

# A Meta-Analysis of the Effectiveness of Trauma-Focused Cognitive-Behavioral Therapy and Play Therapy for Child Victims of Abuse



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Because of their widespread use, trauma-focused cognitive-behavioral therapy (TF-CBT) and play therapy (PT) were selected as treatments to be included in a meta-analytic study examining their effectiveness in aiding victims of child abuse. Studies analyzing the effectiveness of TF-CBT or PT were found using Academic Search Premier, PsycARTICLES, Psychological and Behavioral Sciences Collection, PsychINFO, Google Scholar, and Digital Dissertation. Ten studies ( $N = 762$ ) were combined into two separate meta-analyses, one for TF-CBT and one for PT. These were coded, and four general outcome categories were identified: externalizing, internalizing, sexual, and parent report. Results showed an overall effect size of  $d = .212$  for TF-CBT and  $d = .095$  for PT. TF-CBT was more effective than PT on all outcome measures, except for externalizing behavior (PT  $d = .255$  and TF-CBT  $d = .187$ ). These results indicate that both TF-CBT and PT can be beneficial for victims of child abuse, though TF-CBT usually has more positive outcomes. Future studies should use a wait-list control group and random assignment.

## INTRODUCTION

Child maltreatment is a serious societal problem. In spite of this fact, researchers and practitioners do not agree on a single definition for child maltreatment, or even what the various forms of child maltreatment consist of (Barnett, Perrin, & Perrin, 2011; Dubowitz, Papas, Black, & Starr, 2002). Typically, the phrase “child maltreatment” is used to group the various forms of child abuse and neglect into one convenient term, with the most common forms of child abuse labels being physical, emotional/psychological, neglect, and sexual abuse. Each year millions of children are victims of this societal problem (Barnett et al., 2011; Trickett, Negriff, Ji, & Peckins, 2011).

While there are no agreements on definitions for each of the types of maltreatment there are common themes that categorize each. Child physical abuse (CPA) typically involves two standards: (a) the harm standard and (b) the endangerment standard. The harm standard recognizes that the child is a victim of CPA if the child has observable injuries for at least 48 hours (Barnett et al., 2011). The endangerment standard requires victims to be deemed at a substantial risk for injury or endangerment (Barnett et al., 2011). Emotional or psychological abuse is damaging the child by verbally or emotionally tearing the child down and objectifying the child. This can take many forms such as spurning, isolating,

exploiting, rejecting, denying affection, and corrupting the child (Barnett et al., 2011).

Sexual abuse is very common in America, with one in four females and one in seven males being victims of sexual abuse prior to turning 18 (Misurell, Springer, & Tryon, 2011). Child sexual abuse (CSA) may involve fondling, masturbating, penetrating, vaginal/anal intercourse, taking nude pictures of the child, or even giving pornographic materials to a minor. While we will use this as the definition for CSA, it should be noted that there is no universal definition among experts (Barnett et al., 2011).

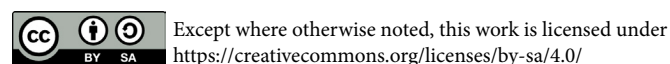
Child neglect is the most commonly reported form of child maltreatment (Barnett et al., 2011; Dubowitz, et al., 2002). Neglect varies from the other forms of maltreatment because rather than committing an act against a child (as in abuse), an important need of the child is not being met. Dubowitz et al. (2002) identified three fundamental needs which must be met for children: (a) perceived support from mothers, (b) lack of exposure to family conflict, and (c) early affection from mothers. Treatment for child maltreatment is vital because of the many long-term negative effects for many of the victims (e.g., suicidal ideation, sexual acting out, attachment issues, aggression, and many others; Easton, Coohy, O’leary, Zhang, & Hua, 2011; Hetzel-Riggin, Brausch, & Montgomery, 2007; Nolan et al., 2002; Saywitz, Mannarino, Berliner, & Cohen, 2000; Scott, Burlingame, Starling, Porter, & Lilly, 2003).

