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Permanency outcomes for toddlers in child welfare two years after a randomized trial of a parenting intervention☆

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ABSTRACT

This study reports on child welfare outcomes of a community based, randomized control trial of *Promoting First Relationships*® (PFR; Kelly, Sandoval, Zuckerman, & Buehlman, 2008), a 10-week relationship-based home visiting program, on stability of children's placements and permanency status two years after enrollment into the study. Toddlers 10–24 months ($N = 210$) with a recent placement disruption were randomized, along with their birth or foster/kin parents, to PFR ($n = 105$) or a comparison condition ($n = 105$). A stable placement had no interruptions or disruptions. A permanent placement was a stable placement ending with a legal discharge to the study caregiver. Logistic regression models predicting the dichotomous stability and permanency variables, controlling for caregiver type, child welfare variables, and caregiver commitment, were conducted. There was no difference by intervention group on stability or permanency, but there was a significant interaction between caregiver type (birth parent vs. foster/kin) and intervention group. More foster/kin caregivers who received the PFR intervention provided stable, uninterrupted care and eventually adopted or became the legal guardians of the toddlers in their care, compared to foster/kin caregivers randomized to the comparison condition.

1. Introduction

Infants and toddlers are a growing population in child welfare and foster care. Between 2000 and 2010, the percentage of maltreated children in care who were under three years old increased from 16% to 27%, even as the absolute numbers of children in foster care have declined by 24% since 2002 (USDHHS, ACF, ACYF, 2013). As more children die of abuse and neglect in the first year of life than in any other year of childhood (Child Welfare Information Gateway, 2013), this increase reflects the public's concerns for infant safety. The obvious vulnerability of infants and toddlers requires a critical focus on their physical safety, which is the first aim of child welfare in the U.S.

The primary intervention deployed by child welfare to ensure safety for children who have experienced serious, life-threatening maltreatment is foster care. Despite the increase in safety provided by foster care, it is recognized that foster care itself can be problematic, not least because of its impact on the second aim of child welfare, permanency. The first removal from the birth home is an obvious disruption, as necessary as it may be. The lack of stability in foster care placements, as well as re-entry into foster care after a failed reunification in the birth home, mean that many children do not have permanency in their living situations during the early years when they are developing attachment relationships. The lack of stability in attachment figures, in turn, affects the third aim of child welfare, child well-being. Each change in placement means a change in the child's primary caregiver and attachment figure. Physical safety may be achieved but the foundation for well-being, the young child's innate emotional and relational need for an enduring, nurturing attachment figure whose presence and availability provide the child with a sense of safety and comfort, is not. The lack of a stable attachment figure may compound the adverse consequences of prior maltreatment, contributing to escalating behavior problems and reducing the child's chances for ultimately achieving permanency (Newton, Litrownik, & Landsverk, 2000; Rubin, O'Reilly, Luan, & Localio, 2007).

Given the critical importance of stability and permanency for child well-being, it is surprising that little research has been conducted on interventions that affect these child welfare outcomes. This paper reports on the stability and permanency outcomes of a randomized control trial of a parenting program delivered to caregivers (birth or foster/kin) of toddlers recently transitioned to their care because of child welfare placement decisions.

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1.1. Interventions to improve permanency outcomes for young children

Clearly there is a need for careful evaluation of interventions to improve both stability and permanency for vulnerable infants and young children, but to our knowledge, only two such studies examined child welfare outcomes, and both focused on permanency. Zeanah et al. (2001) compared the permanency outcomes of 145 children under four years who entered care four years before the implementation of a multimodal, individualized assessment and intervention program directed to both birth families and foster families (comparison group), and 95 children who entered care four years after the intervention program was implemented (intervention group). The intervention had clear and specific treatment goals, including that parents accept responsibility for their children's maltreatment, that the approach be comprehensive and relationship-focused, and that communication and referral across provider systems be enhanced. Zeanah and his colleagues explicitly sought "to identify and remove barriers to what we believe is a biological predisposition for infant's attachment to their parents and for parents' caregiving behavior directed toward their young" (p 216). Children and birth families were followed for an average of 30 months.

