

# Predictors of Psychological Adjustment in Early Placed Adopted Children With Lesbian, Gay, and Heterosexual Parents

Abbie E. Goldberg  
Clark University

JuliAnna Z. Smith  
University of Massachusetts

Little research has focused on predictors of psychological adjustment among early placed adopted children. Additionally, the research on adopted children in lesbian or gay parent-families is sparse. The current study examined 40 female same-sex, 35 male same-sex, and 45 different-sex parent families with adopted children, all of whom were placed in their adoptive homes under the age of 18 months. We explored aspects of children's preadoptive and postadoptive contexts (measured at 3 months postplacement) in relation to children's externalizing and internalizing symptoms (measured at 2 years postplacement;  $M$  age = 2.33 years). Findings revealed that lack of parental preparation for the adoption, and parental depressive symptoms, were associated with higher parent-reported levels of both externalizing and internalizing symptoms. Additionally, parents' relationship conflict was associated with higher levels of parent- and partner-reported internalizing symptoms. Children's adjustment outcomes did not differ by family type. Our findings point to the importance of considering the adoptive family context (including parent and couple subsystems) in predicting later adjustment in early placed adopted children, in diverse family contexts.

*Keywords:* adopted, CBCL, gay, lesbian, longitudinal

Adopted children are shaped by a complex and intersecting set of ecological contexts, including both the preadoptive (i.e., birth family) and postadoptive (i.e., adoptive family) contexts (Bronfenbrenner, 1986, 1989; Reitz & Watson, 1992). Adjustment difficulties in adopted children may develop as a function of problems within each of these contexts, or systems, including the birth parent-child subsystem (e.g., experiencing frequent transitions in early caregiving environments may impair children's ability to form stable attachments to subsequent caregivers), the adoptive parent subsystem (e.g., depressed parents may experience deficits in their ability to parent effectively), and the relational subsystem (e.g., parents who experience high conflict in their relationship may model unhealthy ways of relating) (Bronfenbrenner, 1989; Winton, 1995). Notably, much of the research that examines the emotional or behavioral outcomes of adopted children has focused more on the preadoptive context than the postadoptive context

(Dumaret, Duyme, & Tomkiewicz, 1997; Logan, Morrall, & Chambers, 1998; Simmel, Brooks, Barth, & Hinshaw, 2001), thus ignoring established predictors of child well-being (e.g., the role of parental depression in child adjustment; Cummings & Davies, 1994). Further, studies have tended to examine older adopted children (Juffer & van IJzendoorn, 2005; Nickman et al., 2005), many of whom were adopted at age 2 or older (Simmel et al., 2001; Smith, Howard, & Monroe, 1998).

The current study examines child adjustment in a sample of 2–3.5 year-old children who were adopted under the age of 1.5 years. According to developmental theorists (Bradley, 1995), early childhood represents a sensitive period during which good caregiving and a stable environment can have long-term positive effects on adjustment, even offsetting the effects of certain risk factors (e.g., early instability in caregiving environments; Combs-Orme, Wilson, Cain, Page, & Kirby, 2003). We consider aspects of children's preadoptive context—namely, age at placement and previous placements—that have been linked to adjustment in adopted children, but that may be less salient in children placed at a young age, particularly once aspects of the postadoptive context have been taken into account. We examine aspects of the adoptive family context—namely, parents' preparation for the adoption, depression, and relationship conflict—that may shape child outcomes. Indeed, the parent and couple subsystems are routinely considered in social workers' formal assessments of the suitability of the prospective adoptive family (i.e., the home study process; Crea, Barth, & Chintapalli, 2007). By examining multiple dimensions of children's pre- and postadoptive context in predicting their adjustment 2 years postplacement, we gain a more nuanced knowledge of the factors that impinge on early placed children's adjustment over time.

---

Abbie E. Goldberg, Department of Psychology, Clark University; JuliAnna Z. Smith, Methodology Consultant, Center for Research on Families, University of Massachusetts.

This research was funded by several grants, awarded to the first author: Grant R03HD054394, from the Eunice Kennedy Shriver National Institute of Child Health & Human Development; the Wayne F. Placek award, from the American Psychological Foundation; a small grant from the Williams Institute, at the University of California Los Angeles School of Law; and a Work-Family Career Development Grant, from the Alfred P. Sloan Foundation.

Correspondence concerning this article should be addressed to Abbie E. Goldberg, Associate Professor, Department of Psychology, Clark University, 950 Main St, Worcester, MA 01610. E-mail: [agoldberg@clarku.edu](mailto:agoldberg@clarku.edu)

Our study overcomes other limitations of the research on adopted children's adjustment. Most studies focus solely on children with heterosexual parents (despite the fact that same-sex couples are increasingly adopting; Gates, Badgett, Macomber, & Chambers, 2007), use samples of children that range widely in age at the time of placement or assessment (Averett, Nalavany, & Ryan, 2009; Howard, Smith, & Ryan, 2004), and are cross-sectional (Dumaret et al., 1997; Logan et al., 1998; Simmel et al., 2001). We examine child adjustment in 120 adoptive-parent families (40 female same-sex, 35 male same-sex, and 45 different-sex couples) and limited our sample to children who were under 1.5 years at the time of adoptive placement, and thus were between 2 and 3.5 years at the 2-year postplacement follow-up ( $M = 2.33$  years,  $SD = .53$ ). Constraining children's age at placement enabled us to reduce one source of variability, and examine what factors, within children of this age range, predicted psychological adjustment. We used data collected 3 months postplacement (i.e., aspects of the pre- and postadoptive contexts) to predict children's externalizing and internalizing symptoms 2 years postplacement.

### The Role of the Preadoptive Context in Child Adjustment

Children may have certain experiences in the preadoptive context that ultimately place them at risk for adjustment problems. Both the length and nature of the preadoptive environment, for example, may have implications for adjustment. Children's age at placement is often linked to greater maladjustment (Dumaret et al., 1997; Howard et al., 2004; Simmel et al., 2001), although a few studies have not found a significant link between child age and adjustment (e.g., Rosnati, Montiroso, & Barni, 2008). Age at placement often functions as a "proxy" for adverse experiences in the preadoptive context (e.g., abuse by birth parents, placement instability) in that older children are more likely to have adverse experiences (Howe, 1997; Logan et al., 1998), both because they are older, and also because these experiences may have contributed to their placement for adoption. Prior adversity must be considered independently of child age, especially given that some studies have shown that the negative effects linked to age at placement are because of the early abuse and placement instability that children have experienced (e.g., Logan et al., 1998).

