th>
<th>P1</th>
<th>P2</th>
<th>P3</th>
<th>P4</th>
<th>P5</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Change in trend</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1. Direction change</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.2. Effect</td>
<td>Positive to stable</td>
<td>Positive to stable</td>
<td>Positive to stable</td>
<td>Positive to stable</td>
<td>Positive to stable</td>
</tr>
<tr>
<td>2.3. Stability change</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Change in level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1. Relative change</td>
<td>16–11</td>
<td>19–12.5</td>
<td>20–14.5</td>
<td>19–13.5</td>
<td>16–11</td>
</tr>
<tr>
<td>3.3. Median change</td>
<td>15–8</td>
<td>19–8.5</td>
<td>19–12</td>
<td>19–8</td>
<td>15–8</td>
</tr>
<tr>
<td>4. Data overlap</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1. PND(%)</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>4.2. POD(%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4.3. RCI</td>
<td>0.69</td>
<td>0.69</td>
<td>1.84</td>
<td>0.69</td>
<td>0.69</td>
</tr>
<tr>
<td>4.4. ES</td>
<td>12.42</td>
<td>15.86</td>
<td>5.29</td>
<td>14.11</td>
<td>16.30</td>
</tr>
</tbody>
</table>
POD indicate that 100% of the data points in condition B are outside the range of condition A. The amount of effect size (ES = 5.29) shows that PAD has had an almost high efficiency in reducing BPSEIH score of the participant. Also, the amount of RCI (1.84 < 8.04) indicates that the modification in BPSEIH score from A to B is statistically significant.

The P4 column of Table 2, states that the mean BPSEIH rate of participant 4 after intervention (X̄ = 9.37) is significantly lower than the same score at baseline (X̄ = 18.66). Moreover, the direction of the trend has been changed from zero to decelerating, by maintaining stability in both A and B conditions. Based on the PND and POD, 100% of the data points in condition B are outside the range of condition A. The effect size (ES = 14.11) shows that PAD has had great efficacy in reducing the incompatibility score of the participant. In addition, the amount of RCI (0.69 < 9.29) indicates that the alteration in BPSEIH score from A to B is statistically significant.

The last column of Table 2 (P5), shows that the mean BPSEIH rate of participant 5 after intervention (X̄ = 8.25) is considerably lower than the same score at baseline (X̄ = 15.33). It is also clear that the direction of the trend has been changed from accelerating to decelerating, by maintaining stability in both conditions (A and B). The PND and POD indicate that 100% of the data points in condition B are outside of the range of condition A. The effect

Figure 1. The graphs related to participant no.1 (P1) scores. The first graph (above): data for BPSEIH score changes from A to B; the second graph (middle): level stability envelope for BPSEIH; and the third graph (bottom): estimate of trend and trend stability for BPSEIH.
size (ES = 16.30) also indicates that PAD has an obvious effect on decreasing BPSEIH score of the participant. Additionally, the amount of RCI (0.69 < 7.08) indicates that the variation in BPSEIH score from A to B is statistically significant.

**Discussion**

The results of this study showed that the mean scores of BPSEIH were significantly reduced at post intervention (from Condition A to condition B). These results are consistent with all studies that have confirmed the effectiveness of psychodrama (Grange-Segeral and Griot 2012; Iren Akbiyik et al. 2012; Lamiani et al. 2016; Menichetti et al. 2016), and art therapy (Favara-Scacco et al. 2001; Rollins 2005; Massimo and Zarri 2006; Zeeck et al. 2009; Teglbjaerg 2011; Gold et al. 2013; Woodgate et al. 2014; Domnick et al. 2017; Abdulah and Abdulla 2018) to improving the hospital problems of patients with cancer. No study has compared the two intervention methods at the same time. So, the disadvantages or problems of each method have not been identified yet. The importance of the effect time of the psychological interventions in medical settings has been stated in one unpublished study only (Purrezaian 2019). Therefore, this deficiency is clearly visible in the research literature.

Children’s incompatibility in the hospital is one of the most common problems that affect parents, clinicians and nurses. One of the factors which can lead to this incompatibility is the feeling...

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**Figure 2.** The graphs related to participant no.2 (P2) scores. The first graph (above): data for BPSEIH score changes from A to B; the second graph (middle): level stability envelope for BPSEIH; and the third graph (bottom): estimate of trend and trend stability for BPSEIH.
of rejection from the community due to illness. This unbecoming feeling can be due to a considerable reduction in the social communication of children. Social abilities are reflected in the outcomes of negative symptoms. This point is important because impairments in the ability to build and sustain satisfying relationships with others are at the core of various mental health problems (Gold et al. 2013). Art therapy can change the difficult conditions of the hospital and recover their social relationships. Drawing is an accepted, indeed, preferred activity in hospitals since it is a simple and easy game for children (Massimo and Zarri 2006).

