

ALISON L. MILLER *University of Michigan*

JAMIE PERRYMAN *University of Michigan**

LARA MARKOVITZ *Columbia University***

SUSAN FRANZEN *Prevention Research Center of Michigan****

SHIRLEY COCHRAN *Motherly Intercession*****

SHAVONNEA BROWN *University of Michigan******

Strengthening Incarcerated Families: Evaluating a Pilot Program for Children of Incarcerated Parents and Their Caregivers

Parental incarceration can be devastating for families. Children may experience difficulties, and the stress on caregivers who take on unexpected childrearing is high. The authors implemented and evaluated a family-level intervention with caregivers and children experiencing parental (typically maternal) incarceration in a community setting. The authors partnered with a community-based organization serving families with an incarcerated parent to conduct a pilot trial of the Strengthening

Families Program (SFP). Process evaluation indicated high implementation fidelity, satisfaction, engagement, and attendance. Outcome evaluation results indicated positive changes in family-level functioning, caregivers' positive parenting, and caregiver depression symptoms from pre- to postintervention, with some changes retained at follow-up 4 months later. Implications for preventive interventions with children of incarcerated parents and their caregivers, are discussed.

BACKGROUND

Close to two million children in the United States have at least one parent in prison (Glaze & Maruschak, 2008), with more parents in jail (Kemper & Rivara, 1993) or on parole. The number of children younger than age 18 with a mother in prison more than doubled from 1991 to 2007, leading to increased numbers of children residing with alternate caregivers such as grandparents and other kin (Glaze & Maruschak, 2008; Ruiz, 2002). Little focus is placed on those who care for the children

School of Public Health, 109 Observatory Avenue, SPH I, Ann Arbor, MI 48109-2029 (alimill@umich.edu).

*School of Public Health, 109 Observatory Avenue, SPH I, Ann Arbor, MI 48109-2029.

**630 W. 172 Street, Apt. 41, New York, NY 10032.

***400 N. Saginaw Street, Suite 201, Flint, MI 48502.

****3444 Lennon Road, Flint, MI 48507.

*****5287 Bewick Street, Detroit, MI 48213.

Key Words: caregivers and children of incarcerated parents, community-based intervention, Strengthening Families Program.

while their parents are away, however, despite the important roles such caregivers can play (Nesmith & Ruhland, 2011; Poehlmann, Shlafer, Maes, & Hanneman, 2008).

Impact of Parental Incarceration on Children and Caregivers

Children of incarcerated parents (CIPs) often experience stress, parental drug use, and other issues associated with chronic poverty prior to a parent's arrest (Aaron & Dallaire, 2010; Mackintosh, Myers, & Kennon, 2006). Parental incarceration can increase stress, with children often left out of decisions about where to go, possibly having witnessed their parent's arrest, and managing feelings of unresolved loss (Bocknek, Sanderson, & Britner, 2009). Maternal incarceration can be particularly destabilizing for young children when mother is a primary caregiver (Dallaire, 2007; Hairston, Rollin, & Jo, 2004; La Vigne, Davies, & Brazzell, 2008; Poehlmann, Dallaire, Loper, & Shear, 2010). Although not all CIPs experience difficulties (Murray, Farrington, & Sekol, 2012), parent incarceration may exacerbate existing family-level stress because family members typically step in to care for children. Based on family systems theory and family stress models that emphasize how external stressors affect interactions among family members (Conger et al., 2002), we focus on caregivers of CIPs and family-level functioning, as well as child outcomes.

Even if brief (e.g., a short jail stay), caregiving changes can cause notable family-level disruption. Incarcerated parents and caregivers alike note parenting and family interactions as a source of stress (Kazura, 2001; Strozier, Armstrong, Skuza, Cecil, & McHale, 2011; Young & Smith, 2000). Children may feel abandoned and express anger toward the caregiver, and in turn, caregivers may be angry with the incarcerated parent and/or resent or punish a child who rejects help (Mackintosh et al., 2006; Nesmith & Ruhland, 2011; Poehlmann et al., 2008). Caregivers may lack the skills to provide children with nurturing and stimulating environments and be overwhelmed by the responsibility of caring for a child who may be struggling at home and in school (Cecil, McHale, Strozier, & Pietsch, 2008; Nesmith & Ruhland, 2011; Young & Smith, 2000). Grandparents are the most common kin caregivers; their poor health and social isolation can make it challenging to care for

young children (Dressel & Barnhill, 1994; Minkler & Fuller-Thomson, 1999). Caregivers of CIPs are often under-resourced and report needing support (Cecil et al., 2008; Hungerford, 1996) yet may experience stigma when and if they do seek help (Hardy & Snowden, 2010; Nesmith & Ruhland, 2011; Smith, Savage-Stevens, & Fabian, 2002).

Although daunting, caregiving challenges following parental incarceration also provide an opportunity for intervention with these families. Reviews suggest that services for CIPs should address families and kinship care (Hairston, 2009; Hanlon, Carswell, & Rose, 2007; La Vigne et al., 2008), yet caregivers of CIPs are rarely a focus of intervention (Engstrom, 2008; Hoffmann, Byrd, & Kightlinger, 2010). This is a critical oversight given that most CIPs are placed with kin caregivers, healthy relationships with caregivers are vital for positive child outcomes (Poehlmann, 2005; Poehlmann et al., 2010), and caregivers may be stable figures in children's lives who can help them cope if the incarcerated parent undergoes repetitive jail sentences. For these reasons, caregivers and children are the focus of our intervention efforts in this study.

Setting: Motherly Intercession

Interventions for individuals with incarcerated family members may be most effective if delivered in nonthreatening, nonstigmatizing settings that connect caregivers with others in their position (Engstrom, 2008). Motherly Intercession is a community-based nonprofit organization in a high-poverty community (37% of population below poverty line; \$14,910 per capita income; U.S. Census Bureau, 2010) that runs programs for CIPs, their parents, and caregivers, with a focus on children of incarcerated mothers. Motherly Intercession serves about 80 mothers per year (who have an average of 2.2 children; Perryman & Miller, 2011) by providing visitation programs in the county jail, which houses about 580 inmates. Of note, jail stays tend to be shorter (less than 1 year in this facility) than prison stays, and jails are often located in the community where the inmate lives (Christian, 2005); Motherly Intercession focuses on keeping families connected during this time.