The frequencies of four permanency outcomes, reunification with birth parents, termination of birth parent parental rights, birth parent voluntary surrender of parental rights, and permanent placement with kin, were compared across groups. Significantly fewer children in the intervention group were reunified with their birth families (34.7% vs. 49.0%), and more birth parents of children in the intervention group had their parental rights terminated (44.2% vs. 20.7%), which then freed their children for permanency through adoption. Although successful reunification was the goal for this study, nationally, approximately 30% of reunifications fail (Wulczyn, 2004). Perhaps the intensive work with families provided by Zeanah and his colleagues made it more likely that families did not seek, and child welfare had sufficient information about the family to not allow, children to be reunified with families where failure was more likely.

Fisher, Burraston, and Pears (2005) and Fisher, Kim, and Pears (2009) report on permanency outcomes for the only randomized control study to date involving preschoolers (3–6 years) entering or changing a placement in foster care. Children in dependency were randomized to the *Early Intervention Foster Care Program* (EIFC; $n = 47$) or regular foster care (RFC; $n = 43$). Children in the EIFC condition were placed with specially trained foster parents who had additional supports such as daily contact with a foster parent consultant, individual child therapy, a crisis line, a parent support group, and a consulting psychiatrist who prescribed child medications if indicated. If a child in the EIFC group transitioned to a permanent placement (birth parents, adoptive kin, or adoptive non-kin) the new parents received the same EIFC services; new parents of children in the RFC group received whatever services were typically provided. The intervention period lasted 9–12 months, including the transition to a permanent placement. Child welfare outcomes were compared 24 months post enrollment.

Fisher et al. (2005) report only on the 60% of the sample that had achieved permanency within 24 months. There were significantly fewer failed permanent placements in the EIFC group compared to the comparison group (10% vs. 36%). The number of placements prior to enrollment predicted failed permanent placements in the comparison group but not in the EIFC group. Failed placements began rising for the RFC group after 8 months, but not for the EIFC group. If a permanent placement was going to fail, it most likely failed between 8 and 14 months after the placement. Permanent placements failed for reunified and kin adoptive families in the comparison group, and only for reunified families in the intervention group. No non-kin adoptions failed in either group.

Because Fisher et al. (2005) identified that children with multiple prior placements were particularly at risk for poor permanency outcomes without intervention, Fisher et al. (2009) specifically examined permanency outcomes only for the 52 children (44% of the original sample) who had experienced four or more placement changes prior to enrollment in the study. Overall, the EIFC group had more successful permanency attempts (69.0%) compared to the RFC group (30.4%). Lynch, Dickerson, Saldana, and Fisher (2014) conducted an incremental net benefit analysis for these 52 children and found that the fewer failed permanent placements achieved as a result of the EIFC intervention resulted in a significantly lower total public agency costs two years post-randomization.

The two studies make important contributions to our understanding of permanency outcomes in child welfare. The studies affirmed that the stability and continuity of attachment relationships are foundational for child well-being while examining different permanency outcomes. Zeanah et al. (2001) reported on the permanency plan made within 30 months of placement by the judicial and child welfare systems. They did not report whether the foster family that received the intervention adopted the study child, and whether or not after termination of parental rights, the child was placed with a family that adopted the study child and also received the intervention. Zeanah et al. did report that children in both groups whose parents surrendered or had parental rights terminated spent significantly more time in care. It seems likely that although a permanency plan was in place for these children within 30 months, not all of them were actually living in their permanent home within 30 months.

In the Fisher et al. study, we do know that in the EIFC group all permanent home parents (birth, adoptive kin or adoptive non-kin) received the same supports as the initial foster families, which contributed to the reduced probability of a failed permanent placement. That 40% of the original sample had not achieved permanency by the two year follow-up is not atypical, especially for children who first entered care in infancy, because of the length of time needed to legally finalize adoptions (Wulczyn, Chen, Collins, & Ernst, 2011). This is why an examination of both stability and permanency, i.e., whether a child is adopted by the family with which they reside during the long pre-adoption period, or is subsequently placed with a future adoptive family after being freed for adoption, is an important indicator of child welfare's support for children's well-being during the critical early years.

