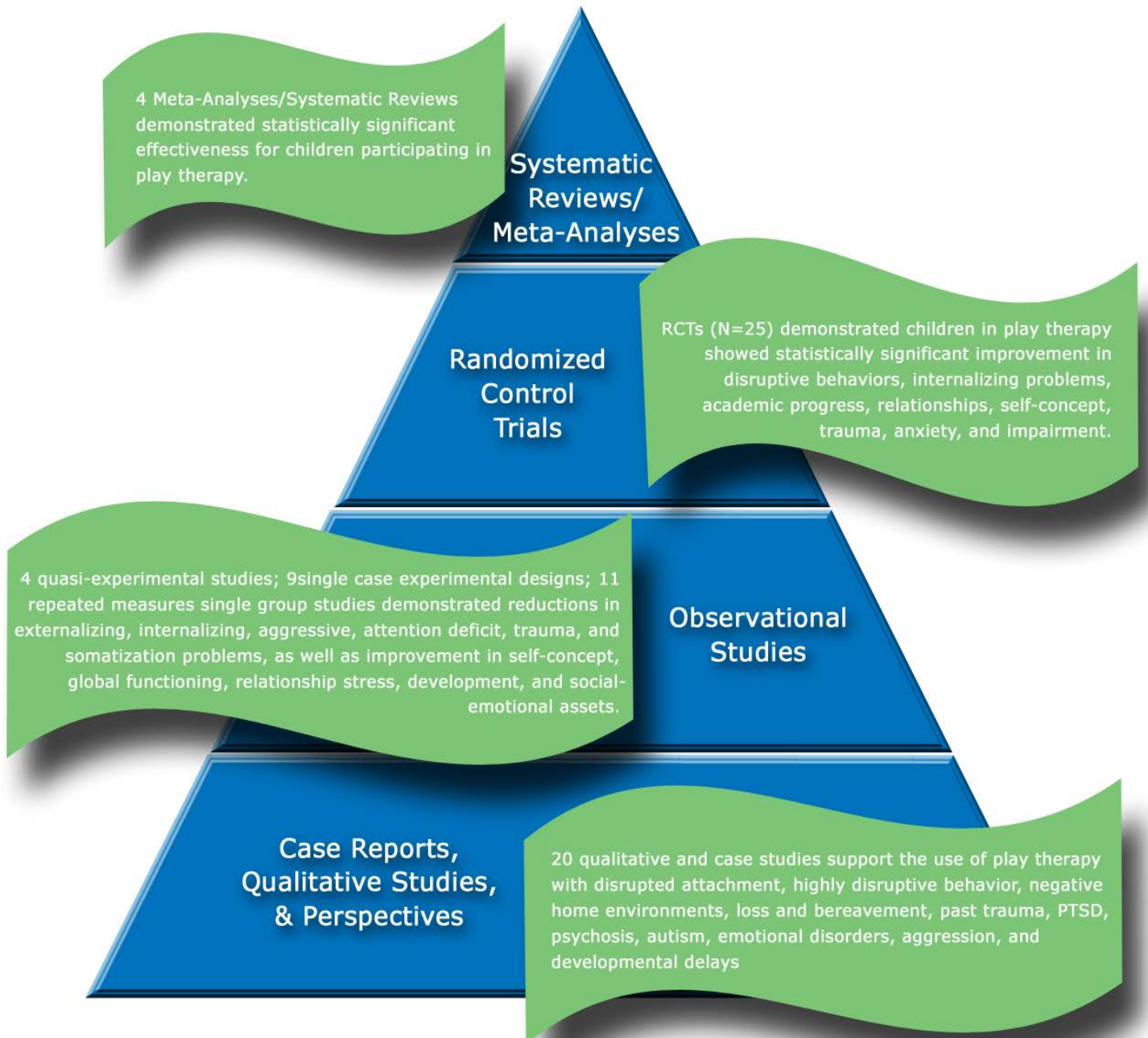




# Evidence-Based Practice Statement: Play Therapy

## Hierarchy of Evidence Quality:

The research pyramid illustrates the hierarchy of evidence for any given intervention, ranking the quality of evidence from the most reliable/credible (top of pyramid) to least reliable/credible (bottom of pyramid) (Paynter, 2009). The pyramid is widely accepted as the gold standard for evaluating best practices in mental and behavioral health. This statement provides evidence regarding the effectiveness of play therapy, evaluating the level, quality, and application of play therapy as a mental health intervention for children.



## Definitions

**Play Therapy:** Play therapy is 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 (APT, 2015).

**Systematic Reviews/Meta-Analyses:** Systematic reviews provide a structured method of critically appraising findings from multiple studies involving a particular area of study or intervention. Meta-analyses statistically evaluate and integrate the findings of multiple studies involving a particular area of study or intervention. When applied to intervention research, the goal of both systematic reviews and meta-analyses is to formulate a recommendation for practice.

**Randomized Controlled Trials (RCTs):** RCTs are experimental research studies that employ comparison groups and randomized assignment of participants. The goal of RCTs is to provide exploration of an intervention and methodological control over variables so that outcome and treatment effect can be generalized to an identified population.

**Observational Studies:** Observational studies include quasi-experimental studies (research that does not employ randomization procedures), single-case experimental designs, correlational research (research that explores associations between variables), and pre-post single group studies. Observational studies employ quantitative analyses but are limited in their controls of variables; hence, they are limited in terms of generalizing causal relationships between variables.

**Case Reports:** Case reports, also referred to as case studies, are reports on individual cases that provide anecdotal evidence, and can include individual quantitative data, on the use of a particular intervention.