The goal of this study was to pilot test a family-based intervention with CIPs and their caregivers at Motherly Intercession. We sought to (a) assess the fidelity of implementation,

participant attendance, engagement, and satisfaction, and (b) evaluate child and caregiver outcomes, including family-level functioning; caregiving strategies; social support, stress, and depression; and child social competence and behavior problems. We hypothesized that after participating in the program, caregivers would report more positive outcomes in the areas of family functioning, caregiver-level functioning, and child outcomes.

Intervention: The Strengthening Families Program

Motherly Intercession and the first author received funding for the agency to implement this intervention for CIPs and their caregivers (Miller, Krusky, Franzen, Cochran, & Zimmerman, 2012). The Strengthening Families Program (SFP) is a family-focused intervention designed to promote child social-emotional growth, family communication, and social support by increasing protective factors (e.g., positive parenting) and reducing risk factors (e.g., family conflict; Kumpfer & Alvarado, 2003). SFP draws from social-learning theory and family systems theory. It was first developed for families of substance-abusing parents of 6- to 11-year-olds and has been used with younger children and various cultural groups, including rural and urban African Americans (Aktan, 1995; Aktan, Kumpfer, & Turner, 1996; Gottfredson, et al., 2006; Kumpfer, Alvarado, Tait, & Turner, 2002). No studies of SFP have focused on CIPs or their caregivers, but we chose SFP because it fit the needs of Motherly Intercession families (Miller et al., 2012). The experiences of these families may resemble those of families affected by parent substance abuse given high family stress levels and substance use rates among incarcerated women (Abram, Teplin, & McClelland 2003). Indeed, many mothers participating in Motherly Intercession have reported substance abuse problems and drug-related arrests (Perryman & Miller, 2011). Thus, we adapted SFP only slightly as needed (e.g., focusing on caregivers vs. parents exclusively). Previous SFP evaluations show reductions in risk factors including family conflict, parent stress, depression, hostile parenting, substance use, child behavior problems, and psychiatric symptoms, and increases in protective factors such as family organization, use of positive rewards, and child social skills (Aktan et al.,

1996; Gottfredson et al., 2006; Hernandez & Lucero, 1996).

METHOD

Recruitment and Participants

All protocols were reviewed and approved by the university institutional review board. Participants were recruited from the county jail; a recruiter sat in the waiting room each week with materials and described the study to caregivers bringing children to visit their parents. Each interested family was introduced to the study and research design. Informed consent by children's legal guardians (typically mother or caregiver) was obtained, and children age eight or older provided assent.

Inclusion criteria were that caregivers were primarily responsible for the care of at least one child with an incarcerated parent (mother or father); because Motherly Intercession typically works with families of incarcerated mothers, 62% of children had incarcerated mothers and 38% incarcerated fathers. Currently incarcerated parents were invited to participate upon release (four parents attended). Initially, 36 caregivers and 46 children enrolled, but 5 caregivers and 17 children dropped by program start. Of 31 adult participants, 14 were grandmothers, 14 mothers, 1 grandfather, 1 father, and 1 aunt. Of this group, 64% of participants were African American and 36% were White. Ages ranged from age 22 to 70 years ($M = 45.8$). On average, caregivers had cared for the child for 74.8 months (6.23 years), with a range from 1 week to 13 years (i.e., child's entire life). One focal child was randomly selected per family for data collection, but siblings also attended SFP sessions. Of 29 child participants (18 girls, 11 boys); 62% were African American and 38% were White. Child age ranged from 4 to 14 years ($M = 8.5$).

Intervention Implementation

SFP was delivered in one consecutive 16-week period per cohort (three cohorts of 12, 8, and 8 caregivers), with two coleaders per group. Group leaders were social work interns trained by SFP developers. Sessions were held in the evening at Motherly Intercession. We provided transportation, culturally appropriate meals, and care for children too young to

participate. After a communal meal, caregivers and children attended separate groups (1 hour duration) and then combined for an hour of joint family skills training, which was a review of material children and caregivers had covered in individual sessions plus a related hands-on activity (e.g., making family shields as an exercise in communication and family cohesion). Parent/caregiver sessions covered clear communication, developmental expectations, effective discipline, stress management, problem solving, limit setting, and alcohol/drug awareness education. Child sessions covered understanding and describing feelings, controlling anger, managing conflict, setting goals, problem solving, complying with rules, communicating effectively, and practicing social skills. Children also learned about addiction and consequences of substance abuse.

To enhance participation, leaders called families each week to remind them to attend and check in. Door prizes were given (e.g., tickets to local cultural events); families attending 100% of sessions received a \$25 gift certificate. Attendance was actively encouraged to maximize caregiver participation even if incarcerated parents were released during the study period.

Data Collection

We used a quasi-experimental, pretest posttest design, with a follow-up 4 months after program completion (6 months after pretest). We collected process data to assess feasibility of using SFP with these families in this setting, and outcome data to assess effectiveness. We administered pre- and posttest questionnaires to caregivers as a group orally, to reduce literacy concerns. Pretests were collected at the first session, posttests and satisfaction questionnaires at the final session (before a graduation ceremony). Follow-up assessments were conducted by phone. Families received \$25 gift certificates after completing each assessment (\$75 total).

Process Evaluation Measures

Attendance, Engagement, and Satisfaction. Attendance was recorded at each session. On a 33-item engagement and satisfaction survey with open- and closed-ended responses (see Table 1), participants reported how effective

they believed the class was (e.g., “it helped me become a better parent”), their enthusiasm (e.g., would they recommend SFP to a friend), what they liked most/least, and rated 16 items about group leaders (e.g., “manages group discussions well,” “knows about parenting”), which were averaged to create a group leader satisfaction score ($\alpha = .97$).

Fidelity. Independent raters (graduate students, research staff) observed sessions for the first two cohorts (Cohort 3 was not possible to observe due to scheduling constraints, nor were family sessions) and recorded how much the group leaders completed of the planned lesson, and quality of their implementation (1 = *below average*, 3 = *above average*; 88% inter-rater agreement).

Outcome Evaluation Measures

All outcome measures had been previously used in evaluations of SFP or other work and were found to demonstrate adequate reliability and validity (e.g., Gottfredson et al., 2006). We also report below reliability statistics for the current sample. Except where noted, caregivers were asked to respond about behaviors or activities occurring within the past month.