## Types of Therapy

Millions of children each year are victims of these various forms of child maltreatment. As a result, there have been many forms of treatment developed to help victims of child maltreatment overcome or cope with the negative outcomes of that maltreatment. The two most commonly used types of therapies are play therapy (PT) and cognitive behavioral therapy (CBT; Kaduson, 2011; Mi-

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surell et al., 2011; Scott et al., 2003).

**Play therapy.** Play therapy involves mastering traumatic events, a process known as abreaction. Abreaction requires a reliving and mastering of the traumatic event, resulting in catharsis, defined as a release of affect that brings about relief (Nash & Schaefer, 2011).

**Mechanics of play therapy.** PT tends to be a long therapy, lasting around 30 sessions (Scott et al., 2003). The usual age for a client is three to 12 years, but using PT to help adolescents and adults has been gaining traction in recent years (Nash & Schaefer, 2011). Therapists can practice PT in almost any setting. According to Nash and Schaefer (2011), the two most important aspects of a play space are predictability and consistency. This enables the children to focus on playing instead of exploring a new setting.

There are three main stages in PT: (a) rapport building, (b) working through, and (c) termination. Rapport building takes place during the first sessions. These sessions focus on building an appropriate therapist-client relationship by learning about the child, learning about his or her experiences, having the child learn about the playroom, and, depending on the therapist's theoretical orientation, teaching the child about the therapy (Nash & Schaefer, 2011). The next phase, working through, is the longest. This is the phase in which most of the therapeutic change occurs. In this phase, play themes become apparent and gives clues about the child's inner world. How these themes are utilized in therapy will depend on the theoretical orientation of the therapist; for example, a Jungian therapist will relate the themes to archetypes and a Freudian therapist will relate them to cathected libidinal energies. The final stage, termination, is for the child and family to recognize the changes, make the changes endemic to their family culture, and organize a path for continued improvements (Nash & Schaefer, 2011).

**Types of play therapy.** PT can be divided into four broad categories based on the theoretical orientation of the therapist: psychodynamic, humanistic, systemic, and emerging models (Gil, 2011; Green, 2011; Kottman, 2011; Levy, 2011; Munns, 2011; Sweeney & Landreth, 2011). Each of these broad categories has many specific manifestations and practices. The different theoretical orientations may impact how therapy is conducted, what therapeutic tools are used, and how the therapist relates to the client (Gil, 2011; Ginsberg, 2011; Green, 2011; Kottman, 2011; Levy, 2011; Munns, 2011; Norton & Norton, 2011; Oaklander, 2011; O'Connor, 2011; Sweeney, 2011; Sweeney & Landreth, 2011; VanFleet, 2011).

It should be noted that many parents are trained to incorporate PT at home. Parents who have received the training to perform PT sessions in their own home have reported an increase in empathy and acceptance toward their children, as well as a reduction in parental stress levels (Nash & Schaefer, 2011). It has been noted that when parents use PT at home, children's behavior, emotional adjustment and self-concept improves, while anxiety levels decrease (Nolan et al., 2002, Scott et al., 2003).

**Cognitive-behavioral therapy.** Cognitive-behavioral therapy (CBT) is the other most common form of psychotherapy used

today, and is supported by a wealth of empirical evidence (Arnkoff & Glass, 1992; Grasso, Marquez, Joselow, & Webb, 2011; Saywitz et al., 2000). Because of the widespread use of CBT, many sub-forms of therapy have developed. Trauma-focused CBT (TF-CBT), which we examine in this meta-analysis, is one of the preferred methods of therapy for victims of trauma (Grasso et al., 2011).

