

Impact of play therapy on parent–child relationship stress at a mental health training setting

Dee C. Ray*

Counseling and Higher Education, University of North Texas, Denton, TX, USA

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This study investigated the impact of Child-Centred Play Therapy (CCPT)/Non-Directive Play Therapy on parent–child relationship stress using archival data from 202 child clients divided into clinical behavioural groups over 3–74 sessions in a mental health training setting. Results demonstrated significant differences between pre and posttesting on the *Parenting Stress Index*. CCPT appeared to be especially effective with children identified with clinical externalising behavioural problems, combined externalising and internalising behavioural problems, and children who were not categorised with clinical problem behaviours but whose parents sought counselling services for them. There were also significant differences determined by length of therapy. Results are discussed concerning implications for clinical practice and further research.

Keywords: play therapy; child counselling

Play therapy has been used as a treatment of choice for young children since the early 1900s. Generally acknowledged as the originators of play therapy, Anna Freud (1928) and Melanie Klein (1932) used play as a substitute for verbalised free association in their efforts to apply analytic techniques to their work with children. Heavily influenced by Carl Roger's (1942) person-centred theory, Virginia Axline's (1947) use of play and application of non-directive therapeutic principles in her work with children popularised play therapy in the psychotherapy field. Her work and writings in the late 1940s and 1950s, including her accounting of play therapy with *Dibs* (1964), increased the knowledge and availability of play therapy. Child-centred philosophy has been formalised through the extensive writings of Axline (1947, 1949, 1964) historically, and more recently Landreth (1993, 2001, 2002), Guernsey (1983) in North America, as well as West (1996) and Wilson and Ryan (2005) in Britain.

In its development, the play therapy of Axline has evolved into what is known as Non-Directive Play Therapy or Child-Centred Play Therapy in Europe and North America. Based on writings of Landreth (2002) and Wilson and Ryan (2005), the terms are used to explain the same belief systems and basic procedures in play therapy with children. Wilson and Ryan highlighted changes in the British Department of Health within the last decade that support the use of interventions that focus on children and work with families, such as play therapy. In the United States, the president's New Freedom Commission on Mental Health (2003) recommended the promotion of screening, assessing and providing services for the

*Email: dee.ray@unt.edu

mental health of young children. The Commission also proposed the need for empirically-based mental health interventions for children and adults. Bratton, Ray, Rhine and Jones (2005) suggested that play therapy is empirically validated as an effective intervention for children. For the purposes of this study conducted in the United States, the term 'Child-Centred Play Therapy' (CCPT) will be employed as it is regionally known.

Building on her developmental understanding of children, Axline (1947) identified eight basic principles that guide the counsellor in CCPT. These basic principles are consistent with a child-centred philosophy of working with children by emphasising the primacy of the counselling relationship. They include: (a) the counsellor must develop a warm, friendly relationship with the child; (b) the counsellor accepts the child unconditionally, without wishing the child were different in some way; (c) the counsellor establishes a feeling of permissiveness in the relationship so that the child feels free to express self; (d) the counsellor recognises and reflects the feelings of the child to create understanding for the child; (e) the counsellor respects the child's innate ability to solve his or her own problems and offers the opportunity to return responsibility to the child; (f) the counsellor does not attempt to direct the child's actions or conversation, but allows the child to lead the way; (g) the counsellor recognises the gradual nature of the child's process and does not try to rush counselling; (h) the counsellor establishes only those limitations that are necessary to anchor the child's counselling to the world of reality.

Child-Centred Play Therapy defined as a dynamic interpersonal relationship between a child and a counsellor trained in play therapy procedures who provides selected play materials and facilitates the development of a safe relationship for the child to fully express and explore self through the child's natural medium of expression, play (Landreth, 2002). This definition is similar to West's (1996) use of the following Association of Play Therapists (UK) description. 'Play therapy is the dynamic process between child and play therapist in which the child explores, at his or her own pace and with his or her own agenda, those issues past and current, conscious and unconscious, that are affecting the child's life in the present . . .' (p. xi). CCPT respects the child's language of play and offers an environment where children can truly communicate through their own language. The goal of the therapist is to create an environment that releases the child's inner directional, constructive, creative, and self-healing power (Landreth & Sweeney, 1997). The focus on the child's innate tendency to move toward growth and maturity and a deep belief in the child's ability to self-direct are the main tenets that set CCPT apart from other models of play therapy (Landreth & Bratton, 2006). The CCPT counsellor allows the child to play freely with carefully selected toys. The play therapist initiates statements that reflect content and feeling (i.e. 'you're angry at him'), encourage (i.e. 'you worked really hard and you did it'), return responsibility to the child (i.e. 'you can decide what colour you want that to be'), and if needed, set limits (i.e. 'the paint is not for throwing'). The typical CCPT counsellor is trained to not ask questions, direct behaviour, or interpret the child's words or actions. According to CCPT philosophy, these types of actions would serve to inhibit the child's expression and movement toward health.

Research on play therapy

In a meta-analysis of play therapy outcome research, Bratton et al. (2005) found that play therapy was an effective treatment for children's problems. Treatment groups receiving play therapy performed 0.80 standard deviations better than non-treatment groups, representing a substantial treatment effect. Of the 94 studies included in the meta-analysis, 73 were identified as investigations into humanistic/non-directive play therapy, 36 were conducted in school settings, 32 in clinic outpatient settings, nine in clinic inpatient settings, 11 in critical incident settings, and six in other settings. Play therapy interventions were found to be effective in increasing children's self-concepts, improving anxiety symptoms, improving social skills, and decreasing clinical behavioural problems (see descriptions of specific studies in Bratton & Ray, 2000). In further addressing presenting clinical problems in their meta-analysis, Bratton et al. (2005) encountered difficulty in distinguishing specific diagnoses and symptoms due to the variation of the studies. However, 24 studies investigated internalising problems and yielded an average effect size of 0.81. Seventeen studies examined the effects of play therapy on externalising problems with an average effect size of 0.78. Finally, 16 studies addressed a combination of internalising and externalising problems, and an effect size of 0.93 was observed. These results indicated that play therapy had a moderate to large beneficial effect for internalising, externalising and combined problem types.

The terms 'internalising' and 'externalising' are common groupings in child research literature. They were first labelled by Achenbach (1966) as typical classifications of psychiatric problems experienced by children. Internalising is descriptive of problems within the self, such as anxiety, depression, withdrawal, and somatic symptoms. Externalising is descriptive of child behaviour that conflicts with other people, especially representative of behaviours that do not meet adult expectations of child behaviour, specifically rule-breaking and aggressive behaviours (Achenbach & Rescorla, 2001). When the term 'combined problems' is used, children are demonstrating both internalising and externalising behaviours at a clinical level.