In the current study, we examine whether *child age* is related to adjustment. Indeed, given that much of the research that has found a negative effect of age at placement on child outcomes has studied late-placed children (Simmel et al., 2001; Smith et al., 1998), and some studies have found that children who are placed under 1–2 years are at lower risk for adjustment problems than later-placed children (Gunnar et al., 2007; Logan et al., 1998), we examine whether this effect is still present when age at placement is constrained to under 18 months. In addition, we consider whether *placement instability* may relate to child adjustment, inasmuch as a higher number of preadoptive placements has been linked to more externalizing and internalizing problems in adopted children (Logan et al., 1998; Niemann & Weiss, 2012). In addition, because prior abuse or neglect may be confounded with age and prior placements, we control for it (because the incidence of abuse in our sample, 5%, provided insufficient power for adequate statistical tests). Based on the literature, we hypothesize that an older age at placement (H1) and a history of prior placements (H2) will be

related to higher levels of parent-reported externalizing and internalizing symptoms in children.

### The Role of the Postadoptive Context in Child Adjustment

In addition to examining aspects of the preadoptive context in predicting child adjustment, it is important to consider aspects of the adoptive family context in which the child is being raised (Bronfenbrenner, 1986), in that the adoptive parent and relational subsystems also impact child well-being (Reitz & Watson, 1992; Winton, 1995). With regard to the parent subsystem, parents' *preparation for the adoption* may have implications for child development. Adoption preparation and training may support families' adjustment and reduce the possibility of placement disruption (Paulsen & Merighi, 2009). There is evidence that the more prepared parents feel for the adoption, and for the challenges that they might face in raising an adopted child, the fewer child adjustment problems they report (Paulsen & Merighi, 2009; Sar, 2000). Parents' satisfaction with the adoption process, which is closely related to preparation, has also been linked to fewer adjustment problems (Averett et al., 2009). We assess parents' self-reported preparation for the adoption, 3 months postplacement, as this may predict later child adjustment. We expect that lower levels of preparation will be linked to higher parent-reported externalizing and internalizing symptoms in children (H3).

Adoptive parents' well-being may also have implications for their children's adjustment. *Parental depression* may influence child adjustment, either through the symptoms of depression that manifest when parents interact with their children (e.g., emotional unavailability), or, through the effect of depressive symptoms on parenting abilities (Cummings & Davies, 1994). Parental depressive symptoms has been linked to children's internalizing (Steinhausen, Mas, Ledermann, & Metzke, 2006) and externalizing (Mantymaa, Puura, Luoma, Lalva, Salmelin, & Tamminen, 2012) behaviors. These findings have been replicated in samples with adopted children (Elliott & McMahon, 2011; Pemberton et al., 2012). Further, longitudinal research has demonstrated that parents' depressive symptoms during the first year predict children's adjustment in preschool (Bagner, Pettit, Lewinsohn, & Seeley, 2010). The current study examines parental depressive symptoms at 3 months postplacement, in that the early transition to the adoptive home is a period during which parents' emotional availability, and parent-child interaction, have key implications for child development (Goldberg, 2010a). We expect that parents who report more depressive symptoms at 3 months postplacement will report more externalizing and internalizing symptoms in their children 2 years postplacement (H4).

The relational subsystem is also important in considering children's adjustment. *Negative relationship dynamics* may impact parenting specifically and the emotional climate in which the child develops generally (Reitz & Watson, 1992). According to the spillover hypothesis, negativity in the parents' intimate relationship is carried into the parenting domain, and in turn shapes child adjustment (e.g., via the mediating role of problematic parenting behaviors; Kaczynski, Lindahl, Malik, & Laurenceau, 2006; Rhoades et al., 2011). Poor relationship quality has been linked to children's externalizing and internalizing behaviors (Ablow, Measelle, Cowan, & Cowan, 2009; Benzie, Harrison, & Magill-

Evans, 1998). Relationship conflict in particular has been linked to child adjustment, in nonadoptive (Ablow et al., 2009; Erel & Kissil, 2003) and adoptive (Rhoades et al., 2012; Stover et al., 2012) samples. Further, longitudinal studies have shown that parents' marital quality in infancy predicts children's adjustment in preschool (Benzies et al., 1998). Given our focus on how the adoptive family context may shape child outcomes, we consider relationship conflict as a predictor of child symptoms. We expect parents who report more conflict at 3 months postplacement will report more symptoms in their children 2 years postplacement (H5).

A final aspect of the adoptive family context that we consider is *family structure*. According to Bronfenbrenner (1986, 1989), the nature of the family structure (e.g., number and gender of parents) may shape family processes, which in turn shape child development. Public interest and debate has increasingly focused on whether lesbian- or gay-parent households represent an acceptable family structure: that is, whether children raised by same-sex parents will show "normal" development (see Goldberg, 2010b). In light of these debates, studies have compared children in lesbian-mother families formed via donor insemination to children in heterosexual-parent families. These studies have found few differences in child adjustment by family type (Goldberg, 2010b). The few studies that have examined the adjustment of adopted children with lesbian or gay parents show that parental sexual orientation is unrelated to child outcomes (Averett et al., 2009; Farr, Forssell, & Patterson, 2010). Averett et al. (2009) conducted a cross-sectional study of adopted children aged 1.5–18 years with lesbian, gay, and heterosexual parents and found that children's adjustment did not vary as a function of family type. Higher parent satisfaction with the adoption process was related to better adjustment in all children, and older child age and higher family functioning were related to better child adjustment in children aged 6–18. In another cross-sectional study, Farr et al. (2010) studied 1–5 year-old adopted children with lesbian, gay, and heterosexual parents. Parenting stress, but not family type, was linked to poorer child adjustment.

We do not expect differences in child adjustment as a function of family type. We only include family type as a family context variable given public interest in how child outcomes may differ by parent sexual orientation specifically and family context generally (Goldberg, 2010b).

### The Current Study

This study examines aspects of the pre- and postadoptive contexts in relation to child adjustment in 120 two-parent adoptive families (i.e., 40 female same-sex, 35 male same-sex, and 45 different-sex couples who adopted their children). We limited our sample to first-time parents.

### Method

#### Description of the Sample

Data were taken from a longitudinal study of the transition to adoptive parenthood. All 120 couples were adopting their first child, and in all cases it was a single child. Descriptive data for the sample, by family type, are in Table 1. The sample is more affluent

than national estimates for same-sex and different-sex adoptive parent families (whose average household incomes are \$102,474 and \$81,900, respectively; Gates et al., 2007), with male couples averaging \$202,200 ( $SD = \$142,178$ ;  $Mdn = \$164,000$ ), female couples \$114,040 ( $SD = \$68,103$ ,  $Mdn = \$100,000$ ), and different-sex couples \$127,560 ( $SD = \$66,892$ ,  $Mdn = \$102,000$ ). Family income differed by family type according to a Kruskal–Wallis test, ( $H_2$ ) = 11.95,  $p = .003$ , with a mean rank of 46.99 for female couples, 51.00 for different-sex couples, and 71.69 for male couples. Post hoc analyses showed that male couples had a higher income than female couples, ( $H_1$ ) = 24.71,  $p = .004$ . Median income also differed by family type,  $\chi^2(2, 120) = 11.69$ ,  $p = .003$ . Male couples had a higher median income than female couples,  $\chi^2(1, 75) = 8.79$ ,  $p = .009$ . Analyses revealed no differences in relationship length or education by family type, at  $p < .01$ .