CBT typically requires 12-16 sessions divided into three phases. In the first phase, the child and parent undergo gradual exposure to traumatic content, and the discussion becomes increasingly focused on the child's personal experience in reaction to the stimulus. In the second phase the child begins to develop a detailed account of the traumatic event, called a "trauma narrative," that functions as a means of therapeutic exposure and helps to facilitate emotional and cognitive processing. The parent meets with the therapist separately until the trauma narrative is complete. If the child is comfortable and the parent ready, the therapist encourages the child to share the narrative with the parent in a conjoined session. In the third phase, treatment focuses on safety skills and future development (Grasso et al., 2011). These sessions are designed to reduce behavioral and emotional problems from child trauma exposure. The sessions should also empower children and parents with a knowledge-base essential for therapy. Another goal of the sessions is to provide a skillset that includes education about trauma, posttraumatic stress, treatment rationale, relaxation techniques, emotion identification, regulation skills, and cognitive coping strategies.

**History of CBT.** CBT is a blending of cognitive and behavior therapy techniques that was fully developed by the 1950's with the work on cognitive theory by Albert Ellis and the cognitive revolution, though its roots originated much further back than the behavior modification work of Pavlov, investigated by Watson and Skinner. Built on techniques for behavior therapy that have been around for most of recorded history (e.g., putting a spider in alcohol to prevent alcoholics from drinking, giving candy to reward positive behaviors, or spanking when a child hits someone; Glass & Arnkoff, 1992), CBT is a blending of behavioral and cognitive therapies that are used to treat a wide variety of psychopathologies.

Trauma-focused CBT (TF-CBT) is one of the most preferred subtypes of CBT for helping victims of trauma; Yet, many feel that the trauma narrative is very helpful for victims of all forms of abuse (Classen et al., 2011; Misurell et al., 2011). TF-CBT adds a trauma narrative to the therapeutic repertoire of CBT. This narrative is to help the victim be able to process the trauma and work through the emotions that arise. Additionally, TF-CBT focuses on the trauma and gears all education to the trauma and to similar traumas (Feather & Ronan, 2006).

## METHODS

To find articles for the meta-analysis, we searched Academic Search Premier, PsycARTICLES, Psychological and Behavioral Sciences Collection, PsychINFO, Google Scholar, and Digital Dissertation for "child," "abuse," "treatment," "outcomes," "play

**Table 1. Articles used in meta-analyses and study.** PT is coded as 0 and TF-CBT is coded as 1. All articles that met inclusion criteria were included in the meta-analysis.

Effect Size ID	Authors	Year	Mean/Median Age During Therapy	Total N	Experiment Group Size	Control Group Size	Proportion White	Proportion Female	Type of Therapy	Duration of Treatment (Sessions)
1	Reyes & Asbrand	2005	11	18	18	18	.72	.39	0	31.24
2	Reyes & Asbrand	2005	11	18	18	18	.72	.39	0	31.24
3	Reyes & Asbrand	2005	11	18	18	18	.72	.39	0	31.24
4	Feather & Ronan	2006	10.75	4	4	4	.5	1	1	16
5	Feather & Ronan	2006	10.75	4	4	4	.5	1	1	16
6	Scott et al.	2003	5.6	26	26	26	.73	.96	0	10
7	Scott et al.	2003	5.6	26	26	26	.73	.96	0	10
8	Deblinger et al.	2011	7.7	210	91	88	.61	.65	1	16
9	Deblinger et al.	2011	7.7	210	91	88	.61	.65	1	16
10	Deblinger et al.	2011	7.7	210	91	88	.61	.65	1	16
11	Deblinger et al.	2011	7.7	210	91	88	.61	.65	1	16
12	Carpentier et al.	2006	8.8	135	64	71	.37	.84	1	12
12.5	Carpentier et al.	2006	8.1	135	71	64	.40	.83	0	12
13	Carpentier et al.	2006	8.8	135	64	71	.37	.84	1	12
13.5	Carpentier et al.	2006	8.1	135	71	64	.40	.83	0	12
14	Carpentier et al.	2006	8.8	135	64	71	.37	.84	1	12
14.5	Carpentier et al.	2006	8.1	135	71	64	.40	.83	0	12
15	Carpentier et al.	2006	8.8	135	64	71	.37	.84	1	12
15.5	Carpentier et al.	2006	8.1	135	71	64	.40	.83	0	12
16	Reams & Friedrich	1994	4.13	41	26	15	.2	.21	0	15
17	Reams & Friedrich	1994	4.13	41	26	15	.2	.21	0	15
18	Reams & Friedrich	1994	4.13	41	26	15	.2	.21	0	15
19	Grasso et al.	2011	11	1	1	65	0	1	1	15
20	Grasso et al.	2011	11	1	1	65	0	1	1	15
21	Cohen et al.	2004	10.76	229	114	115	.79	.60	1	12
22	Cohen et al.	2004	10.76	229	114	115	.79	.60	1	12
23	Cohen et al.	2004	10.76	229	114	115	.79	.60	1	12
24	Cohen et al.	2004	10.76	229	114	115	.79	.60	1	12
25	Cohen et al.	2005	11.4	49	30	19	.68	.37	1	12
26	Cohen et al.	2005	11.4	49	30	19	.68	.37	1	12
27	Cohen et al.	2005	11.4	49	30	19	.68	.37	1	12
28	Cohen et al.	2005	11.4	49	30	19	.68	.37	1	12
29	Cohen & Mannarino	1998	11.33	49	30	19	.7	.6	1	12
30	Cohen & Mannarino	1998	11.33	49	30	19	.7	.6	1	12
31	Cohen & Mannarino	1998	11.33	49	30	19	.7	.6	1	12