As compared to previous meta-analyses, the results of the Bratton et al. meta-analysis demonstrates a strong support for play therapy. In Weisz, Weiss, Alicke and Klotz (1987) and Weisz, Weiss, Han, Granger and Morton (1995), research teams found effect sizes of 0.79 and 0.71, respectively, when analysing data from a conglomerate of child studies. And, again in comparison to other child therapy meta-analyses, Kazdin, Bass, Ayers and Rodgers (1990) with a reported effect size of 0.84 and Casey and Berman (1985) with a reported effect size of 0.71, Bratton et al. reported a comparable effect size lending credence to the efficacy of play therapy.

The majority of play therapy studies demonstrate some positive effect of play therapy on the participants. Over the last decade and a half, since 1990, 36 (27 published) research studies on the impact of play therapy have been conducted. These most recent studies have demonstrated the positive impact of play therapy on general behavioural problems (Raman & Kapur, 1999; Shashi, Kapur, & Subbakrishna, 1999); externalising behavioural problems (Dogra & Veeraraghavan, 1994; Flahive, 2005; Garza & Bratton, 2005; Kot, Landreth, & Giordano, 1998; Schumann, 2004); internalising problems (Packman & Bratton, 2003); self-efficacy/locus of control (Fall, Balvanz, Johnson, & Nelson, 1999; Shmukler & Naveh, 1984–1985); self-concept (Kot et al., 1998; Post, 1999); anxiety (Baggerly, 2004; Shen,

2002); depression (Baggerly, 2004); speech problems (Danger & Landreth, 2005); and diabetes treatment compliance (Jones & Landreth, 2002). These studies represent the use of play therapy in Germany, India, South Africa, China, and the United States.

Parent–child relationship stress

Past research indicated a strong link between poor parenting and child adjustment, in addition to the mediating effect of parenting behaviour on parenting stress and child adjustment (Deater-Deckard, 1998). What the child brings to the table (i.e. temperament, behaviour) is as equally important in the parent–child relationship as what the parent brings. Parent–child interactions show reciprocity, thereby creating a circle of continued effect on attitudes, relationship, and behaviour between parent and child. Higher levels of parent stress correspond with higher levels of children's behaviour problems such as aggression and anxiety (Deater-Deckard, 2005). Abidin, Jenkins and McGaughey (1992) concluded that the early family variables of life stress, child characteristics, and maternal characteristics were predictive of children's total adjustment, conduct disorders, social aggression, attention problems, and anxiety withdrawal as reported by mothers.

Donenberg and Baker (1993) examined the relationship between child behaviour problems and parent–child relationship stress among children classified in externalising, autistic, or control groups. They found that stress of parents of children exhibiting externalising problems correlated significantly higher with stress of parents of children in the autistic group than parents in the control group. They also found no difference in parent–child relationship stress scores among children who were classified as externalising and children who were classified as autistic. The authors noted that typically families of autistic children receive additional support from schools or social services while families of externalising children receive no external support. Donenberg and Baker's research also strengthened the speculation that stress that is focused in the early years on the child's problems progressively generalises to the family system if there is no intervention.

In support of the theory that problematic parent–child interactions continue to worsen over time, Ackerman, Brown and Izard (2003) followed children with externalising problem behaviours from first to third primary grades and discovered that harsh parenting behaviours and parent maladjustment were related to continued clinical externalising problems in children. In researching single mothers, Herber (1998) concluded that parent–child relationship stress correlated highly with externalising and internalising child behaviour problems. Herber suggested that assessing parent stress concurrently with child behaviour is a reasonable part of a treatment plan for the family and child.

Kazdin and Wassell (2000) determined that effective treatment of aggressive and antisocial child behaviours led to a decrease in parent stress. Kazdin and Whitley (2003) later suggested the need for outcome studies targeted at reducing parent–child relationship stress in order to identify therapeutic interventions that reduce childhood aggressive behavioural problems. Early identification of stressful parent–child systems and subsequent intervention efforts may possibly reduce behavioural emotional problems among children (Abidin, 1995).

In spite of this call for outcome research, the intervention of CCPT as related to parent–child relationship stress has not been well investigated. To date, only one

study was found that addressed the impact of CCPT on parent–child relationship stress. Brandt (2001) explored the use of CCPT with 15 children assigned to an experimental play therapy treatment group and 14 children assigned to a waitlist control group. Her results revealed that although there was a positive trend improving parenting stress for the experimental group, there was no statistically significant difference between the two groups. She concluded that the small number of participants impacted on the ability to achieve statistical significance due to low power.

Purpose of the present study

Through meta-analysis, Bratton et al. (2005) demonstrated that play therapy had a beneficial general effect on children with emotional and behavioural difficulties. However, the authors noted historically small sample sizes as a limitation to the play therapy research. In addition, Armstrong and Henson (2004) observed the inhibiting influence of small sample size on statistical significance in the play therapy literature. Using archival data, the purpose of this study was to examine the impact of CCPT on a large sample of child clients, specifically its effect on parent–child relationship stress. A secondary focus of this study was to investigate the effects of CCPT on parent–child relationship stress according to variation of presenting clinical issues, including externalising and internalising behaviours. Three main questions were of concern in this study. They included: (a) was there a difference for children participating in play therapy over time from pretest to posttest measurement on parent–child relationship stress, child dimensions of stress and parent dimensions of stress; (b) was there a difference between externalising, internalising, combined externalising and internalising, and non-clinical groups who received CCPT for parent–child relationship stress, child dimensions of stress, and parent dimensions of stress; and (c) was there a difference between groups that received CCPT for different lengths of therapy for parent–child relationship stress, child dimensions of stress, and parent dimensions of stress?

Because this study was based on archival data collected for purposes of therapeutic judgment, no further controlled subjective qualitative data were available for review. Hence, the focus of this research was on the outcome of play therapy with children experiencing different behavioural problems over different lengths of time in a real-life clinical setting. It sought to explore the effect of CCPT on clients who receive the treatment. It clearly did not demonstrate the effectiveness of play therapy as compared to non-intervention or another type of intervention.

Method

Participants

Data were obtained from existing client files of 202 child clients (2–13 years old) who participated in play therapy between May 1996 and May 2005 at a counselling training facility on a university campus serving community mental health clients in the southwestern United States. This particular community facility served residents from the local and surrounding counties on a sliding scale fee, paying a very low weekly fee. Typical clients could be classified as low socio-economic status with low educational levels among the adults. The facility served well above the number of

participants in this study over the identified time period. However, due to high dropout rates and community mobility, pre and posttest data were only available on 202 participants.