Most parents in the sample were White: 93% of female same-sex parents, 90% of male same-sex parents, and 89% of different-sex parents. Children in the sample were disproportionately of color (i.e., non-White, including biracial children): 69% of female couples, 51% of male couples, and 61% of different-sex couples adopted children of color. In total, 53% of female couples, 56% of male couples, and 42% of different-sex couples adopted a boy. Chi-square analyses showed no differences in parent race, child race, or child gender by family type. Among female couples, in 90% of couples, both partners had legally adopted their children; in 10% of couples ( $n = 4$ ), only one partner had legally adopted, because of state laws that did not allow both same-sex partners to become the legal adoptive parents of their children. Among male couples, in 91% of couples, both partners had legally adopted; thus, in 9% of couples ( $n = 3$ ), only one partner was a legal parent. Legal recognition did not differ by family type.

### Recruitment and Procedures

Inclusion criteria for the larger study from which this sample was drawn were: (a) couples must be adopting their first child; and (b) both partners must be becoming parents for the first time. Participants were originally recruited during the preadoptive period (i.e., while they were waiting for a child placement). Adoption agencies across the United States were asked to provide study information to clients who had not yet adopted. U.S. census data were used to identify states with a high percentage of same-sex couples (Gates & Ost, 2004); effort was made to contact agencies in those states. Over 30 agencies provided information to clients, typically in the form of a brochure that invited them to participate in a study of the transition to adoptive parenthood. Couples were asked to contact the principal investigator for details. Because some same-sex couples may not be "out" to agencies about their sexual orientation, several national gay organizations (e.g., the Human Rights Campaign) also assisted in disseminating study information.

Participation entailed completion of a questionnaire packet and participation in a telephone interview 3 months after they were placed with their first child. Participants then completed a follow-up questionnaire packet and telephone interview 2 years after they were placed with a child. Participants were interviewed separately from their partners. Interviews lasted 1–1.5 h.

Table 1  
 Demographic, Control, Predictor, and Outcome Variables, by Family Type

	Full sample ( <i>n</i> = 120 families) <i>M</i> ( <i>SD</i> ) or %	Female same-sex ( <i>n</i> = 40 families) <i>M</i> ( <i>SD</i> ) or %	Male same-sex ( <i>n</i> = 35 families) <i>M</i> ( <i>SD</i> ) or %	Different-sex ( <i>n</i> = 45 families) <i>M</i> ( <i>SD</i> ) or %
<b>Demographics and controls</b>				
Family income	\$144,902 (\$104,249)	\$114,040 (\$68,103) <sup>a</sup>	\$202,200 (\$142,178) <sup>a</sup>	\$127,560 (\$66,892)
Relationship duration (years)	8.18 (3.61)	7.56 (3.54)	7.44 (3.57)	9.05 (3.86)
Education (range of 1–6)	4.46 (.98)	4.51 (.99)	4.61 (.97)	4.39 (.98)
Current child age (years)	2.33 (.53)	2.32 (.42)	2.20 (.52)	2.41 (.61)
Both legal parents	n/a	92%	91%	n/a
Abuse or neglect	5%	7%	3%	4%
Drug exposure	31%	36%	26%	31%
<b>Parent race</b>				
White	91%	93%	90%	89%
Of color	9%	7%	10%	11%
<b>Child race</b>				
White	49%	31%	49%	39%
Of color	61%	69%	51%	61%
<b>Child gender</b>				
Boy	47%	53%	56%	42%
Girl	53%	47%	44%	58%
<b>Adoption route</b>				
Public domestic	14%	20%	12%	11%
Private domestic	65%	60%	80% <sup>b</sup>	58% <sup>b</sup>
International	21%	20%	8% <sup>c</sup>	31% <sup>c</sup>
<b>Predictors</b>				
Child age at placement (months)	3.19 (5.19)	3.20 (4.90)	.82 (3.12) <sup>d</sup>	4.76 (5.94) <sup>d</sup>
Prior placements	33%	42% <sup>e</sup>	12% <sup>e,f</sup>	42% <sup>f</sup>
Preparation for adoption	4.57 (.52)	4.54 (.50)	4.55 (.50)	4.63 (.54)
Parent depression	.45 (.39)	.44 (.40)	.52 (.47)	.43 (.32)
Relationship conflict	3.85 (1.22)	3.77 (1.34)	3.86 (1.18)	3.92 (1.15)
	<i>t</i> -score <i>M</i> ( <i>SE</i> ); % clinical range	<i>t</i> -score <i>M</i> ( <i>SE</i> ); % clinical range	<i>t</i> -score <i>M</i> ( <i>SE</i> ); % clinical range	<i>t</i> -score <i>M</i> ( <i>SE</i> ); % clinical range
<b>Outcomes</b>				
Externalizing	46.06 (.74); 7%	46.35 (1.26); 11%	45.93 (1.42); 3%	45.86 (1.14); 7%
Internalizing	42.34 (.66); 2%	43.65 (1.12); 3%	40.78 (1.26); 0%	42.57 (1.02); 3%

*Note.* Only one score or value per dyad is reported for the following variables: family income, relationship duration, current child age, abuse or neglect, drug exposure, child race, child gender, adoption route, child age at placement, and prior placements. There were no disagreements over child age, adoption type, child race, and child gender. Lack of agreement between partners regarding prior placements, drug exposure, and abuse or neglect was infrequent and resolved by data obtained in subsequent interviews. Income was determined by adding the two individuals' reports of their own income together. Relationship duration represents the average of both partners' reports of their relationship length. In turn, chi squares and ANOVAs are used to calculate differences by family type. For the remaining variables, partners' scores vary within the couple, and thus MLM is used to calculate differences by family type, as a means of accounting for the dependency in the data.

<sup>a</sup> Male couples had a higher median income than female couples,  $\chi^2(1, 75) = 8.79, p = .009$ . <sup>b</sup> Male couples were more likely to adopt via private domestic adoption than different-sex couples,  $\chi^2(1, 80) = 7.45, p = .005$ . <sup>c</sup> Male couples were less likely to adopt internationally than different-sex couples,  $\chi^2(1, 80) = 8.60, p = .003$ . <sup>d</sup> Male couples' children were younger than different-sex couples' children,  $F(1, 80) = 10.45, p = .002$ . <sup>e</sup> Male couples' children were less likely to have been previously placed than female couples' children,  $\chi^2(1, 75) = 9.95, p = .001$ . <sup>f</sup> Male couples' children were less likely to have been previously placed than different-sex couples' children  $\chi^2(1, 80) = 12.81, p = .001$ .