Despite the valuable role of art therapy in this field, children sometimes want exactly the same social connections that they have outside the hospital, the same friends, same siblings and maybe same grandparents. Psychodrama based on its principal concepts (Karp et al. 1998) and techniques (Moreno 1966; Cruz et al. 2018), can meet these children’s demands. By means of the encounter, tele principles and empty chair technique, anyone can be present at the session so that the child can speak with her/him freely. Psychodrama can increase social support in cancer patients, too. Perception of social support either from family, private person and friends increased significantly by psychodrama (Iren Akbiyik et al. 2012).

Moreover, children with cancer in the hospital may experience annoying thoughts and emotions due to severe physical

Figure 3. The graphs related to participant no. 3 (P3) score. The first graph (above): data for BPSEIH score changes from A to B; the second graph (middle): level stability envelope for BPSEIH; and the third graph (bottom): estimate of trend and trend stability for BPSEIH.
problems. Art therapy is one of the best ways to bring out these thoughts and emotions to solve them. Painting can be a non-verbal tool for expressing children’s thoughts/emotions and for effective communication with the therapist as well (Ferrara 1991; Rollins 2005; Durualp and Altay 2012). Likewise, since psychodrama integrating all of the sensory organs, as well as affect and physicality, can facilitate the free expression of emotions and physical impulses (Aichinger and Holl 2017). So, it is a proper method to introduce the child’s thoughts and emotions with catharsis which can be created with the techniques of psychodrama.

In addition to increasing social support and the catharsis, there is also a third factor: the symbolic fighting with cancer. Both art therapy and psychodrama can be useful in this regard with attractive techniques. All the children participating in this study, before recognising the pathogens and practicing the symbolic fighting with them, used hopelessness sentences such as: ‘My body has been blamed for this disease because it is weak’, ‘I’m poor and miserable’, or ‘The disease has attacked me’ and the other sentences like these. But after explaining the reasons for becoming sick in humour and with the help of colourful dolls, they began to paint and play with great energy and enthusiasm, as if they were playing at home or at school with their friends. They always even forgot the attached serums.

The research evidence revealed that both art therapy and psychodrama can be the effective ways to help patients with cancer.

Figure 4. The graphs related to participant no.4 (P4) scores. The first graph (above): data for BPSEIH score changes from A to B; the second graph (middle): Level stability envelope for BPSEIH; and the third graph (bottom): Estimate of trend and trend stability for BPSEIH.
Combining these two methods as PAD was the best option for us to profit the advantages of both methods. According to the findings, PAD which introduced in this study, can be useful for hospitalised children with some physical difficulties to modifying their bio-psycho-social expressions of incompatibility in hospital.

**Study limitations**

Psycho-art-drama in this study was conducted for five hospitalised children with cancer, individually and at different times (based on the single-subject study design). In fact, this article includes the results of five different researches whose findings have been repeated here. This is a positive point for generalisability, but usually single-subject studies challenges with the limitation of generalisability of the results. Furthermore, the limitation on the number of patient attendant allowed only one of the family members (mother) to participate in the study. Perhaps the presence of all family members or at least both parents could increase the treatment achievements for the child and the family. Another limitation of the study is the measure which its validity and reliability have only been confirmed in a small sample. Of course, as the Cronbach’s alpha increases with increasing sample size, obtaining such a high and acceptable Cronbach’s alpha can be a strength of this measure.

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**Figure 5.** The graphs related to participant no.5 (P5) scores. The first graph (above): data for BPSEIH score changes from A to B; the second graph (middle): Level stability envelope for BPSEIH; and the third graph (bottom): Estimate of trend and trend stability for BPSEIH.
Clinical implications

Consistent with the results, the newly designed protocol (PAD) in this study can reduce the bio-psycho-social expressions of incompatibility in children with cancer. But the children participating in this study are not the only hospitalised children with cancer or any other illness in the world. Also, bio-psycho-social expressions of incompatibility are not the only psychological problems of these children. The PAD psychotherapeutic model for helping children to cope with the hospital setting, is recommended therefore. Additionally, in numerous hospitals, there is no full-time psychologist in the hematology-oncology or any other department of hospital (both for children and adults). The results of this study show and support the importance of the psychologists’ role (especially health psychologists).

Acknowledgment

Our genuine thankfulness is for children and their parents who participated in this study, and the CMC staff.

Ethical approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Approval ID: IR.UT.PSYEDU.REC.1398.025

Disclosure statement

No potential conflict of interest was reported by the authors.

Data availability

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

References