Of the 202 participants, 79 were females and 119 were males, with missing gender data on four. Each participant's parent/guardian reported child ethnicity as follows: African American ($n=1$), Asian ($n=1$), Caucasian ($n=160$), Hispanic/Latin ($n=11$), Native American ($n=4$), bi-racial ($n=17$), other ($n=3$), with missing ethnicity data on five. Ages ranged from two to 13, with a mean of almost six ($M=5.96$; $SD=2.32$) years old and a median of six years. The large majority of the sample (92.5%) were nine years old or younger. Current household living situation was reported as 19 in a blended family, five in a father-only family, 66 in a mother-only family, 65 in a both-parent family, 12 in a relative's family, 10 in an adoptive family, 14 in other, with missing household information on 11.

Instruments

Parenting Stress Index (PSI; Abidin, 1995)

The purpose of the PSI is to identify parent-child systems that are under significant stress and at risk for development of problematic parent and/or child behaviour. The PSI includes an eight-page item booklet and a hand-scorable answer sheet that consists of 120 Likert scale items. Parents or guardians complete the answer sheet based on questions from the item booklet, which usually takes about 20 minutes. Therapists can graph respondents' scores on a profile chart that is printed on the backside of the answer sheet. The PSI can be used with parents of children ranging from one month to 12 years. Clinical scores are determined at or above the 85th percentile. Abidin recognised three major source domains of stressors, which include child characteristics, parent characteristics, and situational life stress. Hence, the PSI reports in three domains including child domain, parent domain, and life stress. The parent and child domain are combined to present an overall total stress score.

The child domain score is representative of six subscales that indicate problematic child behaviours: distractibility/hyperactivity, adaptability, reinforces parent, demandingness, mood, and acceptability. High scores on the child domain denote that intervention may need to focus on the behaviours of the child that affect the parent-child relationship. The parent domain is representative of seven subscale scores that indicate sources of stress in the parent-child relationship related to the parent's functioning: competence, isolation, attachment, health, role restriction, depression, and spouse. High scores on the parent domain denote the need for intervention that may need to focus on the parent.

Abidin reported validity for PSI scores through multiple research studies conducted using the PSI in the areas of developmental issues, behavioural problems, disabilities and illnesses, at-risk studies, cross-cultural studies, parent characteristics, family transitions, marital relations, and correlational studies with other measures. Score reliabilities (coefficient alpha) have ranged from 0.55 to 0.80 for both the parent and child domain. Combined domain-level reliability is reported at 0.89 and 0.93 for parent and child domain scores, respectively. Total stress score reliability was 0.95. Test-retest reliability was reported at 0.63 for child domain, 0.91 for parent domain and 0.96 for total stress scores over one to three months (Abidin, 1995).

Overall, these reliability estimates are substantial (Henson, 2001). The PSI was used in this study to measure the level of parent–child relationship stress at pretest, and following CCPT intervention to determine change in relationship stress.

Child Behavior Checklist (CBCL; Achenbach, 1991, Achenbach & Rescorla, 2000, 2001)

Two age-specific versions of the CBCL exist: CBCL for children of ages one and a half to five (Achenbach & Rescorla, 2000) and CBCL for ages six to 18 (Achenbach & Rescorla, 2001). Achenbach and Rescorla (2000) ensured the comparability of the two versions by summarising that *t*-scores of internalising, externalising and total problems scales between the instruments could be used with no loss of differentiation. The CBCL was developed to measure problematic child behaviours as identified by the parent. The first section of each questionnaire consists of 20 competence items, and the second section consists of 118 items that ask respondents to mark on a 3-point scale of frequency the presence of behavioural symptoms and emotional descriptors. CBCL reports clinical behaviours according to three domains of externalising, internalising, and total behaviour that are comprised of eight syndrome scales including anxious/depressed, withdrawn/depressed, somatic complaints, social problems, thought problems, attention, aggression, and rule-breaking behaviour. Each subscale and factor score can be computed to determine *t*-scores and percentiles.

Because of the time length of this study, both the Achenbach (1991) and the revised Achenbach and Rescorla (2001) were used. Achenbach and Rescorla reported Pearson *r* correlations of 0.98 for internalising problems, 0.99 for externalising problems, and 1.00 for total problems between the initial CBCL and the revised CBCL. The authors concluded that a child's raw scores and *t*-scores would be very similar on the two versions.

The test–retest reliability of the scaled score for revised-CBCL empirically-based problems scales was supported by test–retest *rs* of 0.90. Test–retest reliability was established at 0.91 for internalising behaviour problems scores and 0.92 for externalising behaviour problems. Again, these reliability estimates are substantial. The internal consistency of empirically-based problem scales was supported by alpha coefficients of 0.78 to 0.97. Strong validity evidence for CBCL scores has been established through multiple studies conducted over the last 20 years (Achenbach & Rescorla, 2001).

For the purposes of this study, the CBCL was utilised to distinguish between presenting behavioural concerns for children so that group placement could be made to examine the effect of CCPT on differing symptoms. Children who scored at or above 70 on the externalising problems subscale, the clinical cut-off score according to Achenbach and Rescorla (2001), but scored below 70 on internalising problems subscale were categorised as *externalising group*. Children who scored at or above 70 on the internalising problems subscale but scored below 70 on the externalising subscale were categorised as *internalising group*. Participants who scored at or above 70 on both externalising and internalising subscales were categorised as *combined group*. Children who scored below 70 on both subscales were categorised as *non-clinical group*. The CBCL was administered prior to play therapy and used only to

categorise participants to establish comparison groups. Posttesting on the CBCL was not conducted.

Procedure

Procedure for this study was based on facility practices already in place. Upon intake to the facility, a parent/guardian of the child was administered the PSI, the CBCL, and a child background form. The assigned play therapist provided the parent/guardian with an informed consent regarding treatment procedures and data collection protocol, which notified parents that the clinic would request the completion of instruments at unidentified times during treatment for the purposes of tracking counselling progress. The consent form also informed parents that such instruments might be used for research purposes. The play therapist then facilitated CCPT with the child on a weekly basis until the parent and counsellor mutually decided upon termination based on completion of therapeutic goals or the parent prematurely terminated. Each play therapy session was between 40 and 50 minutes in length. There was no therapeutic intervention directed to the parent. Post testing of the PSI was administered upon the therapist's notification from the parent that therapy would be terminated or upon the end of a university academic semester. Because the data for this study were provided from archival data collected during the course of serving a client population, there was no control for time of posttest administration of the instrument or length of treatment. Measurements were initially administered by play therapists for purposes of understanding the extent of problem behaviours reported by parents and subsequently administered for the purposes of determining progress of treatment. Only data collected by the same therapist were used, signifying that the length of play therapy for each client was conducted by the same therapist.

