Effect of Group Sandtray Therapy with Preadolescents

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The effectiveness of group sandtray therapy, a model of play therapy, was evaluated using a pretest-posttest control group design with 56 preadolescents exhibiting behavioral difficulties. The experimental group (n = 28) received sandtray therapy in small groups for 10 weeks while the wait-list control group (n = 28) received no treatment. Results from the Behavior Assessment System for Children showed statistically significant differences as rated by teachers in total, externalizing, and internalizing behaviors for sandtray participants compared to controls, and participants’ parents rated sandtray participants significantly different on externalizing behaviors. Group members’ self-reports of symptoms yielded no statistically significant differences.

Keywords: group therapy; play therapy; sandtray therapy; schools

The mental health of children and adolescents has increasingly become a serious concern nationwide. According to the National Mental Health Information Center (Substance Abuse and Mental Health Services Administration, 2003), one out of five children and adolescents in the United States shows the signs and symptoms of a DSM-IV disorder, and 21% of children and adolescents between the ages of 9 to 17 have some evidence of mental health problems. These children and adolescents suffer from serious behavioral difficulties, and these difficulties may severely disrupt daily functioning at home, school, or community. Serious behavioral difficulties affect 1 out of every 10 young people at any given time. As children approach adolescence, middle schools report an increase in social, interpersonal, and family problems.
which require mental health intervention (SAMHSA, 2003). Further evidence indicates that mental illness and behavioral problems in children worsen over time at home and school without intervention (Ackerman, Brown, & Izard, 2003; Keiley, Bates, Dodge, & Pettit, 2000).

The President’s New Freedom Commission on Mental Health (2003) recommended improving the screening, assessment, and service provision for children’s mental health, in addition to the improvement and expansion of school mental health services. The Commission also proposed the need for empirically based mental health interventions for children and adults. In the new era of evidence-based practice, school counselors are pressured to respond with interventions that demonstrate effective change in individuals and groups of students, school climate, academic progress, and/or behavioral maladjustment.

Schools can play an active role in meeting the needs of preadolescent youth. The most recent Surgeon General’s report (U.S. Public Health Service, 2000) pointed out that schools are the largest providers of mental health services. By strengthening the professional mental health intervention system, schools can assist children with needed services. However, the Surgeon General’s report also emphasized that a lack of efficient treatment choices for school counselors, and the difficulty of choosing an appropriate treatment option for preadolescents, have reduced the effectiveness of school-based mental health interventions. School counselors also have multiple duties and many students for which they are responsible, necessitating efficient treatment choices. In addition, it is difficult to find an appropriate treatment option for preadolescents because of their developmental needs (Bratton & Ferebee, 1999). Preadolescents have concrete to abstract cognitive abilities yet their verbal expression of abstract feelings is still quite limited.

**Group Sandtray Therapy**

According to Homeyer and Sweeney (1998), sandtray therapy is “an expressive and projective mode of psychotherapy involving the unfolding and processing of intra- and inter-personal issues through the use of specific sandtray materials as a nonverbal medium of communication, led by the client and facilitated by a trained therapist” (p. 6). Group sandtray therapy involves offering the sandtray modality to more than one client in session (Kestly, 2001).

Sandtray therapy is noted as a type of play therapy (Allan, 1988; Carmichael, 1994; Vinturella & James, 1987). Play therapy is an empirically supported treatment option (Ray, Bratton, Rhine, & Jones, 2001) and facilitates the use of play as the natural language for children
and preadolescents to express and communicate their feelings, thoughts, and experiences (Landreth, 2002).

Preadolescents have unique development needs that should be taken into account in counseling interventions. Developmentally, preadolescents are in a transition of moving from the concrete operations period toward the formal operations period (Philips, 1981). They are in a process of developing abstract thinking and may not be able to verbalize their feelings and thoughts easily. Preadolescents may also have the need to identify with adults and peers and may perceive the traditional play therapy materials as “baby toys” (Ginott, 1994).

Sandtray therapy responds to preadolescents’ developmental needs to be both concrete and symbolic. Bratton and Ferebee (1999) found that sandtray therapy is a particularly useful medium in working with preadolescents. They believed that the miniatures and sandtray provide more concrete opportunities for symbolic expression compared with other creative art materials such as drawing, painting, and clay—media that tend to be abstract in nature. Although play therapy has been shown to be effective, research focused on the use of sandtray therapy, especially in the group modality, is very limited (Mitchell & Friedman, 1994).

Preadolescents may accept sandtray therapy more easily than traditional forms of play therapy because of its materials. Sandtray therapy includes various miniatures that represent different symbolic images. These miniatures may be perceived by preadolescents as a collection of figures instead of “childish toys” (Bratton & Ferebee, 1999). In addition, the message that sandtray therapy has been used widely with adults (Mitchell & Friedman, 1994) can be conveyed to preadolescents to enhance their motivation to participate.

