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A Pilot Study of a Family-Focused Intervention for Children and Families Affected by Maternal Depression

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Abstract

A non-experimental pilot study examined child, mother, and family outcomes of a 10-session multi-family group intervention designed to reduce risk and promote resilience for mothers with depression and their families. Positive changes following the Keeping Families Strong intervention included mother-reported decreases in child behavior and emotional problems, improvements in the quality of family interactions and routines, and improvements in their own well being and support from others. Children (9–16 years) reported decreased internalizing symptoms, improved coping, increased maternal warmth and acceptance, and decreased stressful family events. Attendance and mother-reported satisfaction were high, indicating the perceived value of the intervention.

Keywords

adult mental health; child and adolescent mental health; depression; multiple family approaches; outcome research

When mothers experience depression, not only is their quality of life diminished, but the whole family is stressed and by early adolescence the children are at increased risk for significant difficulties, such as depression, anxiety, and conduct problems that often persist throughout life (Cummings & Davies, 1994). These difficulties translate into functional impairments across settings (e.g., home, school) and persist into adulthood, even when their mother's depression has been treated or has remitted without intervention (Timko, Cronkite, Berg, & Moos, 2002). Thus, alleviating maternal depression is necessary, but it is not typically sufficient to restore family strengths and protect the children. A compelling case can be made for adopting a family systems approach to meet the needs of these families, reduce stress, and improve the outcomes of children affected by maternal depression (Beardslee & Gladstone, 2001). Keeping Families Strong (KFS) is a systemic intervention

that directly addresses the unmet needs of these families by conceptualizing the family as both the focus and agent of change (Riley, Valdez et al., 2008). This report presents preliminary findings from a small pilot study of the KFS intervention. The intervention and its theoretical and empirical underpinnings are described here to provide context for the findings. A session-by-session review of the intervention and a case study can be found in Riley, Valdez et al. (2008).

According to family stress theory (Malia, 2007), when families experience significant stress, they often go through a process of change, disorganization, and attempts at restoring normalcy. When the stress is internal to the family as in the case of maternal depression, it may be more difficult for family members to remain connected and feel supported through the challenges they face. Supplementing family stress theory is over 20 years of empirical research on maternal depression (Downey & Coyne, 1990; Goodman & Gotlib, 1999; Lewinsohn et al., 1994; Malia, 2007; Radke-Yarrow, 1998; Timko et al., 2002) that has consistently shown that when a mother is depressed, the family may experience diminished communication, lack of parental warmth, inconsistent discipline, decreased pleasant activities, heightened family stress, and maternal withdrawal, among others. These changes may foster misunderstanding about the mother's behavior, and resentment, self-blame, and worry. In spite of this research, many families exposed to these types of stressors thrive and overcome future challenges with regained strengths (Malia, 2007). Family strengths are enhanced, first, when mothers receive the emotional and instrumental support necessary to be effective parents. A supportive partner or caregiver can provide validation, encouragement, and motivation to the parent struggling with depression and can assist the parent in the completion of household chores and family responsibilities. This supportive individual may also provide children with exposure to a positive adult model (Beardslee & Gladstone, 2001). Second, strengths are promoted in children when their parent with depression can engage in positive parenting. Positive parenting is demonstrated through expressions of warmth and caring, positive examples of coping with challenging situations, and effective limit setting and discipline (Egeland, Carlson, & Sroufe, 1993; Focht-Birkerts & Beardslee, 2000). Third, parents who promote activities (e.g., eating together, watching TV together) within the family that increase the occurrence of positive interactions, encourage a more positive emotional climate, interrupt coercive parenting patterns, increase self-esteem in the parents and children, foster family cohesion, and unify the resources of the family (Patterson, 1995). Fourth, communication about the parent's depression can increase children's sense of security and reduce fears and misunderstandings about the family (Beardslee, Versage, & Gladstone, 1998). Similarly, open emotional expression and understanding can promote children's active coping and boost their sense of independence and self-efficacy.