**Qualitative Studies:** Qualitative research uses qualitative methods and analyses to provide rich description, perspectives, theoretical understanding, and experiences related to the use of a particular intervention.

## Search Information

Databases: PsycINFO, PubMed, ERIC, Academic Search Complete

Search Terms: play therapy, play counseling, play intervention

Limits, Filters, Search Data Parameters: 2000 to present; primarily individual intervention

Date Most Recent Search: June 1, 2016

## Identified Population

Children from 3 to 13 years old.

## Recommendations

Children between the ages of 3 to 12 years old should participate in play therapy as an intervention to alleviate symptoms related to behavioral and emotional problems, as well as contribute to overall wellness and healthy development.

Evidence Related to Recommendations

Systematic Reviews and Meta-Analyses

To date, there are 4 peer-reviewed published meta-analyses on outcome effect of play therapy interventions; one meta-analysis includes a systematic review. Lin and Bratton (2015) conducted meta-analysis with 24 child-centered play therapy studies and concluded that play therapy demonstrated a statistically significant effect. Ray, Armstrong, Balkin, and Jayne (2015) performed a meta-analysis and systematic review of 23 child-centered play therapy RCTs conducted in schools and concluded that play therapy demonstrated statistically significant outcomes for children with disruptive behavior, internalizing, self-efficacy, and academic problems. Bratton, Ray, Rhine, and Jones (2005) employed meta-analysis with 67 play therapy studies and found statistically significant effects with medium effect size, concluding that play therapy was effective with both internalizing and externalizing problems. LeBlanc and Ritchie (2001) used meta-analysis to explore findings of 42 RCTs on play therapy, reporting statistically significant effects with moderate treatment effect size.

<b>Authors</b>	<b># of Studies</b>	<b>Mean Age</b>	<b>Effect Size</b>	<b>Favorable Outcomes</b>
Lin & Bratton (2015)	24	6.7 yrs	.33*	Externalizing and internalizing behavior problems; caregiver-child relationship stress; self-efficacy
Ray et al. (2015)	23	Range 4-13 yrs No Mean Reported	.21-.38*	Externalizing and internalizing behavior problems; self-efficacy; academic; other
Bratton et al. (2005)	67	7.0 yrs	.72*	Behavior problems; social adjustment; self-concept; anxiety; development; relationships; other
LeBlanc & Ritchie (2001)	42	7.8 yrs	.66**	Emotional adjustment; social adjustment; reaction to traumatic event; academic; behavior problems; family adjustment

\*ES is statistically significant + Studies included parent-involved

Randomized Controlled Trials (RCTs)

Randomized controlled trials (N=25) demonstrated children in play therapy showed statistically significant improvement in disruptive behaviors, internalizing problems, academic progress, relationships, self-concept, trauma, anxiety, and impairment. Play therapy RCTs serve as credible evidence that play therapy is effective across ages 3 to 12 years old and with various presenting issues. All reviewed RCTs employed the use of random assignment, control or comparison experimental groups, clear intervention protocol, and appropriate data analysis procedures.

Disruptive Behaviors:

Several studies found statistically significant decreases in disruptive behavior for children in child-centered play therapy (CCPT) over children in a control group (Bratton et al., 2013; Garza & Bratton, 2005). Adlerian play therapy has also been found to be effective in reducing disruptive behaviors (Meany-Walen, Bratton, & Kottman, 2014). Fall, Navelski, and Welch (2002) demonstrated decreased problematic behaviors and decreased social problems for a CCPT experimental group when compared to the control group. Naderi, Heidarie, Bouron, and Asgari (2010) showed that children in activity-based play therapy showed statistically significant decreases in ADHD and anxiety symptomology when compared to a control group, while Packman and Bratton (2003) found that children showed decreases in externalizing behaviors after receiving humanistically-based group activity/play therapy. Furthermore, Ojiambo and Bratton (2014) found that displaced Ugandan orphans who participated in group activity play therapy demonstrated significant decreases in problem behaviors.

Internalizing Problems:

Farahzadi, Bahramabadi, and Mohammadifar (2011) described clinically significant decreases in diagnostic severity of social phobia symptoms following Gestalt play therapy. Flahive and Ray (2007) found that children in sandtray/play therapy group demonstrated clinically significant differences in internalizing and externalizing behaviors when compared to a control group. Garza and Bratton (2005) showed that children receiving CCPT showed moderate improvements in internalizing behaviors. Jalali and Molavi (2011) found that children in group play therapy showed statistically significant decreases in separation anxiety when compared to a control group. Naderi et al. (2010) showed that children in activity-based play therapy showed improvement in social maturity when compared to a control group. Packman and Bratton (2003) found that children showed decreases in internalizing behaviors after receiving Humanistically-based activity group therapy. Ray, Schottelkorb, and Tsai

(2007) found that children with attention problems benefitted with improved emotional stability and anxiety/withdrawn symptoms after participating in CCPT. Stulmaker and Ray (2015) found that young children who scored clinically anxious improved significantly following participation in individual CCPT.

Academic and Language Concerns:

Blanco and Ray (2011) found that children in a CCPT experimental group showed significant improvement on academic achievement over children in a control group. Additionally, Danger and Landreth (2005) demonstrated clinical significant improvements in language skills in children who received CCPT over children in a control group.