Family-level Outcomes. *Family strength* was measured on a 12-item SFP Strength/Resilience Scale (Kumpfer & Alvarado, 1998; pretest $\alpha = .88$, posttest $\alpha = .86$, follow-up $\alpha = .79$). Caregivers rated their family’s level of strength/resilience across a range of constructs (e.g., Family Supportiveness, Family Organization) on a 5-point scale (1 = *none*, 5 = *considerable*). *Family conflict* was measured with four items from the SFP Parenting Scale (Kumpfer, DeMarsh, & Child, 1989; subscale pretest $\alpha = .73$, posttest $\alpha = .80$, follow-up $\alpha = .92$). Caregivers rated conflict items (e.g., “people in my family often insult or yell at each other”) on a scale from 1 (*never*) to 5 (*almost always*). *Family organization/cohesion* was measured with five items from the SFP Parenting Scale (Kumpfer et al., 1989; subscale pretest $\alpha = .63$, posttest $\alpha = .73$, follow-up $\alpha = .58$). Caregivers rated items reflecting family-level organization (e.g., “we go over schedules, chores, and rules to get better organized”; 1 = *never*, 5 = *almost always*).

Table 1. *Strengthening Families Program (SFP) Satisfaction Ratings (respondent n ranges from 17–21)*

	Minimum	Maximum	<i>M</i>	<i>SD</i>	Possible Range	Response Scale
Perceived effectiveness						
Has class helped you be better parent	2	3	2.71	0.46	1–3	1 = no, 2 = maybe, 3 = yes
How much positive change have you seen in child	2	5	3.71	0.85	1–5	1 = none – 5 = amazing improvement
Participant engagement						
How many sessions did you or your family attend	5	14	11.53	2.34	0–14	0–14 sessions
How many sessions did you do home practice	0	14	8.18	4.63	0–14	0–14 sessions
How often have you held family meetings	1	5	3.00	1.14	1–5	1 = never – 5 = 2+ times/week
Participant enthusiasm and connectedness						
Would you recommend SFP to others	2	3	2.95	0.22	1–3	1 = no, 2 = maybe, 3 = yes
Would you want to come back for reunions	2	3	2.90	0.30	1–3	1 = no, 2 = maybe, 3 = yes
How often would you like to come back	1	4	2.38	0.92	1–4	1 = once/week – 4 = once/year
How much would you want to return for reunion to see leaders and other parents	2	3	2.81	0.40	1–3	1 = not at all – 3 = very much
Satisfaction with group leaders						
How much do group leaders care about you or your family	2	5	4.67	0.73	1–5	1 = not at all – 5 = care a lot
Summary staff satisfaction rating (alpha = .97)	4	5	4.73	0.35	1–5	1 = poor – 5 = excellent

Caregiver Outcomes. Positive caregiving was measured with 30 items from the SFP Parenting Scale (Kumpfer et al., 1989; subscale pretest $\alpha = .84$, posttest $\alpha = .81$, follow-up $\alpha = .81$). Caregivers rated their parenting skills, efficacy, and communication style (e.g., “I am loving and affectionate with this child”); 1 = never, 5 = almost always). Depression symptoms were assessed using the well-known 20-item Center for Epidemiologic Studies Depression Scale (CES-D), used to screen for depression in the general population (Radloff, 1977; pretest $\alpha = .91$, posttest $\alpha = .82$, follow-up $\alpha = .91$). Caregivers rated how often this week they had symptoms (e.g., “I felt sad”) on a 4-point scale (0 = never, 3 = all days). A CES-D score of 16 is considered to indicate clinically significant depression symptoms. Caregiving stress was measured using six items from the Parenting Stress Index (PSI; Abidin, 1990; pretest

$\alpha = .72$, posttest $\alpha = .72$, follow-up $\alpha = .77$). Caregivers rated items (e.g., “I feel trapped by my caregiving responsibilities”; 1 = strongly agree, 4 = strongly disagree). Social Support was measured using the 18-item Family Support Scale (FSS; Dunst, Trivette, & Deal, 1988). Caregivers indicated whether different sources of support (e.g., family, friends, specialized supports) had been available in the past 6 months, and rated how helpful each source of support was during this time (0 = not at all, 4 = extremely helpful). We created two subscales: *Specialized/Professional*, including professional agencies/individuals (five items; pretest $\alpha = .82$, posttest $\alpha = .82$, follow-up $\alpha = .88$); and *Community/Friends/Family*, including church, family, friends (six items; pretest $\alpha = .89$, posttest $\alpha = .91$, follow-up $\alpha = .88$). We considered number of supports

and the degree of helpfulness of each type of support in analyses.

Child Outcomes. Caregivers reported on all child outcomes. The 53-item Parent Observation of Child Adaptation (POCA; Kellam et al., 1991) had caregivers rate items on 5-point scales (1 = *never occurs*, 5 = *almost always occurs*). Subscales were *Covert Aggression* (seven items, e.g., “breaks rules”; pretest $\alpha = .83$, posttest $\alpha = .84$, follow-up $\alpha = .91$); *Overt Aggression/Criminal Behavior* (12 items, e.g., “hurts others physically”; pretest $\alpha = .85$, posttest $\alpha = .89$, follow-up $\alpha = .90$); *Social Competence* (14 items, e.g., “interacts well with other kids”; pretest $\alpha = .78$, posttest $\alpha = .76$, follow-up $\alpha = .81$); *Internalizing* (five items, e.g., “has trouble sleeping/nightmares”; pretest $\alpha = .80$, posttest $\alpha = .79$, follow-up $\alpha = .69$); and *Concentration* (11 items, e.g., “pays attention”; pretest $\alpha = .93$, posttest $\alpha = .93$, follow-up $\alpha = .95$). Subscales of the 50-item Behavior and Emotional Rating Scale (BERS; Epstein, 2000) were used to assess children’s *Family Involvement* (10 items, e.g., “participates in family activities”; pretest $\alpha = .73$, posttest $\alpha = .82$, follow-up $\alpha = .89$) and *Interpersonal Strength* (15 items, e.g., “reacts to disappointments in a calm manner”; pretest $\alpha = .85$, posttest $\alpha = .90$, follow-up $\alpha = .87$), with items rated from 0 (*not at all like child*) to 3 (*very much like child*).