therapy,” “trauma focused,” “cognitive behavior therapy,” “CBT,” “PT,” in various aggregates and using various truncators (e.g., AND, OR, \*). Articles that were included in the meta-analysis needed to (a) be published after 1980, (b) have a maximum age of 18 for participants undergoing therapy, (c) contain participants who were victims of physical or sexual abuse, (d) be a quantitative article that either reported effect sizes or instead contain enough data for effect sizes to be calculated, and (e) contain a report with treatment that was either PT or TF-CBT. All articles that met the inclusion criteria were used in the data analysis. We found 31 effect sizes in ten peer-reviewed articles and two doctoral dissertations that met the inclusion criteria; however, we noticed that the doctoral dissertations had samples that were identical to some of the peer-reviewed articles. We found that they were based on the same study, and in an effort to limit duplicate data, we only included the information from the peer-reviewed articles (Reams, 1987; Zion, 1999).

### Coding Procedures

Table 1 displays some of the important variables that were coded. PT was coded as a zero and TF-CBT was coded as a one. Sexual abuse was coded as a zero and physical abuse was coded as a one.

We performed a meta-analysis of effect sizes to combine the various outcome measures used in the articles into five different outcome measures: global, internalizing, externalizing, sexual, and parent report. We decided on these measures because symptoms most often fall under these general categories according to the assessments the researchers gave participants (Carpentier, Silovsky, & Chaffin, 2006; Cohen, Deblinger, Mannarino, & Steer, 2004; Cohen & Mannarino 1998; Cohen, Mannarino, & Knudsen, 2005; Deblinger, Mannarino, Cohen, Runyon, & Steer, 2011; Feather & Ronan 2006; Grasso, Marquez, Joselow, & Webb 2011; Reams & Friedrich, 1994; Reyes & Asbrand, 2005; Scott, Burlingame et al., 2003). A meta-analysis is a procedure in which a set of studies can be combined into one larger study through statistical procedures (Cooper, 2010; Lipsey & Wilson, 2001). This permits the calculation of an overall effect size using all of the studies’ data, resulting in both a more convenient and more objective synopsis of the body of research. In its classical form researchers conducting a meta-analysis calculate an average effect size weighted by the sample size of each study. This gives greater influence to studies with larger sample sizes because a larger sample sizes tends to be more generalizable. A researcher conducting a meta-analysis typically tests the previous studies for heterogeneity in their effect sizes in order to determine if there is a systematic relationship between study characteristics (e.g., age of sample, type of intervention, sample size) and the strength of each study’s effect size.