Of the 202 participants, 77 participated in play therapy facilitated by a doctoral student and 122 participated in play therapy facilitated by a master's student. All play therapists had successfully completed at least two courses in play therapy, and participated in direct individual/triadic supervision with a counselling faculty member certified in play therapy or advanced doctoral student. Play therapists were required to review their videotaped play therapy sessions with their supervisors on a weekly basis. Supervisors ensured that the basic principles of CCPT were being followed and enacted in the play sessions. Play therapists were assigned to the training facility for a minimum of two semesters and a maximum of two years.

Play therapy sessions were conducted in specially equipped playrooms in the training facility setting. Playrooms were equipped with a variety of specific toys to facilitate a broad range of expression, following Landreth's (2002) general guidelines. CCPT is designed to provide specific therapist responses to the child during play therapy. These response sets are clarified in detail in Landreth (2002) and Ray (2004), and both include non-verbal skills and verbal skills. CCPT non-verbal skills include the counsellor leaning forward toward the child and being physically directed toward the child at all times. When responding to a child, the counsellor's tone is congruent by matching the level of affect displayed by child. The skill of matching verbal response with non-verbal response is representative of the counsellor's level of genuineness with the child. CCPT verbal skills involve responses that can be structured into categories that help facilitate growth in the child. They include the

following categories: (a) tracking behaviour; (b) reflecting content; (c) reflecting feeling; (d) facilitating decision-making/returning responsibility; (e) facilitating creativity/spontaneity; (f) esteem building/encouraging; (g) facilitating relationship; and (h) limit-setting (Landreth, 2002; Ray, 2004).

Variables

Two main independent variables were used in this study: client behavioural group and number of sessions. Using behavioural group as an independent variable was intended to determine the impact of a typical subset of presenting child client problems as a predictor of effect of play therapy on parent–child relationship stress. Client behavioural group was determined by the child's clinical score on the internalising and externalising behavioural problems subscale of the CBCL. Categorisation of groups resulted in 37 participants in the externalising group, 24 in the internalising group, 47 in the combined group, and 93 in the non-clinical group.

The second independent variable was determined by the number of play therapy sessions in which the child participated. The range of sessions was between three sessions and 74 sessions. The distribution of number of sessions was slightly positively skewed with a mean of 15 ($SD = 11.72$), and a median of 11. Because of the wide range of session numbers, the researcher collapsed the data into four categories for ease of interpretation to the general practitioner. Despite the recognition that collapsing the continuous variable into categories lowers reliability, the use of categories was chosen because ANOVA analysis more easily handles the time effect of pre to post data and attenuates effect sizes offering a conservative estimate (Henson, 2001). Using the Visual Bander tool in SPSS, the continuous variable of session number equally contributed to the four groups: (a) three to seven sessions ($n = 45$); (b) 8–10 sessions ($n = 45$); (c) 11–18 sessions ($n = 57$); (d) 19–74 sessions ($n = 51$). In the final group (19–74 sessions), variability was high with only eight clients in more than 40 sessions.

The dependent variables included the PSI ratings from the total stress score, child domain and the parent domain with a difference score computed between pretest and posttest administrations for each of the three subsets. A reduction in scores on the PSI indicated positive movement while increase in scores indicated a move toward clinical scores.

Data analyses

Main data analyses intended to answer research questions and address hypotheses using a combined between-within subjects ANOVA (i.e. split-plot analysis). In the first set of analyses, client behavioural group ($k = 4$) served as the between subjects variable and time ($k = 2$) from pretest to posttest served as the within subjects variable. Analyses were run separately with the total stress score, child domain, and parent domain as dependent variables. In the second set of analyses, session number group ($k = 4$) served as a between subjects variable and time from pretest to posttest served as the within subjects variable. Again, the dependent variables were total stress score, child domain, and parent domain. It was decided that if statistical significance were found with a meaningful effect size, simple main effects *post hoc*

analyses would be conducted as needed. In each combined between-within subjects ANOVAs, sphericity was assumed given that when there are two times of measurement, the assumption no longer applies. In order to help address the risk of inflated experiment-wise Type I error, the alpha level employed for all analyses was 0.025, a conservative but not overly restrictive adjustment (Armstrong & Henson, 2005). As a final analysis of the practicality of results, clinical significance was addressed through statistical analysis and descriptive data.

Results

Behavioural group analyses

PSI total stress

Table 1 presents the PSI means, standard deviations, and sample sizes on the pretest and posttest for all four behavioural groups. Results of the ANOVA on total stress revealed a statistically significant main effect for time, $F(1, 195) = 13.20$, $p < 0.001$ (partial $\eta^2 = 0.06$); a statistically significant main effect for group, $F(3, 195) = 17.24$, $p < 0.001$ (partial $\eta^2 = 0.21$); and no statistical significance for interaction effect, $F(3, 195) = 0.24$, $p = 0.87$ (partial $\eta^2 = 0.004$). Figure 1 graphically displays the main effect for group differences and the main effect for time, which indicates general improvement in total stress across all four groups. Because the change was fairly consistent across all four groups the interaction effect was negligible.

Post hoc paired samples *t*-tests were conducted for each behavioural group. These analyses indicated improvement for all four groups (as suggested by Figure 1), with statistically significant gains for the externalising and non-clinical groups, with $t(36) = 2.64$, $p = 0.01$ and $t(90) = 2.33$, $p = 0.02$, respectively. The effect for the externalising group was large ($\eta^2 = 0.16$) according to Cohen's (1988) guidelines (0.01 = small, 0.06 = moderate, 0.14 = large). The effect for the non-clinical group was moderate ($\eta^2 = 0.05$).

Table 1. PSI total stress score means, standard deviations, and sample sizes for behavioural groups.

Variable	M	SD	<i>n</i>
<i>Pretest</i>			
Externalising	256.30	33.49	37
Internalising	240.67	32.15	24
Combined	263.62	36.58	47
Non-clinical	224.49	30.63	91
<i>Posttest</i>			
Externalising	245.65	40.51	37
Internalising	232.50	32.41	24
Combined	257.19	46.58	47
Non-clinical	218.10	32.78	91

Note: PSI = *Parenting Stress Index*.