Relationships:

Both Ray (2007) and Ray, Henson, Schottelkorb, Brown, and Muro (2008) found that CCPT resulted in significant decreases in teacher child relationship stress. Ray et al. (2008) found that short-term CCPT intervention (16 sessions over 8 weeks) demonstrated statistical significance and larger effect sizes in total stress, teacher, and student characteristics than long-term CCPT intervention (16 sessions over 16 weeks). Cheng and Tsai (2014) showed that participation in CCPT group was associated with fewer socially withdrawn behaviors. Finally, Cheng and Ray (2016) found that children who participated in group CCPT demonstrated gains in social-emotional assets, specifically empathy and social competence.

Trauma:

Schottelkorb, Dumas, and Garcia (2012) found that both CCPT and trauma-focused cognitive behavioral therapy (TF-CBT) were effective in reducing trauma symptoms according to child and parent report. Shen (2002) also demonstrated the use of CCPT for children following an earthquake. The author showed that a CCPT group demonstrated a significant decrease in anxiety and suicide risk when compared to the control group. In examining CCPT with children of domestic violence, Tyndall-Lind, Landreth, and Giordano (2001) demonstrated that participation in sibling group play therapy was associated with significant reductions in total behavior, externalizing, and internalizing behavior problems, aggression, anxiety, depression and significant improvements in self-esteem. The authors found that sibling group play therapy was equally effective to intensive individual play therapy.

Impairment and Medical Concerns:

Ray, Stulmaker, Lee, and Silverman (2013) found that a CCPT group demonstrated decreased levels of impairment with medium effect size compared to a delayed-start control group. Jones and Landreth (2002) showed that children in CCPT were able to adapt to diabetes better than a control group.

**RCT Study Descriptions**

<b>Authors</b>	<b>Type, #, &amp; Session Length</b>	<b>Sample Description</b>	<b>Findings</b>
Cheng & Ray (2016)	Group CCPT R=15-16 30 minutes	Kindergartners identified with social-emotional deficits N=43 Ages 5-6  23% African American 44% Hispanic/Latin 33% Caucasian	Children who received group CCPT demonstrated statistically significant improvement in overall social-emotional assets, empathy, and social competence over control group children according to parent report.
Su & Tsai (2016)	Group CCPT 12 40 minutes	Children of new immigrants in Taiwan with relationship problems N=8 Ages 8-9  38% Vietnamese 38% Thai 25% Chinese	Children who participated in CCPT improved in relationships according to self and teacher report over those in the control group. CCPT children also demonstrated significant improvement in mood as reported by parents.  +Authors employed non-parametric analyses due to low participant number

Blanco, Muro, Holliman, Stickley, & Carter (2015)	Individual CCPT 16 30 minutes	First graders N=59 Ages 6-7  6% African American 17% Hispanic/Latin 69% Caucasian 2% Asian American	Children who participated in CCPT demonstrated statistically significant improvement on academic achievement as compared to children in the control group. All children demonstrated statistically significant improvement on performance anxiety.
Stulmaker & Ray (2015)	Individual CCPT R=12-16 30 minutes	Children who scored in clinically anxious range N=53 Ages 6-8  21% African American 21% Hispanic/Latin 45% Caucasian 2% Asian 11% Biracial	Children who received CCPT significantly decreased their overall levels of anxiety and worry when compared to an active control group.
Cheng & Tsai (2014)*	Individual CCPT 10	Children identified as socially withdrawn N=7 Ages 9-10  100% Taiwanese	Children in the CCPT treatment group demonstrated statistically significant decrease in social withdrawal but no significant change in self-concept.  <i>+Authors employed non-parametric analyses due to low participant number</i>
Meany-Walen, Bratton, & Kottman (2014)	Individual Adlerian PT R=14-17 30 minutes	Children with disruptive behaviors N=58 Ages 5-9  19% African American 48% Hispanic/Latin 33% Caucasian	Children in therapy demonstrated statistically significant decreases in disruptive behavior problems as compared to children in active control group. Teachers also reported a statistically significant reduction in teacher-child relationship stress for children in the experimental group.
Ojiambo & Bratton (2014)	Group activity PT M=16 50 minutes	Displaced orphans in Uganda with behavioral problems N=60 Ages 10-12  100% African	Results demonstrated statistically significant decreases in behavioral problems with moderate to large effect sizes over children in active control group.
Ray, Stulmaker, Lee & Silverman (2013)	Individual CCPT R=12-16 sessions 30 minutes	Children with clinical impairment N=37 Ages 5-8  32% African American 38% Hispanic/Latin 30% Caucasian	CCPT group demonstrated decreased levels of impairment with medium effect size whereas children in the delayed-start control group had consistent or increased levels of impairment.

