The impact of sandtray therapy in group counselling towards children’s self-esteem

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Abstract

This study is based on an experimental design by making a comparison between control group and experimental group based on the pre- and post-test results. The objective is to identify the effect of sandtray therapy towards the improvement of the five self-esteem variables: general, social, family, academic and lie. The subjects of the study were children aged 11 years old (n = 32) in Malaysia. They were divided into two groups namely the sandtray group (n = 16) as the experimental group, who received sandtray therapy compared to control group (n = 16) who did not receive the treatment. The data were analysed using SPSS version 22, MANOVA recurrent measurement, pre-test and post-test. The findings specify that sandtray therapy is a valuable therapeutic intervention to enhance the child’s self-esteem. Several recommendations were presented to parents, teachers and school administrators, and the Ministry of Education Malaysia was discussed in promoting children’s well-being.

Keywords: Sandtray therapy, group counselling, children, self-esteem.
1. Introduction

Counselling in schools has been seen to have a significant impact on children’s mental well-being (McLaughlin and Holiday, 2014). However, counselling for children is different from counselling for adults (Geldard & Geldard, 2002). Homeyer and Sweeney (2011) stated that children do not communicate in the same way that adults do because children do not have the cognitive or verbal maturity to communicate in counselling in the way as adults’ converse. Therefore, counsellors face difficulty in carrying out counselling sessions with children as children face difficulties in expressing their emotions verbally, will tend to be silent and will try to avoid touching important issues during conventional counselling (Geldard & Geldard, 2002).

Landreth (2012) specified that children often lack the cognitive ability to express their concerns verbally. Therefore, counsellors can use sandtray therapy as a psychotherapy technique in counselling sessions so that counselling sessions become more creative, interesting and effective. The sandtray therapy approach is an effective counselling approach for children and able to form therapeutic relationships between children and counsellors through the natural language of children playing (Landreth, 2012). Thus, counsellors can use the sandtray therapy approach during the counselling session as one of the interventions to enhance the child’s self-esteem. Sandtray therapy is a multidimensional form of play therapy that utilises a tray partially with sand and a large collection of miniature (Bernstein, 2007; Zarzaur, 2004; Homeyer & Sweeney, 2011). Children choose miniatures from a collection and build scenes in the sandtray as an expression and representation of their inner worlds (Homeyer & Sweeney, 2011).

2. Statement of problem

Children are the most important part of each society. There is no doubt that they are facing some problems nowadays such as divorce in the family. The number of divorces in Malaysia has more than doubled in just eight years from 2004. In 2012, a whopping 56,760 divorces were recorded, which is equivalent to the marriage breaking down every 10 minutes (Ministry of Women, Family and Community Development Malaysia, 2012). The National Registration Department also recorded a rising divorce trend between non-Muslim couples from 2008 to 2012 (from 6,573 to 9,020 cases). Amato (2010) in his research shows that among effects of divorce on children are negative emotions like bitterness, stress, emotional pain, anxiety, fear, feeling abandoned, feeling betrayed and loss of self-esteem. Self-esteem plays an important part in all aspects of a child’s development. The term self-esteem relates to a person’s overall emotional assessment of his or her worth and a person’s sense of pride and is closely related with his or her self-consciousness and psychological well-being (Olsen, Breckler & Wiggins, 2008).

Hence, a person’s self-esteem may be dependent upon his or her psychological adjustment, the quality of life, adaptive behaviour, relationships with friends, motivation, school performance and success in life (Papadopoulos, Metsiou & Agaliotis, 2011; Saigal, Lambert, Russ & Hoult, 2002). Low self-esteem may proceed if there is a disagreement between a person’s expectations and his or her perception of capability. According to Michie, Glachan and Bray (2001), the differential estimates for children can affect mental health, psychological well-being and interpersonal behaviour. Children are easily overwhelmed and have low self-esteem. They prefer to be silent and are afraid to ask the teacher. Their academic achievement is also less satisfactory. Thus, effective intervention in counselling session is immediately necessary to help the children for their social and emotional development. Hence, counsellors can use the sandtray therapy approach during the counselling session as one of the interventions to develop the child’s self-esteem.
3. Literature review