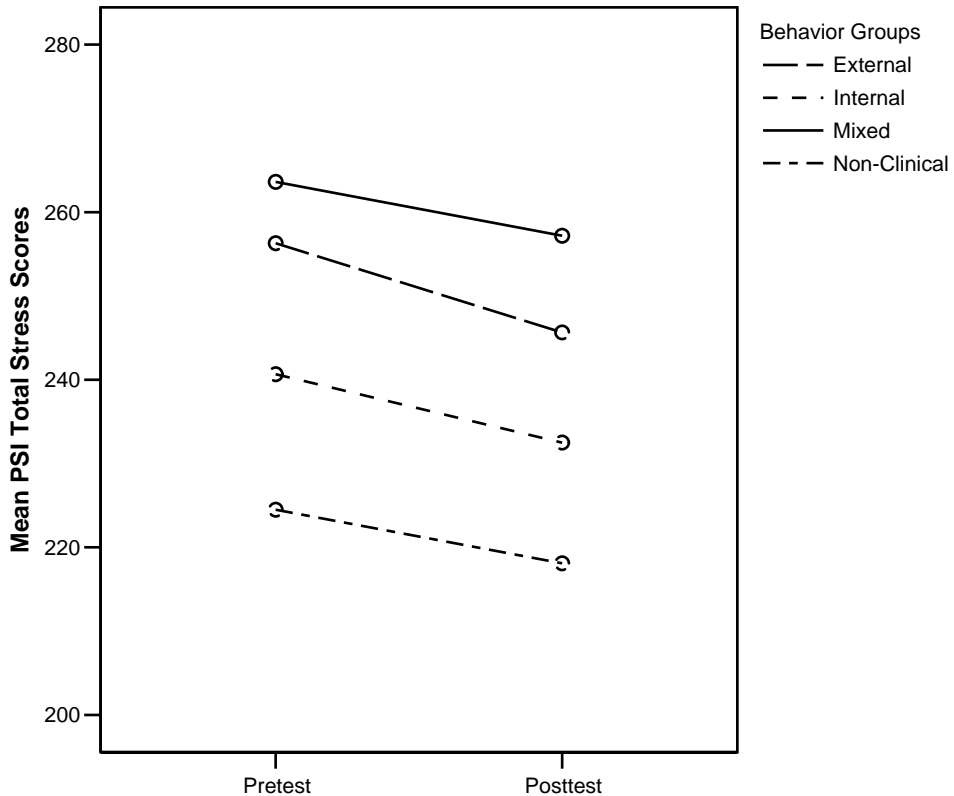


Figure 1. Mean PSI total stress scores for externalising group, internalising group, combined group, and non-clinical group at pre and posttest.

The internalising group did not demonstrate statistical significance from pretest to posttest, $t(23) = 1.52$, $p = 0.14$; however, this group demonstrated a moderate to large effect size ($\eta^2 = 0.09$). Finally, the combined group did not demonstrate statistical significance from pretest to posttest, $t(46) = 1.38$, $p = 0.18$; yet this group also demonstrated a small to moderate effect size of $\eta^2 = 0.04$.

PSI child domain

Results of the ANOVA on the child domain revealed a statistically significant main effect for time, $F(1, 197) = 13.84$, $p < 0.001$ (partial $\eta^2 = 0.07$); a statistically significant main effect for group, $F(3, 197) = 26.32$, $p < 0.001$ (partial $\eta^2 = 0.29$); and no statistical significance for interaction effect, $F(3, 197) = 1.59$, $p = 0.19$ (partial $\eta^2 = 0.02$). *Post hoc* paired samples *t*-tests were conducted for each behavioural group. These analyses indicated improvement for all four groups, with statistically significant gains from pretest to posttest for the externalising and combined groups, with $t(36) = 2.44$, $p = 0.02$ and $t(46) = 2.96$, $p = 0.005$, respectively. The effect for externalising group was large ($\eta^2 = 0.14$) while the effect for the combined group was small ($\eta^2 = 0.03$).

PSI parent domain

Results of the ANOVA on parent domain did not reveal a statistically significant main effect for time, $F(1, 195) = 3.54$, $p = 0.06$ (partial $\eta^2 = 0.02$); or a statistically significant interaction effect, $F(3, 195) = 0.78$, $p = 0.50$ (partial $\eta^2 = 0.01$). ANOVA revealed a significant main effect for group, $F(3, 195) = 4.49$, $p = 0.005$ (partial $\eta^2 = 0.07$). Because significance was only found between groups regardless of time, *post hoc* analyses were not conducted.

*Session number group analyses**PSI total stress*

Table 2 presents the PSI means, standard deviations, and sample sizes on the pretest and posttest for all four session number groups. Results of the ANOVA on total stress revealed a statistically significant main effect for time, $F(1, 194) = 12.75$, $p < 0.001$ (partial $\eta^2 = 0.06$); and a statistically significant interaction effect, $F(3, 194) = 4.53$, $p = 0.004$ (partial $\eta^2 = 0.07$). There was no statistically significant difference between groups, $F(3, 194) = 1.86$, $p = 0.14$ (partial $\eta^2 = 0.03$). Figure 2 graphically displays the main effect for group differences and the main effect for time, which indicates general improvement across three groups (session number groups 8–10, 11–18, and 19 plus), yet decline in one group (session number group 3–7). The difference in groups across time yields the statistically significant interaction effect. As can be seen in Figure 2, the plot represents a disordinal interaction where two of the lines intersect indicating that the difference between session number groups was not the same across time. *Post hoc* analyses were indicated due to the need to interpret the meaning of the interaction signifying what groups changed at what rates (Hinkle, Wiersma, & Jurs, 2003).

Post hoc paired samples *t*-tests were conducted for each session number group. These analyses indicated differences in improvement across session number groups. Session number group 3–7 demonstrated an increase in scores from pretest to posttest with a negative *t*-score of $t(44) = -0.71$, $p = 0.48$. Session number group

Table 2. PSI total stress score means, standard deviations, and sample sizes for session number groups.

Variable	M	SD	<i>n</i>
<i>Pretest</i>			
Sessions 3–7	233.11	39.95	45
Sessions 8–10	247.09	39.38	45
Sessions 11–18	246.74	37.12	57
Sessions 19 plus	237.76	29.58	51
<i>Posttest</i>			
Sessions 3–7	235.84	44.81	45
Sessions 8–10	243.27	37.30	45
Sessions 11–18	237.16	40.67	57
Sessions 19 plus	221.43	39.57	51

Note: PSI = Parenting Stress Index.