Bratton, Ceballos, Sheely-Moore, Meany-Walen, Pronchenko, & Jones (2013)	Individual CCPT R=17-21 30 minutes	Children with disruptive behaviors N=54 3-4 years old  42% African American 39% Hispanic/Latin 18% Caucasian	Children in CCPT demonstrated statistically significant decreases in disruptive behaviors over children in active control group.
Schottelkorb, Dourmas, & Garcia (2012)	Individual CCPT M=17 30 minutes	Refugee children with trauma symptomology N=26 Ages 6-13  68% African American 16% Middle Eastern 10% Asian 6% Other	Results indicated that both CCPT and TF-CBT were effective in reducing trauma symptoms according to child and parent report.
Blanco & Ray (2011)	Individual CCPT 16 30 minutes	Academically at-risk N=43 1 <sup>st</sup> grade  17% African American 34% Hispanic/Latin 46% Caucasian	Children in the CCPT treatment group demonstrated significantly significant improvement on academic achievement composite score over children in delayed-start control group.
Farahzadi, Bahramabadi, & Mohammadifar (2011)*	Gestalt PT 10 90 minutes	Children with social phobia N=12 4 <sup>th</sup> grade  100% from Tehran	Children in play therapy decreased scores of the diagnosing and severity factors of social phobia symptoms.
Jalali & Molavi (2011)*	Group PT 6	Children with separation anxiety N=30 Ages 5-11  100% from Isfahan	Authors found that children who participated in group play therapy demonstrated statistically significant reduction in separation anxiety as compared to no-treatment control group.
Naderi, Heidarie, Bouron, & Asgari (2010)	Activity-based PT 10 1 hour	Children diagnosed with ADHD and anxiety N=80  Ages 8-12 100% Iranian	Children in therapy demonstrated statistically significant decreases in symptoms of ADHD and anxiety as compared to no-treatment control group. Children in therapy demonstrated statistically significant improvement in social maturity as compared to control group.
Ray, Henson, Schottelkorb, Brown, & Muro (2008)	Individual CCPT 16 30 minutes	Children with emotional and behavioral difficulties N=58 Pre-K-5 <sup>th</sup> grade  7% African American 41% Hispanic/Latin 45% Caucasian 7% Biracial	Results indicated that both intervention groups (short and long-term play therapy) demonstrated significant improvement in teacher-student relationship stress. Post hoc analyses indicated that the short-term intensive intervention demonstrated statistical significance and larger effect sizes in overall total stress, teacher and student characteristics.

Ray (2007)	Individual CCPT 16 30 minutes	Children with emotional and behavioral difficulties N=93 Ages 4-11  13% African American 41% Hispanic/Latin 42% Caucasian 4% Biracial	Results demonstrated significant decreases in teacher child relationship stress with large effects sizes in total stress for all three treatment groups (play therapy, teacher consultation and play therapy, and teacher consultation only).
Ray, Schottelkorb & Tsai (2007)	Individual CCPT 16 30 minutes	Children with Attention Deficit Hyperactivity (ADHD) symptoms N=60 Ages 5-11  17% African American 38% Hispanic/Latin 45% Caucasian	Results indicated that both conditions demonstrated statistically significant improvement on ADHD, student characteristics, anxiety, and learning disability. Children in CCPT demonstrated statistically significant improvement over active control children on student characteristics, emotional stability and anxiety/withdrawn.
Flahive & Ray (2007)	Group Sandtray/Play Therapy 10 45 minutes	Children with behavioral difficulties N=56 Ages 9-12  9% African American 62% Hispanic/Latin 28% Caucasian	Children in sandtray/play therapy group demonstrated statistically significant differences as rated by teachers in total, externalizing, and internalizing behaviors when compared to delayed-start control group. Parents rated sandtray/play participants significantly different on externalizing behaviors.
Danger & Landreth (2005)	Group CCPT 25 30 minutes	Children who qualified for speech therapy N=21 Ages 4-6 19% Hispanic/Latin 81% Caucasian	Results revealed that children in CCPT demonstrated increased receptive language skills and expressive language skills with large practical significance over children in the no-treatment control condition.
Garza & Bratton (2005)	Individual CCPT 15 30 minutes	Children demonstrating behavioral problems N=29 Ages 5-11  100% Hispanic/Latin	Compared to comparison group (evidence-based school intervention), children receiving CCPT showed statistically significant decreases in externalizing behavior problems and moderate improvements in internalizing behavior problems as reported by parents.
Packman & Bratton (2003)	Humanistically-based activity group/play therapy 12 60 minutes	Children with learning disabilities and behavioral problems N=24 4th & 5th grade  4% African American 4% Hispanic/Latin 92% Caucasian	Children in therapy demonstrated decreases in externalizing and internalizing problems with large effect sizes over the no-treatment control group.

Fall, Navelski & Welch (2002)	Individual CCPT 6 30 minutes	Children identified for special education N=66 Ages 6-10  98% Caucasian 2% Unidentified	Results demonstrated no difference between the groups in self-efficacy but teacher ratings showed decreased problematic behavior and less social problems for the experimental group as compared to the no-treatment control group.
Jones & Landreth (2002)	Individual CCPT 12 30 minutes	Children with diabetes N=30 Ages 7-11  3% African American 7% Hispanic/Latin 87% Caucasian	Both groups improved anxiety scores; the experimental group showed a statistically significant increase in diabetes adaptation over the no-treatment control group.
Shen (2002)	Group CCPT 10 40 minutes	Children at high-risk for maladjustment following an earthquake N=30 Ages 8-12  100% Taiwanese	CCPT group demonstrated a significant decrease in anxiety, as well as a large treatment effect, and significant decrease in suicide risk as compared to the no-treatment control group.
Tyndall-Lind, Landreth & Giordano (2001)	Individual & group CCPT 12 45 minutes	Children living in domestic violence shelter N=32 Ages 4-10 39% African American 21% Hispanic/Latin 40% Caucasian	Children in sibling group play therapy demonstrated a significant reduction in total behavior, externalizing, and internalizing behavior problems, aggression, anxiety, depression and significant improvement in self-esteem. Results indicated that sibling group play therapy was equally effective to intensive individual play therapy.

R=Range of number of sessions; M=Mean number of sessions; N= Total number of children in study; CCPT = Child centered play therapy; TF-CBT = Trauma-focused cognitive behavioral therapy

\*Details limited due to study published in language other than English. Information taken from abstract.