A group format would seem to meet preadolescents’ developmental and psychosocial needs by addressing problematic behavior in a social context. Erikson (1985) suggested that preadolescence is an important developmental stage in terms of socio-emotional growth and development. Preadolescents need to learn how to do things near and with others and need to become familiar with the various social roles they may play in society. Friendship is one of the developmental tasks that preadolescents need to master (Newman & Newman, 1996). Peer relationships, acceptance, and close friendship are very important for preadolescents. However, not all preadolescents have the same capacity to make friends and to enjoy the benefits of close relationships. Preadolescents with behavioral difficulties may have low social competence and poor social skills due to interference from their behavioral difficulties. They need a facilitative and therapeutic environment to enhance their social competence and need to learn more sufficient social skills in order to make friends and maintain positive peer relationships.
Group sandtray therapy can provide this kind of facilitative environment. Ginott (1994) pointed out that, in group therapy, children and adolescents are exposed to a new quality of intimate relationships and can face each other squarely and honestly and experience emotional closeness to other people. Because in group sandtray therapy preadolescents need to share materials and ideas, they learn that the sharing of materials and ideas is approved by society and that their own contributions are appreciated and welcomed. Traditionally, sandtray therapists conduct each session individually, and group sandtray therapy is a relatively new arena (Mitchell & Friedman, 1994). However, group sandtray therapy may provide the efficiency and effectiveness that individual sandtray therapy lacks, especially for preadolescents, through the use of developmentally appropriate peer influence.

Use of Group Sandtray in the Schools

Schools are the biggest providers of mental health services for preadolescents and have high accessibility and flexibility for preadolescents to receive intervention (U.S. Public Health Service, 2000). The characteristics of group sandtray therapy, such as how it bridges verbal and nonverbal communication, its group format, and its activity orientation, meet the developmental needs of preadolescents. Kestly (2001) proposed that group sandtray therapy also meets the school counselor’s need to see many children in a short period of time. In addition, she believed that “group process is more productive because it (1) involves peer motivation for change, (2) provides positive adult attention that is non-intrusive, (3) serves to prevent later, more chronic problem behaviors, (4) enhances brain functioning, and (5) allows the child to participate and observe simultaneously” (p. 333).

Because group sandtray therapy adopts a group format, it uses the school counselor’s time more efficiently. Utilizing group format can serve more children at the same time. Carmichael (1994) believed that children who are well suited for sandtray therapy are those with low self-esteem, poor academic progress, and high need for activity. Pabon (2001) recommended the use of individual and group sandtray as the primary modality for children who are 8 to 13 years old, citing several benefits including the use of sandtray figures to represent authority figures, the use of both visual and tactile sensations, ability to show conflict and fantasy, and the provision of a medium to depict problems quickly. The composition of a group for sandtray therapy is highly reliant on the presenting problem and time allotted for group (Kestly, 2001). However, Ginott (1994) suggested some guidelines for composing groups, including placing children by age within 12 months of each
other and not having more than five members in a group. Bergin (1999) further proposed that a play therapy intervention would call for three to four group members.

**Purpose of the Study**

Although group sandtray therapy seems to be a viable treatment option for preadolescents in schools, the only research reported in the professional literature involved case study reports of a multi-modality treatment program that included sandtray therapy (Pabon, 2001). This study involved a pre-post control group designed to empirically examine group sandtray therapy with preadolescents in school. The primary contribution of this study is to investigate whether or not there is empirical support for the effectiveness of group sandtray therapy in the school setting with a sample of preadolescent students with emotional and/or behavioral problems. Because the literature highlights the importance of early therapeutic intervention for children's problems and because group sandtray literature appears to offer a method of providing therapy for preadolescents, this study is expected to contribute to a better understanding of the effectiveness of group sandtray therapy in (1) reducing total behavior problems of preadolescents with behavioral difficulties, (2) decreasing the internalizing problems of preadolescents with behavioral difficulties, and (3) decreasing externalizing problems of preadolescents with behavioral difficulties.

The terms “internalizing” and “externalizing” are common groupings in child research literature. They were first labeled by Achenbach (1966) as typical classifications of psychiatric problems experienced by children. Internalizing is descriptive of problems within the self, such as anxiety, depression, withdrawal, and somatic symptoms. Externalexizing is descriptive of child behavior that conflicts with other people, especially representative of behaviors that do not meet adult expectations of child behavior, specifically rule-breaking and aggressive behaviors (Achenbach & Rescorla, 2001). When the term, “total behavior problems” is used, children are demonstrating both internalizing and externalizing behaviors at a clinical level reflecting the overall level of problem behavior.