Statistical Analysis

To assess fidelity, attendance, and satisfaction, we computed descriptive statistics and examined free response sections of the satisfaction questionnaires. We used repeated measures ANOVAs with time as the within-subjects repeated factor to test for change (i.e., significant time effect) in family, caregiving, and child outcomes (pre- and postintervention, and if it was retained at follow-up). We verified that sphericity assumptions were not violated and report Greenhouse-Geisser significance test results, which are robust to such assumptions. For each significant time effect, we ran paired *t* tests to examine differences between time points. Due to our small sample size and thus potential non-normally distributed data we also ran nonparametric repeated measures ANOVAs (Friedman test) and post hoc analyses (Wilcoxon tests). Visual inspection indicated normal

distribution of responses, and nonparametric and parametric tests yielded similar results, so we report parametric results for ease of interpretation. We examined whether changes in outcome were related to dosage (attendance), satisfaction, length of time as caregiver, child sex, or child age by examining correlations with change scores and interactions with the time factor in ANOVAs. Process data are presented first, followed by outcome evaluation data.

RESULTS

Fidelity

In child groups, 85% of planned topics were covered (17 of 20 topics were rated by independent observers as “adequate” or better). In caregiver groups, 70% of planned topics were addressed during sessions (14 of 20 planned topics rated as “adequate” or better). Group leaders were rated 2.7 out of 3 on average, suggesting high quality of implementation.

Attendance

Participants attended on average 11.5 of 14 possible sessions (not counting pre- and postassessment sessions); 95% of participants attended nine or more. Reasons for missing were illness (hospitalization), weather (snowstorm), and unavailability. Our attrition rate was low, with 87% of families enrolled at baseline completing posttests, and 81% of enrolled families completing follow-ups. There were no differences between families who dropped versus completed, with one exception: families with fewer total social supports in the past 6 months were less likely to complete SFP; $t(29) = 2.92$, $p < .01$; $M = 5.25$ for noncompleters vs. $M = 9.25$ for completers.

Engagement and Satisfaction

Satisfaction results are presented in Table 1. On average, participants reported high satisfaction with SFP and group leaders and were highly engaged. Participants varied on completing home practices, but most (89%) said they held family meetings at least once a month. Most participants said they would recommend SFP to others (95%), and that they would come back for reunions (91%): 19% of families reported they would come back once per week, 33% once per

month, 38% once per 6 months, and 10% once per year.

Participants selected from six different options regarding what they liked about SFP. Most (57%) participants endorsed "learning to be a better parent" as what they liked most. Food, lesson content, other participants, and group leaders were equally next highly rated (endorsed by 19% of participants; percentages total more than 100% due to multiple responses). Notably, although everyone received incentives for completing questionnaires, only one person (of 21 respondents) endorsed this as what he or she most liked about the class.

Participants gave free response feedback regarding what they liked best, learned, did not like, or would change about the class (18 of 21 respondents gave such feedback). Participants noted they most enjoyed talking with other caregivers and discussions with group leaders. In their own words, caregivers described the most valuable learning in the areas of discipline (e.g., "be consistent," "ideas for rewards and positive reinforcement," "ignore unwanted behaviors"), communication (e.g., "I learned new ways to talk to my children," "to be patient; ask more and listen," "listen instead of yelling"), and stress management (e.g., "I learned how to find better ways to deal with stress and anger with my children," "learned how to control my anger"). Less well-liked were logistical issues (e.g., "rushing to eat" and "coming every week"). Caregivers suggested making sessions more interactive, which we will do in future SFP implementations.

Survey Outcomes

Table 2 presents descriptive and test statistics for all study outcomes. Eta squared (η^2), an estimate of effect size, represents the percent of variance explained in the outcome.

Family Outcomes. There were positive changes in all family outcomes from pretest to follow-up (see Table 2). Post hoc analyses revealed increased family strength from pre- to posttest ($t = 3.72, p < .001$) and this was sustained at follow up. Family organization and cohesion also increased from pre- to posttest ($t = 3.22, p < .01$) and remained at follow-up. Family conflict decreased from pre- to posttest ($t = -3.51, p < .01$), but this was not sustained at follow-up.

Caregiver Outcomes. Positive caregiving increased over time (see Table 2). Post hoc analyses revealed increased positive caregiving from pre- to posttest ($t = 3.68, p < .01$) and this difference was sustained at follow-up. Caregiver depression also decreased; post hoc analyses indicated that self-reported caregiver depression symptoms declined from pre- to posttest ($t = 4.30, p < .001$), and this difference was sustained from pretest to follow-up 4 months later. Further, 68% of caregivers scored in the clinical range (CES-D score ≥ 16) at pretest, 42% in this range at posttest, and only 36% in this range at follow-up.

Caregiver stress (PSI) did not change. Neither support from friends/family/community, nor the perceived helpfulness of such supports, changed. There was a marginal change in the number of specialized/professional supports; post-hoc analyses showed participants using more supports at post- than pretest ($t = 1.91, p < .08$), but this effect was not sustained at follow-up. The perceived helpfulness of such supports changed over time, with post-hoc analyses revealing no change from pre- to posttest but an increase from pretest to follow-up ($t = 3.52, p < .01$; Table 2).

Child Outcomes. There were no changes in BERS family involvement or interpersonal strength, or child social competence, behavior problems, aggression, or concentration problems (POCA; see Table 1). Post hoc analyses revealed marginal decreases in caregiver-reported POCA overt aggression and criminal behavior from pretest to posttest ($t = 1.76, p < .10$), however, and a decline from pretest to follow-up ($t = 3.14, p < .05$).