Toys are like the child’s words and play is the child’s language (Landreth, 2012). Thus, sandtray therapy helps children to express their experiences and desires. Therefore, the sandtray therapy approach has been widely used in Western countries such as the United States and it is a new approach for counselling process in Malaysia (Carey, 1999; Draper, Ritter & Willingham, 2003). Studies on the efficacy of sandtray therapy have been widely carried out in Western countries. For example, studies by Flahive (2005), Flahive and Ray (2007) and Shen and Armstrong (2008) have studied the effectiveness of sandtray therapy approaches on students with behavioural problems using experimental methods. The findings show that there is a significant change in the behaviour of clients undergoing sandtray therapy. Even sandtray therapy has also helped children to overcome the trauma of divorce (Draper et al., 2003). The study by Baker and Gerler (2008) emphasises that sandtray therapy is considered as an effective school counselling modality to address the needs of primary school children. Sandtray therapy has also enabled school counsellors to help students in their growth and development (Ray, Armstrong, Warren & Balkin, 2005). Homeyer and Sweeney (2011) identified sandtray as a popular therapy among therapists because it allows children to communicate non-verbally when facing problems. Research on play therapy done by Johari, Bruce and Amat (2014) investigated the effectiveness of child-centred play therapy by conducting 3-day training sessions in different parts of Malaysia for a total of 116 participants including mental health students and practitioners. The findings prove that play therapy has a great impact on enhancing the competency of mental health professionals in Malaysia.

4. Research objective

The objective of the study is to identify the effect of sandtray therapy towards the improvement of the five self-esteem variables: general, social, family, academic and lie.

5. Methodology

5.1. Research design

The research design in this study is experimental by making a comparison between the control group and experimental group based on the pre-and post-test results. Researcher divided the participants into two groups; an experimental group and a control group. Both groups completed the self-esteem inventory (SEI) (pre-test) but only the experimental group went through the sandtray therapy. After they have done the counselling sessions using sandtray therapy approach and answered the SEI post-test (Flahive, 2005; Maeng & Jang, 2014; Park & Lee, 2013; Yang, 2014; Zarzaur, 2004;). From that, the researcher was able to evaluate the impact of the application of sandtray therapy in the counselling through the comparison of the experimental group and the control group.

5.2. Participant

The subjects of the study were children aged 11 years old (n = 32). The purposive sampling technique was used in this research. There was a total of 32 participants with low self-esteem in the study. The subjects were divided into two groups namely the sandtray group (n = 16) for the experimental group, who received sandtray therapy compared to control group (n = 16) who did not receive the treatment.

Demographic background included the frequency and percentage of gender, race and parental relationship.
Most of the respondents were Malays ($n = 26, 81.3\%$), followed by Chinese ($n = 3, 9.3\%$), Indian ($n = 2, 6.3\%$) and others ($n = 1, 3.3\%$). Most parents of these respondents ($n = 15, 49.9\%$) lived together as a married couple, 3 (9.47\%) lived as single mothers, none for single father and 14 (43.7\%) divorced.

6. Procedure of data collection

The data collection included pre-test and post-test for all participants with the intention of using sandtray therapy for the treatment group. The participants responded to questionnaire two times which before and after treatment given to the experimental group. The experimental group received 1-hour sandtray therapy sessions for 8 weekly and the control group did not received the therapeutic intervention during the experimental phase of the study.

Researcher used the sandtray therapy guidelines from Homeyer and Sweeney (2011) to ensure that the collective procedure of conducting sandtray therapy will be followed: room preparation, introduction to participants, the creation of sandtray, post-creation and sandtray clean-up. The researcher has set up a room that is suitable and conducive for the sandtray therapy to be conducted with a variety of miniatures consist of people, animals, buildings, transportation, vegetation, fences, natural items, fantasy, spiritual-mystical, landscaping, household items and miscellaneous items. The researcher has also provided sufficient trays filled with dry or wet sand. Eight weekly sandtray sessions were determined to be an adequate amount of time to show the behaviour change in children as reported by the previous studies in sandtray therapy (Plotkin, 2011).

The researcher utilised the sandtray therapy session summary obtained from Homeyer and Sweeney (2011), which will be completed for every session of each group that included the details of the session: to note down the number of session, the length of time the participants do the therapy, to include a picture of the sandtray the participants created, to know how the participants make the tray and the use of any water and miniatures.