When there is a choice between pre- and post-test comparison groups and another therapy as the comparison group, the other therapy comparison group is included in the meta-analysis and not the pre- and post-test comparison groups. When several outcome measures that are used to ascertain the same type of outcome are used in the same study the effect sizes are averaged into one effect size for that measure. For example, three effect sizes were cal-

culated from data provided by Reyes and Asbrand (2005). Those effect sizes were then averaged into a single sexual measure. This process was done for all the overlapping measures in each study prior to performing any calculations in the meta-analysis. This was done so that no study would have a disproportionate weight in the final analysis. Separate meta-analyses were conducted for PT and TF-CBT because of the theoretical and practical differences.

### RESULTS

Ten articles were found to meet the inclusion criteria and therefore were included in the meta-analysis. These articles consisted of three articles about PT, six about TF-CBT, and one that contained both. Authors of these studies reported 31 effect sizes: 12 effect sizes were for PT outcomes and 23 effect sizes were for TF-CBT outcomes. There were 11 effect sizes for internalizing outcomes (four PT and seven TF-CBT), 11 for externalizing outcomes (four PT and seven TF-CBT), seven for sexual outcomes (two PT and five TF-CBT), and six for parent reported measures (two PT and four TF-CBT). Table 2 displays the average effect sizes.

We found that TF-CBT had a global average of  $d = .212$  (95% CI = [0.175, .250]), an internalizing average of  $d = .229$  (95% CI = [0.152, .306]), an externalizing average of  $d = .187$  (95% CI = [0.118, .0257]), a sexual average of  $d = .162$  (95% CI = [0.272, .442]), and a parent report average of  $d = .357$  (95% CI = [0.272, .442]). PT had a global average of  $d = .095$  (95% CI = [0.032, .157]), an internalizing average of  $d = .096$  (95% CI = [-0.013, .206]), an externalizing average of  $d = .255$  (95% CI = [0.144, .366]), a sexual average of  $d = .042$  (95% CI = [-0.098, .182]), and a parent report average of  $d = -.15$  (95% CI = [-0.304, .003]). These average effect sizes are reported in Table 3. The table also shows that seven of the ten overall effect sizes were statistically significant ( $p < .05$ ). All three effect sizes that were not statistically significant were for PT outcomes.

### Analysis of Homogeneity

In accordance with standard practice (Cooper, 2010; Lipsey & Wilson, 2001), we performed a test of homogeneity of effect sizes. The effect sizes for the TF-CBT analysis were all homogenous, with  $Q_{global} = 11.173$  ( $df = 22, p = .972$ ),  $Q_{internalizing} = 1.01$  ( $df = 6, p = .985$ ),

$Q_{externalizing} = 2.476$  ( $df = 6, p = .871$ ),  $Q_{sexual} = .362$  ( $df = 4, p = .959$ ), and  $Q_{parent} = 3.746$  ( $df = 3, p = .290$ ). This shows that all of the effect sizes are statistically equal; we therefore deemed it unnecessary to examine if any study characteristics had an impact on the effect sizes. Figures 1 and 2 provide a visual representation of this homogeneity by displaying the effect sizes and CI’s for all outcome measures for both PT and TF-CBT.

The PT results were more heterogeneous, with  $Q_{global} = 38.789$  ( $df = 11, p < .001$ ),  $Q_{internalizing} = 6.664$  ( $df = 3, p = .083$ ),  $Q_{externalizing} = 7.903$  ( $df = 3, p = .048$ ),  $Q_{sexual} = 1.23$  ( $df = 1, p = .267$ ), and  $Q_{parent} = 3.505$  ( $df = 1, p = .061$ ). These results indicate that the effect sizes are not statistically similar, but this is due entirely to the Carpentier et al. (2006) study. Carpentier and colleagues compared PT to TF-CBT and found that TF-CBT was more effective