1.2. The current study: stability and permanency outcomes following a parenting intervention to improve quality of caregiving and child well-being after a placement change

In the current study, we address questions raised by these two prior studies on stability and permanency outcomes following a child welfare placement change during the toddler years. We ask whether an attachment-based parenting program directed at promoting sensitive caregiving has an effect on the child's placement stability and legal permanency two years later. First we focus on whether or not toddlers in child welfare dependency, randomized with their new caregivers to receive an attachment-based parenting program, experienced more uninterrupted, stable placements during the next two years, compared to toddlers in dependency randomized with their caregivers to a comparison parenting program. Second, we ask if there were intervention effects on whether stable placements became legally permanent.

The interventions began within two months of a toddler's transition to a new primary caregiver. The transition to a new primary caregiver could involve different types of placements, including the initial placement into foster care; a move between foster care placements; or a return to the birth parent home. Stability and permanency outcomes were evaluated for the subsequent two-year period using child welfare administrative date. We studied children who were toddler-age at the precipitating placement change event because we wanted to examine the effects of a parenting program delivered relatively soon *after* a toddler experienced a disruption to an established attachment relationship.

The results of the primary aim of the study, to test the efficacy of a manualized intervention, *Promoting First Relationships*® (PFR; Kelly, Sandoval, Zuckerman, & Buehlman, 2008), for improving the sensitivity

and responsiveness of caregivers toward the toddlers newly placed with them by child welfare, have been reported elsewhere (Spieker, Oxford, Kelly, Nelson, & Fleming, 2012). The current paper explored whether PFR affected the stability and permanency of those placements. Based on the work of Fisher et al. (2005), who provided caregivers with numerous parenting supports, we hypothesized a main effect of intervention condition, such that more children in homes where the caregiver received PFR would experience placement stability and permanency, compared to children whose caregivers received the comparison intervention. Based on the work of Zeanah et al. (2001), we also hypothesized that caregiver type (birth parent vs. foster/kin) might moderate the effects of PFR on stability and permanency. On the one hand, Zeanah et al. found that with intervention, some birth parents realized that they were unable to parent, and relinquished parental rights. We hypothesized that if PFR had a similar effect, fewer children of birth parents who received PFR would achieve stability and permanency compared to children of birth parents in the comparison condition. On the other hand, based on Fisher et al. (2005), we hypothesized that the reverse would be true for foster/kin parents, and that more children placed with foster/kin parents who received PFR would experience stability and achieve permanency, compared to children placed with foster/kin parents who received the comparison condition.

2. Method

2.1. Participants

Two hundred and ten toddlers (ages 10 to 24 months) and their caregivers were recruited into the study between April of 2007 and March of 2010 from a single region of the state's Division of Children and Family Services (DCFS). Permission to contact caregivers about the project was obtained from a DCFS social worker, after which a research team social worker made the contact, determined eligibility, and scheduled the baseline research visit. Eligible caregivers were officially designated as such in the DCFS registry; they were ineligible if the study social worker determined that they did not speak enough English to complete study measures. Eligible toddlers were between 10 and 24 months, had experienced a court-ordered placement that resulted in a change in primary caregiver within the seven weeks prior to enrollment. There were no exclusion criteria.

2.2. The interventions

Those randomized to the intervention condition ($n = 105$) received PFR through ten weekly 60- to 75-minute in-home visits by a masters-prepared mental health provider from one of several local agencies. The PFR provider focused on increasing parenting sensitivity using attachment theory-informed, strength-based consultation strategies in conjunction with video feedback. There were five sessions involving reflective video feedback. Tapes of caregiver–child play or caregiving sessions were viewed together by the caregiver and the PFR provider, who guided discussion focusing on parenting strengths and interpretation of the child's cues. Weeks 2 through 10 began with reflecting on the prior week's content. During the course of the ten sessions, providers and caregivers reviewed up to 15 handouts on topics such as 'Staying Connected During Difficult Moments.' PFR helped parents understand that toddler challenging behavior is often a 'language of distress' reflecting underlying unmet attachment needs to feel safe and comfortable in the care of an emotionally available, responsive caregiver. A recent meta-analysis of relationship-based programs for low-income families of infants and toddlers confirmed that many of the elements in PFR have demonstrated effectiveness across a variety of programs. These include: video feedback, relatively few sessions, and professional interveners (Mortensen & Mastergeorge, 2014).