Once participants were identified and consent/assent forms were signed, pre-test data were collected by giving the SEI to participants’ in both the experimental and wait-list control groups. After pre-test data was collected, the sandtray therapy process began within 8 weeks. The participants in the experimental group were divided into two groups and underwent 8 weekly 60 minutes group counselling sessions using sandtray therapy approach. Two counsellors were assigned for each group. Participants in the wait-list control group did not participate in a therapeutic intervention during the experimental phase of the study. Sandtray therapy sessions were administered to the control group.

| Table 1. Frequency and percentage of the demographic background ($n = 32$) |
|---------------------------------|---------|----------|
| Gender                         | Frequency | Percentage |
| Female                         | 16       | 100       |
| Race                           |          |           |
| Malay                          | 26       | 81.3      |
| Chinese                        | 3        | 9.3       |
| Indian                         | 2        | 6.3       |
| Others                         | 1        | 3.3       |
| Parental Relationship          |          |           |
| Married                        | 15       | 49.9      |
| Single mother                  | 3        | 9.4       |
| Single father                  | 0        | 0         |
| Divorced                       | 14       | 43.7      |
| Total                          | 32       | 100       |
after the experimental phase of the study was completed and post-test data were collected from all participants. The participants in the control group were informed that their participation in sandtray play therapy sessions would begin approximately 8 weeks after they completed the consent and assent forms. In order to document and monitor participant activity during sandtray play therapy sessions, the researcher recorded participants’ behaviours and comments on the sandtray session summary forms and took a digital photograph of the participant’s final sandtray scene at the end of each session. The sandtray session summary form records (a) participants’ approach to the task, (b) description of sandtray, (c) sandtray themes and (d) description of figures used. Participants’ approach to task includes (a) whether the child had an easy or difficult time getting started with the process, (b) if he or she was determined or hesitant to create a scene in the tray and (c) whether or not the child was fully involved in the sandtray session (Homeyer & Sweeney, 2011).

Description of sandtray includes (a) whether the child placed the figures in the tray in an organised or chaotic manner; (b) if the figures were placed in the sandtray and were moved around or if they remained in the same position; (c) if the child left the tray empty or with few figures, used an adequate number of figures to create a scene or used an excessive amount of figures creating a crowded space in the sandtray and (d) if the child created one complete idea or separate ideas within one sandtray scene. Sandtray themes include information about the scene children create during each session. Themes reflect whether the child’s scene included peaceful, nurturing, protective, aggressive/violent, conflicted, withdrawn, loss, fantasy, secretive, abandonment, helpless or power/control elements. Peaceful scenes tend to be harmonious without conflict while nurturing scenes include aspects of support or caring. Protective elements shield or defend. Aggressiveness/violence refers to hostility or an attack. Conflicts tend to be depicted as a disagreement or argument in the scene. Withdrawal relates to departure from activity by figures in the scene. Loss can refer to death or defeat. Fantasy scenes use imagination and are unrealistic.

7. Instrument and data analysis

The SEI test will be drawn from Coopersmith (1967). The SEI test will be drawn from Coopersmith (1967). Coopersmith’s SEI consists of five subscales: general, social, family, academic and lie self-esteem items. These items are to be answered with ‘like me’ or ‘unlike’ and for each item, it will be scored as one.

SEI has proven to be reliable as it has had considerable uses by researchers. The SEI developed by Coopersmith has been used in a number of studies and proved its reliability. According to Heatherton (2003) Coopersmith’s SEI are the best scales to analyse factors, following their test on eight measures of self-esteem. Correspondingly, students’ journal from Plymouth University stated that the test–retest reliability of Coppersmith’s SEIs shows range from 0.88 (over 5 week period) to 0.70 (over 3 year period).

The data were analysed using SPSS version 22, Manova Recurrent Measurement, pre-test and post-test. This study will be carried out by using pre- and post-test design based on the SEI test.

8. Findings

The first research question is ‘Is there any effect of sandtray therapy towards the improvement of the students’ self-esteem?’ This was measured by the respondents given by the respondents in the experimental group through the questionnaire which consists of 58 items. In order to find out whether sandtray therapy can improve the respondents’ self-esteem, several statistics application will be used to analyse the results of pre-test and post-test of the experimental group.

