

## The Efficacy of Play Therapy With Children: A Meta-Analytic Review of Treatment Outcomes

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The efficacy of psychological interventions for children has long been debated among mental health professionals; however, only recently has this issue received national attention, with the U.S. Public Health Service (2000) emphasizing the critical need for early intervention and empirically validated treatments tailored to children's maturational needs. Play therapy is a developmentally responsive intervention widely used by child therapists but often criticized for lacking an adequate research base to support its growing practice. A meta-analysis of 93 controlled outcome studies (published 1953–2000) was conducted to assess the overall efficacy of play therapy and to determine factors that might impact its effectiveness. The overall treatment effect for play therapy interventions was 0.80 standard deviations. Further analysis revealed that effects were more positive for humanistic than for nonhumanistic treatments and that using parents in play therapy produced the largest effects. Play therapy appeared equally effective across age, gender, and presenting issue.

**Keywords:** play therapy, filial therapy, outcome research, meta-analysis

Identifying effective treatments for children who suffer from emotional and behavioral disorders is a growing concern in the United States. Increases in societal problems that directly impact

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children—including fragmented families, child abuse, youth violence, substance abuse, and media violence—have placed additional demands on an already inadequate mental health system. Mental illness is now the leading cause of disability for all persons 5 years of age and older (U.S. Public Health Service, 2000). The long-term consequences of untreated childhood disorders are costly in both human and monetary terms, and they underscore the importance of research designed to examine the efficacy of interventions targeted for children. The most recent U.S. Surgeon General's report on mental health described the shortage of appropriate services for children as a major health crisis and estimated that, although at least 1 in 10 of all children suffer from emotional and behavioral problems severe enough to impair normal functioning, less than half receive any treatment (U.S. Public Health Service, 2000). The report emphasized that "growing numbers of children are suffering needlessly" (p. 3), and it stressed the importance of early intervention and family involvement. Thus, identifying proven interventions that are responsive to the distinct needs of children and their families is critical, not only to diminish unnecessary suffering but to prevent the development of more serious impairment across the life span and the resulting cost to society.

Play therapy is widely used to treat children's emotional and behavioral problems because of its responsiveness to their unique and varied developmental needs. Most children below the age of 11 lack a fully developed capacity for abstract thought, which is a prerequisite to meaningful verbal expression and understanding of complex issues, motives, and feelings (Piaget, 1962). Thus, unlike adults who communicate naturally through words, children more naturally express themselves through the concrete world of play and activity. In play therapy, then, play is viewed as the vehicle for communication between the child and the therapist on the assumption that children will use play materials to directly or symbolically act out feelings, thoughts, and experiences that they are not able to meaningfully express through words (Axelrod, 1947; Kottman, 2001; Landreth, 2002; O'Connor, 2001; Schaefer, 2001). Play

allows children to bridge the chasm between their experiences and understanding, thereby providing the means for insight, learning, problem solving, coping, and mastery.

Although child therapists have used this treatment with their young clients since the early 1900s, the formation of the Association for Play Therapy (APT) in 1982 established play therapy as a specialized treatment modality within the field of mental health. The APT's influence, along with the development of university-based play therapy training programs and the considerable publishing efforts of dedicated leaders, provided the impetus for the rapid growth and development of the field over the last 20 years. Today, play therapy is widely used among clinicians to treat a wide range of emotional and behavioral problems (Bratton & Ray, 2000). According to the APT's (2003) Web site, currently over 4,500 mental health professionals identify themselves as play therapists. The growing interest in the field is evident in the over 2,200 play therapy publications describing its use and rationale, the vast majority of which were produced after 1970 (Landreth, Homeyer, Bratton, Kale, & Hilpl, 2000). In spite of its growing popularity among clinicians, play therapy has not received widespread acceptance from the scientific community and has often been criticized for a lack of sound empirical evidence to support its use (Azerrad, 2000; Campbell, 1992; Lebo, 1953; Levitt, 1971; Phillips, 1985; Reade, Hunter, & McMillan, 1999). Indeed, our review of the play therapy outcome literature revealed a relatively small number of well-designed studies yielding statistically significant results and an abundance of studies with inadequate or flawed research design, most notably the lack of a control or comparison group. More often, however, studies were hindered by small sample sizes and the resulting inability to generalize results.

Scientifically proving the effectiveness of any therapeutic intervention is essential to its widespread acceptance as a viable treatment. Meta-analytic methodology allows the researcher to overcome the limitation of small sample size, typical of most psychotherapy research, by combining the results from individual studies to produce an overall, or average, treatment effect. The purpose of this article is to examine the efficacy of play therapy as a psychotherapeutic treatment for children through a meta-analytic review of 5 decades of outcome research. An overview of (a) the development of play therapy and (b) previous meta-analytic reviews of child therapy outcomes is provided as a context for readers.

### Development of Play Therapy

Beginning with Rousseau's writings in the 1700s, play has been recognized as essential to children's healthy development. However, it was not until the early 1900s that play was introduced into a therapeutic setting as a means for children to express themselves. Generally acknowledged as the originators of play therapy, Anna Freud (1928) and Melanie Klein (1932) used play as a substitute for verbalized free association in their efforts to apply analytic techniques to their work with children. David Levy's (1939) development of release play therapy, along with the structured approach of Gove Hambidge (1955), marked the next advance in the field. In these two approaches, play materials were structured by the therapist to induce catharsis, in contrast to psychoanalytic methods in which the analyst made no attempt to direct the child's play.

Virginia Axline's (1947) use of play to apply nondirective therapeutic principles in her work with children heralded the next, and perhaps most significant, development in the field of play therapy. Axline viewed play as children's natural mode of expression and trusted children's capacity to resolve their own problems through their play. Her work and writings in the late 1940s and the 1950s, including her account of play therapy with Dibs (Axline, 1964), popularized play therapy as a psychotherapeutic treatment modality for children. Axline (1949) was among the first to attempt to study the effects of play therapy and extend credibility to the intervention. Although by current standards, Axline's research cannot be considered reliable, she was instrumental in broadening play therapy's acceptance. Building on Axline's work, Haim Ginott (1961), Clark Moustakas (1953), Louise Guerney (1983), and Garry Landreth (1991) have contributed significantly to the widespread acceptance and practice of what is now more commonly referred to as *child-centered* play therapy (Landreth, 2002).

The development of filial therapy by Bernard and Louise Guerney in the early 1960s marked a significant and innovative development in the field of play therapy. Recognizing a shortage of mental health professionals trained to provide mental health services for troubled children, the Guerneys were the first to develop a model for training and supervising parents in client-centered play therapy methods to use with their own children (L. Guerney, 2000). In the Guerneys' original model, parents attended training-supervision groups for an average of 12 months while conducting weekly play sessions with their children. Since the late 1980s, the use of filial therapy by practitioners has increased tremendously, in part because of the efforts of Garry Landreth and his protégés (L. Guerney, 2000). Building on the work of the Guerneys, Landreth (1991) developed a more condensed parent training format based on his experience that time and financial constraints often hindered parents' participation. Following the principles and procedures of his child-centered play therapy approach, Landreth's 10-session filial therapy training protocol emphasized a balance of didactic and supervision experiences in a 2-hr weekly support group format and required parents to conduct weekly, videotaped play sessions at home (Landreth, 1991, 2002). Although originally conceived as a group model for training parents, filial therapy has also been successfully adapted with individual parents and couples (Van-Fleet, 1994) and to train teachers, mentors, and other paraprofessionals who play a significant role in children's lives.