## Measures

### Outcomes.

**Child emotional and behavior problems.** The Child Behavior Checklist (CBCL/1.5–5; Achenbach & Rescorla, 2000), designed for children 1.5–5 years, consists of three domains: internalizing problems, externalizing problems, and total problems. We used the internalizing and externalizing problem scores as outcomes. Parents responded to 100 items and indicated how often their child displayed various emotional/behavioral problems using a 3-point scale (0 = *not true*; 1 = *somewhat/sometimes true*; 2 = *very/often true*). We transformed the raw scores into standard *t* scores. Higher scores represent more symptoms. In the nonreferred standardiza-

tion sample, the mean *t* score for parent reports was 50.2 (*SD* = 9.9) for both externalizing and internalizing scales. The mean *t* score for the clinically referred sample was 61.7 (*SD* = 11.1) for the externalizing scale and 61.2 (*SD* = 10.9) for the internalizing scale (Achenbach & Rescorla, 2000, p. 155).

The CBCL/1.5–5 has good internal consistency and test–retest reliability in heterosexual and same-sex parent samples (Achenbach & Rescorla, 2000; Farr et al., 2010). However, it is important to note that the externalizing and internalizing subscales on the CBCL tend to be more highly correlated in preschool samples, and thus may have less discriminant validity in this age group (Konold, Hamre, & Pianta, 2003). In the current sample, the two subscales were highly correlated,  $r = .60, p < .001$ . For the externalizing



scale, alphas were .92 for female couples, .86 for male couples, .92 for women in different-sex couples, and .92 for men in different-sex couples. For the internalizing scale, alphas were .85 for female couples, .80 for male couples, .86 for women in different-sex couples, and .85 for men in different-sex couples.

#### Predictors.

**Child age at placement.** Child age (in months), at the time of the adoptive placement.

**Prior placements.** At the 3 month postplacement interview, parents were asked how many previous placements (e.g., orphanages, foster homes) their child had, before being placed in the adoptive home. The number of placements ranged from 0 to 3. Given that only 5% of the sample had multiple (more than one) prior placements, we coded prior placements as a dichotomous variable (0 vs. 1), where 0 = *no prior placements* and 1 = *prior placements*.

**Preparation for adoption.** At the 3 month postplacement interview, parents were asked, "How prepared did you feel for the adoption?" They responded using a 5-point scale: 1 = *very unprepared*, 2 = *somewhat unprepared*, 3 = *neutral*, 4 = *somewhat prepared*, 5 = *very prepared*.

**Parent depressive symptoms.** The 20-item Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) was used to assess parents' depressive symptoms, 3 months postplacement. Using a 4-point scale ranging from 0 = *rarely/none of the time* to 3 = *most/all of the time*, participants considered the past week and estimated the frequency of feelings corresponding to statements like "I felt sad." Higher mean scores represent more depression. The CES-D has established validity, and prior studies of lesbian and gay parents indicate good internal consistency (Goldberg & Smith, 2011). Alphas were .88 for female couples, .87 for male couples, .84 for women in different-sex couples, and .85 for men in different-sex couples.

**Relationship conflict.** Conflict was assessed using a 5-item scale (Personal Relationships Scale; Braiker & Kelley, 1979). Using a 9-point scale (1 = *not at all/never*, to 9 = *very much/very often*), parents responded to questions like, "How often do you and your partner argue?" Higher mean scores indicate more conflict. The measure shows good internal consistency in research with same-sex couples (Goldberg & Smith, 2011). Alphas were .74 for female couples, .70 for male couples, .71 for women in different-sex couples, and .69 for men in different-sex couples.

**Family type.** Family type was coded such that 1 = *female same-sex parent household*, 2 = *male same-sex parent household*, and 3 = *different-sex parent household*.

#### Controls.

**Abuse or neglect.** At the 3 month postplacement interview, parents were asked whether their child had a history of abuse, neglect, or maltreatment. Parents responded yes, no, or don't know; only one parent responded "don't know." This variable was recoded, such that 1 = *definite abuse or neglect (yes)* and -1 = *unknown or no abuse or neglect (no, don't know)*. We include abuse as a control since some research has linked it to higher levels of internalizing and externalizing behaviors (Dumaret et al., 1997; Logan et al., 1998). We do not include it as a predictor of interest given the low base rate of abuse in the sample (5%) and thus insufficient power to detect effects.

**Prenatal drug exposure.** Three months postplacement, parents were asked if their child had been exposed to drugs in utero.

They responded yes, no, or don't know; 18% of the sample responded don't know. This variable was recoded, such that 1 = *definite drug exposure (yes)*, and -1 = *unknown or no drug exposure (no, don't know)*. Notably, there tends to be little reliability in reports of prenatal drug exposure for infants who are adopted internationally, as parents who adopt internationally often have little information about their child's prenatal history (Miller, Chan, Comfort, & Tirella, 2005). In fact, in this sample, not a single parent who adopted internationally reported "definite drug use." We include drug exposure as a control because some research has linked it to externalizing problems (Simmel et al., 2001).

**Child gender.** Child gender was effects coded (1 = *female*, -1 = *male*) and used as a control given that boys have higher levels of externalizing problems and girls have higher levels of internalizing problems, in some studies (Bayer, Hoiscock, Ukoumunne, Price, & Wake, 2008).

**Child age at time of CBCL assessment.** Child age at the time that parents completed the CBCL (i.e., 2 year postplacement) was included as a control, given that CBCL scores may be affected by child age (Achenbach & Rescorla, 2000). For example, in the standardization sample for the CBCL/1.5-5, older children tended to score higher on the internalizing scale, and younger children tended to score higher on the externalizing scale (Achenbach & Rescorla, 2000, p. 85).

**Adoption route.** Adoption route was coded such that 1 = *public domestic adoption*, 2 = *private domestic adoption*, and 3 = *international adoption*. We included adoption route as a control in follow-up analyses based on our finding that (a) the distributions of adoption route differed by family type, and (b) aspects of children's preadoptive history differed by route.

**Analytic strategy.** Because both parents reported on child outcomes, it was necessary to use a method that could take into account both parents' reports for each child. Multilevel modeling (MLM) permits examination of multiple informants' reports of the same outcome and provides accurate standard errors for testing the regression coefficients relating predictors to outcome scores (Kuo, Mohler, Raudenbush, & Earls, 2000; Smith, Sayer, & Goldberg, 2013). The multilevel models tested were two-level random intercept models such that both parents' reports (Level 1) were nested within the child (Level 2). A single intercept was used as there was no characteristic meaningful to the analyses (such as parent gender) available to distinguish between the two parent reports for each child (Smith et al., 2013). To deal with intracouple differences, the Level 1 model was a within-child, repeated measures, multiple informant model that used information from both members of the couple to define one parameter—an intercept, or average score—for each child. This intercept is a random variable that is treated as an outcome variable at Level 2. Scores that vary by parent were entered at Level 1 (e.g., parent depression), while those that varied by family were entered at Level 2 (e.g., child gender; Smith et al., 2013). MLM was also used to examine mean differences by family type on the predictor variables for which there was more than one report per child (i.e., adoption preparation, depression, relationship conflict).