Informed by this literature on mechanisms of stress and strengths, the KFS intervention targets the family's understanding about depression, communication patterns, parenting skills and confidence, positive family experiences and family cohesion, as well as children's coping skills (Riley, Valdez et al. 2008). KFS was also guided by two evidence-based interventions known to improve children outcomes in highly stressed families (Beardslee, Gladstone, Wright, & Cooper, 2003; Sandler, Tein, Mehta, Wolchik, & Ayers, 2000). The first of those was a family-based preventive intervention for children of parents with mood disorders developed by Beardslee and colleagues (1992, 1993). Their intervention encouraged families to share their experiences with depression so that the whole family can make sense of what is a part of their daily lives, and to increase caring and supportive behavior by parents toward the children (Beardslee et al., 1992, 1993, 2003). Outcome studies over five years have shown that parents in this intervention reported improved family communication, increased family closeness and supportiveness, and greater understanding of their child's experience of their depression, while children also reported greater

understanding of parental depression (Beardslee et al., 1997). The second intervention informing KFS was developed by Sandler, Wolchik and colleagues to increase parenting competence and children's coping through structured learning activities (Sandler et al., 2003; Sandler et al., 2000; Wolchik et al., 2002, Wolchik, Westover, Sandler, & Martin, 1996). In randomized controlled trials over six years, these interventions have demonstrated improvements in parenting and child coping that have produced positive long-term outcomes for children (e.g., behavioral, academic performance) in families coping with divorce and parental bereavement, families likely to have similar needs as those affected by maternal depression (Riley, Valdez, et al. 2008).

The Keeping Families Strong (KFS) Intervention

In KFS, adults (including the depressed mother and other key caregivers within the family) and children meet for a total of ten sessions which include parent and child multi-family groups and individual family sessions. A multi-family group format was selected to allow for increased interfamily social support, enhanced positive modeling opportunities and collaborative problem solving, and decreased the shame and stigma associated with depression. In addition, separate parent and child meetings provided a space for all participants to explore and share their experiences with peers and to learn and practice developmentally-appropriate skills. The content of the parent and child sessions was aligned, sequencing topics so that that change could be anticipated and coordinated within the family. At any given time, no more than 4 families participated in a group.

Manual-based cognitive behavioral strategies and post-modern approaches (i.e., solution-focused and narrative therapy) were integrated into group discussions to help KFS parents and children understand, challenge, and shift perceptions about themselves and other family members (Hinden, Biebel, Nicholson, & Mehnert, 2005) and become witnesses to the strengths and capabilities each individual brings to the family. Psychoeducation and cognitive behavioral strategies (e.g., thought monitoring, cognitive triad, cognitive restructuring) helped the mother with depression to: (a) identify maladaptive thoughts and schemas, (b) understand how these thoughts are linked to emotions and behaviors, (c) understand how those thoughts color her view of herself, others, and the future; and (d) challenge maladaptive thoughts through a review of the evidence. Similarly, experiments or home projects were instrumental in creating behavior change, which in turn allowed the mother to challenge previously held maladaptive thoughts about her competence as a parent. These cognitive behavioral strategies were also used with children to help them gain a more accurate perception of their family life.

Complementary to the cognitive behavioral strategies was the use of solution-focused techniques (e.g., complimenting, normalizing, and reframing positive changes) to help family members seek exceptions to their cognitions, acknowledge their strengths as a family, and recognize past solutions to their problems (Hinden et al., 2005). Narratives of individuals' stories of struggle that define their sense of self (Pasupathi, Mansour, & Brubaker, 2007) were elicited throughout to help family members understand the unique experiences of others in the family, to break the silence that is often associated with shame and isolation in depression, and to reconstruct the life story based on new experiences, strengths, and change experienced during the KFS intervention.

In summary, KFS was designed as a strengths-based family-centered intervention following two evidence-based preventive interventions for distressed families and by empirical research on maternal depression. The purpose of this pilot study was to examine the effects of the intervention on child, parent, and family functioning, as well as the intervention's acceptability to families.

Methods

Clinics

To ensure the feasibility and the sustainability of KFS in ‘real-world’ settings, research clinicians collaborated with adult and child clinicians from two outpatient mental health clinics in the greater Baltimore, Maryland area to develop and implement the KFS intervention. KFS was delivered in a clinic located in a low-income, urban area on the grounds of a medical hospital and in a second clinic located in a middle-income, suburban area. Local clinicians from each clinic were involved in planning and developing the intervention, recruiting families, and implementing the intervention. At each clinic, two research clinicians partnered with local adult and child mental health clinicians to deliver the intervention for the first time. Subsequent interventions were delivered by the local clinicians under the supervision of the research clinicians. The goal of this change in leadership was to foster a greater sense of ownership among local clinicians and thereby, facilitate sustainability. Throughout the intervention, the team met weekly for debriefing and treatment planning. The fidelity of the intervention was monitored and found to be acceptable across all implementations at each clinic.