Those randomized to the comparison condition ($n = 105$) received *Early Education Support* (EES) through bachelor-prepared providers from a local community agency. EES consisted of three monthly 90-minute in-home sessions facilitated by a child development specialist, who focused on child developmental guidance and resource and referral. The provider made suggestions for activities that would stimulate the child's cognitive and language development and assisted the caregiver to find services in the community, such as Early Head Start, for which the family was eligible. The PFR group did not receive these types of resource and referral suggestions from the PFR providers. However, families were not prohibited from seeking and utilizing any additional services to which they were entitled. That only PFR providers used relationship-focused consultation strategies (positive feedback; positive and instructive feedback; reflective comments or questions; and validating, responsive statements) and video feedback was verified in regular fidelity checks of both PFR and EES providers. More details on the interventions and fidelity are reported elsewhere (Spieker et al., 2012).

2.3. Measures and procedure

A state child welfare administrative database provided dates of a child's birth, entry into care, any placement changes while in care, when a discharge to a permanent placement occurred, and when a child re-entered care, if ever. A placement change was defined as any move to another home recorded in the data base, even if it was labeled as a short term or temporary placement after which the child returned to a familiar home. We reasoned that any placement change, even a brief one, can be stressful and affect the primary attachment relationship, especially for a child under four years who has experienced other such changes. There is considerable evidence that as the number of placements increases, the risk of adverse outcomes does, too (Newton et al., 2000; Rubin et al., 2007).

2.3.1. Outcome variables

At two years post-randomization, two binary outcomes were examined: *Stability* was coded as present if the child had remained with the study caregiver since randomization into the study, with no temporary intermediate moves. *Permanency* required stability plus a legal discharge to the study caregiver. *Permanency* could include reunification and discharge to the study birth parent, adoption by the study kin or non-kin caregiver, or legal guardianship by the study kin caregiver.

2.3.2. Covariates

Using the child welfare administrative data base, the following covariates were calculated: *Age of child* was age in months at the time of randomization; *Time in child welfare* was number of months since initial removal from the birth parent home, at the time of randomization; *Number of placement changes* was the number of placements of any length prior to randomization; *Multiple removals* was whether or not the child had experienced one or more failed reunifications with the birth parent prior to randomization; and *Type of caregiver* was whether or not the child was enrolled in the study while in the care of the *birth parent* or with a *foster/kin* caregiver. *Commitment* to child at the time of randomization and six months later was rated from caregivers' answers to interview questions from *This Is My Baby* (TIMB; Bates, 1998; Dozier & Lindhiem, 2006). Sample questions include: "How much would you miss (child) if he or she had to leave?"; "What do you want for (child) right now? In the future?" Indices of high commitment included: expression of the desire to parent the child as long as the child remains in care or is benefitting from care; evidence that the caregiver has allowed herself to become attached to the child without withholding feeling or putting up barriers to limit the extent of attachment; and evidence of a commitment of emotional or physical resources to support the child's growth and development. Scores were assigned on a 5-point point scale with a higher score indicating higher commitment. Two coders were trained and reliability was monitored on 10% of data. Inter-rater agreement was $r = .89$. These selected covariates were

related to stability or permanency outcomes, or were associated with these outcomes in other studies

2.4. Analysis

Logistic regression intent-to-treat models were estimated to assess differences by intervention group in stability and permanency. For both stability and permanency, two models were estimated. In the first model, intervention group and all covariates were entered as predictors. In the second, one interaction term between caregiver type and intervention condition was added. Effect coding was used for both intervention group (EES = −.5, PFR = .5) and caregiver type (birth parent = −.5, foster/kin caregiver = .5).

3. Results

Sample characteristics by randomized intervention group are presented in Table 1. The two groups were similar on all covariates except that there were significantly more removals from the birth home prior to randomization for the PFR compared to the EES group, $\chi^2 = 7.31$, $p = .007$.