The field of play therapy grew dramatically during the 1980s and 1990s as various theorists, academicians, and practitioners developed specific play therapy approaches based on their theoretical views and personal experiences with children—including gestalt play therapy (Oaklander, 1994), Adlerian play therapy (Kottman, 1995), ecosystemic play therapy (O'Connor, 2000), and prescriptive play therapy (Schaefer, 2001), to name a few. The sheer number of contributors to the development of this discipline prevents us from mentioning each within the scope of this article.

Play therapy has evolved over its 100-year history to include a cluster of treatment methodologies and theoretical schools of thought. Though these may differ philosophically and technically, they all embrace the therapeutic and developmental properties of play: "to help [children] prevent or resolve psychosocial difficulties and achieve optimal growth and development" (APT, 2001, p. 20).

### Meta-Analytic Review of Child Therapy Outcomes

Child therapists are ethically bound and accountable to their clients to provide evidence-based treatments. The challenge for psychotherapists to prove the efficacy of their methods is not new (Eysenck, 1952; Levitt, 1957). Psychotherapy research in general has been plagued by small sample sizes, resulting in the inability to draw conclusions or generalize results. The introduction of meta-analytic techniques by Smith and Glass (1977) in their landmark review of psychotherapy outcome made it possible to overcome the problems associated with small sample sizes by combining findings across studies to determine an overall treatment effect. However, the question of the efficacy of psychotherapy with children remained largely unanswered until Casey and Berman (1985) conducted the first of five broad-based meta-analyses of child therapy outcome studies, followed by Weisz, Weiss, Alicke, and Klotz (1987); Kazdin, Bass, Ayers, and Rodgers (1990); Weisz, Weiss, Han, Granger, and Morton (1995); and LeBlanc and Ritchie (2001). The results from these initial studies are shown in Table 1.

Casey and Berman (1985) reviewed 75 controlled studies published from 1952 to 1983 and found that the mean treatment effect was 0.71 standard deviations, meaning the average treated child performed better after treatment than 76% of control children. In further analysis of treatment subgroups, they found no significant difference between play-based interventions ( $n = 20$ ) and nonplay interventions ( $n = 47$ ), with effect sizes of 0.65 and 0.69, respectively. Expanding on the work of Casey and Berman, Weisz et al. (1987) reviewed 105 controlled efficacy studies, published from 1952 to 1983, and reported an average treatment effect of 0.79. In a second study, Weisz et al. (1995) analyzed an additional 150 controlled studies, published from 1967 to 1993, and found that the average treated child performed 0.71 standard deviations better than did untreated children. Weisz et al. (1987, 1995) collectively offer the largest body of research to date on psychotherapy with children and on the basis of their findings concluded for the superiority of behavioral interventions with children over nonbehavioral approaches (Weisz & Jensen, 2001). Kazdin et al. (1990) examined 223 published studies in their analysis of the effects of child therapy; however, only 105 were controlled outcome studies.

Though Kazdin and his colleagues did not report an overall effect size, Weisz et al. (1995) estimated a pooled treatment effect of 0.84 for the 105 controlled studies. Including only a handful of play therapy studies, neither Weisz et al. (1987, 1995) nor Kazdin et al. presented any findings related to play therapy.

LeBlanc and Ritchie (2001) provided the most recent meta-analysis to study the effects of therapy on children, and the only one prior to the current study to focus exclusively on the efficacy of play therapy. Reviewing 42 controlled studies, dated 1950–1996, LeBlanc and Ritchie reported an average treatment effect of 0.66 standard deviations. In addition, they found a strong relationship between treatment effect and (a) the inclusion of parents in a child's therapy and (b) treatment duration.

Table 1 shows rather consistent treatment effects for child psychotherapy, ranging from 0.66 to 0.84. Per Cohen's (1988) guidelines for interpretation, these results fall near the threshold of 0.80, considered a large treatment effect. It is interesting to note that with the exception of LeBlanc and Ritchie (2001), investigators largely ignored play therapy studies (see Table 1). Indeed, the inclusion of so few of the available play therapy studies in the existing child therapy reviews gives credence to the notion that play therapy has not been widely accepted by the scientific community as a viable intervention, and it further speaks to the need for a comprehensive review of the play therapy outcome literature. The present study was designed to expand on the findings of LeBlanc and Ritchie—by more than doubling the number of play therapy efficacy studies reviewed (see Table 1)—as well as to contribute to the body of research on the overall effects of child psychotherapy and the variables related to effectiveness.

### The Project: Meta-Analytic Review of Play Therapy Outcomes

#### Selection of Studies Reviewed

A major criticism of meta-analysis is its reliance on published studies, which is thought to result in overestimation of treatment effect (Glass, McGaw, & Smith, 1981). Studies lacking statistically significant findings, including those with small sample sizes and insufficient power, tend to be rejected for publication by

Table 1  
*Meta-Analytic Studies on the Effects of Child Psychotherapy*

| Study                                            | N                  |                         | Mean age<br>(years) | ES   | p      |
|--------------------------------------------------|--------------------|-------------------------|---------------------|------|--------|
|                                                  | Overall<br>studies | Play therapy<br>studies |                     |      |        |
| Bratton, Ray, Rhine, & Jones (2005) <sup>a</sup> | 93                 | 93                      | 7.0                 | 0.80 | <.001  |
| LeBlanc & Ritchie (2001)                         | 42                 | 42 (36)                 | 7.9                 | 0.66 | <.001  |
| Weisz et al. (1995)                              | 150                | 3 (2)                   | 10.5                | 0.71 | <.0001 |
| Kazdin et al. (1990)                             | 105                | 5                       | 10.2                | 0.84 | —      |
| Weisz et al. (1987)                              | 105                | 7 (5)                   | 10.2                | 0.79 | <.0001 |
| Casey & Berman (1985)                            | 75                 | 20 (10)                 | 8.9                 | 0.71 | <.05   |

*Note.* Numbers in parentheses indicate the number of play therapy studies from the designated study that were also included in the present study. The *p* cell for Kazdin et al. (1990) contains a dash because these authors reviewed 223 studies, but only 105 studies compared a treatment group with a control or comparison group and contained effect size (ES) data. Kazdin et al. did not report an overall ES; rather, they reported ESs by the type of experimental design. Weisz et al. (1995) estimated a pooled ES of 0.84 (no *p* value given) for Kazdin et al.

<sup>a</sup> Present study.

journal editors. To avoid publication bias (also referred to as the *file-drawer effect*), we used a combination of online and offline search procedures to exhaust all resources in locating both unpublished and published play therapy outcome studies. Electronic sources included PsycLIT, PsycINFO, ERIC, FirstSearch, MEDLINE, and Dissertation Abstracts. The Center for Play Therapy at the University of North Texas was a primary offline resource, particularly for unpublished studies. Additional offline search procedures included (a) review of two major resources of play therapy literature, *The World of Play Therapy Literature* (Landreth et al., 2000) and *Play Therapy Interventions With Children's Problems* (Landreth, Homeyer, Glover, & Sweeney, 1996); (b) hand search of 10 major journals that publish articles on play therapy and child psychotherapy, with the largest number of studies retrieved from the *International Journal of Play Therapy*; and (c) review of previous child psychotherapy meta-analysis articles. As a final check, references from retrieved articles were inspected for additional studies.