Participants

Mothers currently in treatment for depression, their partners, and children were recruited from the two mental health clinics. Mothers were eligible to participate if they were judged by their clinician to be improved to the extent that they could focus on their families. Mothers with current psychosis, active substance abuse problems, or mental retardation were not eligible to participate. Children were also excluded for these reasons or for having major psychiatric problems. However, their parents and siblings were allowed to participate if they did not meet exclusionary criteria. Periodic updates to the mothers’ clinicians facilitated integration of care and acceptance of the intervention. All children ages 9–16 who lived with eligible mothers could participate in KFS. This age range was targeted due to the increased risk of developing affective illness in mid-adolescence (Costello, Mustillo, Erkanli, Keeler, & Angold, 2003) and the cognitive demands of the cognitive-behavioral interventions. To ensure developmental relevance of the intervention, small-group activities (e.g., role-playing, drawing, acting, group discussion) for different age groups were integrated into each session. For example, in the first session children were paired with others of similar ages to act out (through charades) something they enjoy and do well. This activity was intended for children to get to know each other and to bond over developmentally-shared interests.

Ten families comprised of 10 mothers and 16 children successfully completed the intervention. Other adult caregivers in the home were invited to complete pre- and post-assessment measures about the family and to participate in KFS provided they did not meet any exclusion criteria. Very few of these caregivers participated in KFS ($n = 3$) as 70% of the mothers were single or had a spouse/partner who was unable or unwilling to participate. Thus, data from the few participating spouses/partners are not included in this brief report.

Procedures

All families provided written consent or assent consistent with the institutional review board approval. Comprehensive questionnaire-based assessments were conducted at the clinic and collected one week prior to and one week following the intervention. Families received a small financial incentive for completing the assessments. Families attended 10 weekly multi-family sessions involving separate but concurrent parent and child groups and an individual family session, and two monthly booster sessions. Co-leaders used detailed manuals to guide the sessions. Prior to each session, families and clinicians shared an

evening meal intended to create a pleasant environment and promote the development of social networks among families. Sessions began with a review of the home project assigned the previous week, followed by a presentation and discussion of topics, periodic use of role plays and other participative activities (e.g., making a movie, playing emotion charades), and the assignment of a new home project. A raffle for a \$10 gift card was conducted at the end of each session. During the week, parents and children carried out home projects, which consisted of structured activities designed to help family members practice skills, encourage communication, and facilitate the transfer of learning and confidence from the sessions to the home environment. Home projects varied in content and purpose and included instructing parents and children to spend 15 minutes daily in a positive activity together; and in another project, asking parents and children to communicate about an important family topic.

The two booster sessions began four weeks after session ten and were four weeks apart from each other. Booster sessions began with the original parent and child groups so members could share family progress and updates with the group, review their goals for their family, address new or continued concerns, and review the skills they learned to strengthen their family. Next, each family met individually with a co-leader to discuss recent family experiences such as family meetings, family fun time and one-on-one time, and they reviewed accomplishments and barriers to positive experiences. This family review meeting concluded with a discussion of their strengths, growth, and hopes for the future.

Measures

Measures were selected for their relevance to the targeted outcomes and the mechanisms of stress and resilience for families with a depressed parent, as described above and previously (Riley, Valdez et al., 2008).

Mothers completed the *Brief Symptom Inventory* (BSI; Derogatis & Melisaratos, 1983) to report current depression and other emotional symptoms. The BSI measures nine primary symptom dimensions, including depression, anxiety, interpersonal sensitivity, phobic anxiety, somatization, paranoid ideation, obsessive-compulsive behavior, hostility and psychoticism, along with three global indices. The BSI has high internal consistency, test retest reliability, as well as convergent, discriminant and construct validity. The *Short-Form 36-item Questionnaire* (SF 36; Stewart, Hays, & Ware, 1988) to report physical, social, and role limitations due to mental or physical health problems. The measure offers excellent reliability and validity (see Ware & Sherbourne, 1992).