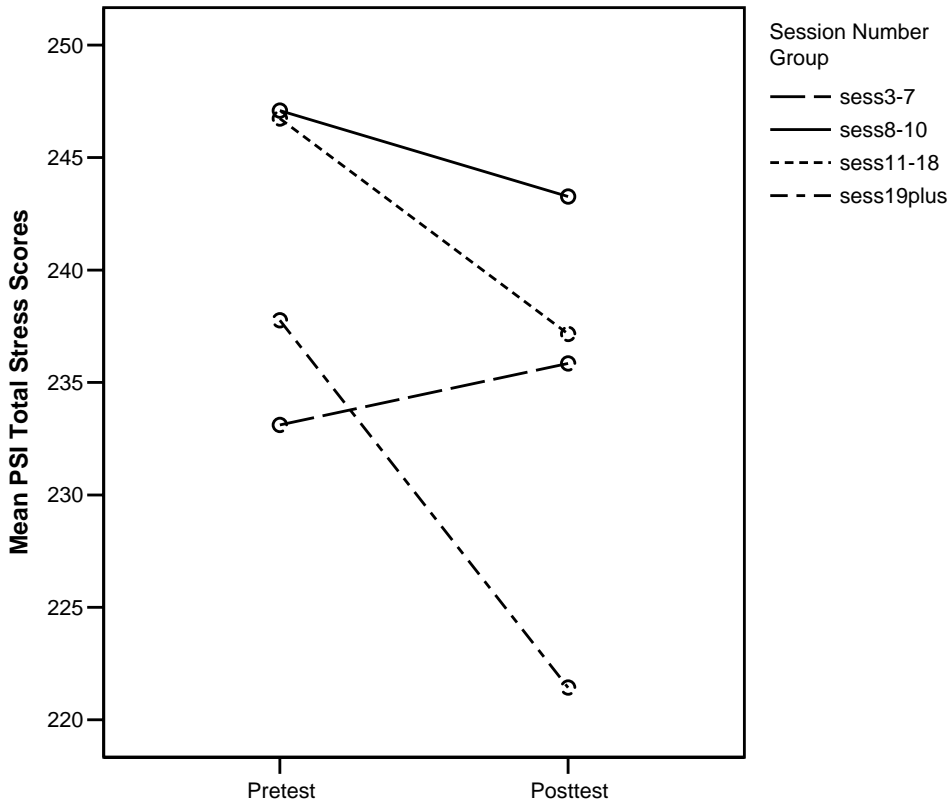


Figure 2. Mean PSI total stress scores for session number group 3–7, session number group 8–10, session number group 11–18, and session number group 19 plus at pre and posttest.

8–10 demonstrated a decrease in scores from pretest to posttest but did not reach significance, $t(44) = 0.101$, $p = 0.32$. Session number group 11–18 demonstrated a statistically significant decrease in scores on total stress from pretest to posttest, $t(56) = 3.13$, $p = 0.003$, with a large effect size ($\eta^2 = 0.15$). Session number group 19 plus also demonstrated a statistically significant decrease in scores on total stress from pretest to posttest, $t(50) = 3.77$, $p < .001$, with a large effect size ($\eta^2 = 0.22$).

PSI child domain

Results of the ANOVA on child domain revealed a statistically significant main effect for time, $F(1, 196) = 12.70$, $p < 0.001$ (partial $\eta^2 = 0.06$); and statistical significance for interaction effect, $F(3, 196) = 3.92$, $p = 0.01$ (partial $\eta^2 = 0.06$). There was not a statistically significant main effect for group, $F(3, 196) = 0.55$, $p = 0.65$ (partial $\eta^2 = 0.01$). *Post hoc* paired samples *t*-tests were conducted for each session number group. Findings on each group mirrored results on the total stress session number group analysis. Session number group 3–7 demonstrated an increase in scores from pretest to posttest with a negative *t*-score of $t(44) = -0.19$, $p = 0.85$. Session number group 8–10 demonstrated a decrease in scores from pretest to posttest but did not

reach statistical significance, $t(46) = 0.77$, $p = 0.45$. Session number group 11–18 demonstrated a statistically significant decrease in scores on the child domain from pretest to posttest, $t(56) = 2.71$, $p = 0.009$, with an approximate large effect size ($\eta^2 = 0.12$). Session number group 19 plus demonstrated a significant decrease in scores on the child domain from pretest to posttest, $t(50) = 3.61$, $p = 0.001$, with a very large effect size ($\eta^2 = 0.25$).

PSI parent domain

Results of the ANOVA on parent domain did not reveal a statistically significant main effect for time, $F(1, 194) = 2.22$, $p = 0.14$ (partial $\eta^2 = 0.01$); or a statistically significant main effect for group, $F(3, 194) = 2.53$, $p = 0.06$ (partial $\eta^2 = 0.04$); or a statistically significant interaction effect, $F(3, 194) = 1.29$, $p = 0.28$ (partial $\eta^2 = 0.02$). Due to lack of significant findings, *post hoc* analyses were not conducted.

Clinical significance

Clinical significance refers to the practical value of an intervention when applied to the everyday life of the client (Kazdin, 2003). Clinical significance is not relevant to the comparison of groups in response to an intervention, i.e. presence of a control group (Kazdin, 1999). Rather, clinical significance demonstrates whether clients who receive counselling intervention move toward healthier functioning. This type of evaluation is especially helpful when conducted for the present study due to a lack of control/comparison group. To help evaluate the clinical significance of the current findings, two strategies were employed. First, the proportion of participants that improved to the point of no longer qualifying as having impairment (i.e. their scores at posttest fell within the normal functioning range) was computed for the total stress, parent domain, and child domain scores. Second, Jacobson and Truax's (1991) reliable change index (RCI) was computed for each participant. RCIs of 1.96 or greater indicate a significant shift in scores from pre to posttest. Jacobson, Roberts, Berns and McGlinchey (1999) reviewed approaches to determining clinical significance and supported the use of the RCI as a valid indicator of participant movement toward more normal functioning.

The RCI is computed as the change from pre to posttest divided by the standard error of the difference scores. This standard error depends on the standard error of measurement, which in turn depends on the reliability of the obtained scores. Because I was focused on change across time, I used the test–retest coefficients as the reliability estimate. In order to get the best estimate of the population reliability, the test–retest coefficients for the current data on each scale were averaged (following an *r*-to-*z* transformation) with those reported in the PSI manual (Abidin, 1995) from two prior studies that had comparable time intervals (i.e. roughly three months to one year).

PSI total stress

The mean test–retest coefficient for the total stress score was 0.78. Of the 62 persons that were in the clinical range at pretest (scores of 258 or higher), 21 had scores in the normal functioning range at posttest (33.9%). Of these, 13 were classified as either

externalising, internalising, or combined. An additional participant showed significant improvement toward normative functioning based on the RCI, but still remained in the clinical range. In summary, roughly one-third of the participants identified in the clinical range for parent–child relationship total stress prior to play therapy improved to the normal range of stress following play therapy.

PSI child domain

The mean test–retest coefficient for the child domain scores was 0.71. Of the 107 clients in the clinical range at pretest (scores of 116 or higher), 35 had scores in the normal functioning range at posttest (32.7%). Of these, 19 were classified as either externalising, internalising, or combined. An additional participant showed significant improvement toward normative functioning based on the RCI, but still remained in the clinical range. Again, approximately one-third of the participants identified in the clinical range for child characteristics contributing to overall parent–child relationship stress prior to play therapy improved to normal range of stress following play therapy.