All continuous variables were grand mean-centered. Prior placements was coded dichotomously, while abuse or neglect, drug exposure, and child gender were effects coded, and contrasts were used to examine predictors with three categories (family type,

adoption route). Effect sizes are presented as the proportional reduction in variance; however, these figures must be viewed with caution, as MLM estimates of variance may not be reliable when examining dyadic data (Raudenbush, 2008; Smith et al., 2013).

To better understand how parents' self-reports of their children's background and the family context are related to their self-reports of their children's symptoms, we conducted a series of exploratory follow-up analyses. (a) As several predictors were related to adoption route (e.g., prior placements, family type) we entered adoption route as a control variable, to see if it altered the findings. (b) As there were parents who were uncertain of their child's preadoption abuse history or exposure to drugs in utero, additional models were fit dropping these children from the sample. (c) Given the high correlation between reports of internalizing and externalizing symptoms ( $r = .60$ ), which is consistent with prior research using the CBCL with preschoolers (Achenbach & Rescorla, 2000), we controlled for parents' reports of internalizing symptoms when predicting their reports of externalizing symptoms, and vice versa, to determine the distinctiveness of the findings for each domain. (d) To better understand the degree to which linkages between predictors and outcomes may be driven by reporter effects, we used a cross-rater approach (Harold et al., 2011; Natsuaki et al., 2010), where we treated *partners' reports* of child symptoms as the outcome, to see if a similar pattern of finding emerged. We view these last two sets of analyses as exploratory, in that scholars have rarely used these approaches.

## Results

First, we present descriptive data on the predictor and outcome variables. Then, we present the multilevel models predicting child CBCL scores. Finally, we present our follow-up analyses.

### Sample Descriptives

Table 1 provides descriptive data for the predictor variables for the full sample and by family type. To account for the multiple tests made in examining group differences in the predictors by family type, a cut-off of  $p < .01$  was used. Prior placements differed by family type,  $\chi^2(2, 120) = 13.30, p = .001$ . Children of male couples were less likely to have been previously placed than children of female couples,  $\chi^2(1, 75) = 9.95, p = .001$ , and different-sex couples,  $\chi^2(1, 80) = 12.81, p = .001$ . Analysis of variance (ANOVA) showed that child age at placement differed significantly by family type,  $F(2, 118) = 5.58, p = .005$ . Children of male couples were younger than children of different-sex couples,  $F(1, 80) = 10.45, p = .002$ ; mean difference =  $-3.61, SE = 1.12$ . None of the other predictors differed by family type, and nor did they differ by gender within different-sex couples.

Overall, the sample reported low levels of depressive symptoms ( $M = .45$ ), although other community-based surveys have reported similar means (e.g.,  $M = .41$ ; Cheung, Liu, & Yip, 2007). Sixteen percent of the sample had scores beyond the clinical cut-off ( $M = 3.00$ ): 13% of women in female couples, 21% of men in male couples, 15% of women in different-sex couples, and 14% of men in different-sex couples. Chi-square analyses found that clinical status did not vary by family type. The intraclass correlation (ICC) for depression (i.e., the correlation between partners' reports of symptoms) was .29. The ICC for adoption preparation was .41, and for conflict it was .33.

The overall sample means for the CBCL externalizing and internalizing scores were 46.06 ( $SD = 9.00$ ; range 28–79) and 42.34 ( $SD = 8.44$ ; range 29–79), respectively. The means are lower than those reported in the nonreferred standardization sample ( $M = 50.2$  for both subscales), as well as some other samples of young adopted children (e.g., Tan, Camras, Deng, Zhang, & Lu, 2012). They are, however, similar to those reported in Farr et al.'s (2010) study of early placed adopted children aged 1–5. Farr et al. (2010) report that the means and  $SD$ s for externalizing symptoms in lesbian-, gay-, and heterosexual-parent families were 44.76 (9.26), 46.76 (9.76), and 47.21 (50.72); for internalizing symptoms, they were 42.28 (9.39), 43.19 (10.31), and 44.03 (9.39).

The CBCL provides cut-off scores to distinguish deviant or "clinical" scores from nondeviant or "normal" scores. A  $t$  score of 60 is the cut-off for preschool-aged children on the externalizing and internalizing subscales (Achenbach & Rescorla, 2000). Ninety percent of preschool-aged children in the standardization sample had scores in the normal range, and 10% had scores in the borderline/clinical range. In the current sample, 89% of children in female same-sex parent families, 97% of children in male same-sex parent families, and 93% of children in different-sex parent families had externalizing scores in the normal range; 97% of children in female same-sex parent families, 100% of the children in male same-sex parent families, and 97% of children in different-sex parent families had internalizing scores in the normal range (see Table 1).

Before conducting our main set of MLM analyses, we used MLM to examine externalizing scores and internalizing scores as a function of family type, child gender, and, within different-sex couples, by parent gender. Scores did not differ by family type, child gender, or parent gender (see Table 1). Overall, partner's reports of child symptoms were correlated within couples, at  $r = .49$  for externalizing symptoms and  $r = .37$  for internalizing symptoms.

### Primary Analyses: Multilevel Analyses Predicting CBCL Scores

**Multilevel analyses predicting externalizing symptoms.** In the model predicting externalizing symptoms, the following were included as predictors: child age at placement, prior placements, preparation for the adoption, parental depressive symptoms, conflict, and family type. Abuse or neglect, drug abuse, child gender, and current child age were included as controls (see Table 2). Neither of the preadoptive context variables (child age, prior placements) emerged as significant. Several postadoptive context variables were significant. Parents' preparation for the adoption significantly predicted externalizing symptoms,  $\gamma = -4.90, t(204) = -4.23, p < .001$ : Parents who reported being less prepared for the adoption at 3 months postplacement reported more symptoms in their children when they were toddlers (H3). Parents' depressive symptoms significantly predicted externalizing symptoms,  $\gamma = 4.96, t(196) = 3.45, p < .01$ : Parents who reported higher levels of depressive symptoms at 3 months postplacement reported more symptoms in their children when they were toddlers (H4). As expected, family type was unrelated to children's externalizing symptoms. Contrary to expectation, conflict was not significantly associated with symptoms. None of the controls were associated with symptoms.