Specific parameters were set to define the scope of the review, and the following key search words were established: *play therapy*, *filial therapy*, *family play therapy*, *therapeutic play*, and *play in therapy*. Dated 1942–2000, 180 documents were located that appeared to measure the effectiveness of a play therapy intervention with children. When both a dissertation and a published article containing the dissertation results were retrieved, generally the dissertation was used in the analysis because of its more complete description of study characteristics and statistical data. Documents were screened for (a) use of controlled research design, (b) sufficient data for computing effect size, and (c) use of a play therapy intervention, as defined by study. For an intervention to be considered play therapy, the researcher(s) of the individual study had to have identified the intervention as such; or if the term *play therapy* was not specifically used, we applied the definition offered by the APT (2001): "the systematic use of a theoretical model to establish an interpersonal process wherein trained play therapists use the therapeutic powers of play to help clients prevent or resolve psychosocial difficulties and achieve optimal growth and development" (p. 20). On the basis of initial screening criteria, 42 documents were eliminated, resulting in 138 studies.

We—all doctoral-degreed researchers with advanced training in play therapy, research methods, and assessment—systematically reviewed the initial pool of studies and determined that 42 refereed journal articles, 2 ERIC documents, and 50 unpublished dissertations met all study criteria. Dating 1953–2000, the 94 play therapy outcome studies that were included in the initial analysis used a control- or comparison-group design, along with pre- and/or post-measures, and reported sufficient statistical data to calculate treatment effect. Study quality and failure for intervention to be judged play therapy were primary reasons for rejecting a study in the final analysis. For example, a study by Milos and Reiss (1982), "Effects of Three Play Conditions on Separation Anxiety in Young Children," was initially included because it appeared to meet study criteria and had been used in the five previous child psychotherapy meta-analyses (Casey & Berman, 1985; Kazdin et al., 1990; LeBlanc & Ritchie, 2001; Weisz et al., 1987, 1995). Although play therapy was mentioned in the abstract as well as in the discussion, Milos and Reiss (1982) specifically pointed out that "this was not a clinical outcome study evaluating play therapy" (p. 394), explaining, instead, that their findings on the effects of "play" on

anxiety had implications for play therapy. On this basis, the study was omitted.

After the initial meta-analysis was conducted, we reviewed the 94 studies again to ensure that each met the stringent study criteria, and on the basis of quality of research methodology, we decided to omit 1 more study (retrieved from a refereed journal). Thus, 93 play therapy outcome studies were included in the final calculation of effect size and data analysis.

### Study Characteristics

After training in coding methods and establishing interrater reliability on 10 sample studies ( $r = .9719$ ), we recorded relevant study characteristics for further analysis of variables related to treatment outcome. Coding and effect size calculation were carried out independently to avoid contamination. Coded characteristics included

1. treatment modality/theoretical model used;
2. treatment provider: mental health professional versus trained paraprofessionals (primarily parents) supervised by a professional;
3. treatment setting;
4. treatment duration;
5. treatment format (group vs. individual);
6. presenting issues/target problem behavior;
7. type, number, and source of outcome measures;
8. gender, age, and ethnicity of child participants;
9. published versus nonpublished document;
10. study design; and
11. source of child participants receiving treatment (clinical vs. analog).

### Measure of Treatment Effect

The overall treatment effect for play therapy was determined by first calculating an effect size ( $d$ ) for each outcome measure in the 93 studies;  $d$  is a standardized measure of change in the treatment group compared with the control group, and it provides a common metric for combining results from related studies to determine an overall or average treatment effect for the pool of studies (Cohen, 1988). Effect size ( $d$ ) was computed as

$$d = m_e - \frac{m_c}{s_p},$$

where  $m_e$  is the posttherapy experimental group mean,  $m_c$  is the poststudy control group mean, and  $s_p$  is the pooled standard deviation of the treatment and control groups. Other summary statistics (e.g.,  $F$  or  $t$ ) were used to calculate  $d$  when the above formula could not be applied due to lack of data (Glass et al., 1981). To avoid arbitrarily weighting studies by the number of

treatment measures used, we calculated a single  $d$  for each study by pooling the effect sizes for all outcome measures associated with a treatment. To correct for small sample bias, we multiplied  $d$  by  $(1 - 3/(4N - 9))$  to make  $d$  an unbiased estimator of effect size (Hedges & Olkin, 1985, p. 80).

Although there are various methods of combining effect sizes from individual studies for meta-analytic review, we used Schwarzer's (1989) meta-analysis software because it provided both a random-effects model and a weighted-integration model (Hedges & Olkin, 1985). We chose to use both models to calculate the overall effect size. For the latter model, the  $d$  for each study was weighted by its variance to control for variation in sample sizes. Theoretically, both models will yield the same effect size if all error can be attributed to sampling error. Initial analysis revealed homogeneity of data, with 91% of observed variance in effect sizes being accounted for by sampling error. We used a funnel graph to visually analyze the data, and it showed a few studies falling outside the desired symmetrical funnel plot. Closer scrutiny of the outlier studies revealed one outcome measure used in those studies that, when examined more closely, was producing curiously high effect sizes. We judged the measure in question—used in several filial play therapy studies—to be overly similar to the studies' treatment activities. Following the recommendation of meta-analytic researchers (Casey & Berman, 1985), we omitted the measure from the outlier studies as well as all applicable filial therapy studies and recalculated effect sizes. As a cautionary measure, all outcome measures were reevaluated for similarity to treatment, with no result. The recalculated effect sizes for play therapy yielded identical results using both the random-effects model and the weighted-integration model, with 99.6% of the observed variance accounted for by sampling error. (For a more in-depth discussion of methods of effect size calculation, see Schwarzer, 1989, and Hedges & Olkin, 1985.)

We used multiple linear regression, univariate analysis, and two-way analyses of variance to further analyze coded data so as to examine the impact of various study characteristics on treatment efficacy. As a guide to effect size interpretation, Cohen (1988) proposed that an effect size of 0.20 can be considered a *small* treatment effect, an effect size of 0.50 can be considered a *medium* treatment effect, and an effect size of 0.80 can be considered a *large* treatment effect.

## Results and Discussion

Across the 93 treatment-control comparisons, the mean effect size was  $0.80 \pm 0.04$  (significantly greater than 0,  $p < .001$ ), revealing a large treatment effect for play therapy interventions with children. On average, children receiving play therapy interventions performed more than  $\frac{3}{4}$  of a standard deviation better on given outcome measures compared with children who did not receive play therapy. Table 1 shows the results from the present study to be consistent with, or higher, than previous meta-analytic findings on the benefits of child therapy interventions. Compared with findings specifically targeting play therapy efficacy, Casey and Berman (1985) reported a mean effect size of 0.65 for 20 published studies that they coded as using play techniques, with LeBlanc and Ritchie (2001) reporting an almost identical effect size of 0.66 for 42 play therapy studies. Of note, the present study included 83 more play therapy studies than Casey and Berman and

53 more than LeBlanc and Ritchie's study spanning the same decades, suggesting a more comprehensive review of play therapy outcome.