To assess family functioning, mothers and children completed the 12-item general functioning scale of the *McMaster Family Assessment Device* (Epstein, Baldwin, & Bishop, 1983). Items are rated on a 4-point Likert-type scale and the measure has shown good inter-rater reliability and construct validity, especially when applied to families encountered in clinical settings. The *Family Times and Routines Index* (McCubbin, McCubbin, & Thompson, 1987) was used to assess the type and value of family activities or routines. This 30-item scale consists of eight subscales with an overall internal reliability of .88 (Cronbach's alpha). The *Multidimensional Scale of Perceived Social Support* (Procidano & Heller, 1983) is a subjective, self-report, 12-item measure of support from families, friends, and significant others. Several studies have found high to excellent internal consistency reliability (Dahlem, Zimet, & Walker, 1991), with coefficients ranging from .81 to .92 and test-retest reliability ranging from .72 to .85 (Zimet, Powell, Farley, Werkman, & Berkoff, 1990). The 4-item *Dyadic Adjustment Scale* (Sabourin, Valois & Lussier, 2005) was completed by mothers to measure intimate relationship satisfaction. A standardized alpha of .83 has been reported, along with high retest reliability, with a coefficient of .83 for women over a 12 month period. Finally, mothers and children also reported on the

acceptance, rejection, and consistent discipline subscales of the revised *Child Report of Parenting Behavior Inventory* (Schaefer, 1965). These subscales identify each behavior as “like, somewhat like, or unlike” the mother and have been sensitive to the effects of remission of depression in mothers and have good internal consistency reliability and retest reliability of .79 to .93 (Harper, 1984). Finally, 13 items from the involvement and monitoring subscales of the *Alabama Parenting Questionnaire* (Shelton, Frick, & Wootton, 1996) were administered to mothers and children. Shelton et al. (1996) reported acceptable internal consistency for the full sample on the Parental Involvement scale (Cronbach’s $\alpha = .80$ parent-report, .72-.83 for child-report) and the Monitoring/ Supervision scale (Cronbach’s $\alpha = .67$ parent-report, .69 for child-report), as well as good divergent validity.

Child self-report scales were also utilized, such as the *Child Coping Strategies Checklist* (Ayers, Sandler, West, & Roosa, 1996) to estimate their use of specific types of coping, and the *Coping Efficacy Scale* (Sandler et al., 2000) to assess satisfaction with how they handled recent problems and anticipated satisfaction when dealing with future problems. A two factor model is reported by Sandler and colleagues (2000) with a coefficient alpha of .74 on pretest measures. This scale significantly relates to cross-rater measures of children’s internalizing problems. Mothers and children reported on the adaptive skills and behavior and emotional problems of the child using the *Behavior Assessment System for Children* (BASC; Reynolds & Kamphaus, 1992). Mothers and children were asked to complete either the Parent Rating Scale (PRS) or Self-Report of Personality (SRP) as appropriate. Median test-retest coefficients for the PRS range from .70 to .80 and in the high .60’s for the SRP. Median coefficients of internal consistency average approximately .80 for the SRP and low .70 to .80 for the PRS (Merenda, 1996). Mothers and children also reported stressful life events using the adapted *Coddington Life Events Record* (LER; Coddington, 1972; Loss, Beck, & Wallace, 1995). Mother-child concordance in reporting life events on the LER is significant, particularly for mother-child dyads in which the child was distressed ($r = .30$, $p < .05$).

Analysis

Changes from pre-test to post-test were analyzed using SPSS (Version 15.0) to calculate effect sizes. Given the limited sample size, effect sizes permitted evaluation of the change reported by the participants over time and were calculated by dividing the difference in means between pre- and post-test scores by the standard deviation. To be conservative, an estimate of 0.20 was interpreted as a small effect size, 0.50 as moderate, and .80 as large (Cohen, 1988). Only effect sizes of .2 or greater are reported. Intent-to-treat analyses were also conducted with all participants completing the pre-intervention measures. As the pattern and degree of findings from the intent-to-treat analyses are similar to the final sample, only the results from those with completed pre-and post- intervention data are presented below.