3.1. Stability

The results of the two stability logistic regression models are shown in Table 2. The main effects model, Model 1, showed a non-significant overall effect of intervention condition on stability. Two covariates were significant. Children enrolled with birth parents were more likely to be still living with them two years after randomization, than children enrolled in the study with foster/kin caregivers. Children enrolled with caregivers with higher baseline commitment were also more likely to be still living with them two years after randomization. The interaction model, Model 2, showed a trend indicating that intervention group had a differential relationship with stability depending on the child's caregiver type. Receiving PFR compared to EES was more positively related to likelihood of placement stability among children with foster/kin caregivers than among children with birth parents.

3.2. Permanency

The results of the two permanency logistic regression models are shown in Table 3. The main effects model, Model 1, showed a non-significant overall effect of intervention condition on permanency. Two covariates were significant. Children of enrolled birth parents were more likely to have achieved permanency with them two years after randomization, than children enrolled in the study with foster/kin caregivers. Children enrolled with caregivers with higher baseline commitment were also more likely to have achieved permanency with them two years after randomization. There was a trend for children who had experienced more than one removal from their birth home prior to randomization to be less likely to achieve permanency. The interaction model, Model 2, showed a significant interaction between intervention condition and caregiver type. The estimated effect of PFR on likelihood of permanency was more positive among children with foster/kin caregivers than among children with birth parents.

3.3. Understanding the caregiver type by intervention group interaction

To understand the permanency interaction result, two follow-up logistic regressions were conducted. The first logistic regression included only the children who enrolled in the study with a birth parent ($n = 56$). The dependent variable was coded '1' if the child had had a stable placement and been legally discharged to the study birth parent (78.6%), and '0' for all other possibilities (21.4%). The same covariates from earlier models were included. Permanency was achieved by 70.4% of the children in PFR and 86.2% of the children in EES. The model was not significant for intervention group or any covariates, all p's > .20.

The second follow-up logistic regression included only the children who enrolled in the study with foster/kin caregivers ($n = 154$). The dependent variable was coded '1' if the child had had a stable placement and been legally discharged to the study foster/kin parent (12.3%), and '0' for all other possibilities (87.7%). Permanency was achieved by 17.9% of children in PFR and 6.6% in EES. The effect of intervention group was significant. More foster/kin caregivers who received the PFR intervention provided stable, uninterrupted care and adopted or

Table 1
Baseline characteristics by intervention condition.

	EES ($n = 105$)	PFR ($n = 105$)
	n (%)	*n* (%)
Infant male	55 (52.4)	63 (60)
Infant Hispanic	12 (11.4)	9 (8.6)
Infant race		
Native American/Alaskan native	5 (4.8)	9 (8.6)
Black	14 (13.3)	17 (16.2)
Mixed race	18 (17.1)	23 (21.9)
Native Hawaiian/Other Pacific islander	0 (0)	2 (1.9)
Unable to determine	4 (3.4)	3 (2.9)
White	65 (61.9)	51 (48.6)
Removed from birth parent home more than once*	5 (4.8)	17 (16.2)
Caregiver type		
Biological parent	29 (27.6)	27 (25.7)
Kin	30 (28.6)	35 (33.3)
Foster parent	46 (43.8)	43 (41.0)
Household income < $20,000 per year	27 (26.5)	23 (23.0)
	M (*SD*)	*M* (*SD*)
Infant age in months	18.06 (4.49)	17.96 (4.97)
Infant age in months at first removal	10.86 (7.07)	10.73 (7.78)
Number of caregiver changes since birth	2.70 (1.51)	2.67 (1.66)
Caregiver commitment	4.12 (0.82)	4.15 (0.88)
Caregiver age in years	36.50 (10.95)	35.39 (10.98)
Caregiver years of education	12.93 (1.79)	13.11 (2.10)

* $p < .05$.

Table 2
Logistic regression models predicting stability.