A strict comparison between the results of the meta-analyses included in Table 1 is difficult to make due to differences in methodology used to compute treatment effects. For example, LeBlanc and Ritchie (2001) calculated a  $d$  for each outcome measure, resulting in multiple effect sizes within a single study. In contrast, we followed the procedures of Weisz et al. (1995) and Casey and Berman (1985) and calculated one  $d$  per study to avoid arbitrarily weighting a study according to number of measures used. Similar to Weisz et al. (1995), we weighted each  $d$  by the study's sample size to arrive at what is generally considered a more conservative estimate of  $d$  (Hedges & Olkin, 1985). (For a detailed discussion of the differences in weighted and unweighted methods of effect size analysis, and the resulting discrepancies in findings, refer to Weisz et al., 1995.) The present study's inclusion of both published ( $n = 43$ ) and unpublished studies ( $n = 50$ ) was another major difference between it and the other studies listed in Table 1. With the exception of LeBlanc and Ritchie, who included 16 unpublished studies, the earlier child meta-analytic researchers relied exclusively on published studies in their reviews, a practice that has been criticized for overestimating the mean effect size (Glass et al., 1981). An examination of the results and the meta-analytic procedures of the present study compared with those of previous reviews of therapy effects among children seems to support the robustness of our overall findings regarding the efficacy of play therapy.

Were there other factors associated with the studies that impacted the effectiveness of play therapy with children? We investigated this question by analyzing the coded study characteristics and their relationship to variation in treatment effects. The 14 coded categories were grouped into 3 main areas: *treatment characteristics*, *characteristics of child participants*, and *study characteristics*.

## Treatment Characteristics

Table 2 contains the effect sizes of play therapy outcomes with children according to (a) the type of therapy or theoretical model used, (b) whether treatment was delivered directly by a professional or through a paraprofessional trained and supervised by a professional, (c) the setting in which treatment was provided, and (d) whether the treatment used an individual or a group format. In addition, effects of duration of treatment on play therapy outcomes are discussed in this section.

*Treatment type/theoretical model.* Studies with sufficient description were coded into one of two broad treatment categories: *humanistic-nondirective* or *nonhumanistic-directive* (included behavioral, cognitive, and directive play therapy interventions, such as board games). The effect size values shown in Table 2 indicate that play therapy can be considered effective regardless of therapeutic approach, with the humanistic interventions demonstrating a large effect size and the nonhumanistic treatments demonstrating a moderate effect size. However, the effectiveness of play therapy did appear to vary depending on the theoretical model, with the humanistic therapies showing significantly larger effect sizes than nonhumanistic treatments ( $p < .03$ ). Because of the large variance in number of studies in the two groups, with 78% of treatments

Table 2  
Effects of Play Therapy by Treatment Characteristics

| Variable                                                                 | N of studies | Mean ES |
|--------------------------------------------------------------------------|--------------|---------|
| Treatment type/theoretical model <sup>a</sup>                            |              |         |
| Humanistic-nondirective                                                  | 73           | 0.92    |
| Nonhumanistic-directive                                                  | 12           | 0.71    |
| Treatment provider <sup>b</sup>                                          |              |         |
| Professional                                                             | 67           | 0.72    |
| Parent-paraprofessional (majority filial-trained parents)                | 26           | 1.05    |
| Parent (filial-trained)                                                  | 22           | 1.15    |
| Treatment setting <sup>c</sup>                                           |              |         |
| School                                                                   | 36           | 0.69    |
| Outpatient clinic                                                        | 34           | 0.81    |
| Residential                                                              | 6            | 1.10    |
| Critical incident                                                        | 12           | 1.00    |
| Treatment format <sup>d</sup>                                            |              |         |
| Group therapy by professional                                            | 33           | 0.73    |
| Individual therapy by professional                                       | 34           | 0.70    |
| Individual therapy by paraprofessional (majority filial-trained parents) | 26           | 1.05    |

Note. Number of studies does not always total 93 because of incomplete-unclear data or because some studies examined more than one variable. All mean effect sizes (ESs) differed reliably from 0 ( $p < .05$ ).

<sup>a</sup> The mean ES for humanistic treatments was significantly greater than the mean ES for nonhumanistic treatments ( $p < .03$ , not assuming equal variance). <sup>b</sup> The mean ES for play therapy conducted by filial-trained parents was significantly greater than the mean ES for play therapy conducted by professionals ( $p < .01$ ). <sup>c</sup> The mean ESs for play therapy conducted in residential settings and in critical-incident settings were significantly greater than the mean ESs for play therapy conducted either in schools or outpatient clinics ( $ps < .02$ ). <sup>d</sup> The mean ES for play therapy conducted by paraprofessionals was significantly greater than the mean ESs for individual or group play therapy conducted by professionals ( $p < .01$ ).

coded as humanistic, we urge readers to interpret these results cautiously. Clearly, both models can be considered effective.

Prior to this study, the findings regarding the merits of a particular therapeutic approach with children over another were mixed, with evidence tending to favor behavioral techniques. Casey and Berman (1985) initially found that studies using behavioral treatments with children showed significantly greater outcomes than those using nonbehavioral methods. However, after omission of therapy-like outcome measures from the analysis, the behavioral-nonbehavioral difference was not statistically significant. Casey and Berman (1985) concluded that, similar to the findings on adult therapy, "there is little evidence to suggest that some forms of treatment are superior to others" (p. 395). Weisz et al. (1987, 1995) argued for the inclusion of therapy-like outcome measures when these were necessary to effectively measure the treatment and concluded that behavioral methods were superior to nonbehavioral methods of treatment. It is interesting to note that in both of the Weisz et al. meta-analytic reviews, over 75% of studies were coded as behavioral, yet the authors provided no caution regarding the disparity in the number of studies included in the nonbehavioral and behavioral categories.

Clearly, our results raise questions regarding previous findings on the greater benefits of behavioral therapies with children, and they offer encouragement to the large number of child therapists who subscribe to humanistic approaches to treat their young cli-

ents. Although our findings statistically show the superiority of humanistic play therapy interventions, we would be remiss if we did not urge readers to consider several factors in interpreting these results, including (a) the large disparity in the number of studies coded as humanistic versus nonhumanistic, (b) a lack of specificity in the description of interventions used in many of the studies, and (c) a lack of consistency in treatment protocols, even within the same theoretical school of thought.

**Treatment provider.** Studies were coded according to whether the play therapy intervention was provided by a mental health professional or a paraprofessional. We defined a *paraprofessional* as a parent, teacher, or peer mentor who was trained and supervised by a mental health professional. Studies coded to this group used filial therapy training methodology (Guerney, 2000; Landreth, 2002), with all but 4 studies using parents to provide treatment. The results shown in Table 2 indicate a moderate-to-large effect size of 0.72 for play therapy provided by a mental health professional and a very large effect size of 1.05 for play therapy conducted by a paraprofessional (filial therapy). Because the majority of paraprofessional studies involved parents, we decided to calculate the effect size for the parent-only filial studies, which revealed an even stronger treatment effect of 1.15. Analysis of treatment provider group differences revealed that the mean effect size of parent-conducted play therapy (filial therapy) was significantly greater ( $p < .01$ ) than the mean effect size of play therapy treatment provided by a mental health professional.