Effect Size ID	Total N	Control Comparison Type	Effect Size Average (SE)
<b>Internalizing</b>			
1	1	Pretest	.59 (.273)
5	4	Pretest	.278 (.734)
7	26	Pretest	.196 (.205)
8	210	Other therapy	.133 (.163)
14.5	135	Other therapy	-.183 (.174)
15	135	Other therapy	.183 (.174)
17	41	Trauma narrative	.018 (.332)
19	1	Another sample	.375 (.234)
21	229	Other therapy	.289 (.133)
26	49	Other therapy	.153 (.2998)
30	49	Other therapy	.297 (.301)
<b>Externalizing</b>			
2	18	Pretest	.693 (.292)
4	4	Pretest	.567 (.813)
6	26	Pretest	.454 (.215)
9	210	Other therapy	.198 (.163)
13	135	Other therapy	.096 (.174)
13.5	135	Other therapy	-.096 (.174)
16	41	Trauma narrative	.331 (.335)
20	1	Another sample	.08
22	229	Other therapy	.315 (.134)
27	49	Other therapy	.267 (.301)
31	49	Other therapy	.105 (.3)
<b>Sexual</b>			
3	18	Pretest	.258 (.255)
10	210	Other therapy	.122 (.163)
15	135	Other therapy	.069 (.173)
15.5	135	Other therapy	-.069 (.173)
24	229	Other therapy	.22 (.113)
25	49	Other therapy	.2 (.30)
29	49	Other therapy	.242 (.30)
<b>Parent</b>			
11	210	Other therapy	.234 (.163)
12	135	Other therapy	.302 (.175)
12.5	135	Other therapy	-.302 (.175)
18	41	Trauma narrative	.391 (.336)
23	229	Other therapy	.543 (.135)
28	49	Other therapy	.04 (.299)

**Table 3 (Right).** Mean effect sizes of the impact of cognitive-behavioral therapy (CBT) and play therapy (PT). Effect sizes that are statistically significant ( $p < .05$ ) are italicized. All of the statistically significant effect sizes indicate positive results for those measures.

**Table 2 (Left).** Effect sizes included in this meta-analysis. Internalizing measures gain insight into what was going on internally with the clients. External measures give insight into external behaviors. Sexual measures give insight into any sexual dysfunction or sexual activities that are age inappropriate. Parent reports are measures given to parents to understand what they are seeing with their child. Average effect size was found through meta-analytic techniques.

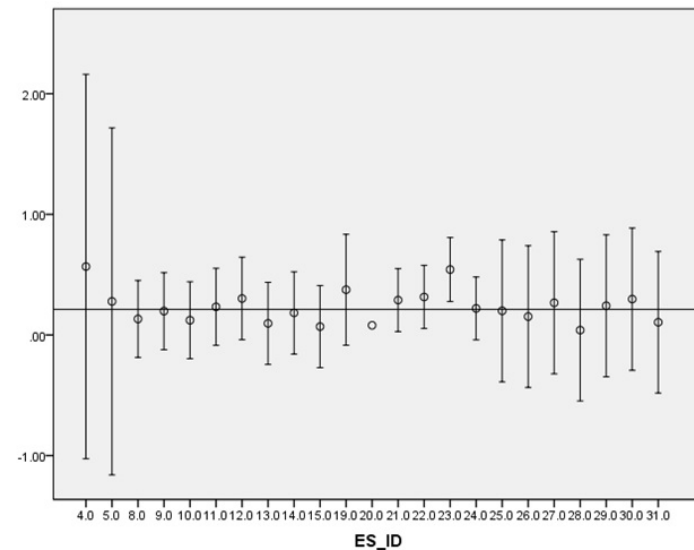
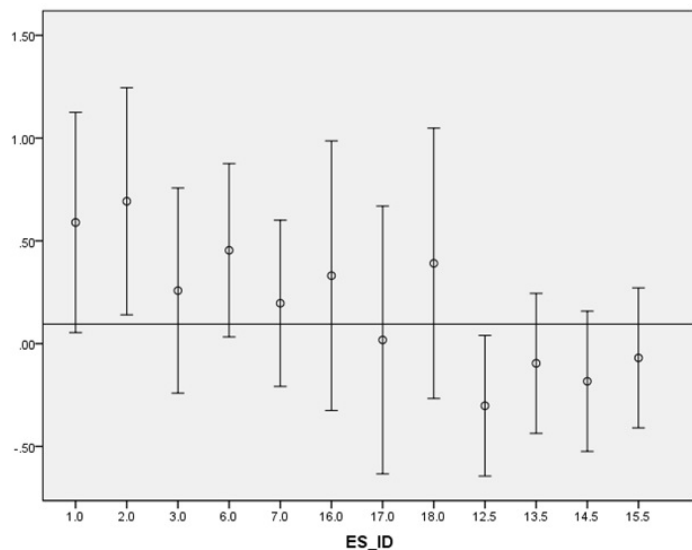
in helping the participants. This caused the effect sizes for PT to be negative, skewing the distribution of effect sizes in the PT results. When the Carpentier et al. (2006) article was eliminated from the results, all of the PT effect sizes were homogeneous. Because all heterogeneity was due to a single article, we did not find it necessary to conduct any of the causes of the heterogeneity. Supplemental figures that display the effect sizes for each of the outcome variables for both TF-CBT and PT are available from the journal's online archive.