Finally, we tested whether outcomes were related to demographic or process variables. Child sex, length of time with caregiver, attendance, and satisfaction were unrelated to pretest scores. Older child age was associated with greater family involvement ($r = .39$; all $ps < .05$), cohesion ($r = .46$), strength ($r = .41$), and positive parenting ($r = .38$); and more child interpersonal strength ($r = .41$). Greater change in family organization was associated with time as a caregiver ($r = .45$) and caring for a girl ($r = .43$). There were no associations with satisfaction or attendance. Further, the pattern of results did not change when covarying these variables, nor did child age, sex, time with

Table 2. *Strengthening Families Program (SFP) Outcomes: Means and SDs across Pretest, Posttest, and Follow-up*

Outcomes	Time point			F	df	n	η^2
	Pretest	Posttest	Follow-up				
Family							
SFP Strength	3.80 (0.55) _a	4.19 (0.51) _b	4.06 (0.46) _b	8.62**	(2, 52)	27	.249
SFP Conflict	2.41 (0.77) _a	1.88 (0.74) _b	2.16 (1.15) _b	4.55*	(2, 50)	26	.154
SFP Organization/Cohesion	3.69 (0.59) _a	4.03 (0.57) _b	4.06 (0.60) _b	6.63**	(2, 50)	26	.210
Caregiver							
SFP Positive Caregiving	3.92 (0.39) _a	4.22 (0.34) _b	4.20 (0.43) _b	8.09**	(2, 48)	25	.252
PSI Caregiving Stress	3.51 (0.80)	3.61 (0.78)	3.57 (0.77)	0.22	(2, 48)	25	.009
CES-D Depression Symptoms	22.40 (11.49) _a	14.96 (7.20) _b	14.16 (11.57) _b	11.98**	(2, 48)	25	.333
FSS Com/Fr/Fam # Support	5.25 (1.71)	5.36 (1.50)	5.43 (2.12)	0.08	(2, 54)	28	.003
FSS Com/Fr/Fam Helpful	2.19 (1.00)	2.40 (0.82)	2.54 (1.02)	1.82	(2, 50)	26	.068
FSS Spec/Prof # Supports	3.82 (1.49)	4.43 (1.07)	3.79 (1.55)	2.97 [†]	(2, 54)	28	.083
FSS Spec/Prof Helpful	1.93 (.85) _a	2.32 (1.03) _{a,b}	2.70 (.99) _b	5.70**	(2, 52)	27	.180
Child							
BERS Family Involvement	2.18 (0.45)	2.23 (0.46)	2.18 (0.62)	0.31	(2, 48)	25	.013
BERS Interpersonal Strength	1.87 (0.46)	1.86 (0.54)	1.86 (0.58)	0.01	(2, 48)	25	.001
POCA Social Competence	3.86 (0.46)	3.87 (0.47)	4.06 (0.63)	3.18 [†]	(2, 48)	25	.117
POCA Internalizing	2.40 (0.81)	2.25 (0.77)	2.08 (0.67)	2.44 [†]	(2, 46)	24	.096
POCA Concentration Issues	3.46 (0.78)	3.53 (0.82)	3.61 (0.93)	0.80	(2, 48)	25	.032
POCA Covert Aggression	2.73 (0.78)	2.62 (0.84)	2.58 (0.89)	0.92	(2, 48)	25	.037
POCA Overt Aggression/Criminal behavior	2.10 (0.70) _a	1.96 (0.67) _{a,b}	1.84 (0.71) _b	4.53*	(2, 46)	24	.164

Note. PSI = Parenting Stress Index; CES-D = Center for Epidemiologic Studies Depression Scale; FSS = Family Support Scale; BERS = Behavior and Emotional Rating Scale; POCA = Parent Observation of Child Adaptation.

η^2 = eta squared (effect size).

Standard deviations appear in parentheses beside means. Means with differing subscripts within rows are significantly different at $p < .05$ based on Tukey's least significant difference post hoc paired comparisons.

[†] $p < .10$. * $p < .05$. ** $p < .01$.

caregiver, attendance, or satisfaction moderate the effect of time on any outcome, suggesting change in the outcomes did not depend on these characteristics.

DISCUSSION

We sought to implement and evaluate the Strengthening Families Program with CIPs and their caregivers in a community setting. We gathered process data on implementation and client satisfaction with the program, as well as pre-, post-, and follow-up outcome data on family-level, caregiver, and child functioning. Similar to other SFP evaluations, caregivers reported positive changes in their parenting and family-level functioning, and reduced depression symptoms from pre- to posttest, with some gains retained at follow-up 4 months later. Positive changes in child behavior were reported at follow-up, though not at posttest. Families reported high satisfaction, attendance was high,

and attrition was low. Results and implications are discussed below.

Family-Level Functioning

Stressful family environments create parenting challenges which can affect caregivers and children (Conger et al., 2002; Deater-Deckard, 2005). Parent incarceration is destabilizing for a family system (Harris, Harris, Graham, & Carpenter, 2010). Our caregivers ranged from some who had taken in the child at birth to others who had just received custody, yet the discussions of family dynamics during SFP groups indicated the salience of this topic for everyone. Caregivers reported the greatest changes in family processes—strength/resilience, organization/cohesion, and how the family managed conflict—and changes were sustained over time. Reducing family-level risks can enhance child outcomes (Kumpfer & Alvarado, 2003). Thus, seeing such changes for our families, many of

whom were experiencing significant challenges during the intervention period, was encouraging. For CIPs, it is vital to communicate clearly about the organization, functioning, and definition of their current family unit because family roles and responsibilities may have shifted with the parent's incarceration. Without clearly articulating these issues, CIPs may be uncertain about who in their family is responsible for their care, and who they can turn to for help (Bocknek et al., 2009; Hairston, 2009).

SFP explicitly teaches strategies for clear and direct communication (e.g., holding family meetings). Families typically had much to discuss but were often (understandably) overwhelmed by the needs of the child in their care, changing living arrangements, court dates, and managing contact with the incarcerated parent. Practicing skills *in vivo* is associated with positive outcomes across a range of parenting interventions (Kaminski, Valle, Filene, & Boyle, 2008). SFP session practices allowed children and caregivers to try new ways of communicating with each other that may have resulted in more fruitful discussions at home. Important, engaging in these activities each week with other caregivers and families who were facing similar obstacles likely also provided a supportive context in which to develop and practice new skills.

The quality of caregiver–parent relationships can shape family-level functioning; more harmonious dyads may cope more effectively with incarceration (Cecil et al., 2008; Poehlmann, 2005; Strozier et al., 2011). Caregivers who feel positively toward parents may take children to visit more frequently; those who do not may restrict access (Nesmith & Ruhland, 2011). Parents in this study were in jail versus prison, which posed unique challenges. Jail stays are typically much shorter than prison. Some parents were in and out of jail during the intervention, whereas others were sentenced to prison during this time. Such experiences have different implications. Short but repeated stints in the local jail may make it more likely that a child sees a parent but increases the number of transitions, which creates uncertainty (Bocknek et al., 2009). Long prison sentences can make visiting less likely (due to cost, distance, logistics; Christian, 2005; Hairston et al., 2004) yet may mean less ambiguity in terms of the child's living situation, at least in the short term. Although we could not address these issues in this study, such differences in the

context of incarceration have implications for how smoothly parents reenter the family system afterwards (Harris et al., 2010) and are important to explore in future work.