Table 2. The first type of analysis; descriptive statistics analysis is shown. It is used to present the mean differences of self-esteem variables (general, social, family, academic and lie) of the experimental group in the pre-test and post-test results (n = 16)

<table>
<thead>
<tr>
<th>Experimental</th>
<th>Pre-test Mean</th>
<th>Pre-test Standard deviation</th>
<th>Post-test Mean</th>
<th>Post-test Standard deviation</th>
<th>Mean difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>3.0673</td>
<td>0.22094</td>
<td>3.3005</td>
<td>0.14129</td>
<td>0.2332</td>
</tr>
<tr>
<td>Social</td>
<td>2.8672</td>
<td>0.27939</td>
<td>3.6094</td>
<td>0.28090</td>
<td>0.7422</td>
</tr>
<tr>
<td>Family</td>
<td>3.1094</td>
<td>0.34724</td>
<td>3.9453</td>
<td>0.33219</td>
<td>0.8359</td>
</tr>
<tr>
<td>Academic</td>
<td>3.0547</td>
<td>0.31281</td>
<td>3.8438</td>
<td>0.27576</td>
<td>0.7891</td>
</tr>
<tr>
<td>Lie</td>
<td>2.8438</td>
<td>0.53522</td>
<td>2.9453</td>
<td>0.34752</td>
<td>0.102</td>
</tr>
<tr>
<td>Total</td>
<td>2.9885</td>
<td>0.13908</td>
<td>3.5288</td>
<td>0.12975</td>
<td>0.5403</td>
</tr>
</tbody>
</table>

As a whole, it shows that sandtray therapy improves all the self-esteem variables in the post-test, from the pre-test. The items under family self-esteem variables acquired the highest mean difference between pre-test and post-test with 0.8359 (3.9453 – 3.1094). The items under academic self-esteem variables acquire the second highest impact that gives a mean difference of 0.7891 (3.8438 – 3.0547). It is followed by social variables of self-esteem with mean difference 0.7422 (3.6094 – 2.8672). Second lowest effect of self-esteem variable as a result of sandtray therapy is general self-esteem. It gives a mean difference of 0.2332 (3.3005 – 3.0673).

Consequently, lie scale for the experimental group is the lowest among all variables with mean difference 0.102 (2.9453 – 2.8437). Overall, the self-esteem variables give a mean difference of 0.5403, with post-test 3.5288 and pre-test 2.9885, of the experimental group.

The second type of analysis is MANOVA multivariate test analysis. It is used to further understand whether there are differences between the pre-test and post-test of the experimental group, which indicates the effectiveness of sandtray therapy by understanding the impact it has towards the variables of self-esteem. The MANOVA test analysis is shown in Table 3.

Table 3. Multivariate measure of pre- and post-test of the experimental group (n = 16)

<table>
<thead>
<tr>
<th>Within-subject effects</th>
<th>Value</th>
<th>F</th>
<th>Hypothesis df</th>
<th>Error df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pillai’s trace</td>
<td>0.950</td>
<td>41.372</td>
<td>5.000</td>
<td>11.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Wilks’ lambda</td>
<td>0.050</td>
<td>41.372</td>
<td>5.000</td>
<td>11.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Hotelling’s trace</td>
<td>18.805</td>
<td>41.372</td>
<td>5.000</td>
<td>11.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Roy’s largest root</td>
<td>18.805</td>
<td>41.372</td>
<td>5.000</td>
<td>11.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Based on Table 3, MANOVA multivariate test for pre-test and post-test of the experimental group indicates within-subjects of self-esteem variables. The pre- and post-test results from the findings show that the overall Pillai’s trace $F(5,11) = 41.372, p < 0.05$. This shows that the use of sandtray therapy has significantly affected the self-esteem variables of the experimental group in the pre- and post-test results. Pillai’s trace is being used due to its reliability in multivariate measures. It offers the greatest protection against Type 1 errors with a small sample size. It also sums up and calculates the variance in the dependent variables which are accounted for by the greatest separation of independent variables.

Next, the third type of analysis is a univariate test which reveals the sphericity assumed of the pre-test and post-test results of the experimental group, as shown in Table 4. Basically, sphericity assumed refers to the similar one variance difference between levels of repeated measures. In other words, the analysis calculates the difference between each level of repeated steps and then calculate the variance and the score difference sphericity assumed requires that the variance for each set of the score are the same.
Results from the sphericity assumed in Table 4 below, pre-test and post-test of general self-esteem show $F(1,15) = 49.853 \alpha < 0.05$. The results towards the social self-esteem shows $F(1,15) = 63.646 \alpha < 0.05$, to the parental self-esteem $F(1,15) = 82.924 \alpha < 0.05$, to the academic self-esteem $F(1,15) = 80.071 \alpha < 0.05$ and to lie self-esteem $F(1,15) = 0.732 \alpha > 0.05$. This indicates that sand tray therapy gives significant effect to four of the self-esteem variables in pre-test and post-test of the experimental group, except for lie self-esteem. Therefore, as can be seen from the mean difference in Table 4 of the descriptive statistics analysis, it shows the differences in pre-test and post-test, where all self-esteem variables improve except for lie self-esteem. Although, Pillai's trace shows overall statistically significant effects of sand tray therapy towards the self-esteem variables, when it comes to the univariate test, specifically to each self-esteem variables, it shows that all except lie self-esteem are significantly affected by the use of sand tray therapy.