These findings are particularly noteworthy in light of the recommendations from the most recent Surgeon General's Conference on Children's Mental Health (U.S. Public Health Service, 2000), and they answer the mandate to identify approaches that "engage families in prevention and intervention strategies" (p. 8) as a solution to the crises in children's mental health. We must point out that the favorable effects produced by parents and other paraprofessionals were a result of training and close supervision by a mental health professional that, in most cases, followed a specific treatment protocol. Additionally, other factors may have influenced these findings, such as the fact that in all of the studies in which parents provided treatment, parents were a source of outcome measure. Certainly, parents who are willing to invest themselves fully in their child's therapy are likely different than parents who want no part in their child's treatment. And last, professionals may have been assigned more difficult cases, whereas paraprofessionals were matched to children appropriate to their skill level. Although Casey and Berman (1985) did not find parent involvement to be a significant predictor of child therapy outcome, LeBlanc and Ritchie (2001) and Weisz et al. (1995) reported results similar to ours concerning the benefits of parent-paraprofessional participation. Weisz et al. (1987) found that paraprofessionals produced better outcomes with younger children but not with older youths. Clearly, these findings deserve strong consideration from practitioners and warrant further investigation by researchers.

**Treatment setting.** The effect size values shown in Table 2 indicate that although play therapy can be considered effective regardless of setting, the location in which it is conducted impacts treatment outcome. The vast majority of studies were conducted either in a school or in an outpatient clinic; however, play therapy conducted in critical-incident or residential settings produced significantly larger treatment effects than did therapy conducted in school and clinic locations. In the only other child therapy meta-

analysis to report on treatment setting, Casey and Berman (1985) found that although results varied considerably by setting, the differences were nonsignificant. In the present study, the low number of studies coded into residential and critical-incident settings raises concerns about drawing conclusions regarding the superiority of play therapy in these settings. We urge readers to also consider the possibility that other variables, although undetected through analysis, may have influenced outcome. For example, treatment duration varied considerably across settings. The mean number of sessions for clinic settings (22.4) was nearly three times the mean number of play therapy sessions in schools (8.4). School counselors frequently must limit the number of sessions per child so as to serve the needs of more children. Thus, the number of play therapy sessions received by children in school settings is less likely to be dependent on the severity of concern and problem resolution. Children in residential settings showed the most benefit from play therapy and also received the highest number of sessions ( $M = 28.8$ ). It is interesting to note that the critical-incident category (i.e., hospitals, prisons, domestic violence shelters, and natural disasters) showed an inverse relation between effect size and mean number of sessions (7.4). Although the relatively small number of studies in this category must be noted, these results are encouraging and suggest that children in crisis may respond more readily to treatment provided at the time of crisis. These findings point to the need for well-designed, controlled studies examining the benefits of play therapy relative to setting.

**Treatment format.** Although Table 2 reveals that individual play therapy conducted by a paraprofessional produced more significant outcomes than the other two formats ( $ps < .01$ ), this result is to be expected given the findings reported earlier on the efficacy of involving parents in their children's therapy. The more notable finding is that similar outcomes were achieved with both individual and group play therapy when it was provided by a mental health professional. With effect sizes of 0.79 and 0.82, respectively, clearly both formats can be considered effective. Although Weisz et al. (1995) noted a significantly larger treatment effect for children receiving individual therapy compared with participants in group interventions, Casey and Berman (1985), Weisz et al. (1987), and LeBlanc and Ritchie (2001) reported nonsignificant results between individual and group treatments. The findings from the present study, combined with the results from previous meta-analyses, suggest that children benefit similarly from individual and group psychotherapy. However, these results could also mean that children were appropriately assigned to the optimal treatment format for their needs (i.e., group play therapy for social difficulties) rather than both formats being equally effective in treating all children and their problems. Future research will need to provide clearer descriptions of the rationale for group or individual play therapy related to children's age, presenting concerns, and so forth to address this question.

**Treatment duration.** Number of play therapy sessions appears to be a factor in treatment efficacy. Preliminary analysis of data from all studies revealed that number of sessions was not linearly related to play therapy outcome; however, a quadratic trend was noted. When treatment provider was factored into the analysis, the number of sessions was significantly related to play therapy conducted by professionals ( $p = .05$ ) but not to paraprofessional treatments. A scatter plot of the 67 studies in which professionals provided play therapy revealed a curvilinear relationship between

number of sessions and effect size. Optimal treatment effects were obtained in 35–40 sessions, with diminishing effect size as session number increased or decreased from this range. The scatter plot also showed a relationship between small treatment effects and lower number of sessions (i.e.,  $<14$ ). LeBlanc and Ritchie (2001) reported similar results and suggested that the correlation between a low number of sessions and small effect size may be related to an increase in intensity of behaviors and feelings during the first several weeks of therapy. They concluded, and we agree, that it is reasonable to expect that children who end treatment prematurely during this stage are less likely to show benefit from play therapy than are children who complete treatment. It is interesting to note that many studies with fewer than 14 sessions (primarily in crisis settings) also produced medium and large effect sizes. These results suggest that although play therapy interventions have shown large effects at lower numbers of sessions, the benefits of play therapy increase with the length of treatment up to approximately 35 sessions, then appear to level off and begin to decline. The limited number of studies reporting more than 35 sessions conducted by professionals makes it difficult to draw reliable conclusions regarding the efficacy of long-term play therapy. LeBlanc and Ritchie reported similar findings, concluding that maximum play therapy effects are achieved in 30–35 sessions. In contrast, Casey and Berman (1985) reported that treatment duration was negatively correlated to outcome, whereas Weisz et al. (1987, 1995) and Kazdin et al. (1990) found no relationship between outcome and length of treatment. It is interesting to note that the mean number of sessions across the 67 studies involving professional play therapists was 16.9, suggesting that most children receiving play therapy were not afforded the optimum number of sessions for full benefit. Several factors—including managed care guidelines, time restrictions for school treatments, and therapy dropouts—impact the ability for children to receive the length of treatment necessary for problem resolution.

Although the number of play therapy sessions conducted by trained paraprofessionals was not a significant predictor of outcome, a discussion of treatment duration in relation to this approach is warranted. In these studies, mean number of sessions refers to the number of training sessions attended by parents and other paraprofessionals, not the number of sessions of play therapy received by the children. The mean number of sessions for the 26 filial treatments was 14.7. However, this mean was skewed upward by an early study based on B. Guerney's (1964) model that reported 12–18 months of treatment and the largest filial sample size. The majority of studies ( $n = 14$ ) followed Landreth's (1991) 10-week filial therapy model, and an additional 7 studies reported 8–13 sessions. Because parents do not start conducting play sessions with their children until after they have attended at least 3 weeks of play therapy training from a professional (Landreth, 2002), the number of sessions of direct intervention that the children received in the filial group of studies was even lower than the number of sessions reported. These results are particularly noteworthy in light of the significant findings regarding the average treatment effect of involving filial-trained parents in their children's therapy (1.15), and they suggest that the optimal number of sessions for maximum treatment effect may be lower when play therapy is delivered by parents as compared with professionals.