Results

Seventeen families completed the pre-intervention assessment. Ten of those 17 families attended more than 90% of the sessions and completed the post-intervention assessment. Families who attended fewer than five sessions were defined as non-completers. Reasons for non-completion included the worsening of the mother’s depression or the severity of a child’s problems, and other life stressors (e.g., eviction from the home, intractable pain, cancer).

Data from the 10 families that completed the intervention and the post-intervention assessment are presented here. Mothers who participated in KFS ranged in age from 29 to 53 with an average age of 39.1 ($SD = 7.7$ years). Sixty-seven percent were unemployed and

43% had an income of less than \$10,000 per year. Sixty percent of mothers were Caucasian and 40% were African American. Many of the women (50%) were single, never married mothers ($n=5$); 30% were separated or divorced ($n=3$); and 20% were widowed ($n=2$). On average, mothers were raising 2.3 ($SD = 1.1$) children. Between 4–8 children participated in each KFS implementation, with each family having 1 to 3 children. We conducted preliminary analyses to determine if families who did not complete the program differed from those who did; no significant differences between the completers and non-completers were found.

Clinical Outcomes

Family life improved over the course of the intervention. As shown in Table 1, mothers reported large improvements in family togetherness ($ES = 1.03$); small, positive changes in family management ($ES = .20$), participation in meal times ($ES = .32$), and in family chores ($ES = .40$), and moderate increases in couple togetherness ($ES = .51$). Although mothers did not report significant changes in stressors, children reported a moderate decrease in stressful family life events ($ES = .52$).

Mothers reported a range of improvements in their own health and functioning, indicating large decreases in somatic symptoms ($ES = .93$) and anxiety ($ES = .82$), and moderately large reductions in depressive symptoms ($ES = .72$) and interpersonal sensitivity ($ES = .50$). Small positive changes were also noted in several other areas of mothers' symptoms on the BSI (i.e., obsessive compulsive, phobic anxiety, hostility, psychoticism, paranoid ideation). On the SF-36, mothers reported a large reduction in pain ($ES = 1.11$), moderate improvements in their energy levels ($ES = .54$), limitations due to physical health ($ES = .57$), and emotional well-being ($ES = .63$), and small improvements in their social functioning ($ES = .44$) and overall health ($ES = .39$). On the social support scale, mothers reported moderate to small improvements in their relationships with family ($ES = .59$) and friends ($ES = .58$) and significant others ($ES = .46$).

Prior to the intervention, 33% of the children and 62% of the mothers reported that children were in the clinical or at-risk range on the Emotional Symptoms Index (ESI) and Behavioral Symptoms Index (BSI) of the BASC, respectively. Following the intervention, 75% of those children and 38% of their mothers reported scores within the average range on those scales. However, 25% of children that reported scores within the average range on the ESI prior to the intervention fell into the at-risk or clinical range on the scale following the intervention. Parents did not report any corresponding increase in symptoms on the BSI scale. Overall, parents reported small decreases in child internalizing symptoms ($ES = .38$) and child behavior problems ($ES = .34$) on the BASC. Children also reported a small decrease in clinical maladjustment ($ES = .27$), a moderate improvement in their sense of coping efficacy ($ES = .59$), and small improvements in their use of active coping ($ES = .26$) and support seeking strategies ($ES = .43$). Children's evaluations of parents improved, showing a small increase in parental acceptance ($ES = .24$) and a modest decrease in parental rejection ($ES = .35$). Contrary to expectations, children reported a large increase in school maladjustment ($ES = -.82$) on the BASC.

Discussion

Children and mothers who participated in the KFS family-based intervention reported positive changes across multiple domains of functioning. Specifically, mothers reported increased levels of family activities and cohesion, along with improvements in their own emotional, social, and physical functioning across a range of areas. In turn, children perceived their mothers as more accepting and their families as less stressful. Based on clinical observations, children also were likely to have an enhanced awareness and