#### Observational Studies

Observational studies (N=25) provide credible evidence that play therapy is effective when exploring its application with single case experimental designs (6 single case studies using baseline measures for control and data analyses), quasi-experimental studies (3 studies using comparison or control groups, measurement, and data analysis but do not use random assignment), and cohort groups measured over time (10 repeated measures single group studies).

#### Single-Case Experimental Designs:

Rigorous single case experimental designs (SCED) in which researchers utilized baseline control phases, multiple data collection points, intervention protocols, and current data analysis methods provide evidence that play therapy intervention provides substantial and effective treatment to children who are not demonstrating improvement prior to treatment. Schottelkorb and Ray (2009) demonstrated positive effect of play therapy on children demonstrating clinical levels of ADHD symptoms. Swan and Ray (2014) found that CCPT decreased hyperactivity and irritability behaviors for children with intellectual disabilities following treatment intervention. The authors found that these improvements were maintained after three weeks of no treatment. Schottelkorb, Swan, Jahn, Haas, and Hacker (2015) explored behaviors of children who were reported to have clinical levels of somatization problems. Analysis revealed that play therapy was highly effective in



decreasing somatization problems and improving classroom behaviors. For children who were diagnosed with autism, Ware Balch and Ray (2015) found play therapy improved their social-emotional competencies while Garofano-Brown (2010) found young children with developmental delays who participated in short-term play therapy demonstrated improved developmentally appropriate behaviors and increased developmental age. Finally, Swank, Shin, Cabrita, Cheung, & Rivers (2015) modified CCPT for a nature-based intervention and found that three of four participants demonstrated substantial improvement in behavioral problems during intervention phases. In exploration of the effectiveness of Adlerian play therapy, Meany-Walen & Teeling (2016) reported children who participated in play therapy demonstrated improved on-task behaviors at an effective or highly effective level. Balch and Ray (2015) found play therapy improved their social-emotional competencies while Garofano-Brown (2010) found young children with developmental delays who participated in short-term play therapy demonstrated improved developmentally appropriate behaviors and increased developmental age.

#### Quasi-Experimental Designs:

Quasi-experimental designs that employed comparison and control groups, as well as pre and post measures, also provided credible evidence for the use of play therapy. Three of four quasi-experimental designs focused on the exploration of play therapy with children identified as aggressive. Momeni and Kahrizi (2015) found that preschoolers who completed 10 sessions of sand play therapy demonstrated significant decreases in aggressive behaviors. They also found that these lower levels of aggression were maintained for two months post-treatment. Ray, Blanco, Sullivan, and Holliman (2009) found that CCPT showed a moderate decrease in aggressive behaviors over a control group. Schumann (2010) found that participation in either CCPT or evidence-based guidance curriculum resulted in significant decreases in aggressive behavior, externalizing problems, and internalizing problems. Finally, Kollbrunner and Seifert (2013) explored the use of play therapy with parent consultations in the reduction of voice disorders in children. After 3 to 5 play therapy sessions, children in the play therapy group showed less hoarseness, less physical tension, and more willingness to speak while their mothers demonstrated less need to talk, persuade the child out of his or her wishes, and less shouting to the child at home.

#### Single Group Designs:

Using a repeated measures cohort group design, 10 studies contributed evidence to the effectiveness of play therapy. Muro, Ray, Schottelkorb, Smith, and Blanco (2006) demonstrated significant improvement in total problem behaviors and ADHD characteristics following CCPT for children in a school setting. Tsai and Ray (2011) found that individual and group CCPT in a counseling clinic setting resulted in significant improvement on externalizing, internalizing, and total problem behaviors. They also found that children with higher levels of internalizing and externalizing benefited more from CCPT than children with lower problem levels. Bayat (2008) also found that children in CCPT demonstrated a significant reduction in internalizing problems. Ray (2008) demonstrated the wide-reaching effects that CCPT can have on a variety of presenting concerns for 202 children who were referred to a counseling clinic, including externalizing problems, combined externalizing/internalizing problems, and non-clinical problems. Results from Ray (2008) indicated that the benefits from CCPT increase with the number of sessions, reaching statistical significance at 11-18 sessions.

In exploring the use of play therapy with children who have experienced trauma or traumatic events, several studies have demonstrated the impact of play therapy. Mahmoudi-Gharaei, Bina, Yasami, Emami, and Naderi (2006) explored the use group play therapy with children who had experienced the loss of a family member in an earthquake. Their study demonstrated a significant reduction in trauma-related symptoms and behavioral problems following group play therapy. Results from a study with children referred for possible sexual abuse found an increased sense of competency over the course of CCPT (Scott, Burlingame, Starling, Porter, & Lilly, 2003). In working with children who were homeless, Baggerly (2004) demonstrated that children who participated in CCPT had significant improvements in self-concept, competence, negative mood, and negative self-esteem related to depression and anxiety. Additionally, Baggerly and Jenkins (2009) found that children who were homeless and who participated in CCPT were found to have statistically significant improvement on the developmental strand of internalization of controls and diagnostic profile of self-limiting features.

CCPT seems to have a positive influence on parent-child and teacher-child relationships. Muro et al. (2006) demonstrated that CCPT significantly improved teacher child relationship stress. Dougherty and Ray (2007) used CCPT with children whose presenting concerns were behavioral problems. The study found that children demonstrated statistically significant decreases in parent-child relationship stress with strong practical effects.

Researchers in India demonstrated the effectiveness of CCPT with children diagnosed with somatoform disorders (Dutta & Mehta, 2006). Results from their study indicated that CCPT significantly decreased symptom severity and problem behaviors, with increases in global functioning. Blanco, Ray, and Holliman (2012) found that children who had engaged in CCPT demonstrated statistically significant improvement on academic achievement.