**METHOD**

**Participants**

Participants were 56 fourth and fifth grade students across two local elementary schools in the southwestern United States. Teachers were
encouraged to refer students who were experiencing behavioral difficulties such as disruptive behaviors in class, problems getting along with others, withdrawal, and displaying signs of anxiety or sadness. Teachers notified the school counselors of identified students. School counselors obtained informed consent for participation in the study from parents and presented children’s names to the researchers. Parents of 59 children agreed to participation, and signed an informed consent form. During the study, two students were transferred to other schools and one additional child was removed from the study due to the parent’s concern that she was placed in the control group. She sought mental health services outside of the school. Therefore, 56 students participated and completed this study (28 in the experimental group and 28 in the control group). All students were 9 to 12 years old and were in the fourth or fifth grade.

The populations at both schools involved in the study were considered Title 1 schools targeted by the state for school wide assistance due to high percentages of children qualifying for free or reduced lunch. School 1 listed 60.7% of its population as disadvantaged and school 2 listed 67.6% of its population as disadvantaged. Ethnicity breakdowns for each school are listed as follows: School 1—African-American (9.6%), Hispanic (39.8%), Caucasian (49.6%), Native American (.5%), and Asian (.5%); and School 2—African-American (14.7%), Hispanic (55.7%), Caucasian (28.1%), Native American (.4%), and Asian (1.1%).

Participants were stratified by gender and ethnicity and randomly assigned to the control or experimental group. The experimental participants were divided again into 10 small groups of three to allow for group intervention. Bergin (1999) and Ginott (1994) suggested a small number of child group members to encourage group interaction and adequate processing time. In order to accommodate the school schedule and allow for three equally sized groups, two students who were not participants in the study but who had been identified with behavioral problems and provided parental informed consent for counseling were added as group participants. As suggested by Ginott (1994) and Bratton and Ferebee (1999), the members in the small groups were the same gender and were less than one year apart in age. Overall, 29 males (14 experimental; 15 control) and 27 females (14 experimental, 13 control) participated in the study. The study consisted of 32 fourth graders (17 experimental, 15 control) and 24 fifth graders (11 experimental, 13 control). Ethnicity breakdowns for the whole study and group assignment were as follows: 5 African-American (0 experimental, 5 control); 35 Hispanic (21 experimental, 14 control); and 16 Caucasian (7 experimental, 9 control).
Instrumentation

Behavior Assessment System for Children (BASC). The Behavior Assessment System for Children (BASC) is a multi-method approach developed by Reynolds and Kamphaus (1992) to evaluate the behavior and self-perceptions of the children. It has versions for two age levels: 8–11 and 12–18. The BASC has three rating components: Behavior Assessment System for Children-Teacher Rating Scale (BASC-TRS), Behavior Assessment System for Children-Parent Rating Scale (BASC-PRS), and Behavior Assessment System for Children-Self-Report of Personality (BASC-SRP). The BASC-TRS is administered to teachers and the BASC-PRS is administered to parents and gathers descriptions of the child’s observable behavior at school and home, respectively. The BASC-SRP is a self-report form on which the child can describe her/his emotions and self-perceptions.

The BASC-TRS and BASC-PRS yield a composite score referred to as the Behavior Symptoms Index (BSI), representative of overall global functioning or total behavioral problems. Reynolds and Kamphaus recommend examining this composite score first when interpreting BASC results because it reflects the overall level of problem behavior. These versions of the BASC have two problem behavior scales: Externalizing and Internalizing. The Externalizing Problems composite scale is composed of the Hyperactivity, Aggression, and Conduct Problems scales indicating disruptive behavior problems such as aggression, hyperactivity, and delinquency. The Internalizing Behavior Problems composite scale consists of the Anxiety, Depression, and Somatization scales. Higher scores on the BSI, Internalizing and Externalizing Composites reflect more serious behavioral problems. Reynolds and Kamphaus reported BASC-TRS correlations between the BSI and Externalizing Scales to be .80 and between the BSI and Internalizing Scales to be .74; BASC-PRS correlations between the BSI and Externalizing Scales was .80 and between the BSI and Internalizing Scales was .75.

The BASC-SRP yields an Emotional Symptoms Index (ESI), based on the self-report of the child, which is a global indicator of serious emotional disturbance particularly related to internalized disorders. The ESI is differentiated from the BSI in that the ESI indicates disturbed thoughts and feelings whereas the BSI indicates behavioral problems. It is composed of 8 scales including two scales from the Clinical Maladjustment composite (Social Stress and Anxiety), two scales from the Personal Adjustment composite (Interpersonal Relations and Self-Esteem), and two scales from the Other composite (Depression, and Sense of Inadequacy). There is no externalizing or internalizing composite score for the BASC-SRP. Higher scores on the ESI reflect more serious emotional disturbance.
Reliability for the BASC is well established through the thoroughness of their representative sample of approximately 10,000 children (4 to 18 years) across 116 sites throughout the United States with representative proportions of exceptional children, ethnicity, age, gender, and parental educational level. Two kinds of reliability, internal consistency and test-retest reliability have been examined for BASC-TRS and BASC-PRS. In two separate comprehensive reviews of BASC literature and research, Flanagan (1995) and Merenda (1996) reported internal consistency on the BASC-TRS and BASC-PRS to be high. Reliability information for the three versions of the BASC is next provided.