Caregiver Outcomes

Caregivers are critical in helping children negotiate the challenges of parent (particularly mother) incarceration, and often continue to be involved postincarceration (Harris et al., 2010). Our caregivers reported increased positive parenting skills at posttest and follow-up, 4 months later. Caregivers told us they were pleased to have learned about new ways of discipline and strategies for positive communication with children. Given recent studies suggesting that positive parenting strategies may be even more influential for child outcomes, specifically externalizing, than negative parenting (Compas et al., 2010; Gardner, Hutchings, Bywater, & Whitaker, 2010), this is an encouraging finding. Indeed, in our sample, positive parenting strategies were negatively associated with child externalizing behavior (and positively with social competence; r s ranged from .32–.65).

Caregivers also reported decreased depression symptoms at posttest; this was maintained at follow-up. Rates of symptoms in the clinical range at pretest were comparable to other studies of this population (Poehlmann, 2005) and declined over time. All participants were given a resource brochure with available community mental health services, and group leaders followed up with caregivers who requested to be connected with such services, although we could not track service utilization or medication use in this study. It would be helpful to do so in future work to see whether these are associated with decreases in depression symptoms.

Depression is also associated with less positive parenting (Dix & Meunier, 2009; Lovejoy, Graczyk, O'Hare, & Neuman, 2000). Caregivers reporting more depression symptoms also reported less positive parenting across time (r s ranged from $-.25$ to $-.38$). The association between depression and parenting is likely transactional, with evidence that changing parenting reduces depression symptoms, perhaps through improving child behavior (Compas et al., 2010; DeGarmo, Patterson, & Forgatch, 2004). Effects may also operate through cognitive processes. In addition to SFP fostering hope, which in itself may alleviate symptoms, caregivers' increased

knowledge and use of positive parenting may result in feeling more confident and efficacious, which may be particularly important for reducing symptoms of depression in this group.

Child Outcomes

Similar to others (see Kaminski et al., 2008), we found greater effects on parenting than on child behaviors. Most child outcomes were in the expected direction but failed to reach significance. The small sample size likely contributed, but there may be additional reasons. Children may need a stronger “dose” of the program, or time to reap the benefits of improved family-level functioning, to show change. CIPs may be coping not only with the uncertainty of their living situation, but also with the fear of having their parent (often their primary attachment figure, in the case of mothers) removed at least temporarily (Bocknek et al., 2009; La Vigne et al., 2008). We found a few differences based on age, with caregivers of older children reporting better functioning in some areas (e.g., family strength). Things may be difficult for very young children, who may not be able to grasp cognitively when they will see their parent again, and cannot communicate via distal methods such as the phone or letters (Hairston et al., 2004). Children are often left out of discussions about custody and visitation, which can increase feelings of uncertainty and insecurity during an emotionally challenging time. Thus, although intervening with caregivers is a vital first step, children may need more intensive intervention.

There may also be measurement reasons for limited child outcome findings. Child overt aggression/criminal behavior did not differ from pre- to posttest, yet decreased by follow-up. This is not too surprising given that child behaviors may take longer to change than parenting behaviors, and it can take time for change in family processes to make a difference for child outcomes (DeGarmo et al., 2004). Furthermore, such behaviors were rare for children this age, who were mostly still in elementary or middle school. Yet given that higher rates of antisocial and criminal behaviors have been found for CIPs than for their peers (Murray et al., 2012; Tasca, Rodriguez, & Zatz, 2011), and that such behaviors, if continued, can get a child into legal trouble, this is a meaningful outcome.

Also, all child measures were based on caregiver report. This was the most feasible method in this study, but it would be ideal to conduct a more extensive evaluation of child functioning using behavioral observations and/or interviews. Interview studies have revealed unique information about CIPs’ concerns and coping strategies (Nesmith & Ruhland, 2008). Thus, children in this study may have experienced change in incarceration-related stress that we could not detect because we did not assess them directly.

Role of Social Support

Families who did not complete SFP reported having few social supports available at pretest, resonating with other studies of caregivers of CIPs (Nesmith & Ruhland, 2011). Results highlight the role of additional support in helping families access intervention programming and help explain why more disorganized families have more difficulty engaging in interventions (Perrino, Coatsworth, Briones, Pantin, & Szapocznik, 2001). That families with fewer resources were less likely to complete the program suggests that when barriers to participation occurred, they could not overcome them. For these families, connecting with agencies who understand their situation may reduce feelings of stigma and isolation and make it possible to get help. Motherly Intercession is well known for helping families with an incarcerated parent and for their focus on kin caregivers. Many SFP families had agency staff members help them negotiate jail policies, for example, which likely helped us maintain low attrition. Although incorporating social support is not always critical for program success (Kaminski et al., 2008), for our families assessing and providing them support may make the difference as to whether they can participate. Although we provided transportation for families and child care for young children, this is often not enough to get high-risk families in the door (Perrino et al., 2001). It was beyond the scope of this study to examine this in more detail, but learning whether providing support can help such families complete intervention programs successfully is important for future research.

Process Outcomes

Our process evaluation suggested families were highly satisfied with SFP. Attendance was high,

attrition was low, caregivers noted that they would want to come back and would recommend the program. They were also satisfied with group leaders, and leaders were observed to deliver SFP with fidelity. Incarceration stigma and disruptions in care are suggested as reasons why caregivers of CIPs do not access services or participate in programs (Engstrom, 2008). The fact that the SFP was delivered in a trusted community setting that did not stigmatize may have contributed to high satisfaction, and the intervention itself was appealing to families, which is important (Engstrom, 2008; Miller, 2006). Suggestions for improvement were to make sessions more interactive, and logistical issues, which could be addressed in future trials.