**DISCUSSION**

In this study we used meta-analytic techniques to calculate and analyze the effect sizes of the results of studies pertaining to the use of TF-CBT and PT as treatments for child victims of abuse. We found that both participants in both PT and TF-CBT groups had more positive outcomes at the end of the therapy than the control or comparison groups (e.g., other therapy comparisons, pretest/posttest, etc.). Additionally, we found that those who went through TF-CBT treatment had more improvement across all measures—except externalizing outcomes—after therapy than those who went through a PT treatment. This is supported by the 2006 Carpentier et al. article, which showed that TF-CBT was more effective than PT, producing more positive outcomes for participants.

We were not surprised that clients in PT treatments have more improvement with externalizing outcomes than those clients who were in TF-CBT treatments. This is because PT relies on play as the mode for what is discussed in therapy (Nash & Schaefer, 2011). External behaviors may be more accessible to the therapist conducting PT because the PT therapist will be able to see mal-

Outcome	Effect Size
<b>CBT</b>	
<i>Global</i>	.212
<i>Externalizing</i>	.187
<i>Internalizing</i>	.229
<i>Sexual</i>	.162
<i>Parent</i>	.357
<b>PT</b>	
<i>Global</i>	.095
<i>Externalizing</i>	.255
<i>Internalizing</i>	.096
<i>Sexual</i>	.042
<i>Parent</i>	-.150



**Figure 1. Effect sizes and 95% CI's for play therapy, all outcomes.** All of the effect sizes are homogeneous indicating that the effect sizes were statistically comparable. Horizontal line represents mean effect size ( $d = 0.095$ ).

**Figure 2. Effect sizes and 95% CI's for trauma focused cognitive-behavior therapy, all outcomes.** All of the effect sizes are homogeneous indicating that the effect sizes were statistically comparable. Horizontal line represents mean effect size ( $d = 0.212$ ).

adaptive and abnormal behaviors in a play setting. For example, difficulty sharing, violent behaviors, or withdrawal may manifest as a child plays and may be easier for a therapist to target. Another factor that may be involved in this improvement could be that the play therapist sets limits on the child in response to externalizing behaviors. According to Nash and Schaefer (2011), these behaviors include unsafe behaviors, physical aggression, and socially unacceptable behaviors, all of which were classified as externalizing behaviors in this meta-analysis.

### Homogeneity of Effect Sizes

A surprising finding was the homogeneity of the effect sizes, especially because in many research studies pretest/posttest designs tend to show larger effect sizes than studies with control groups (Kosters, Burlingame, Nachtigall, & Strauss, 2006). The null hypothesis of homogeneous effect sizes was retained for the TF-CBT studies, indicating that the differences among effect could be due solely to sampling error. There was heterogeneity among the effect sizes for PT, but this was due to the study (Carpentier et al, 2006). Because heterogeneity was largely not present, it was not necessary to conduct analysis on potential moderator variables. This finding is unusual because often heterogeneity among effect sizes is found among meta-analyses (Cooper, 2010).