**BASC-TRS reliability.** Reynolds and Kamphaus (1992) reported the internal consistency on the BASC-TRS ranges from .88 to .90 for both genders and the two age levels. The test-retest correlations showed a median value ranging from .82 to .91 for the two age levels. Both of these findings indicate high reliability. Within the BASC-TRS scoring system for the current study’s age group, Reynolds and Kamphaus (1992) reported coefficient alpha reliabilities for the BSI composite scale to be .97, the Externalizing Scale to range from .93 to .96, and the Internalizing Scale to be .91.

**BASC-PRS reliability.** The BASC-PRS internal consistency reliabilities have been in the mid .80s to low .90s. Test-retest reliability of BASC-PRS has shown a median value of .88, indicating that parents tend to respond consistently and the questions are clear and unambiguous. Alpha coefficients for PRS internal consistency increase slightly with the age of the child which encourages the use of this instrument with preadolescent children. Within the BASC-PRS scoring system, reported coefficient alpha reliabilities for the BSI was .92, Externalizing ranged from .86 to .90, and Internalizing from .88 to .89 (Reynolds & Kamphaus, 1992).

**BASC-SRP reliability.** On the BASC-SRP, Reynolds and Kamphaus (1992) reported the internal consistency averages of .8 for both genders and the two age levels across scales scores and the median coefficients for the composite scores to be in the mid .80 to mid .90 range. The test-retest correlations evaluated at 0–1 month intervals sustained coefficients ranging from .81 to .86 for composite scores.

**Overall BASC validity.** For the three BASC instruments, BASC-TRS, BASC-PRS, and BASC-SRP, Reynolds and Kamphaus (1992) provided three types of evidence including empirical support from factor analysis for grouping of scales into composites, a pattern of correlations of BASC scales with scores obtained on multiple behavior
measures, and BASC score profiles of groups of children with specific clinical diagnoses. Reynolds and Kamphaus provide detailed explanations of these methods and results in the BASC Manual.

The BASC system includes indicators of subject validity. The validity of an individual report on the BASC-TRS and BASC-PRS is assessed by using an F Index, consistency with other results, and response pattern, as suggested by Reynolds and Kamphaus (1992). F Index assesses the possibility that a teacher or a parent rated a child in an inordinately negative way. In order to determine the BASC’s validity, Reynolds and Kamphaus suggested that the examiner should compare the rating with other BASC results. Therefore, if any collected BASC-TRS or BASC-PRS was in Caution or Extreme Caution range, the researchers compared its results with other BASC results to determine its validity. For BASC-SRP, the V Index is used to determine its validity in addition to F Index, response pattern, and consistency. If there was great discrepancy between the rating and the other BASC results, the scale was excluded.

**Procedure**

Upon receiving the informed consent from each student’s parent and prior to group assignment, the parent was asked to complete the BASC-PRS. Teachers completed the BASC-TRS during the same time period that children were administered the BASC-SRP by the researchers. At the end of the 10 week interval in which the intervention occurred, each rater consisting of parent, teacher, and child was asked to complete a post-BASC instrument. One hundred twelve BASC-TRSs, and 112 BASC-SRPs, including pre-test and post-test data, were collected. However, only 106 BASC-PRSs were received; we failed to obtain six BASC-PRSs including one pretest and five post-tests.

Following the instructions of Reynolds and Kamphaus (1992) to determine the validity of the collected data, we found four BASC-TRSs, eight BASC-PRSs, and eight BASC-SRPs were in the Caution or Extreme Caution ranges. After comparing with other BASC results, no BASC-TRS was excluded, but five BASC-PRSs and four BASC-SRPs were excluded. Additional nine BASC-SRPs were excluded from the sample because their V Index scores were in the Questionable or Extreme Questionable range.

As an example of how this occurred, the T scores of Behavioral Symptoms Index (BSI), externalizing problems, and internalizing problems on Jason’s (pseudonym) BASC-PRS were 109, 91, and 103, respectively. The \( F \) Index for this instrument was in the Extreme Caution range. These T scores were compared to the T scores on
Jason’s BASC-TRS which were 42, 40, and 47. The F Index, response pattern, and consistency for Jason’s BASC-TRS were all in the Acceptable range. The T scores of the Emotion Symptoms Index and clinical maladjustment on Jason’s BASC-SRP were 59 and 61. All of the validity indicators on Jason’s BASC-SRP were also in the Acceptable range. Whereas the TRS and SRP scores were comparable, the PRS scores were discrepant, thus, the latter was excluded.