Table 2  
*Predicting CBCL Externalizing and Internalizing Scores From Pre- and Postadoptive Contextual Factors*

	Externalizing estimate (SE)	Internalizing estimate (SE)	Externalizing estimate (SE) (controlling for internalizing)	Internalizing estimate (SE) (controlling for externalizing)	Partner's report-externalizing estimate (SE)	Partner's report-internalizing estimate (SE)
Intercept	49.62 (2.19)***	45.56 (2.09)***	21.14 (3.15)***	16.21 (3.21)***	45.98 (2.49)***	42.57 (2.37)***
Child age at placement	-.09 (.22)	.20 (.21)	-.04 (.18)	.14 (.17)	-.05 (.26)	.21 (.24)
Prior placements	-.62 (1.02)	-.99 (.97)	.09 (.84)	-.68 (.79)	-1.67 (1.17)	-.77 (1.10)
Preparation for adoption	-4.90 (1.16)***	-2.52 (1.13)*	-3.42 (.93)***	.44 (.94)	-.22 (1.28)	-.86 (1.25)
Parent depression	4.96 (1.44)**	6.76 (1.41)***	.71 (1.20)	3.79 (1.16)**	.12 (1.55)	-.55 (1.53)
Conflict	.32 (.47)	.97 (.46)*	.92 (.37)*	1.21 (.37)**	1.25 (.53)*	1.10 (.51)*
Family type						
Female same-sex	.40 (1.62)	.83 (1.53)	-.91 (1.33)	1.06 (1.26)	.25 (1.84)	1.53 (2.37)
Male same-sex	-1.32 (1.85)	-2.52 (1.75)	.30 (1.52)	-1.79 (1.44)	-1.89 (2.07)	-2.10 (1.95)
Different-sex	0 <sup>a</sup>	0 <sup>a</sup>	0 <sup>a</sup>	0 <sup>a</sup>	0 <sup>a</sup>	0 <sup>a</sup>
Abuse or neglect	2.29 (1.21)	.76 (1.17)	1.76 (.97)	-.57 (.95)	.59 (1.40)	-1.87 (1.35)
Drug exposure	-.65 (.75)	.50 (.72)	-.97 (.62)	.89 (.59)	-.58 (.85)	.05 (.81)
Child gender	-.03 (.69)	-.001 (.65)	-.02 (.56)	-.008 (.53)	-.28 (.78)	-.11 (.73)
Current child age	-1.71 (1.53)	.88 (1.49)	-2.38 (1.21)	2.01 (1.19)	.69 (1.78)	-.86 (1.74)
Internalizing			.62 (.06)***			
Externalizing				.59 (.05)***		

Note. The default was changed to evaluate significant differences between female same-sex and male same-sex couples. No differences were found between groups.

<sup>a</sup> Different-sex couple was set as the default (comparison) group; thus, it is set to zero because it is redundant.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

**Effect sizes.** The proportional reduction in variance in externalizing symptoms accounted for by depression and preparation for adoption were 8% and 8.5%, respectively. In other words, parental depression accounted for 8% of the variance in externalizing symptoms, and parental preparation for adoption accounted for 8.5% of the variance in externalizing symptoms. These estimates must be viewed with some caution, however, as the variance estimates produced by multilevel models examining dyadic data are not necessarily reliable (Smith et al., 2013).

**Multilevel analyses predicting internalizing problems.** In the model predicting internalizing symptoms, the same set of predictors and controls were included (see Table 2). Neither of the preadoptive context variables emerged as significant. However, all of the adoptive family context variables were related to internalizing symptoms. Parents' preparation for the adoption significantly predicted children's internalizing symptoms,  $\gamma = -2.52$ ,  $t(202) = -2.23$ ,  $p = .027$ : Parents who reported being less prepared for the adoption at 3 months postplacement reported higher levels of symptoms in their children when they were toddlers (H3). Parental depressive symptoms also emerged as a significant predictor of children's symptoms,  $\gamma = 6.76$ ,  $t(201) = 4.79$ ,  $p < .001$ : Parents who reported higher levels of depressive symptoms at 3 months postplacement reported higher levels of symptoms in their children (H4). Conflict was related to children's internalizing symptoms,  $\gamma = .97$ ,  $t(201) = 2.09$ ,  $p = .037$ : parents who reported more conflict at 3 months postplacement reported more symptoms in their children (H5). As expected, family type was unrelated to symptoms. Controls were unrelated to symptoms.

**Effect sizes.** The proportional reduction in variance in internalizing symptoms accounted for by depression, preparation for adoption, and conflict were 11%, 1.5%, and 5%, respectively. Again, these estimates should be viewed with caution (Smith et al., 2013).

## Follow-Up Analyses

We conducted several follow-up analyses, aimed at determining whether the findings from our primary analyses would change when we (a) recoded key control variables; (b) controlled for adoption route; (c) controlled for internalizing symptoms in predicting externalizing symptoms, and vice versa; and (d) used a cross-rater approach whereby we utilized partner's reports of externalizing and internalizing symptoms as the outcome, as opposed to participants' reports.

## Recoding Controls

We refit the model such that only children whose parents who answered yes or no regarding the presence of drug abuse were included, and those whose parents responded, "I don't know" were dropped from analyses. Likewise, we refit the model such that only parents who answered yes or no regarding the presence of abuse or neglect were included. In both sets of analyses, the pattern of findings was identical to the original analyses.

## Controlling for Adoption Route

Because adoption route was highly associated with several predictors in our model, we determined that adding adoption route as a control in follow-up analyses was warranted. Specifically, chi-square analyses showed that the distributions of adoption route differed by family type,  $\chi^2(2, 120) = 10.49$ ,  $p = .01$ . Post hoc chi-square tests revealed that male couples were more likely to adopt via private domestic adoption, and less likely to adopt internationally, compared with different-sex couples (see Table 1).

Further, we found that aspects of children's preadoptive history differed by adoption route (see Table 3). ANOVA showed that age

Table 3  
*Preadoptive Risk Variables, by Adoption Route*

	Total (n = 120)	Public (n = 17)	Private domestic (n = 78)	International (n = 25)
Child age (M, SD)	3.19 (5.19)	7.65 (6.62) <sup>a</sup>	.37 (.97) <sup>a,b</sup>	10.10 (4.57) <sup>b</sup>
Prior placements	37%	88% <sup>c,d</sup>	9% <sup>c,e</sup>	100% <sup>d,e</sup>
Abuse or neglect	5%	53% <sup>f,g</sup>	0% <sup>f</sup>	4% <sup>g</sup>
Drug exposure	31%	76% <sup>h</sup>	41% <sup>i</sup>	0% <sup>h,i</sup>

*Note.* Because of the fact that parents who adopt internationally often receive very limited information regarding certain aspects of their children's background, rates of abuse or neglect and drug exposure should be viewed with significant caution for this group.