## Observational Study Descriptions

<i>Authors</i>	<i>Type, #, &amp; Session Length</i>	<i>Design</i>	<i>Sample Description</i>	<i>Findings</i>
Meany-Walen & Teeling (2016)	Group & individual Adlerian PT R=10-12 30/individual 45/group	SCED	Children who scored clinically on off-task behaviors and reported to have poor social skills N=3 Age 1 <sup>st</sup> -2 <sup>nd</sup> grade	All 3 participants demonstrated improvement in on-task behaviors at an effective or highly effective level.
Schottelkorb, Swan, Jahn, Haas, & Hacker (2015)	Individual CCPT 14 30 minutes	SCED	Children who scored clinically on somatization symptoms N=2 Age 4  2 Caucasian	Both children demonstrated decreased somatization and classroom behavior problems. Analysis of data revealed treatment as highly effective.
Ware Balch & Ray (2015)	Individual CCPT R=12-22 30 minutes	SCED	Children diagnosed with Autism Spectrum Disorder N=5 Ages 6-9  1 African American 1 Hispanic/Latin 3 Caucasian	All participants demonstrated improvement in social competence. Three of 5 participants demonstrated improvement in self-regulation and empathy with largest gains in empathy.
Swank, Shin, Cabrita, Cheung, & Rivers (2015)	Nature-based Individual CCPT 14 30 minutes	SCED	Children with behavioral problems as identified by teacher N=4 Ages 6-8 4 African American	Two of four participants demonstrated improvement in behavioral concerns and maintained behavior during post-intervention phase while one participant demonstrated improvement late in intervention phase.
Momeni, K., & Kahrizi, S. (2015)*	Sand play therapy 10 45 minutes	Quasi-experimental pre/post control group design	Children in preschool demonstrating aggressive behaviors N=54  100% from Iran	Children demonstrated statistically significant decreases in aggressive behaviors. Results indicated that results were maintained for two months post-treatment.
Meany-Walen, Bullis, Kottman, & Dillman Taylor (2015)	Group Adlerian PT 6 45 minutes	SCED	Children with clinical externalizing behavior problems N=3 Ages 6  2 Caucasian	Two participants demonstrated highly effective improvement in on-task behavior during treatment but questionable to no-improvement at follow-up. Data not reported for one participant.

Meany-Walen, Kottman, Bullis, & Dillman Taylor (2015)	Individual Adlerian PT R=15-17 30 minutes	SCED	Children with clinical externalizing or total behavioral problems N=3 Ages 6	Of 3 participants, one demonstrated a decrease in total problems at a very effective level and increase on on-task behaviors at an effective level during treatment and very effective following treatment. Analysis of two participants demonstrated no effectiveness during intervention and high effectiveness at follow-up on total problems and no effectiveness to questionable effectiveness on on-task behaviors during intervention and follow-up.
Swan & Ray (2014)	Individual CCPT 15 30 minutes	SCED	Children with intellectual disabilities N=2 Ages 6-7  1 Hispanic/Latin 1 Caucasian	Results indicated that CCPT decreased hyperactivity and irritability behaviors following treatment intervention. For both participants, improvements in behaviors were maintained.
Kollbrunner & Seifert (2013)	Individual CCPT with parent consultation R=3-5 1 hour	Quasi-experimental pre/post comparison group design	Children diagnosed with nonorganic voice disorders (hoarseness) N=69 M=8.2 yrs  100% from Switzerland	All comparison groups resulted in reduction in hoarseness. Children in play therapy demonstrated reduction in unease regarding voice disorder, reduction in physical tension, and increase in liveliness in child's speech. Mothers of children in play therapy reduced how much they spoke, talking child out of his/her wishes, and shouting over distance at home.
Blanco, Ray, & Holliman (2012)	Individual CCPT 26 30 minutes	Repeated measures single group Follow-up to Blanco & Ray (2011)	Academically at-risk N=18 1 <sup>st</sup> grade  11% African American 39% Hispanic/Latin 44% Caucasian 6% Other	Children demonstrated statistically significant improvement on academic achievement composite over the full duration of the study.

Tsai & Ray (2011)	Individual & group CCPT M=28 40-45 minutes	Repeated measures single group	Children referred to clinic for emotional and behavioral problems N=82 Ages 3-10  4% African American 10% Hispanic/Latin 68% Caucasian 18% Other	Results indicated statistically significant improvement on externalizing, internalizing and total behavioral problems following participation in CCPT. Higher levels of internalizing and externalizing problem behaviors yielded greater gains from CCPT. Termination and family relationship concerns variables were also found to be strong contributors to predicting greater improvement.
Garofano-Brown (2010)	Individual CCPT 8 45 minutes	SCED	Children with developmental delays N=3 Ages 3-5  3 Caucasian	Children increased in measured developmental age, reduced problematic behaviors related to developmental delays, and increased developmentally appropriate behaviors.
Schumann (2010)	Individual CCPT R=12-15 30 minutes	Quasi-experimental pre/post comparison group	Children demonstrating aggressive behaviors N=37 Ages 5-12  24% African American 38% Hispanic/Latin 38% Caucasian	Participation in either CCPT or evidence based guidance curriculum both resulted in significant decreases in aggressive behavior, internalizing problems, and externalizing problems.
Baggerly & Jenkins (2009)	Individual CCPT R=11-25 45 minutes	Repeated measures single group	Children who were homeless N=36 Ages 5-12  No ethnic data reported	Children demonstrated statistically significant improvement on the developmental strand of internalization of controls and diagnostic profile of self-limiting features.
Ray, Blanco, Sullivan, Holliman (2009)	Individual CCPT 14 30 minutes	Quasi-experimental pre/post control group design	Children demonstrating aggressive behaviors N=41 Ages 4-11  12% African American 45% Hispanic/Latin 40% Caucasian 3% Other	Children in CCPT showed a moderate decrease in aggressive behaviors over children in the control group according to teacher and parent report. Post hoc analysis revealed that children assigned to CCPT decreased aggressive behaviors statistically significantly and children assigned to control group demonstrated no statistically significant difference.