The homogeneous effect sizes in this meta-analysis have three possible explanations. First, the sampling error does explain the variation among the effect sizes. Both therapies are effective across different age groups, populations, genders, and ethnicities. The second potential reason for homogeneity may be due to our decision to average effect sizes within studies if they measured the same type of outcome (e.g., externalizing outcomes, sexual outcomes). This may reduce variability of effect sizes and make

the null hypothesis of homogeneity harder to reject. Another methodological artifact in the meta-analysis may arise from how the original studies were designed. Most, if not all, of the studies in this meta-analysis were designed and conducted by researchers who are practitioners or proponents of the therapies under investigation (Cohen & Mannarino, 2008). This may lead the original authors to inadvertently design studies that are simply more likely to show benefits of TF-CBT and PT. This would be a form of an expectancy effect (Neuman, 2012).

### Limitations

As with all meta-analyses, the validity of this study is only as strong as the studies included for analysis; “we may not like all of the ingredients that go into the sausage, but the [meta-analytic] chef can only work with the ingredients provided by the literature” (Thompson & Vacha-Haase, 2000). The total number of articles included for meta-analysis is small. This is due to the focused nature of this study. Many articles are available about PT, TF-CBT, and child abuse victims, but there are few empirical articles available about the effectiveness of these therapies with child survivors of abuse. The small number of studies was further reduced because TF-CBT and PT were analyzed in separate meta-analyses.

### Future Research

Because studies performed with a wait-list control group were completely absent from the literature, we were missing an ingredient in this meta-analytic “sausage.” The original authors of the articles in this meta-analysis always compared the TF-CBT or PT groups to either the same clients’ baseline scores of the outcomes or another group in a different therapy. This precludes the possibility of studying the absolute effectiveness of either therapy. Because sometimes, as the old proverb says, “time heals all wounds,”

it is possible that the outcomes observed in this meta-analysis are not any more positive than what would be observed if the clients were on a wait-list. Conducting a true experiment (an experiment that requires a treatment and random assignment) with a pre- and posttest and a wait-list control group would provide the most rigorous results. However, not providing therapy to those who are suffering may be considered unethical for many therapists because early treatment is associated with greater positive outcomes for the client (Hetzel-Riggin et al., 2007).

Child victims of any form of trauma deserve to have the best treatments available to them, but the research on these therapies is not rigorous enough. TF-CBT and PT are the most widely used therapies in aiding this group of clients (Kaduson, 2011; Misurell et al., 2011; Scott et al., 2003), but we were surprised by the lack of empirically based studies that supported treatments for aiding child victims of abuse. Additionally, few studies reported the average age of abuse, length of abuse, severity of abuse, or even the relationship to the abuser. All of these variables may influence the client's recovery. If researchers reported these variables, we might be able to examine the relationship between abuse length and treatment success, or if the abuse length impacted the effectiveness of a treatment in aiding the victim's recovery. Logically, it is hypothesized that the more severe the abuse, the more severe the damage to the abused, and therefore, would impact treatment path. But if this information is not reported, then a relationship cannot be discovered.

### CONCLUSION

Based on the results of this meta-analysis, when administered correctly, the idea that neither TF-CBT nor PT harms clients is greatly supported. Both forms of therapy produce more favorable results than the comparison groups. Because PT seems to have more effect on externalizing problems, it may be of more use when dealing with children who have more severe externalizing behavioral problems. However, if the child is having additional problems, then TF-CBT may be more effective. This is important information for those who regularly work with abused children.

We recommend several changes to how research on this sensitive population is conducted and reported in the future. First, researchers should collect and report data about child clients' trauma etiology and any past history of abuse, including length and relationship to abuser. Second, when ethically possible, researchers should conduct true experiments with a waitlist control group. Finally, given the relatively small combined sample size in this meta-analysis ( $N = 762$ ), we urge other researchers to consider replication studies (Makel & Plucker, 2014; Warne, 2014). This allows researchers to mitigate any methodological artifacts in previous studies and show the impact of treatment across several groups.

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