Limitations

There were limitations to this study design. A primary limitation was our small sample size, which means this study may be underpowered. We also had a wide child age range, so although we examined basic correlations, we could not examine developmental issues in detail. We did not have a control group in this pilot study so cannot draw causal conclusions regarding effectiveness. An additional challenge was that because we recruited at the jail, parents who were incarcerated at pretest were sometimes released during the study (and sometimes returned to jail during this time). Given the small sample, we could not assess statistical associations between such events and program outcomes. An additional limitation is a reliance on caregiver reports for all outcomes, which may result in biased reports or responses influenced by social desirability. In the future, in addition to more objective assessments of child and caregiver outcomes, we plan to assess parent factors (e.g., drug use) that may affect child well-being prior and subsequent to incarceration (Aaron & Dallaire, 2010). We would also like to study the process of reunification in more detail and are working with incarcerated mothers to examine these issues further. Finally, because Motherly Intercession focuses on incarcerated mothers, results may not be generalizable to all families with incarcerated parents.

Implications for Practice and Future Directions

With continued high incarceration rates, we must consider how to help families left

behind. Working with a community agency, we implemented a family-focused program that showed positive and lasting effects; yet most programming in correctional settings does not address the needs of family members on the outside. Coordinating family-focused programming with other programs for inmates (e.g., job training) could aid families who are coping with the fallout while the parent is incarcerated prepare for reentry of the parent into the family setting, and thereby ultimately reduce the likelihood of incarceration of future generations.

NOTE

This work was supported by National Institute of Mental Health grant # R21 MH081921 to Alison L. Miller.

REFERENCES

- Aaron, L., & Dallaire, D. (2010). Parental incarceration and multiple risk experiences: Effects on family dynamics and children's delinquency. *Journal of Youth and Adolescence, 39*, 1471–1484.
- Abidin, R. (1990). *Parenting stress index short form: Test manual*. Charlottesville: University of Virginia.
- Abram, K. M., Teplin, L. A., & McClelland, G. M. (2003). Comorbidity of severe psychiatric disorders and substance use disorders among women in jail. *American Journal of Psychiatry, 160*, 1007–1010.
- Aktan, G. (1995). Organizational frameworks of a substance use prevention program. *Substance Use & Misuse, 30*, 185–201.
- Aktan, G., Kumpfer, K., & Turner, C. (1996). Effectiveness of a family skills training program for substance use prevention with inner city African-American families. *Substance Use & Misuse, 31*, 157–175.
- Bocknek, E., Sanderson, J., & Britner, P. (2009). Ambiguous loss and posttraumatic stress in school-age children of prisoners. *Journal of Child and Family Studies, 18*, 323–333.
- Cecil, D. K., McHale, J., Strozier, A., & Pietsch, J. (2008). Female inmates, family caregivers, and young children's adjustment: A research agenda and implications for corrections programming. *Journal of Criminal Justice, 36*, 513–521.
- Christian, J. (2005). Riding the bus. *Journal of Contemporary Criminal Justice, 21*, 31–48.
- Compas, B. E., Champion, J. E., Forehand, R., Cole, D. A., Reeslund, K. L., Fear, J., . . . Roberts, L. (2010). Coping and parenting: Mediators of 12-month outcomes of a family group cognitive-behavioral preventive intervention with families

- of depressed parents. *Journal of Consulting and Clinical Psychology*, 78, 623–634.
- Conger, R. D., Wallace, L. E., Sun, Y., Simons, R. L., McLoyd, V. C., & Brody, G. H. (2002). Economic pressure in African American families: A replication and extension of the family stress model. *Developmental Psychology*, 38, 179–193.
- Dallaire, D. H. (2007). Children with incarcerated mothers: Developmental outcomes, special challenges and recommendations. *Journal of Applied Developmental Psychology*, 28, 15–24.
- Deater-Deckard, K. (2005). Parenting stress and children's development: Introduction to the special issue. *Infant and Child Development*, 14, 111–115.
- DeGarmo, D., Patterson, G., & Forgatch, M. (2004). How do outcomes in a specified parent training intervention maintain or wane over time? *Prevention Science*, 5, 73–89.
- Dix, T., & Meunier, L. N. (2009). Depressive symptoms and parenting competence: An analysis of 13 regulatory processes. *Developmental Review*, 29, 45–68.
- Dressel, P., & Barnhill, S. (1994). Reframing gerontological thought and practice: The case of grandmothers with daughters in prison. *The Gerontologist*, 34, 685–691.
- Dunst, C. J., Trivette, C. M., & Deal, A. G. (1988). *Enabling and empowering families: Principles and guidelines for practice*. Cambridge, MA: Brookline Books.
- Engstrom, M. (2008). Involving caregiving grandmothers in family interventions when mothers with substance use problems are incarcerated. *Family Process*, 47, 357–371.
- Epstein, M. H. (2000). The Behavioral and Emotional Rating Scale: A strength-based approach to assessment. *Assessment for Effective Intervention*, 25, 249–256.
- Gardner, F., Hutchings, J., Bywater, T., & Whitaker, C. (2010). Who benefits and how does it work? Moderators and mediators of outcome in an effectiveness trial of a parenting intervention. *Journal of Clinical Child & Adolescent Psychology*, 39, 568–580.
- Glaze, L., & Maruschak, L. (2008, August). *Parents in prison and their minor children* (Bureau of Justice Statistics Special Report: NCJ 22984). Washington, DC: Bureau of Justice. Retrieved from <http://bjs.ojp.usdoj.gov/content/pub/pdf/>
- Gottfredson, D., Kumpfer, K., Polizzi-Fox, D., Wilson, D., Puryear, V., Beatty, P., & Vilmenay, M. (2006). The Strengthening Washington DC Families Project: A randomized effectiveness trial of family-based prevention. *Prevention Science*, 7, 57–74.
- Hairston, C. F. (2009). *Kinship care when parents are incarcerated: What we know, what we can do*. Baltimore, MD: Annie E. Casey Foundation.
- Hairston, C. F., Rollin, J., & Jcbo, H. (2004). Family connections during imprisonment and prisoners' community reentry. *Research brief: Children, families, and the criminal justice system*. Chicago: University of Illinois, Jane Addams Center for Social Policy and Research.
- Hanlon, T., Carswell, S., & Rose, M. (2007). Research on the caretaking of children of incarcerated parents: Findings and their service delivery implications. *Children and Youth Services Review*, 29, 348–362.
- Hardy, T., & Snowden, M. (2010). Familial impact of imprisonment and the community specialist practitioner. *Community Practitioner*, 83, 21–24.
- Harris, Y., Harris, V., Graham, J., & Carpenter, O. (2010). The challenges of family reunification. In Y. R. Harris, J. A. Graham, & G. Carpenter (Eds.), *Children of incarcerated parents: Theoretical, developmental, and clinical issues* (pp. 255–276). New York: Springer.
- Hernandez, L., & Lucero, E. (1996). Days La Familia community drug and alcohol prevention program: Family-centered model for working with inner-city Hispanic families. *Journal of Primary Prevention*, 16, 255–272.
- Hoffmann, H. C., Byrd, A. L., & Kightlinger, A. M. (2010). Prison programs and services for incarcerated parents and their underage children: Results from a national survey of correctional facilities. *The Prison Journal*, 90, 397–416.
- Hungerford, G. (1996). Caregivers of children whose mothers are incarcerated: A study of the kinship placement system. *Children Today*, 24, 23–27.
- Kaminski, J. W., Valle, L., Filene, J., & Boyle, C. (2008). A meta-analytic review of components associated with parent training program effectiveness. *Journal of Abnormal Child Psychology*, 36, 567–589.
- Kazura, K. (2001). Family programming for incarcerated parents: A needs assessment among inmates. *Journal of Offender Rehabilitation*, 32, 67–83.
- Kellam, S. G., Werthamer-Larsson, L., Dolan, L. J., Brown, C. H., Mayer, L. S., Rebok, G. W., . . . Edelson, G. (1991). Developmental epidemiologically based preventive trials: Baseline modeling of early target behaviors and depressive symptoms. *American Journal of Community Psychology*, 19, 563–584.
- Kemper, K. J., & Rivara, F. P. (1993). Parents in jail. *Pediatrics*, 92, 261–264.
- Kumpfer, K., & Alvarado, R. (1998). *Effective family strengthening interventions*. Washington, DC: U.S. Department of Justice.
- Kumpfer, K. L., & Alvarado, R. (2003). Family strengthening approaches for the prevention of youth problem behaviors. *American Psychologist*, 58, 457–465.