Schottelkorb & Ray (2009)	Individual CCPT R=14-24 30 minutes	SCED	Children identified with clinical levels of ADHD symptoms N=4 Ages 5-10  2 Caucasian 2 Hispanic/Latin	Two children demonstrated increased on-task classroom behavior with analysis revealing intervention in the effective to highly effective range. Two children demonstrated questionable improvement with on-task behavior.
Bayat (2008)*	Nondirective play therapy 16	Repeated measures single group	Preschoolers scoring high on behavioral problems measure  No ethnic data reported	Results indicated a significant reduction of internalizing problems.
Ray, D (2008)	Individual CCPT R=1 -19+ 40-50 minutes	Archival repeated measures single group	Children referred for emotional and behavioral problems N=202 Ages 2-13  .5% African American 5% Hispanic/Latin 79% Caucasian	CCPT demonstrated statistically significant effects for externalizing problems, combined externalizing/internalizing problems, and non-clinical problems. Results also indicated that CCPT effects increased with number of sessions specifically reaching statistical significance at 11-18 sessions with large effect sizes.
Dougherty & Ray (2007)	Individual CCPT R=19-23 40-50 minutes	Archival repeated measures within group	Children referred to counseling for behavioral problems N=24 Ages 3-8  4% African American 92% Caucasian 4% Other	Children demonstrated statistically significant decreases in parent-child relationship stress with strong practical effects. Children in the concrete operations group experienced more change as a result of intervention than did children in the preoperational group.
Dutta & Mehta (2006)	Individual CCPT 15	Repeated measures single group	Children diagnosed with somatoform disorder N=15 Ages 5-11  100% Indian	Children demonstrated statistically significant improvement in global functioning, symptom severity, and problem behavior. Qualitative data indicated that participants also showed increases in social competency.
Muro, Ray, Schottelkorb, Smith & Blanco (2006)	Individual CCPT 32 30 minutes	Repeated measures single group	Children with behavioral and emotional difficulties N=23 Ages 4-11  13% African American 52% Hispanic/Latin 22% Caucasian 13% Biracial	Ratings over three points of measure indicated statistically significant improvement on total behavioral problems, teacher child relationship stress, and ADHD characteristics.

Baggerly (2004)	Group CCPT R=9-12 20 minutes	Repeated measures single group	Children living in homeless shelter N=42 Ages 5-11  71% African American 12% Hispanic/Latin 17% Caucasian	Results revealed significant improvement in self-concept, competence, negative mood and negative self-esteem related to depression and anxiety.
Scott, Burlingame, Starling, Porter & Lilly (2003)	Individual CCPT R=7-13	Repeated measures single group	Children referred for possible sexual abuse N=26 Ages 3-9  96% Caucasian 4% Native American	Results indicated increased sense of competency over course of therapy.

R=Range of number of sessions; M=Mean number of sessions; N= Total number of children in study; SCED = Single Case Experimental Design; CCPT=Child centered play therapy; CBPT = Cognitive-behavioral play therapy.

\*Details limited due to study published in language other than English. Information taken from abstract.

#### Case Reports and Qualitative Studies

Qualitative and case studies (N=20) support the use of play therapy with children with varying presenting concerns, including disrupted attachment, highly disruptive behavior, negative home environments, loss and bereavement, past trauma, PTSD, psychosis, autism, emotional disorders, aggression, and developmental delays. These case studies suggest numerous benefits of play therapy, including increased resiliency, mastery, competence, self-concept, self-esteem, and self-regulation. Although case reports and qualitative studies are found at the bottom of the evidence-based research pyramid, they are essential in identifying factors that may come to be the focus of investigations of future RCTs and Observational studies as well as to provide evidence of effectiveness through the thorough exploration of play therapy process and its outcomes.

Madsen Clausen, Ruff, Von Wiederhold, and Heineman (2012) followed the treatment of 20 foster children who received mostly psychoanalytic or psychodynamic play therapy and participated in over three years of treatment. Through interviewing the therapists, researchers found children made significant improvements in peer relationship issues, anxiety, sleep difficulties, dissociation, aggression/violence, depression, and problems in school functioning. Green and Christensen (2006) conducted a grounded theory qualitative study to explore the perceptions of seven children who participated in play therapy in the school setting. Six of the seven participants were female, five participants were Caucasian, and two were African American. Salient themes derived from analysis indicated that children valued the therapeutic relationship, ability to express themselves fully, and the activity of play. Children reported that they made better choices, experienced less anxiety, changed their thoughts, felt more confident, and experienced increased empathy as a result of play therapy.