PSI parent domain

The mean test–retest coefficient for the parent domain scores was 0.71. Of the 30 clients in the clinical range at pretest (scores of 148 or higher), 17 had scores in the normal functioning range at posttest (56.7%). Of these, 10 were classified as either externalising, internalising, or combined. An additional participant showed significant improvement toward normative functioning based on the RCI, but still remained in the clinical range. Over half the of the participants identified in the clinical range for parent characteristics contributing to overall parent–child relationship stress prior to play therapy improved to normal range of stress following play therapy.

Discussion

Statistical analyses revealed effects of CCPT on parent–child relationship stress for different problematic behavioural groups and for varied lengths of therapy. For both total stress score and child domain scale of the PSI, CCPT demonstrated a statistically significant positive effect. Specifically, the current study's results confirmed that CCPT had a statistically significant effect on parent–child relationship stress for children categorised with externalising behavioural problems, combined internalising and externalising behavioural problems, and children whose parents sought counselling services but were not exhibiting clinical problems (non-clinical group). However, these results are interpreted with caution due to a lack of a control/comparison group.

This study also confirmed that individual CCPT appears to affect the child dimension of the parent–child relationship, which subsequently positively affects the total stress of the parent–child relationship. However, CCPT appeared to have little to no statistical or practical effect on the parent characteristics of the parent–child relationship. In addition, results of this study also revealed that upon the completion of three to seven sessions of play therapy, it was likely that the parent–child

relationship worsened due to child behaviour, but not at a statistically significant level. Yet, demonstrative beneficial effects began from eight to 10 sessions, with statistically significant results demonstrated from 11 sessions and beyond. Possible explanations for this result are explored in further detail as part of the forthcoming discussion.

Impact on parent–child relationship stress

Findings from this study offered evidence of CCPT impact on parent–child relationship stress for children categorised with clinical externalising behaviours. Externalising children were significantly positively affected by CCPT on total stress and child domain. The large effect sizes associated with externalising children and change in stress revealed that not only does CCPT demonstrate a significant change, it also demonstrates practical significance. Specifically, all behavioural groups demonstrated notable treatment effects on PSI total stress scores for children who participated in CCPT from the externalising behavioural group ($\eta^2=0.16$), internalising behavioural group ($\eta^2=0.09$), combined behavioural group ($\eta^2=0.04$), and non-clinical group ($\eta^2=0.05$). These results highlight the practical noteworthiness of results (Thompson, 2002). Clinical significance, measured by movement from clinical to normal classification on parent stress, indicated that approximately one-third of this subset progressed significantly.

The cycle of parent stress and childhood behavioural problems is analogous to the chicken and the egg dilemma. Although they are highly correlated, due to the reciprocal nature of parent–child interactions and child behaviour, parent stress and child characteristics cannot be separated as initiators of behavioural problems. This study shows promise in presenting CCPT as a viable option for child intervention. The hope that improvement in child characteristics will be manifested in improvement of the whole parent–child relationship prevails as a research agenda (Abidin, 1992; Kazdin & Wassell, 2000; Kazdin & Whitley, 2003). With chronic parenting stress likely to have deleterious consequences on parents and children (Deater-Deckard, 2005), CCPT might serve as a mediator to decrease such stress and enhance parent–child relationships.

Session number

In the present study, statistically significant improvement was not demonstrated for the first two session number groups, 3–7 and 8–10. However, both the 11–18 session number group and 19 plus session number group demonstrated statistically significant improvement and large treatment effects. The outcome in this study, that means between pre and posttesting of parent–child stress worsened following a CCPT treatment up to seven sessions, is disturbing and requires further explanation. Although the means appear to worsen over the first grouping of sessions, differences were not statistically significant. Yet, the lack of improvement in early sessions seems to support Moustakas' (1955) early theory on the process of play therapy. Through an analysis of case studies, Moustakas concluded that the play therapy process progressed through stages as follows: (a) child's play is generally unfocused and expresses diffuse negative feelings; (b) child demonstrates ambivalent feelings of anxiety or hostility; (c) child expresses direct negative

feelings toward parents, siblings, and others; (d) child expresses both positive and negative ambivalent feelings toward parents, siblings, and others; and finally, (e) child expresses both positive and negative feelings directly, with a predominance of positive feelings.

In applying this theory to the present study's findings, it could be speculated that children in the session number group 3–7 may have experienced the phase of play therapy where negative feelings and behaviours prevail. Hence, parents would most likely rate these children negatively or with little positive change on an instrument that focuses on child behaviours such as the child domain of the PSI. As a child progresses through play therapy, as demonstrated in session number group 11–18 and 19 plus, the child is able to express more positive feelings and more positive behaviours which can then be rated more positively by a parent. Difference in child outcome according to therapy length possibly suggests that a child who demonstrates clinical behaviours needs first to experience a catharsis of negative feelings in a safe environment prior to being able to move to a more constructive behavioural outcome. This study offers support for the theory that CCPT is a process intervention that relies on establishing elements of a therapeutic environment and relationship, in order to help a child progress to affirmative, self-enhancing behaviours.

The present findings also provide support for CCPT as a relatively short-term intervention. Within 11–18 sessions, children demonstrated significant positive effects of play therapy on parent–child relationship stress. Translation to practice suggests that play therapists can offer parents CCPT as a viable, therapeutic option for change in children within three to four months of weekly sessions. This finding is consistent with West (1996), who determined that play therapy effects are optimal from four to 15 months depending on the age of the child. Of course, this statement is tempered by many other variables such as consistency in attendance, individual presenting problems, and individual growth rate. The results of this study also support that benefits of play therapy increase with length of therapy.

Limitations

Several limitations were noted in this study. The first most obvious limitation is the lack of a comparison or control group with which to compare the effects of CCPT treatment intervention. This study cannot conclude that CCPT is an effective intervention as compared to no intervention or another intervention. The possibility exists that children demonstrated positive significant change based on time alone, lack of reliability in the measurement instrument, or regression toward the mean. However, the result that 202 child clients demonstrated a statistically significant change over time for total stress, and that the same participants demonstrated a statistically significant change over time for child domain suggests that the impact of play therapy occurred. This study merely sought to explore the impact of CCPT on parent–child relationship stress across typically defined clinical groups of children and over session number.

Due to this study's use of archival data to study the impact of play therapy, administration of instrument controls typically applied to quantitative research studies were not established. Specifically, the administration of the posttest PSI was not standardised by time across participants. Some participants were administered

the posttest after a short number of sessions while others were administered the instrument after a much lengthier treatment. The mental health clinic that served as the site of this study employed the use of measurements for the purposes of therapeutic decision-making. Therapists administered posttesting to determine termination, need for referrals, or to assure progress at termination. Hence, I was able to look at the impact of play therapy in relationship to session number. However, results would have been stronger if mid and posttesting for each participant had taken place at controlled time periods so that the process of play therapy could have been more fully explored. In addition, follow-up data were not collected indicating that there is no knowledge of whether positive results were sustained following treatment.