### Characteristics of Child Participants

Across the 93 studies, a total of 3,248 boys and girls with diverse presenting issues participated in a play therapy intervention. To investigate whether treatment effectiveness was impacted by variables related to the child participants, we coded participants' age and gender as well as the targeted problem behaviors and outcome measures used to assess improvement. Ethnicity was not reported in the majority of studies and, therefore, could not be reliably reported.

**Age and gender.** The average age of a child receiving play therapy was 7.0 years, and this was reduced to 6.7 years when play therapy was conducted by paraprofessionals. Similar to the findings of Weisz et al. (1987, 1995), Kazdin et al. (1990), and Casey and Berman (1985), approximately 2/3 of participants in the present study were male. Analysis revealed that neither age nor gender were significant predictors of treatment outcome, suggesting that play therapy is equally effective for boys and girls of all ages. However, heterogeneous samples, broad age ranges, incomplete data, and other factors made interpretation of the findings difficult. For example, although it was not statistically significant, we noted that the relatively few studies that we were able to code as exclusively female resulted in consistently larger effect sizes, a finding that is supported by Weisz et al. (1995) and Casey and Berman. Another potential problem in accurately interpreting our findings was that the majority of studies that reported mean ages higher than 10 years involved children who were described as *cognitively delayed* or *mentally retarded*. Certainly, such children differ in their developmental needs from their counterparts with more typical cognitive development. The inclusion of these studies exerted an upward influence on the mean age and may have clouded the investigation of the relationship of age to treatment effect.

Earlier studies on the efficacy of child therapy reported mixed findings regarding the impact of age and gender. Weisz et al. (1995) reported the only significant findings, with treatment effects larger for female participants. Casey and Berman (1985) found no relationship between age and effect size but noted that studies involving a majority of male participants tended to yield smaller effect sizes. Weisz et al. (1987) also reported no difference between boys and girls, but noted that older youths benefited less from therapy than did younger children. LeBlanc and Ritchie (2001) found neither age nor gender to be a significant predictor of play therapy outcome.

Although not a significant predictor of outcome, the mean age of children benefiting from play therapy warrants further notice. Identifying proven therapeutic interventions appropriate for young children has become a national priority in efforts to provide earlier intervention and to prevent the development of more severe and costly mental health problems (U.S. Public Health Service, 2000). As shown in Table 1, previous meta-analyses focusing on a broad range of therapeutic interventions with children (Casey & Berman, 1985; Kazdin et al., 1990; Weisz et al., 1987, 1995) have reported much higher mean ages, ranging from 8.9 to 10.5 years. Because play therapy is a developmentally sensitive intervention; it is reasonable to expect that this mode of treatment could be used with children who are younger than the children targeted by more traditional talk therapies. LeBlanc and Ritchie's (2001) meta-analysis included only play therapy studies and reported a mean

age closer to our findings. The successful application of play therapy with young children further points to the significance of the overall findings, and it holds implications for the practitioner.

**Target problem behaviors.** Next, we focused on what seemed the most apparent source of variation within children, their presenting problems. Both clinicians and researchers have long been concerned with the question of whether certain treatments are more effective with specific problems—a question that has largely remained unanswered for both adult and child psychotherapy. To examine this question, we coded targeted problem behaviors into the broad categories of *internalizing* problems, *externalizing* problems, or a *combination* of both. Approximately one third of the studies could not be coded into the above categories and included such targeted concerns as participants' adjustment, academic achievement, adaptive behavior, personality, relationships, and so forth. As shown in Table 3, there was no significant difference in outcomes by targeted problems. Our findings suggest that play therapy was beneficial regardless of whether children were treated for internalizing or externalizing behavior problems or other identified concerns. In examining the interaction between targeted problem and other study characteristics, we detected a relationship between age of treated child and problem behavior. When we divided participants into two equal groups, using the mean age of 7.0 years as the dividing point, the outcome of play therapy with children under 7.0 years of age treated for internalizing problems, compared with children 7.0 and older, approached significance ( $p = .056$ ). Interpretation of these results was hindered by a lack of clear information about participants' diagnoses or presenting issues and heterogeneous targeted problems and broad age ranges included within a single study. Further research will need to focus on specific targeted problems and provide stricter controls for such variables as gender and age to better understand the effects of play therapy on specific presenting issues.

Table 3  
Effects of Play Therapy by Child Characteristics

| Variable                                      | N of studies | ES   |
|-----------------------------------------------|--------------|------|
| Target problem behaviors                      |              |      |
| Internalizing only                            | 24           | 0.81 |
| Externalizing only                            | 17           | 0.78 |
| Internalizing and externalizing               | 16           | 0.93 |
| Other                                         | 36           | 0.79 |
| Type of outcome measure <sup>a</sup>          |              |      |
| Behavior                                      | 80           | 0.81 |
| Social adjustment                             | 16           | 0.83 |
| Personality                                   | 19           | 0.80 |
| Self-concept                                  | 23           | 0.51 |
| Anxiety-fear                                  | 7            | 0.69 |
| Family functioning/relationships <sup>b</sup> | 36           | 1.12 |
| Developmental-adaptive                        | 12           | 0.90 |
| Other                                         | 35           | 0.55 |

Note. Category entries are not mutually exclusive; a given study could be scored for one or more type of outcome measure. All mean effect sizes (ESs) differed reliably from 0 ( $p < .05$ ).

<sup>a</sup> The mean ES for play therapy's effect on family functioning/relationships was significantly greater than the mean ESs for other types of coded outcome measures. <sup>b</sup> The measures included in this group were generally parent-report and primarily used in studies in which parents were fully involved in their children's therapy (i.e., filial therapy).

Identifying treatments that are most effective with specific target problems was also a focus in earlier child meta-analytic reviews. Casey and Berman (1985) reported a significant difference in treatment effect according to target problem, with outcomes lower for social adjustment concerns compared with social phobias, somatic complaints, or impulsivity-hyperactivity. In contrast, Weisz et al. (1987) reported no reliable difference between treatment outcomes for undercontrolled versus overcontrolled problems, but they reported a significant interaction between training and problem type, with professionals producing larger effects with overcontrolled problems. In the more recent review, Weisz et al. (1995) again found no significant difference in treatment effects by problem type; however, further analysis revealed significant interactions between problem type, child's age, and therapist training. Professionals were more effective with overcontrolled children, whereas paraprofessionals were more successful with undercontrolled problems; and professionals and students produced larger effect sizes with overcontrolled adolescents than with overcontrolled children. LeBlanc and Ritchie (2001) did not find presenting problems to be predictive of play therapy outcome. These results clearly point to the need for further research that examines the benefits of play therapy relative to clearly delineated presenting problems.