<table>
<thead>
<tr>
<th>Source</th>
<th>Measure</th>
<th>Type III sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>$F$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test &amp; post-test</td>
<td>Low self-esteem</td>
<td>Sphericity assumed</td>
<td>0.435</td>
<td>1</td>
<td>0.435</td>
<td>49.853</td>
</tr>
<tr>
<td></td>
<td>Quietness</td>
<td>Sphericity assumed</td>
<td>4.407</td>
<td>1</td>
<td>4.407</td>
<td>63.646</td>
</tr>
<tr>
<td></td>
<td>Shyness</td>
<td>Sphericity assumed</td>
<td>5.590</td>
<td>1</td>
<td>5.590</td>
<td>82.924</td>
</tr>
<tr>
<td></td>
<td>Anxiety</td>
<td>Sphericity assumed</td>
<td>4.981</td>
<td>1</td>
<td>4.981</td>
<td>80.071</td>
</tr>
<tr>
<td></td>
<td>Sadness</td>
<td>Sphericity assumed</td>
<td>0.083</td>
<td>1</td>
<td>0.083</td>
<td>0.732</td>
</tr>
</tbody>
</table>

9. Discussion

This recent study sought to determine whether sandtray therapy has a positive effect on the child in terms of low self-esteem, quietness, shyness, anxiety and sadness. The findings of this study showed that the null hypothesis is thus rejected because there is a significant effect of sand tray therapy that can be seen in the self-esteem variables between the pre-test and post-test results of the experimental group.

Thus, the results and findings show an increase in all of the self-esteem sub-variables. Sandtray therapy has effects on all the self-esteem variables, wherein the post-test, all of the self-esteem variables are higher than the pre-test. Moreover, the multivariate measure shows a significant effect of the sand tray therapy to the self-esteem variables with Pillai’s trace $F(5,11) = 41.372, p < 0.05$. While the univariate test for each self-esteem variables, except for lie ($F(1,15) = 63.646, p >0.05$) also shows significant effects. The findings proved that sandtray therapy is effective in improving children’s self-esteem. These findings also supported previous research on the effectiveness of sand tray therapy in helping children’s adjustment following parental divorce by Plotkin (2011). Results from her research indicated that children who participated in sandtray therapy following parental divorce showed significantly less internalising and externalising behaviour problems compared to children who did not participate in sandtray therapy during the experimental phase of the study.

Landreth (2012) also agreed that the process of change that occurs in children through sandtray therapy can establish a positive relationship between peers and families, children can express emotions and strengthen their self-esteem. Even Johari (2015) agreed that counsellors are able to help children with the use of sandtray therapy approaches, and therapeutic relationships can help clients in terms of emotions. Drews (2009) in his study, said that play is one of the most effective ways to express feelings that are hidden. Therefore, children in primary school will show their feelings or share events that affect their lives through play.

Furthermore, sandtray therapy is best suited for children from various cultural groups. Flahive (2005), Flahive and Ray (2007) and Shen (2006) have studied the effectiveness of sand tray therapy approaches on students with behavioural problems using experimental methods. Participants in the experimental group underwent a 10-week sand tray therapy while participants in the control group...

did not receive sandtray therapy intervention. The findings showed that there are significant changes to clients undergoing sandtray therapy.

In addition, Shen and Armstrong (2008), using the similar design as this study, in examining the use of pre-test and post-test control group with young adolescent girls using group sandtray therapy, found that there is a significant improvement in the adolescent girls’ self-esteem in the treatment group than the control group.

Crenshaw and Steward (2016) also agreed that sandtray therapy provides an opportunity to process life experience through a tangible, visible procedure which is fun and intensely meaningful, both intimately revealing and meaningful. The process of healing takes place while playing with the sand and figures. The tray captivates for fear and anger as the feelings are discovered in the scenes.

10. Conclusion

The result in this study showed there is a significant effect of sandtray therapy that can be seen in the self-esteem variables between the pre-test and post-test results of the experimental group. The findings of this study also support previous literature which indicated that sandtray has been beneficial in helping children to develop their self-esteem.

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