### Intervention

After the pre-test was completed, participants assigned to the experimental group received group sandtray therapy once a week for 10 weeks. Participants in the wait-list control group received no treatment intervention during the same time period. After the collection of post-test data from both of the experimental and wait-list control groups, the participants in wait-list control group received the treatment intervention for 10 weeks.

**Counselor qualifications.** Two doctoral level graduate counseling students, one a licensed professional counselor and one a licensed social worker, facilitated the sandtray therapy groups. In terms of training and qualifications, both therapists had taken extensive play therapy training including group sandtray therapy. Both sandtray therapists were required to review their videotaped sandtray sessions with their supervisors on a weekly basis.

**Experimental sandtray therapy group.** Therapists followed the guidelines provided by Homeyer and Sweeney (1998) for an individual sandtray session and adapted them to the group format. The authors proposed six steps to conduct a session: (1) room preparation, (2) introduction to the participant, (3) creation of the sandtray, (4) post-creation, (5) sandtray clean-up, and (6) documenting the session. Room preparation included the use of shelves to categorize and arrange the miniatures. The purpose of the miniatures is to provide the child with a large variety of items to portray his or her inner life, representing everything found in life and imagination (Carey, 1999). Different categories include buildings, animals, birds, vehicles, fences, bridges, trees, flowers, people, cartoon figures, superheroes, doll house furniture, spiritual and religious items. Each participant was given an individual sandtray. Each container was filled up to 1/3 in depth with play sand (Homeyer & Sweeney, 1998) and a cup of water was provided for each tray.

In order to introduce sandtray to the participant, the therapist took a nondirective approach. The therapist structured the session by
saying, “Here is a collection of miniatures (pointing to the shelves). You may use as many or as few as you like. I would like you to take a few moments to look at them and then select a few that really interest you. Place them in the sand (pointing to the sandtray). Then add as many as you like to create a world in the sand. I will sit here quietly until you are finished. Take your time and let me know when you are done.” The group members could begin to create their sandtray after the introduction. If they were not clear about the introduction, they were able to ask the therapist to repeat or ask questions. In order to work within the school setting, sessions were limited to 45 minutes with up to 30 minutes for the group members to create their sand worlds.

In the creation phase, the therapist tried to understand the members by observing their trays and avoiding commentary about what they constructed. The therapist paid attention to the miniatures the group members used in the creation phase and the emotional content of their sandtrays. For example, the therapist noticed that a group member used fire miniatures in the center of the tray and put two girls in front of the fire after she had been ignored by the two group members for a few sessions, possibly indicating her level of anger at the other two members. In another group, a member used a lot of aggressive animals fighting one another, and two of them were drinking alcohol while fighting, possibly referring to conflict between his parents. Sometimes, the therapist also checked in with her own feelings, perceiving emotion the sandtray evoked in her. Oaklander (1988) emphasized the importance of paying attention to what is going on inside the therapist to trust and make use of feelings when working with sandtray clients.

In the 15-minute post-creation phase, the therapist invited the group members to share their stories about their sand world. In this phase, the therapist tried to understand the members’ inner worlds through their verbalizations. Regarding the story sharing process, the therapist asked if the members wanted to share their stories individually by asking “Do you want to share your sand world with us [therapist and other group members]? You can choose to share or choose to pass.” The therapist and other members listened to the story if the member chose to share her or his story. The therapist may have asked any or all of several questions, such as, “What is the title of your sand world?” “What is he/she doing?” “What is this one?” for exploration and further clarification. Due to the nondirective protocol approach, the therapists in this research did not provide any interpretation in session or after the therapy was finished.

Because sandtray therapy capitalizes on the non-verbal use of expression, the verbal skills of the counselor are not the focus.
The therapist facilitated the group by expressing interest in the child’s story, inviting elaboration through reflective listening, and avoiding intrusive questioning (Kestly, 2001). The therapist’s modeling of such skills was aimed at encouraging a feeling of safety and permissiveness among group members so that they would be able to express themselves as well as connect with others.

In terms of sandtray clean-up and documentation, the therapist did not ask the participants to clean up their sandtrays in order to visually document the sandtray following the session. At the end of each session, after the therapist escorted the group members back to their classrooms, she took a digital photo of the sandtray the individual group member created, then cleaned up the trays and put the miniatures back on the shelves. The therapist documented every sandtray session by using the sandtray session summary created by Homeyer and Sweeney (1998) and added notes about the significant group interaction during the session.