- Kumpfer, K. L., Alvarado, R., Tait, C., & Turner, C. (2002). Effectiveness of school-based family and children's skills training for substance abuse prevention among 6-8-year-old rural children. *Psychology and Addictive Behaviors, 16*(4 Suppl), S65–S71.
- Kumpfer, K., DeMarsh, J., & Child, W. (1989). *Strengthening families program: Children's skills training curriculum manual, parent training manual, children's skill training manual, and family skills training manual*. Salt Lake City: University of Utah, Social Research Institute, Graduate School of Social Work.
- La Vigne, N., Davies, E., & Brazzell, D. (2008). *Broken bonds: Understanding and addressing the needs of children with incarcerated parents*. Baltimore, MD: Annie E. Casey Foundation.
- Lovejoy, M. C., Graczyk, P. A., O'Hare, E., & Neuman, G. (2000). Maternal depression and parenting behavior: A meta-analytic review. *Clinical Psychology Review, 20*, 561–592.
- Mackintosh, V., Myers, B., & Kennon, S. (2006). Children of incarcerated mothers and their caregivers: Factors affecting the quality of their relationship. *Journal of Child and Family Studies, 15*, 579–594.
- Miller, A. L., Krusky, A., Franzen, S., Cochran, S., & Zimmerman, M. (2012). Partnering to translate evidence-based practices to community settings: Bridging the discovery-delivery gap. *Health Promotion Practice, 13*, 559–566. doi:10.1177/1524839912438749.
- Miller, K. (2006). The impact of parental incarceration on children: An emerging need for effective interventions. *Child and Adolescent Social Work Journal, 23*, 472–486.
- Minkler, M., & Fuller-Thomson, E. (1999). The health of grandparents raising grandchildren: Results of a national study. *American Journal of Public Health, 89*, 1384–1389.
- Murray, J., Farrington, D. P., & Sekol, I. (2012). Children's antisocial behavior, mental health, drug use, and educational performance after parental incarceration: A systematic review and meta-analysis. *Psychological Bulletin, 138*, 175–210.
- Nesmith, A., & Ruhland, E. (2008). Children of incarcerated parents: Challenges and resiliency, in their own words. *Children and Youth Services Review, 30*, 1119–1130.
- Nesmith, A., & Ruhland, E. (2011). Caregivers of children with incarcerated parents. *Open Family Studies Journal, 4*, 105–116.
- Perrino, T., Coatsworth, J. D., Briones, E., Pantin, H., & Szapocznik, J. (2001). Initial engagement in parent-centered preventive interventions: A family systems perspective. *Journal of Primary Prevention, 22*, 21–44.
- Perryman, J., & Miller, A. L. (2011). *Bonding from a distance, 2001–2007* (Motherly Intercession Technical Report). Ann Arbor, MI: University of Michigan, Prevention Research Center of Michigan.
- Poehlmann, J. (2005). Representations of attachment relationships in children of incarcerated mothers. *Child Development, 76*, 679–696.
- Poehlmann, J., Dallaire, D., Loper, A. B., & Shear, L. D. (2010). Children's contact with their incarcerated parents: Research findings and recommendations. *American Psychologist, 65*, 575–598.
- Poehlmann, J., Shlafer, R., Maes, E., & Hanneman, A. (2008). Factors associated with young children's opportunities for maintaining family relationships during maternal incarceration. *Family Relations, 57*, 267–280.
- Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1*, 385–401.
- Ruiz, D. S. (2002). The increase in incarcerations among women and its impact on the grandmother caregiver: Some racial considerations. *Journal of Sociology & Social Welfare, 29*, 179–197.
- Smith, G. C., Savage-Stevens, S. E., & Fabian, E. S. (2002). How caregiving grandparents view support groups for grandchildren in their care. *Family Relations, 51*, 274–281.
- Strozier, A. L., Armstrong, M., Skuza, S., Cecil, D., & McHale, J. (2011). Coparenting in kinship families with incarcerated mothers: A qualitative study. *Families in Society, 92*, 55–61.
- Tasca, M., Rodriguez, N., & Zatz, M. S. (2011). Family and residential instability in the context of paternal and maternal incarceration. *Criminal Justice and Behavior, 38*, 231–247.
- U.S. Census Bureau. (2010). *Quick Facts: Flint (city), Michigan*. Retrieved from <http://quickfacts.census.gov/qfd/states/26/2629000.html>
- Young, D., & Smith, C. (2000). When moms are incarcerated: The needs of children, mothers, and caregivers. *Families in Society, 81*, 130–141.