Multiple case studies in play therapy literature lend evidence and explanation of play therapy impact and process. Cochran, Cochran, Fuss, and Nordling (2010) reported that CCPT was an effective treatment for a seven-year-old boy that was exhibiting highly disruptive behavior at school. The child improved in his self-concept, decreased negative self-talk, and increased self-esteem. Cochran, Cochran, Nordling, McAdam, and Miller (2010) suggested the use of CCPT with Hispanic children exhibiting highly disruptive behavior facilitates improvement in social problems, aggressive behaviors, and attention problems, and increases in self-expression and self-direction. Cochran, Cochran, Cholette, and Nordling (2011) also found support for the use of CCPT for highly disruptive behavior, describing how limit setting within the therapeutic relationship was able to facilitate changes in two boy's self-concepts, self-regulation, and externalizing behaviors. Snow, Hudspeth, Gore, and Seale (2007) describe two cases of the use of play therapy with young boys to treat aggressive, externalizing behaviors. The boys were 3 and 6 years old. After treatment, both children showed significant decreases in problematic behavior reported on the Child Behavior Checklist (CBCL).

Anderson and Gedo (2013) found that a 39-month old African American male with disrupted attachment and an insecure attachment style benefited from individual play therapy. The child improved self-regulation and coping skills while decreasing externalizing problem behaviors.

Robson (2008) suggests that in some situations, CCPT is an appropriate intervention for children who have experienced loss. The author suggests that when families can provide support for children, then play therapy might not be warranted. In the case

report highlighted in Robson (2008), a nine-year-old boy who had experienced the loss of his older brother felt unable to talk to his mother about his loss out of fear that he would upset his mother. The author suggested that the therapeutic relationship offered the child a safe place in which to process his feelings of loss and to make meaning of his experience. Pass (2014) also described how symbolic play within the therapeutic relationship helped a four-year-old process his feelings of loss.

Campbell and Knoetze (2010) described how symbolic play, along with the therapeutic relationship formed between the play therapist and the client, facilitated a six-year-old boy in processing his experiences related to his unpredictable and frightening home environment. The child also increased his awareness of his own resiliency, mastery, and competence.

Dugan, Snow, and Crowe (2010) described the use of non-directive play therapy with two children, one four-year-old Caucasian boy and one nine-year-old boy whose ethnicity was not reported, who exhibited symptoms of PTSD following hurricane Katrina. Both boys showed improvement in feelings of safety and control following non-directive play therapy intervention.

Green, Fazio-Griffith, and Parson (2015) found support for the use of integrative play therapy for the treatment of children with psychosis. The authors suggest that the use of a multimodal approach, incorporating child-centered and cognitive-behavioral play therapy techniques, as well as school-based programs, facilitates decreases in “distressing thoughts, feelings, and behaviors” (Green et al., 2015, p. 13).

Josefi and Ryan (2009) found that a six-year-old boy with severe autism benefited from 16 sessions of non-directive play therapy. Improvements were seen in the child’s ability to engage in pretend play, increased autonomy and independence, as well as increased levels of empathy. Additionally, Parker and O’Brien (2011) found that play therapy, particularly sand play, was an effective treatment in the school setting for a seven-year-old boy on the Autism spectrum. Swan and Schottelkorb (2014) reported a detailed case study involving a Latino boy with an intellectual disability. In exploring the interplay between therapist and child contact during session, the researchers found substantial decreases in hyperactivity and irritability matched to increased relationship contact.

Reddy and Hirisave (2014) used CCPT with a six-year-old Indian girl who was diagnosed with an emotional disorder. The child was able to work through her feelings of abandonment and anxiety and showed improvement in her emotional expression.

Taylor and Bratton (2014) illustrated the use of Adlerian play therapy (AdPT) with a four-year-old boy experiencing bereavement after the loss of his mother. Within a developmental context, the authors showed that AdPT helped the child increase his feelings of belonging.

Bowers (2009) suggests that the relationship developed in nondirective play therapy between a child and a play therapist facilitates “an environment of safety, creativity, and privacy” (p. 176). The author believed that this safe environment allows children to self-actualize and discover who they are in this world.

Baggerly and Parker (2006) conducted child-centered group play therapy with 22 African American males, aged 5-10, in a school setting. They found that this format respects and integrates the African worldview and provides an environment in which the boys could build their self-confidence and integrate their cultural identity. Salter, Beamish, and Davies (2016) provided evidence from a case study of three children diagnosed with autism indicating that CCPT was effective in several areas of social and emotional functioning.

## Limitations

Research literature in play therapy dates back to the 1940s. Because of the large volume of play therapy research that has been conducted in the last 80 years, the current review limited its review to research published since 2000. Time-limited review ensures the rigor and relevancy of play therapy literature according to current standards; however, hundreds of studies on play therapy have been conducted since its inception that are not included in this review. Additionally, this review was limited to research that involved the direct application of play therapy to children. Approaches to play therapy that involve parents, caretakers, or other adults were not reviewed due to the volume of research supporting those interventions.

## Implementation

Thorough review (meta-analyses and systematic review), rigorous controlled research designs (RCT), quantitative and experimental explorations (SCED, quasi-experimental, and cohort), and qualitative studies support the use of play therapy with children ages 3 to 12 years old. Research signifies that play therapy is an effective intervention for children who present with externalizing and internalizing problems, self-concept issues, reactions to traumatic events and complexities, developmental delays, social-emotional challenges, and relationship difficulties. Research studies thematically support the use of play as the primary communication tool for young children. Additionally, play therapy should follow an identified structure of implementation

(e.g., child-centered, cognitive-behavioral, Gestalt, or Adlerian protocols). Of most importance, research supports the implementation of play therapy by well-trained and knowledgeable play therapists that have been educated and supervised in the practice of play therapy.

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