RESULTS

Research questions for this study included: (1) Will group sandtray therapy reduce total behavioral problems of preadolescents with behavioral difficulties?; (2) Will group sandtray therapy decrease the internalizing problems of preadolescents with behavioral difficulties?; (3) Will group sandtray therapy decrease the externalizing problems of preadolescents with behavioral difficulties? In order to address research questions, three sets of one-way between groups analysis of covariance were conducted to compare the effectiveness of the experimental sandtray intervention designed to reduce problematic behavioral symptoms as measured by teachers, parents, and the participating preadolescents. For each ANCOVA, the independent variable was the type of intervention (experimental or control) and the dependent variable consisted of the BSI, Externalizing Behavior Problems Scale, or Internalizing Behavior Problems Scale as scored by teachers, parents, or preadolescents. Several assumptions needed to be met to perform ANCOVA, including a sample from a normally distributed population, homogeneity of variances, homogeneity of regression slopes, and the linear relationship between covariate and dependent variable. All assumptions were met. Practical significance of results was determined by Cohen’s (1988) interpretation of effect size based on Cohen’s $d$ ($d = .2$ is small, $d = .5$ is medium, and $d = .8$ is large). As suggested by Vacha-Haase and Thompson (2004), all effect sizes are reported following significant and non-significant results in order to establish the practical significance of the results.
Examination of Total Behavior Symptoms

Table 1 presents BASC-TRS and BASC-PRS means, standard deviations, and sample sizes on the pretest and posttest Behavior Symptom Index (BSI) scores for both research groups, as well as pretest and posttest scores for the BASC-SRP Emotional Symptom Index (ESI). After adjusting for pre-intervention scores, there was a significant difference between the experimental and control groups on post-intervention scores on the BSI measured by BASC-TRS \[F (1,53) = 4.98, p = .03, d = .52\]. The experimental group mean from pretest to posttest improved slightly while the control group mean worsened indicating an increase in total problem behavior as reported by teachers. Results indicated that group sandtray had a significant, yet medium effect, on the overall behavior of the participants in the experimental group as compared to the control group when rated by teachers.

After adjusting for pre-intervention scores, there were no statistically significant differences between the experimental and control groups on post-intervention scores on the BSI measured by

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*Statistically significant at \(p < .05\).
**BASC-SRP measures emotional functioning not behavioral functioning.

Note. BASC-TRS = Behavior Assessment System for Children-Teacher Rating Scale; BASC-PRS = Behavior Assessment System for Children-Parent Rating Scale; BASC-SRP = Behavior Assessment System for Children-Self Report of Personality. Higher scores indicate an increase in problematic behavior or emotional functioning.
BASC-PRS \( F(1,43) = 2.89, p = .09, d = .55 \). Results indicated that group sandtray did not have a statistically significant effect on the overall behavior of the participants in the experimental group as compared to the control group when rated by parents.

After adjusting for pre-intervention scores, there was no significant difference between the experimental and control groups on post-intervention scores on the Emotional Symptom Index measured by BASC-SRP \( F(1,40) = 1.86, p = .18, d = .18 \). Results indicated that group sandtray revealed no statistically significant difference between the experimental and control groups and there was a negligible effect size when measured by the participants.

**Examination of Internalizing Problems**

Table 2 presents BASC-TRS and BASC-PRS means, standard deviations, and sample sizes on pretest and posttest Internalizing Behavior Problem Scales for both research groups. There was a significant difference between the experimental and control groups on

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<th>Control Group (n = 23)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pretest</td>
<td>Posttest</td>
<td>Pretest</td>
</tr>
<tr>
<td>Internalizing</td>
<td>48.52</td>
<td>46.61</td>
<td>48.70</td>
</tr>
<tr>
<td>Mean</td>
<td>12.58</td>
<td>12.47</td>
<td>8.68</td>
</tr>
<tr>
<td>Externalizing</td>
<td>47.52</td>
<td>44.48</td>
<td>50.48</td>
</tr>
<tr>
<td>Mean</td>
<td>8.57</td>
<td>10.24</td>
<td>13.59</td>
</tr>
</tbody>
</table>

*Statistically significant at \( p < .05 \).

**Note.** BASC-TRS = Behavior Assessment System for Children-Teacher Rating Scale; BASC-PRS = Behavior Assessment System for Children-Parent Rating Scale. Higher scores indicate an increase in behavioral problems.
post-intervention scores on the Internalizing Behavior Problem scale as measured by BASC-TRS \( F(1,53) = 4.04, p = .04, d = .59 \). The experimental group mean from pretest to posttest did not change while the control group mean worsened indicating an increase of internalizing problems as reported by teachers. Results indicated that sandtray therapy had a medium effect size for children who participated in therapy as compared to children who received no treatment when measured by teachers. Parents reported no significant difference between the experimental and control groups on post-intervention scores on the Internalizing Behavior Problem scale as measured by BASC-PRS \( F(1,43) = 2.63, p = .11 \).