**Types of outcome measures.** We classified outcome measures into eight categories to investigate whether play therapy effectiveness was related to the type of measure used. Most of the studies used more than one type of outcome measure, with a mean of 2.5 measures per study. Table 3 reveals considerable variance in effect size related to the type of measure, with effect sizes ranging from medium to very large. Of note, behavioral outcomes were overwhelmingly the most used type of measure, which likely accounts for the effect size for behavioral outcome measures (0.81) mirroring the overall treatment effect size for play therapy. The family functioning/relationships category of measures produced significantly larger treatment effects relative to the other groups of measures. However, as noted in Table 3, the measures coded into this group were largely parent-report measures and were primarily used in studies in which parents were fully involved in their children's therapy (i.e., filial play therapy); thus, these results should be interpreted in light of the fact that in most cases, the treatment provider and the source of the outcome measure were one and the same. Understanding of the relationship between play therapy outcome and the type of measure used is dependent on the use of appropriate, valid, and reliable measures. Several authors of individual studies reported concerns about the lack of appropriate instruments that were sensitive to measuring children's targeted problems, particularly in young children. Their comments were consistent with our assessment that in several studies, the outcome measure used did not seem suitable to the presenting issue. Clearly, this is an area of concern that deserves closer scrutiny.

Relatedly, we analyzed the impact of the source of the outcome measures on play therapy outcome and found no reliable difference between parents, teachers, trained observers, participant performance, or participant report. The vast majority of studies reported outcomes from multiple sources. Parents were used as sources of data in 58.5% of studies, almost twice as often as other sources. This number was likely influenced by the number of filial therapy studies, all of which used parents as a source of measuring treatment effect. Our results are consistent with LeBlanc and

Ritchie's (2001) findings but differ from Casey and Berman (1985) and Weisz et al. (1987), both of whom reported that data provided by observers yielded the largest effect sizes. Casey and Berman's findings revealed that the type of outcome measure (e.g., fear-anxiety and cognitive) was a significant predictor of therapy effect. Although Weisz et al. (1995) did not find the main effect of source or type of outcome measure significant, they noted a significant interaction between the two. Larger treatment effects on the measures grouped as overcontrolled were obtained from peer report and self-report, whereas teachers, observers, and direct behavioral assessment yielded larger effects on the undercontrolled domain.

### Study Characteristics

Was there a relationship between effect size and factors specifically related to the quality and design of the study? To answer this question, we examined publication status, study design, and source of participants.

**Publication status.** Most meta-analyses are criticized for an overreliance on published studies. Our study is unique in this area, with the inclusion of 41 studies published in refereed journals, 2 published ERIC documents, and 50 unpublished studies (dissertations, theses, etc.). As depicted in Table 4, the difference in mean effect size for published versus nonpublished studies was statistically significant ( $p < .001$ ). This finding appears to support the previous criticism of meta-analyses and confirm the existence of publication bias—a tendency for studies reporting statistically significant findings to be published over those reporting nonsignificant results. Of the earlier reviews of child therapy outcomes, only LeBlanc and Ritchie (2001) included unpublished studies. They reported no publication bias, concluding that the 16 unpublished and 26 published play therapy studies that they included were representative of the effects of treatment. Although Casey and Berman (1985) included only published studies, they found a significant relationship between small sample sizes and large treatment effects, suggesting a publication bias. They concluded that their findings may have overestimated the actual treatment effects of child therapy. Neither Weisz et al. (1987, 1995) nor Kazdin et al. (1990) addressed the issue of publication bias. Our inclusion of

Table 4  
*Effects of Play Therapy by Study Characteristics*

| Variable                                         | N of studies | ES   |
|--------------------------------------------------|--------------|------|
| Publication status <sup>a</sup>                  |              |      |
| Published                                        | 43           | 1.04 |
| Unpublished                                      | 50           | 0.77 |
| Study design                                     |              |      |
| Play therapy vs. control                         | 60           | 0.89 |
| Play therapy vs. alternate treatment             | 6            | 0.79 |
| Play therapy vs. alternate treatment vs. control | 27           | 0.82 |
| Source of participants                           |              |      |
| Clinical                                         | 35           | 0.82 |
| Analog                                           | 58           | 0.78 |

Note. All mean effect sizes (ESs) differed reliably from 0 ( $p < .05$ ).

<sup>a</sup> Published studies had a significantly larger mean ES than did nonpublished studies ( $p < .001$ ).

a substantial number of unpublished studies supports the robustness of these findings and raises questions about meta-analyses that rely solely on published findings.

**Study design.** We coded studies by their research design to assess the impact on effect size and, similar to LeBlanc and Ritchie (2001), found that study design was a nonsignificant predictor of play therapy outcome (see Table 4). A lack of clear description of methods and procedures often made it difficult to discern the quality of a study's design. All studies used pre- and postmeasures and a control or comparison group. Approximately 70% of studies reported assignment to groups that appeared random, although researchers seldom explained the specific method of "random" assignment. Approximately 20% of studies appeared to use assignment to existing groups rather than random assignment.

**Source of participants.** Research studies are often criticized for an overreliance on recruited subjects, on the basis of a belief that better outcomes are more easily achieved with recruited subjects than with clinical populations. To examine this issue, we coded studies on whether they were conducted with a *clinical* population (identified as already seeking help for clinical services) or an *analog* population (recruited volunteers for the study). As shown in Table 4, similar effect sizes were found for both groups. These results indicate that the source of study participants did not affect treatment outcome, and they are consistent with Weisz et al. (1987). However, in Weisz et al.'s (1995) review of child therapy outcomes, they reported a significantly larger effect size for analog populations. Weisz and Jensen (2001) reviewed the effects of clinical interventions with children and found that there was little evidence to support the benefits of clinical treatments. Compared with Weisz et al. (1987, 1995), our study is unique in the number of studies using clinical participants compared with recruited participants, with both groups producing effect sizes that approach the 0.80 level. These results are particularly encouraging in light of the fact that researchers often must rely on analog populations.

### Project Summary

The overall meta-analytic results establish that play therapy is a statistically viable intervention. Further analysis revealed that humanistic approaches yielded higher outcomes than nonhumanistic treatments and that filial play therapy conducted by parents produced larger treatment effects than did play therapy conducted by a professional. Although we attempted to glean a clearer understanding of factors that contribute to the effectiveness of play therapy, our attempts were hindered by a lack of specificity in many of the studies. On the basis of data reported in individual studies, play therapy appeared equally effective across gender, age, and presenting issue. Our findings, taken with the results from previous meta-analytic reviews of child therapy outcomes, present a rather unclear picture of the relationship between specific treatment variables and treatment outcome, and they strongly point to the need for well-designed research to address these issues more systematically.

### Limitations

Meta-analyses are only as strong as the individual studies that are submitted to the statistical procedures. We attempted to control for studies that did not follow accepted research methods. Of the

180 play therapy research studies originally retrieved, only 93 were included in the meta-analysis. Many studies were excluded because of lack of experimental methods, lack of reported statistics, or other shortfalls in research procedures. Even among the studies that were included, some gave incomplete descriptions of the research methods. Missing factors included details of training level of play therapists; age, gender, and/or ethnicity of participants; ill-defined presenting problems; incomplete or unclear protocol procedures; and other incomplete characteristics. Another limitation to this study is the broad variation of presenting problems and outcome measures used across the 93 studies and the use of vague labels, such as *emotionally maladjusted* or *behaviorally disturbed*.