	Model 1			Model 2		
	b (*se*)	OR	95% CI	*b* (*se*)	OR	95% CI
PFR condition	.18 (.33)	1.19	[.63–2.27]	−.21 (.40)	.81*	[.37–1.80]
Foster/kin	−1.84 (.39)	.16***	[.07–.34]	−1.89 (.41)	.15***	[.07–.34]
Age of child in months	.04 (.04)	1.04	[.97–1.12]	.05 (.04)	1.05	[.98–1.12]
Months in child welfare	.02 (.03)	1.02	[.96–1.09]	.03 (.03)	1.03	[.96–1.10]
Number of prior placements	.01 (.13)	1.01	[.78–1.30]	−.01 (.13)	.99	[.77–1.28]
Multiple removals	−.77 (.64)	.46	[.13–1.61]	−.63 (.63)	.53	[.16–1.82]
Commitment	.64 (.23)	1.89**	[1.20–2.98]	.63 (.23)	1.87**	[1.19–2.94]
PFR by foster/kin	–	–	–	1.36 (.79)	3.91+	[.82–18.52]
Constant	−3.31** (1.21)			−3.31** (1.22)		

Note: OR = odds ratio; CI = confidence interval.
+ $p < .10$.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

became the legal guardians of the toddlers in their care within two years after enrollment, compared to foster/kin caregivers randomized to EES, b (se) = 1.34 (.65), odds ratio = 3.83, $p = .040$, 95% CI [1.07–13.78].

Caregiver commitment was also significant, with more commitment at enrollment into the study predicting permanency with the study foster/kin caregiver, b (se) = 1.05 (.49), odds ratio = 2.87, $p = .032$, 95% CI [1.09–7.53]. An additional analysis compared caregiver commitment across the two intervention groups six months post enrollment. There was a trend for foster/kin caregivers in the PFR group to report higher levels of commitment, $M = 4.42$, $SD = .66$, compared to foster/kin caregivers in the EES group, $M = 4.15$, $SD = .75$, $F(1, 82) = 2.90$, $p = .09$.

4. Discussion

This randomized, controlled study examined the effects of a relationship-based parenting program on young children's placement stability and permanency with their new primary caregivers following a child-welfare mandated placement change. The dichotomous dependent variables, stability and permanency, were operationalized in an unusually strict manner. A stable placement had no interruptions or disruptions for two years. A permanent placement had to be a stable placement that ended with a legal discharge to that caregiver within two years of enrolling into the study. These definitions were informed by attachment theory and reflected the importance for child well-being of avoiding even brief caregiving disruptions for toddlers who had already experienced distressed attachment relationships in their prior homes.

Based on prior studies in the literature, we investigated two hypotheses. The first hypothesis, that children of caregivers randomized to PFR would experience more stability and permanency than children randomized to the comparison condition, was not supported for either stability or permanency. The test of the second hypothesis, that caregiver type would moderate the effect of PFR on stability and permanency in two specific ways, resulted in a significant caregiver type by intervention condition interaction term for permanency. The results of the two follow-up regressions did not support the first part of the second hypothesis, that fewer children of birth mothers who received PFR would achieve permanency with them compared to children of birth mothers who received the comparison condition. The second part of the hypothesis, however, was supported. More children with foster/kin parents randomized to PFR achieved permanency with them compared to children in foster/kin families who received the comparison intervention. It appears that there was no main effect of PFR across caregiver types because of this significant interaction. More foster/kin parents in the PFR group became their child's permanent parents. There was no such effect of PFR in the birth parent group (but the direction of effects was negative, as hypothesized). We can only speculate on why PFR had a positive impact on foster/kin permanency and no impact on birth parent permanency.

Almost half of the permanent outcomes for children in this study involved reunification with birth families, not all of whom, of course, were enrolled in the study. For those birth parents who were enrolled in the study and randomized to PFR, many factors not addressed by PFR, such as substance abuse, mental illness, homelessness, and domestic violence, would affect their ability to achieve permanency with their children. These risk factors likely overwhelmed the moderate impacts on parenting outcomes we did find for birth families through six months

Table 3
Logistic regression models predicting permanency.