**Examination of Externalizing Problems**

Table 2 also includes BASC-TRS and BASC-PRS means, standard deviations, and sample sizes on pretest and posttest Externalizing Behavior Problem Scales for both the experimental and control groups. There was a significant difference between the experimental and control groups on post-intervention scores on the Externalizing Behavior Problem scale as measured by BASC-TRS \( F(1,53) = 10.44, p < .01, d = .54 \). The experimental group mean from pretest to posttest did not change while the control group mean significantly worsened indicating an increase in externalizing problem behavior as reported by teachers. Teachers indicated that sandtray therapy had a medium effect on externalizing behavioral problems of children who participated in therapy as compared to children who received no treatment. There was a significant difference between the experimental and control groups on post-intervention scores on the Externalizing Behavior Problem scale as measured by BASC-PRS \( F(1,43) = 4.90, p = .03, d = .63 \). The experimental group mean from pretest to posttest improved while the control group mean worsened indicating an increase in externalizing problem behavior as reported by parents. Results of the Externalizing Behavior Problem scale demonstrated a medium effect size when assessed by parents.

**DISCUSSION**

Results of this study revealed mixed results that deserve to be addressed through a careful exploration of the outcome. Teachers indicated statistically significant differences between the experimental and control groups on all scales including total behavioral problems, internalizing behavioral problems, and externalizing behavioral problems. The overall pattern of statistically significant differences
suggested that while treatment group members did not improve, control group participants’ scores on some measures worsened. When rated by teachers, children who participated in group sandtray therapy over 10 sessions demonstrated significant differences from children who were assigned to a wait-list control group. Specifically, ratings for control children worsened on the Behavior Symptoms Index, internalizing problems, and externalizing problems of the BASC as measured by teachers, and on externalizing problems as measured by parents. As presented in the results, the mean gain scores of total behavior on the BASC-TRS for participants in the experimental group demonstrated negligible change (see Table 1). However, the mean gain score of total behavior on the BASC-TRS for participants in the wait-list control group demonstrated noticeable increase. The increase of the mean gain scores suggests an increase in problem behaviors. The results of the BASC-TRS suggested that teachers perceived the behaviors of the preadolescents in the experimental group as unchanged while their peers in the wait-list control group worsened. Based on the results of the BASC-TRS, it seems that without the intervention, preadolescents suffered from more behavioral difficulties. It appeared that group sandtray therapy may have prevented the preadolescents from experiencing more behavioral difficulties.

The trend toward an increase in problem behaviors of the control group occurred in several areas. Both parents and teachers reported a worsening of problem behaviors for the wait list control group in overall behavioral problems (Table 1), internalizing (Table 2), and externalizing (Table 2) problems. Although not demonstrated to be statistically significant in all cases, all reports demonstrated an increase in mean scores for the control group. This finding is consistent with the extant evidence indicating that untreated mental illness and behavioral problems in children follow the trajectory of continued behavioral problems at home and in school (Ackerman, Brown, & Izard, 2003; Keiley, Bates, Dodge, & Pettit, 2000). The increase of problems without intervention was also supported by Post (1999) who found that with a mean of four sessions, 77 at-risk 4th, 5th, and 6th grade students participating in play therapy significantly differed from their 91 control group peers. The results indicated that although participating in child-centered play therapy did not enhance at-risk students’ overall self-esteem, the students not participating in play therapy demonstrated a significant decrease in self-esteem over the course of the school year. Additionally, findings indicated that the control group decreased in their locus of control over the course of the school year, while the experimental group remained the same. Her participants were roughly the same age as participants in the present study.
Although results indicated that teachers and parents were not in agreement on therapeutic impact on overall behavioral problems and internalizing problems, both agreed on the positive difference between the experimental and control group on externalizing problems. Externalizing problems included aggressive, hyperactive, and delinquency behaviors. As addressed earlier, children who were assigned to the wait-list control group experienced a significant increase in externalizing problem behaviors when compared to the children who participated in the sandtray group intervention. Externalizing problems appeared to be the one area that there was an agreed upon significant effect from participating in group sandtray therapy.

Results of the BASC-SRP demonstrated no statistically significant differences regarding the preadolescents’ total behaviors between the experimental and wait-list control group. It appears that the preadolescents participating in the group sandtray therapy did not perceive any behavioral or emotional change within themselves. Also, it should be noted that there was no method of measuring externalizing and internalizing behaviors through the use of the BASC-SRP. The validity of these results for the BASC-SRP was put into question due to the finding that at least one-quarter of the participants may have experienced difficulties in completing the measure, such as whether they understood item content, answered without reading the questions, or had uncooperative attitudes, for example.