### Conclusion and Implications for Practice

A number of critics have challenged the validity of play therapy. The evidence provided by this comprehensive review of 93 play therapy outcome studies supports the efficacy of this intervention with children suffering from various emotional and behavioral difficulties. After play therapy, the average treated child was functioning at 0.80 standard deviations better than children not treated. Further analysis revealed that although play therapy is effective across modalities, settings, age and gender, clinical and nonclinical populations, and theoretical schools of thought, some factors appear to be more predictive of magnitude of treatment outcome than others. We found that humanistic-nondirective play therapy approaches produced significantly larger treatment effects than nonhumanistic-directive approaches. This result is inconsistent with the overall findings on adult psychotherapy that various therapeutic approaches have about an equal effect on treatment outcome, and it is also contradictory to the findings from other meta-analytic studies on child psychotherapy. However, because of the large variance between the number of studies coded as humanistic ( $n = 73$ ) and nonhumanistic ( $n = 12$ ), these results need to be interpreted cautiously. Clearly, these findings show that both treatment models can be considered effective.

The obvious implication of this research for practitioners is that play therapy demonstrates itself to be an effective intervention for children's problems, one that is uniquely responsive to children's developmental needs. Of significant note, play therapy has a large effect on children's behavior, social adjustment, and personality. Typically, children are referred for treatment because of one of these three presenting problems. Behavior problems, in particular, are of great concern for the significant adults in children's lives—primarily parents and teachers—who often expend a great amount of energy in trying to change problematic behaviors. The present research supports play therapy as an agent in changing behavior. Social adjustment and personality are also concerns for most parents. Parents want their children to grow up well-liked and well-adjusted. The need to belong is primary to a child's growth and acceptance of self. When children are unable to socially adapt or modify their behavior to fit in, children and parents alike are negatively affected. According to this research, play therapy demonstrates its effectiveness in these areas.

Although the present research demonstrates the efficacy of play therapy in helping with children's problems, the issue is slightly more complex than it first appears. The length of treatment and parental involvement appear to impact the outcome of play ther-

apy. Although individual studies included in the meta-analysis demonstrated that play therapy is effective with just a few sessions (particularly in crisis settings), the overall results indicate that the efficacy of play therapy facilitated by a therapist increases with the number of sessions provided, up to approximately 35 sessions. Therefore, for play therapy to reach full effect, the number of sessions will likely need to be increased beyond the average number of sessions allowed by managed care. As most therapists are aware, therapy for significant issues takes significant time, whether the client is an adult or a child. Play therapy may control symptoms of the child with just a few sessions, yet enduring intrinsic change requires more than just a few sessions. This research compels child therapists to share these results with managed care providers to advocate for their young clients to receive sufficient sessions for play therapy to reach its full effect. It seems plausible to suggest to third-party payors that providing the optimal treatment for children when they first present for help can prevent the development of more serious impairment across the life span and the resulting cost to society.

In addition to length of therapy, parent involvement in play therapy also significantly impacted treatment outcome. This finding is probably not surprising for most practitioners. Common sense would dictate that working with each component of a child's system would increase the positive outcome of therapy. It is interesting to note that working with the child's parents is not necessarily the variable that affects therapy. It appears from this research that involving the child's parents fully in therapy, along with providing structured, supervised experiences for parents to practice their skills with their child, is most effective. For example, in filial therapy, parents are taught basic child-centered play therapy principles and skills and then required to practice these skills under the close supervision of a trained play therapist, in weekly videotaped or live-supervised play sessions with their child. Filial therapy is most often taught in a group setting to provide parents with emotional support in addition to providing them with a balance of didactic and experiential activities to facilitate their learning. This type of approach appeared to be highly effective in helping change the relationship between the parent and child as well as the behavior of the child.

Regarding the effectiveness of filial therapy, another variable that appeared to impact results was the specific filial training protocol that the authors of individual studies used. Quite by accident, we discovered a trend on a splatter plot diagram of the effect sizes of filial studies by year. Closer inspection found that research conducted using the Guerney model (prior to 1980s) and the Landreth model (1990–2000) yielded larger effect sizes than other studies. Even more notable, those studies in which the researchers stated that they had received filial training and supervision directly from Landreth or the Guerneys yielded the largest effect sizes. These findings point to the need for training and adherence to a well-developed protocol, and they validate the importance of treatment integrity in research. Certainly, this research strongly supports the adoption of filial therapy as an effective therapeutic modality in working with children. And, again, managed care providers should be made aware of the existence of a therapy model that not only can be greatly effective in a relatively short amount of time but also provides the additional benefit of serving to prevent future problems by impacting the family system.

It is clear from the results of this research that play therapy delivered by professionals and play therapy delivered by parents (filial therapy) must be examined more closely. When play therapy is delivered by a professional therapist, the result is a medium-to-large effect size. When play therapy training is delivered to a group of parents who conduct weekly supervised play sessions with their child, the result is a very large effect size in fewer sessions. An apparent implication would be that therapists and managed care providers should advocate the use of filial training over play therapy. As stated before, most therapists would advocate for the participation of parents in the therapy of their child as an integral component of effective child therapy. However, clinical rationale would prohibit the use of filial therapy with all parents and children. There are many cases in which play therapy conducted by a professional should be chosen over a filial therapy training intervention. Parents who are experiencing a significant amount of emotional stress often have difficulty focusing on the needs of their children. In such cases, many parents need to undertake their own therapy before they are capable of learning and facilitating the skills of therapeutic play with their children. Also, as most child therapists have experienced, many parents are unwilling or unmotivated to participate in their child's therapy. Issues of guilt, resentment, time, money, and effort are just a few of the reasons for nonparticipation by parents. In addition to parental issues that prohibit participation in filial play therapy training, a particular child may not be best suited for this approach. On occasion, a child's emotional issues may extend beyond the capability of the parent. In a case in which a child is significantly emotionally disturbed, a parent may not be able to provide the child with an effective therapeutic experience. Yet the results of this research indicate that if a child and a parent are both firm candidates, filial therapy would be the most effective intervention.

This meta-analysis has significant implications for those who provide mental health services to children and families. These findings should be used to not only educate managed care companies but also to educate and work with parents, government, schools, and the medical and legal communities to provide children with the most beneficial treatments. Although the implications for practitioners may be more far-reaching, the findings from this project also hold implications for the potential play therapy researcher. Our research illustrates several problems in play therapy research and design that future investigators can learn from. Play therapy research continues to study a small number of participants, limiting the ability to generalize many of the studies. Calculating and reporting effect sizes is one way future researchers can address this concern when resources limit the number of research participants. Additionally, many of the studies we reviewed did not report training of therapists or procedural protocol. In our analysis of the literature, studies that distinctly defined play therapy procedures appeared to offer more successful play therapy outcomes.

Moreover, because most play therapy research uses the design of play therapy versus absence of intervention, researchers are unable to declare play therapy as the most effective method of treatment. Specifically, there is a need to compare its effectiveness directly with other child psychotherapeutic treatments, such as more traditional behavioral plans, cognitive techniques, or school guidance curricula. A well-designed research methodology that can be replicated in multiple studies is needed to not only further

investigate the overall efficacy of play therapy but also to examine a multitude of treatment factors and their impact on treatment outcome. Only then will play therapists be able to answer questions regarding the most efficient and effective delivery method of play therapy services to their child clients.

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