Dependent measure match to the intervention was another limitation of this study. CCPT, as conducted in this study, is an individually based model of intervention that provides play therapy to a child on a weekly basis. The PSI, which measures the parent-child relationship through the parent self-report of child and parent characteristics, relies on parent indicators of stress as well as child characteristics. The inclusion of the parent domain as a variable for this study was predicated on previous research regarding the cyclical nature of parent and child relational behaviour and stress (Deater-Deckard, 1998). Previous research suggested that if child behaviour improved, parenting stress would decrease (Abidin, 1995). However, results of this study revealed that CCPT had no statistical or practical effect on the parent domain. Ironically, clinical significance for the parent domain was demonstrated to be quite high with over half of the participants reporting movement from clinical scores to normal scores following play therapy intervention. These results are problematic to explain. One possible scenario is that because CCPT did not offer a parent intervention, parents overall did not experience a change in symptoms. In exploring the parent domain of the PSI, it is logical that an intervention targeted for a child would not affect a parent's level of depression, isolation, physical health, and spousal relations (a few specific subscales of the parent domain). Yet, parents who were suffering the most extreme stress were possibly in need of and more influenced by intervention.

A final limitation was the use of only one self-report measure for pre and posttesting. The PSI offers a lengthy history of validity evidence across research studies over the last 15 years. Yet, the limitation in using only one measure is a restricted ability to generalise to a broad understanding and definition of relationship stress. Also, self-report instrumentation is sometimes criticised for being influenced by state of mind and perception, and perhaps is not indicative of behaviour that can be measured through objective observers or raters. However, Abidin (1992) argued that behavioural observations are inefficient in measuring the impact of parental belief systems on children and that self-report measures appear to be a more practical method. Parental perceptions influence parental behaviour, hence self-report appears to be an effective indicator of how a parent is responding to the behaviour of a child.

Implications for research and practice

Although the results of this study revealed promising effects of CCPT, there is a great need for further research in this field in order to offer this intervention as an

evidence-based practice. The present research project offered results regarding the use of CCPT in a real-world client setting lending support to the effectiveness of the treatment for reducing parent-child relationship stress. However, research limitations, specifically, the lack of control regarding treatment length and instrument administration, the use of only one instrument, and the lack of data speaking to process, provide direction for future research on CCPT.

Mental health clinics offer a rich environment for the initiation of treatment research. The presence of multiple clients with various presenting problems who are possibly involved in long-term counselling provides researchers with the groundwork for efficacy research. Yet, as evidenced by the present study, the importance of matching clinic protocol with research controls is key to the success of more powerful results. The one control that was consistent in this research project was treatment protocol. The training facility involved in this study provided CCPT to all child clients which was monitored by a regular supervisory system. The use of one type of treatment was consistent with the needs of research design. Another clinical procedure that was consistent with standard research design was the administration of a pre-treatment instrument. What became problematic by research standards was the non-uniform administration of post-treatment instruments. Since the conclusion of this study, this particular facility has initiated the practice of instrument administration following every 10 sessions. In addition, the clinic now utilises two instruments related to child behaviour in order to offer further evidence to treatment effect. Such a change in facility protocol will hopefully lead to the ability to explore process (through the use of repeated measures) and more fully support outcome results of CCPT.

Because mental health clinics serve a diversity of presenting problems, limiting research to specific presenting problems is a difficult challenge. However, current research practice requires the identification of specific populations in order to demonstrate efficacious treatments (Chambless & Hollon, 1998). This study was able to distinguish between children with externalising and internalising presenting problems. However, this is still a broad net. The proclivity of a clinic to specifically diagnose children with labelled symptom categories, such as ADHD, depression, or anxiety would lend credence to outcome studies. Further, ethnicity was not addressed in this study due to the high concentration of Caucasian participants. Data were not sufficient to explore the differences of impact upon varying ethnicities. The issue of ethnicity is sparsely explored in play therapy literature and remains a considerable need in the field.

Of course, the addition of a control or comparison group is integral to an experimental research design. This particular factor is problematic in a clinical setting. As often is the case, clinics have extreme difficulty just meeting the needs of the clients on their caseload. Attempting to find clients who are willing to serve as a control group over a length of time is quite complicated while offering another type of therapy that is not in alignment with philosophical underpinnings of the clinic also presents a challenge. Other research designs, such as time series analysis of individual clients over time, or repeated measures where groups of clients could serve as their own control group, might offer a better solution for the mental health clinic setting.

Conclusion

The results of this study indicated that CCPT offered a beneficial therapeutic intervention to children, specifically related to its impact on parent–child relationship stress. Yet, these results are interpreted cautiously due to limitations in research design. Increased stress on parents and children, as well as between parents and children, is highly correlated with childhood behavioural problems. For children who received CCPT in this study, positive effects were demonstrated on child dimensions, such as behaviours and attitudes. Although CCPT did not reveal an overall significant effect on parent dimensions within the parent–child relationship, it is theorised that by improving child behavioural problems, there will be an affirmative impact on the overall relationship. Clinical significance revealed movement toward normal parent domain functioning of the most clinical participants. In addition to focusing on typical clinical behavioural groups, this study also revealed the influence of CCPT over length of therapy, with strong results over 11 sessions.

Several implications for practice and research were discovered through this study. Although this study revealed a positive effect on total parent–child relationship stress with just a child intervention, most of this change was accounted for by child characteristics. In order to optimally impact the parent–child relationship, intervention should target both child and parent. CCPT with a parent consultation or training model would most likely reveal even greater effects. Another noteworthy finding of this study that impacts clinical practice is that significant therapeutic impact on parent–child relationship stress was reported between 11 and 18 sessions. Considerable therapeutic effect can be demonstrated in a relatively short-term duration of therapy. However, optimal effects were indicated at over 19 sessions. This finding encourages the need for further, more detailed, research on the effects of CCPT in relationship to length of therapy. This study used categorical groups to determine impact of session length. However, using session number as a continuous variable would help the field by determining where optimal outcome is demonstrated. A final implication of this research is the need for further studies on the impact of CCPT. The results of this study present CCPT as a possible practical and useful therapeutic intervention for children, specifically in regard to parent–child relationship stress. Further exploration of the impact of CCPT on behaviours, presenting diagnoses, ethnicity, age, and therapist–child match would offer more information regarding the clinical significance of this promising intervention.

Notes on contributor

Dr. Dee C. Ray is Associate Professor and Director of the Child and Family Resource Clinic in the Department of Counseling and Higher Education at the University of North Texas in Denton, TX, USA.

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