appreciation of mothers' efforts to have a positive relationship with them. Children reported improvements in their coping capabilities and efforts to deal with stressful conditions. The combination of strengthened coping skills, increased family activities and connections, and improved maternal mental and physical health by the end of the KFS intervention also appeared to translate into improvements in the children's mental health. Further, a sizeable proportion of children with severe problems were no longer in the clinical range for anxiety and depression following the intervention. These improvements following KFS, a pilot intervention for children and families experiencing major depression, are similar to those reported by children in highly stressed families (e.g., divorce, bereavement) who received family-based interventions (e.g., Sandler et al., 2003). In comparison, an increase in school maladjustment was reported by children. While this finding may well relate to lower validity of the school maladjustment index compared to the clinical maladjustment scale (Weis & Smenner, 2007), it may also indicate that as family relationships improved, paradoxically, there was more acting out at school. The process of sharing and exploring painful family experiences during the intervention may have created additional stress for children that was displaced onto the school environment. Alternatively, many of the children who participated in KFS may have experienced significant stressors at school that remained in spite of the intervention's positive influence on family relationships. These findings in the scholastic setting may relate to the continued experience of clinically-elevated emotional difficulties for a few children at the end of the intervention. Whether increased school maladjustment and emotional disturbance continue over time in spite of improved home functioning should be monitored carefully in future studies. It may be that school maladjustment decrease over time as children become increasingly supported at home and the parent becomes more involved in the child's schooling. Alternatively, a call for wrap-around services (i.e., home, school, community) for some at-risk children may be necessary.

While the maternal improvements seen over the course of KFS could result from mothers' own individualized treatment for depression, the array of improvements seen in family and children functioning are striking as familial and children difficulties often persist if not deteriorate even when mothers' depression remits (Riley, Coiro, et al., 2008; Timko et al., 2002). As such, this pilot study suggests that KFS and its approach may be promising for alleviating difficulties in families experiencing maternal depression. However, the lack of a control group and the small sample size limit the interpretation and the generalizability of the findings. As such, randomized clinical trials with larger samples are indicated.

Despite these limitations, the preliminary results support the potential value of this family-focused intervention for families affected by maternal depression. Ongoing efforts are focused on developing enhanced methods for recruiting and engaging families, and refining the intervention to be culturally and linguistically accessible to families from different backgrounds. We also endeavor to use this work to mobilize stakeholder support to improve the quality of services provided in community mental health settings for these families. In sum, this preliminary research effort makes a unique contribution by documenting the acceptability and potential effectiveness of clinic-based interventions for families with a depressed parent.

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Parent- and Child-Reported Outcomes at Pre- and Post-Intervention for Child Functioning, Parent Health, and Family Functioning

Table 1

Measure	N	Scale	Time 1 Mean (SD)	Time 2 Mean (SD)	Mean/ Pooled SD	Effect Size ^b
Parent-Reported Child Outcomes						
BASC	10	Behavioral Symptoms Index	66.38 (21.06)	63.69 (18.27)	2.69/7.85	0.34
	10	Internalizing Problems Composite	59.67 (13.44)	57.00 (10.09)	2.67/7.11	0.38
Parent-Reported Parenting Behavior						
APQ	10	Involvement ^a	18.31 (3.71)	17.85 (4.78)	0.46/2.11	0.22
	10	Monitoring/ Supervision ^a	11.31 (4.27)	11.69 (4.27)	0.38/1.61	0.24
Parent-Reported Family/Couple Environment						
FTRI	10	Couples Togetherness ^a	6.20 (6.34)	7.40 (5.19)	1.20/2.35	0.51
	10	Meals Together ^a	3.70 (1.95)	3.50 (2.01)	0.20/0.63	0.32
	10	Family Togetherness ^a	5.10 (3.54)	7.80 (2.94)	2.70/2.63	1.03
	10	Family Chores ^a	3.10 (3.11)	3.90 (2.69)	0.80/1.99	0.40
	10	Family Management ^a	9.90 (4.93)	10.60 (3.53)	0.70/3.47	0.20
FAD	10	General Functioning ^a	29.90 (7.68)	31.90 (11.78)	2.00/7.85	0.25
DAS	4	Sum ^a	13.00 (6.98)	11.50 (7.33)	1.50/3.00	0.50
Mother's Mental Health, Social Support and Health						
BSI	10	Somatization	62.40 (10.32)	55.70 (10.76)	6.70/7.17	0.93
	10	Obsessive-Compulsive	69.20 (9.58)	63.40 (12.13)	5.80/13.36	0.43
	10	Interpersonal Sensitivity	59.20 (10.09)	53.30 (10.94)	5.90/11.76	0.50
	10	Depression	68.00 (5.75)	58.60 (13.07)	9.40/12.97	0.72
	10	Anxiety	62.80 (7.90)	55.40 (12.24)	7.40/9.05	0.82
	10	Hostility	64.80 (7.74)	58.20 (9.32)	6.60/13.83	0.48
	10	Phobic Anxiety	59.30 (7.79)	55.80 (10.45)	3.50/9.28	0.38
	10	Paranoid Ideation	59.80 (8.47)	57.10 (9.99)	2.70/13.15	0.21
	10	Psychoticism	66.40 (10.44)	61.30 (9.98)	5.10/14.11	0.36
	10	Global Severity Index	67.70 (5.40)	60.20 (12.48)	7.50/14.11	0.53