<sup>a</sup> Private domestic adoptees were younger than public domestic adoptees,  $F(1, 94) = 88.72, p < .001$ . <sup>b</sup> Private domestic adoptees were younger than international adoptees,  $F(1, 102) = 319.48, p < .001$ . <sup>c</sup> Private domestic adoptees were less likely to have been previously placed than public domestic adoptees,  $\chi^2(1, 95) = 64.23, p < .001$ . <sup>d</sup> Public domestic adoptees were less likely to have been previously placed than international adoptees,  $\chi^2(1, 95) = 21.82, p = .01$ . <sup>e</sup> Private domestic adoptees were less likely to have been previously placed than international adoptees,  $\chi^2(1, 103) = 178.01, p < .001$ . <sup>f</sup> Public domestic adoptees were more likely to have been abused than private domestic adoptees,  $\chi^2(1, 95) = 16.28, p = .002$ . <sup>g</sup> Public domestic adoptees were more likely to have been abused than international adoptees,  $\chi^2(1, 42) = 11.70, p = .004$ . <sup>h</sup> Public domestic adoptees were more likely to have been exposed to drugs than international adoptees,  $\chi^2(1, 42) = 26.74, p < .001$ . <sup>i</sup> Private domestic adoptees were more likely to have been exposed to drugs than international adoptees,  $\chi^2(1, 103) = 11.77, p < .001$ .

at placement differed significantly by route,  $F(2, 118) = 113.59, p < .001$ . Private domestic adoptees were younger than children adopted via other routes. Chi-square analyses showed that presence of prior placements varied by route,  $\chi^2(2, 120) = 182.79, p < .001$ . In the case of private domestically adopted children, those with prior placements were typically children whose birth parents had briefly parented them before seeking a private agency to arrange an adoption. In the case of international adoptees, all children had been in orphanages and/or foster homes. Private domestic adoptees were less likely to have been previously placed than other children, and public domestic adoptees were less likely to have been previously placed than international adoptees. Presence of abuse varied by route,  $\chi^2(2, 120) = 43.91, p < .001$ . Public domestic adoptees were significantly more likely to have been reportedly abused than children adopted via other routes. Drug exposure varied by route,  $\chi^2(2, 120) = 43.13, p < .001$ . International adoptees were less likely to have been reportedly drug exposed than other children.

Given the above findings, we examined whether externalizing and internalizing scores differed by adoption route, using MLM. They did not. We then added adoption route to our MLM models as a control. Adoption route was not a significant predictor of symptoms, and there were no changes to the pattern or significance of the findings when it was added.

### Controlling for CBCL Subscales

Participants' reports of internalizing and externalizing symptoms were highly correlated ( $r = .60$ ), suggesting that these scales may not be meaningfully distinct in this sample of young children. Thus, in a series of follow-up analyses, we controlled for participants' reports of their children's internalizing symptoms in predicting their own reports of their children's externalizing symptoms (see Table 2). Internalizing symptoms significantly predicted externalizing symptoms,  $\gamma = .62, t(198) = 10.91, p < .001$ . Parental preparation for the adoption remained significant,  $\gamma = -3.42, t(200) = -3.67, p < .001$ , but parental depressive symptoms was rendered nonsignificant. Further, conflict emerged as significant,  $\gamma = .92, t(198) = 2.44, p = .015$ : Parents who reported

more conflict in their relationships reported higher levels of externalizing symptoms in their children.

We then controlled for participants' reports of their children's externalizing symptoms in predicting their own reports of their children's internalizing symptoms. Externalizing symptoms significantly predicted internalizing symptoms,  $\gamma = .59, t(200) = 10.84, p < .001$ . Parent depressive symptoms,  $\gamma = 3.79, t(195) = 3.29, p < .01$ , and relational conflict,  $\gamma = 1.21, t(199) = 3.29, p < .01$ , remained significant; however, preparation for the adoption was rendered nonsignificant.

### Predicting Partners' Reports of CBCL Symptoms

In a final series of follow-up analyses, we explored the extent to which our findings may have resulted from having the same reporters for some of the predictors and outcomes. To eliminate this potential bias, we regressed parents' reports of predictors (i.e., preparation for the adoption, depressive symptoms, and conflict) on their partners' reports of children's symptoms (see Table 2). In predicting partners' reports of both externalizing symptoms and internalizing symptoms, the only significant predictor was parents' own reports of conflict,  $\gamma = 1.25, t(190) = 2.37, p = .019$ ; and  $\gamma = 1.10, t(187) = 2.01, p = .048$ , respectively. Parents who reported more conflict in their relationships had partners who reported higher symptom levels in their children.

### Discussion

The current longitudinal study is one of the first to investigate the role of both the pre- and postadoptive contexts, including aspects of both the birth family and adoptive family subsystems, in predicting children's emotional and behavioral outcomes in a sample of early placed children. By studying children who were placed in their adoptive homes before the age of 1.5 years, we were able to examine whether aspects of the preadoptive context that have been linked to child outcomes in studies of older children are still important in predicting the well-being of early placed children. Further, we were able to examine the role of the postadoptive context, and to assess whether various adoptive family subsystems



are related, prospectively, to child adjustment in early childhood. In addition, this is one of the first studies to examine the psychological adjustment of adopted children with same-sex and heterosexual parents (Averett et al., 2009; Farr et al., 2010).

In the current sample of early placed toddler-aged children, average internalizing and externalizing scores were lower than those reported in the standardization sample of nonreferred children (Achenbach & Rescorla, 2000). They were also lower than some studies of similar-aged adopted children (Tan et al., 2012) but similar to those reported in Farr et al.'s (2010) study of 1–5 year-old adopted children in lesbian, gay, and heterosexual parent families. Perhaps the adoptive parents in this sample were sensitive to stigma associated with adoption (Goldberg, 2010a) and in turn tended to underreport their children's symptoms. The fact that their children were placed at an early age may also have led them to expect, and thus perceive, few problems in their children, given the widespread canon that "earlier is better" when it comes to age at placement (Goldberg, 2010a). Finally, the fact that we restricted the sample to those families who were placed early in life, and the fact that the sample as a whole is educated and fairly affluent, may also explain the low symptom levels in this sample. Some prior studies have found that early placed children show few differences in adjustment outcomes when compared with their nonadopted peers (e.g., Fergusson, Lynskey, & Horwood, 1995); others, though, still suggest somewhat elevated problems for early placed children (Howard et al., 2004; Moore & Fombonne, 1999). Thus, our finding of low symptom levels is consistent with some, but not all, prior research.

We found that child age at placement—or the duration of time in the preadoptive context—did not emerge as a significant predictor of child adjustment. This is inconsistent with many prior studies (Dumaret et al., 1997; Smith et al., 1998) and is likely a function of the fact that the sample was of a limited age range. Studies that find significant effects for child age frequently study children who range widely in age (Averett et al., 2009; Gunnar et al., 2007), with older children having usually experienced more adversity and instability (Howe, 1997; Logan et al., 1998). Our findings suggest that among children who are placed before 18 months, age is not a key determinant of within-group variability in emotional/behavioral symptoms.

Prior placements, an indicator of the stability versus upheaval associated with the preadoptive context, was also not significantly associated with child outcomes, which is inconsistent with some prior work (Logan et al., 1998; Niemann & Weiss, 2012). The lack of findings for prior placements, again, may be related to the age of the sample: The younger age at placement means that the sample, as a whole, had few prior placements, with those being of a relatively short duration, leading to less disruption—and an easier integration into the adoptive family system—than those experienced by older children in prior studies (Juffer & van IJzendoorn, 2005).