Limitations and Suggestions for Future Research

This study used a pre-posttest experimental and control group research design, but there was no comparison with other treatment interventions. One possibility exists that some children from the control group might have deteriorated due to frustration of not receiving sandtray therapy at the same time as the experimental group members. If results can be attributed to this effect, it is possible that the treatment yielded no positive results at all based on small improvement means. In order to control for this factor, a comparison group would need to be added. Another limitation that could be controlled by the addition of a comparison treatment group is recognition that teachers and parents were aware of which participants were in the experimental and control groups. Although the researchers did not inform teachers of whether children were placed in the experimental or control group, they were aware of which children were leaving class. This knowledge may have affected their judgment and perceptions of the participants. However, because this study is the first inquiry of this kind, future research is needed to further investigate the effectiveness of group sandtray therapy. The present study yielded mixed
results in terms of group sandtray effect on overall behavioral problems and internalizing problem behaviors. Replication is needed to determine the reliability of these current findings. A larger sample of participants would help to improve the generalizability of results. In addition, a direct observation measure of child behavior would help to control for bias that is possible with self, teacher and parent reports.

**Implications for Group Work**

Results of this study suggest that group sandtray therapy may have a positive therapeutic impact on preadolescents with behavioral difficulties, or at least may have prevented a worsening of symptoms. Group sandtray therapy may be able to be used as an appropriate treatment option for preadolescents with behavioral difficulties, especially for preadolescents with externalizing behavior problems. Reports from both parents and teachers reported externalizing behavior differences between the preadolescents participating in sandtray therapy and those who received no intervention. Other suggestions for group work based on the study findings are provided next.

**Developmental level of group members.** Our experience in conducting research and therapy for this study suggested to us that in terms of preadolescents’ developmental stages and group sandtray therapy, it seems that group sandtray therapy may be more suitable for children who have reached preadolescence. According to Piaget’s theory of cognitive development, preadolescents may still operate somewhat in a concrete mode; however, they are developing the ability to operate more abstractly (Philips, 1981). Using traditional play therapy may not satisfy their need to express themselves in a more elaborated and sophisticated way; however, they cannot manage language well enough to fully express themselves through verbalization (Ginott, 1994). Therefore, we came to view sandtray therapy as a compromise between play therapy and traditional talk therapy.

However, some nine- or ten-year-old children in our study still operated very concretely in terms of their cognitive development. For example, some participants appeared more appropriate for play therapy than the limited physical expressions offered by sandtray therapy. Assessment such as conducting initial screening counseling sessions in a sandtray room and playroom is needed to determine if a preadolescent is suitable for sandtray therapy or traditional play therapy and further research is needed to assess the suitability of group sandtray therapy for potential clients. Future research may explore the use of sandtray therapy with younger children or adolescents.
**Length of counseling.** The length of counseling was designed for 10 weeks in this research. Although the results showed that it may be helpful to preadolescents to prevent worsening of behavioral difficulties, we found that some participants could benefit from group sandtray therapy for a longer period of time to further their gain in counseling. We received this feedback from the school counselor and a few parents after termination. They found that therapy was helpful for their children, and their behaviors changed while they were in therapy; however, after the therapy was terminated, there were still a few incidents of acting out. Because the goal of several parents was to eliminate disruptive behaviors completely, the researchers received requests for continued therapy for their children. Follow-up evaluation regarding the lasting effect of sandtray therapy is needed.

**Composition of the group members.** A random assignment with the considerations of gender, age, and racial background was used in organizing the sandtray groups. It was observed that preadolescents with similar issues had better connection with each other and perceived the group as a safe environment more quickly. Because the sandtray may reveal some powerful images of personal feelings and thoughts, a sense of safety is important for group members. For therapeutic purposes, it is suggested to use matching of member issues instead of random assignment of group members.

**Group counseling in school.** Another implication of this study is that group sandtray therapy may be an appropriate approach for school counselors to use because of its accessibility and efficiency. School may be the only setting in which some preadolescents have access to mental health resources. For example, according to the 2004–2005 Texas Education Agency Report (2005), over 50% of the children at the two local elementary schools that participated in this research belonged to the economically disadvantaged population. Because of their economic disadvantage, they may have very limited professional mental health assistance available for them outside of school.

**CONCLUSION**

There is a great need to explore developmentally appropriate treatment options for preadolescents with behavioral difficulties. The literature suggests that, theoretically, group sandtray therapy could be an appropriate intervention strategy. Based on the results of this study, group sandtray may be an effective treatment intervention.
for preadolescents identified with behavioral problems. Based on the literature reviewed in this study, it is the first research to examine the effectiveness of group sandtray therapy quantitatively. More research is needed to evaluate its therapeutic effect. Replication research with a larger sample and with a comparison group is recommended to increase the power of the statistical measures and to hopefully increase the validity of these results. The primary contribution of this study was to present initial empirical support for the effectiveness of using group sandtray therapy.

REFERENCES