Measure	N	Scale	Time 1 Mean (SD)	Time 2 Mean (SD)	Mean/ Pooled SD	Effect Size ^b
SF-36	10	Positive Symptom Total	66.10 (4.23)	62.30 (8.17)	3.80/7.64	0.50
	10	Positive Symptom Distress Index	64.60 (7.73)	59.40 (8.42)	5.20/10.91	0.48
	10	Physical Functioning a	65.79 (36.46)	64.00 (34.06)	1.76/7.52	0.23
	10	Role Limitations due to Physical Health	55.00 (38.73)	45.00 (40.48)	10.00/17.48	0.57
	10	Energy/Fatigue	20.50 (13.01)	32.00 (18.44)	11.50/21.23	0.54
MSPSS	10	Emotional Well-Being	46.40 (15.69)	58.00 (17.41)	11.60/18.52	0.63
	10	Social Functioning	41.25 (30.08)	52.50 (31.07)	11.25/25.31	0.44
	10	Pain	48.25 (23.60)	63.75 (24.02)	15.50/13.98	1.11
	10	General Health	51.25 (27.32)	56.50 (26.67)	5.25/13.36	0.39
	10	Significant Others	17.70 (8.67)	20.30 (9.14)	2.60/5.64	0.46
MSPSS	10	Family	13.50 (9.53)	17.30 (9.04)	3.80/6.49	0.59
	10	Friends	14.20 (9.48)	17.20 (9.41)	3.00/5.16	0.58
Child-Reported Child Outcomes						
BASC	12	School Maladjustment	50.58 (7.82)	54.33 (9.96)	3.75/4.60	0.82
	12	Clinical Maladjustment	56.17 (10.44)	54.42 (9.76)	1.75/6.38	0.27
	12	Personal Adjustment ^a	48.75 (7.18)	49.17 (6.99)	0.42/9.23	0.05
	12	Emotional Symptoms Index	54.92 (9.70)	53.33 (10.07)	1.58/7.99	0.20
CES	12	--	19.75 (2.86)	21.59 (3.18)	1.83/3.10	0.59
CCSC	12	Active Coping Strategies ^a	2.31 (0.65)	2.46 (0.66)	0.16/0.61	0.26
	12	Support Seeking Strategies ^a	1.86 (.69)	2.09 (.83)	0.24/1.11	0.43
Child-Reported Parenting Behavior						
APQ	13	Involvement ^a	16.00 (3.03)	14.62 (2.93)	1.38/4.01	0.25
CRPBI	12	Acceptance ^a	23.75 (4.05)	24.75 (3.49)	1.00/4.13	0.24
	10	Rejection	17.10 (4.28)	18.20 (4.21)	1.10/3.18	0.35
Child-Reported Family/Couple Environment						
LER	12	--	11.92 (8.26)	7.50 (5.13)	4.42/8.48	0.52

Note. BASC = Behavior Assessment system for Children; APQ = Alabama Parenting Questionnaire; CRPBI = Children's Report of Parental Behavior Inventory; LER = Life Events Record; FTIRI = Family Times and Routines Index; FAD = Family Assessment Device; DAS = Dyadic Adjustment Scale; BSI = Brief Symptom Inventory; SF-36 = Short-Form 36-Item Questionnaire; MSPSS = Multidimensional Scale of Perceived Social Support; CES = Coping Efficacy Scale; CCSC = Children's Coping Strategies Checklist.

^a Higher score is more desirable/higher functioning.

^b Effect size interpretation: "small, $d = .20$," "medium, $d = .50$," and "large, $d = .80$."