	Model 1			Model 2		
	b (*se*)	OR	95% CI	*b* (*se*)	OR	95% CI
PFR condition	.54 (.44)	1.72	[.73–4.04]	.26 (.48)	1.30	[.51–3.31]
Foster/kin	−3.05 (.45)	.05***	[.02–.11]	−3.20 (.47)	.04***	[.02–.10]
Age of child in months	.05 (.05)	1.05	[.96–1.14]	.06 (.05)	1.06	[.97–1.16]
Months in child welfare	.06 (.04)	1.06	[.99–1.14]	.07+ (.04)	1.07	[.99–1.16]
Number of prior placements	.09 (.16)	1.10	[.81–1.48]	.06 (.16)	1.06	[.78–1.45]
Multiple removals	−1.47 (.78)	.23+	[.05–1.07]	−1.29 (.76)	.28+	[.06–1.23]
Commitment	.81 (.35)	2.24*	[1.14–4.43]	.76 (.35)	2.13*	[1.09–4.19]
PFR by foster/kin	–	–		2.27 (.94)	9.67*	[1.54–60.68]
Constant	−5.20** (1.78)			−5.25** (1.78)		

Note: OR = odds ratio; CI = confidence interval.
+ $p < .10$.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

post-intervention (Oxford, Fleming, Nelson, Kelly, & Spieker, 2013). For example, despite the small size of the birth parent sample available for follow up (43 out of 56) the effect sizes for a measure of child externalizing problems trended toward significance, and an observed measure of parenting support was significant, controlling for baseline score, child age, time since baseline, and whether or not there had been more than one removal from the birth home prior to enrollment.

More children in the PFR condition experienced multiple removals, which may also have affected the impact of the intervention for that group in ways that we could not fully measure or control. Across caregiver types, more than one removal was negatively associated with permanency at the trend level, controlling for all other variables in the model. For the logistic regression models within caregiver type (birth parent, foster/kin) multiple removals was negatively associated with permanency for both caregiver types, but the small sample sizes may have limited our power to detect a significant effect.

Significantly more of the foster/kin caregivers who received PFR after enrolling in the study became the child's legally permanent parents, compared to foster/kin caregivers in the comparison condition. We speculate that the mechanism for this effect is due to PFR's focus on the importance to toddlers of having a consistent, empathic, and comforting attachment figure, and PFR's application of a "parallel process" for the duration of the intervention. The parallel process meant that the PFR provider was a consistent and empathic "secure base" for the caregiver as the caregiver tried out new and different ways of relating to her child, including being an empathic and secure base for the child. Perhaps, as a result of the PFR intervention, foster/kin caregivers appreciated the importance to the child's well-being of an uninterrupted, permanent attachment relationship. PFR helped caregivers reflect on the attachment-related feelings and needs underlying children's challenging behavior, especially the child's need for safety and security. PFR did not directly address attitudes toward adoption or caregiver commitment, but by six months after enrollment there was a trend for foster/kin caregivers in the PFR group to report higher commitment, compared to foster/kin caregivers in the comparison group. Perhaps PFR influenced caregivers' decisions to adopt their foster children through multiple pathways, including the improved quality of their relationship with the child, a deeper understanding that the loss of that relationship would be painful for the child, and a corresponding increase in commitment to the child, a hypothesis that needs to be addressed in future research.

The disruptions to attachment relationships experienced by the toddlers in this study are typical of other reports on this age group in child welfare (Jones Harden, 2007). On average, study toddlers had had 2.7 primary caregivers since birth, and over 10% had already experienced failed reunifications with their birth families. These events can adversely affect children's well-being in ways that may not be manifest by overtly difficult behavior in the early years. Eventually, however, many children with multiple removals and placement changes respond with behavioral challenges that pose a problem for the families that foster them. Receiving a program like PFR soon after a child joins the family may be helpful in improving both parenting quality and permanency outcomes, which in turn would improve child well-being.

4.1. Conclusions

Conclusions based on the results of this study are qualified by the small sample size and short term, two year follow-up by which time many children had still not achieved permanency. Many child welfare, child, family, and caregiver factors that influence stability and permanency planning were not measured. Although it was not a primary aim of the study, we followed the lead of other researchers who examined the effects of a parenting intervention on child welfare outcomes and found that *Promoting First Relationships*® had a positive effect on permanency outcomes for children in care with foster/kin parents. The numbers of children affected were few, but these results suggest that perhaps permanency outcomes and child well-being can be improved further if policies as well as services to maltreated children are developmentally informed by attachment theory (Zeanah, Shauffer, & Dozier, 2011).

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