A strength of this study was our examination of the adoptive family context. Although adoptive parents may not be able to control various aspects of their child's preadoptive history, they do have some control over the parent and relational subsystems; thus, our findings regarding the adoptive context may be useful in informing interventions with families. Building on cross-sectional research linking parents' adoption preparation to child functioning (Paulsen & Merighi, 2009; Sar, 2000), we found that parents'

adoption preparation was related to both externalizing and internalizing symptoms—although when externalizing symptoms were controlled for, preparation was no longer related to internalizing symptoms. The more robust association between parents' self-reports of preparation for adoption and externalizing symptoms may reflect the fact that externalizing problems are more easily observable than internalizing problems, particularly in young children (Achenbach & Rescorla, 2000); indeed, the lower intracouple correlation for internalizing symptoms also speaks to this issue. Or, perhaps adoption training programs provide more guidance in dealing with defiance and acting out than recognizing and handling sadness or withdrawal. Future work can help to clarify the mechanisms of influence. Further, future work can help to determine whether "adoption preparedness" is a proxy for something else, such as receiving a child who did not meet one's expectations; the link between ill-preparation and perceived child externalizing problems might reflect frustrated expectations. Future work also should examine different dimensions of adoption preparedness to tease apart what aspects of preparation are most important to child outcomes. Such research will be useful to adoption practitioners, who assess adoption preparedness in the home study process (Crea et al., 2007).

We found that parents' depressive symptoms predicted perceived externalizing and internalizing symptoms—although when internalizing symptoms were controlled for, the effect of parental depressive symptoms on externalizing symptoms disappeared. This finding is somewhat consistent with some prior work finding stronger links between parental depressive symptoms and internalizing symptoms than externalizing symptoms (Gravener et al., 2012; Leckman–Westin, Cohen, & Stueve, 2009). Depressive symptoms may compromise parents' emotional availability and ability to parent effectively, which can contribute to child adjustment problems (Cummings & Davies, 1994), or at least more negative perceptions of children (Gartstein, Bridgett, Dishion, & Kaufman, 2009). Indeed, the fact that we did not find parental depressive symptoms to be related to *partners'* reports of child symptoms suggests that the link between depressive symptoms and child outcomes may in part be because of a reporter effect: More depressed parents tend to view their children as having more problems in part because of a negative outlook on reality (Gartstein et al., 2009). It may be that, as prior work has found, parental depression leads to self-criticism and child criticism, which leads to higher levels of parent-reported child externalizing and internalizing behaviors (Gravener et al., 2012). Perhaps a focus on changing negative parental representations of oneself and one's child can help to prevent the emergence of child adjustment problems.

The relational subsystem emerged as an important context in child adjustment, in that it was a significant predictor across all analyses. Parents who reported more conflict during the early transition phase reported that their children had more internalizing behaviors 2 years later. Further, conflict was also related to *partners'* reports of both internalizing and externalizing symptoms, an association that may in part reflect the dyadic nature of conflict: the correlation between partners' reports of conflict was .33, compared to .29 for depression. These findings are consistent with some research on nonadopted samples (Erel & Kissil, 2003) and may reflect a direct influence of conflict on adjustment, whereby children who view their parents arguing often begin to manifest

distress; or, it may reflect a relationship between conflict and coparenting, whereby parents in high-conflict relationships tend to show deficits in their ability to harmoniously coparent their children, which causes child problems (Margolin, Gordis, & John, 2001). That conflict may have implications for adjustment so early in children's lives points to the postadoption phase as a critical period for intervention efforts aimed at enhancing the health of the relational subsystem.

As expected, family type was unrelated to children's adjustment. This finding is consistent with earlier work (Farr et al., 2010), and provides support for arguments that prospective adopters should not be discriminated against, in policy or practice, based on sexual orientation (Goldberg, 2010b). The fact that adoption route was not related to adjustment when considering child age and prior placements is important, and suggests the importance of examining the variables that are associated with adoption route as opposed to treating route as a proxy for risk.

Significantly, when partners' reports of children's symptoms were used as the outcome, the majority of our findings disappeared (i.e., all except for relational conflict). This suggests that reporter bias may play a large role in the findings, and underscores the need for research to use outside ratings of children's symptoms; it also suggests the need to view our findings with caution.

### Limitations

A primary limitation is our reliance on parent reports. It is ideal to gather data on child adjustment from multiple informants (e.g., teachers, child care providers) who have contact with children in various contexts (Farr et al., 2010). It should be kept in mind that different reporters may observe different aspects of children's behavior, as children's behavior varies by context. In our primary analyses, the same informant was reporting on the child and parent characteristics, leading to potential reporter bias in the associations among parental depression, parental preparation for adoption, conflict, and child outcomes. Indeed, with the exception of conflict, these associations disappeared when examining partner reports of the child. Other informants (such as child care providers) may have also reported higher symptom levels than were reported by the parents in the sample. Another limitation is that we measured child adjustment at one point in time. It is important to follow adopted children over time, as some work on adopted children shows that problematic behaviors may intensify as youth reach school-age (Nickman et al., 2005).

Another limitation is the reliability of certain measures in the study. It is difficult to obtain accurate reports of abuse or neglect and drug exposure. Adoptive parents are typically relying on second-hand information about their child's preadoptive and prenatal history, and, thus, both abuse or neglect and prenatal drug exposure may go unreported (Melina, 1997). This may be particularly likely in the case of parents who adopt from countries where children are often placed in orphanages anonymously. It is notable that among the internationally adopting parents, none were certain that their child had been exposed to drugs, and only one reported a history of abuse. In addition, the small number of parents reporting abuse overall suggests that the null findings related to this variable should be viewed with caution. Future work should seek to replicate our findings in a sample where children with such histories are better represented, given an established link between

abuse and child maladjustment (Dumaret et al., 1997; Logan et al., 1998). We also used a one-item measure to assess adoption preparedness. Single-item measures can only assess constructs in a global way; they cannot differentiate dimensions within broad constructs. Future work should use multi-item measures to assess preparation.

We also did not assess negative parenting practices, which have been found to predict child adjustment problems (Morris et al., 2002). Future work on adoptive families should assess parenting practice in relation to child outcomes, as well as interactions between parenting and child characteristics, and interactions between the pre- and postadoption contexts (e.g., is early placement instability associated with negative child outcomes in families who feel less prepared for the adoption but not in families who feel more prepared?). Finally, this study focused on two-parent adoptive families; our findings cannot be extended to single-parent adoptive families.

### Conclusion

Our findings suggest that within children adopted before 18 months, certain preadoption experiences, such as the presence of early placements, do not predict early adjustment. Rather, a positive adoptive family context, such as preparedness for adoption and low-conflict parent relationships, are related to more positive adjustment. Practitioners can use these findings to assist adoptive parents, by emphasizing the importance of adoption preparedness, positive well-being, and strong relationships, in that cultivating these strengths will facilitate positive family outcomes.

### References

- Ablow, J. C., Measelle, J. R., Cowan, P. A., & Cowan, C. P. (2009). Linking marital conflict and children's adjustment: The role of young children's perceptions. *Journal of Family Psychology, 23*, 485–499. doi:10.1037/a0015894
- Achenbach, T. M., & Rescorla, L. A. (2000). *Manual for the ASEBA preschool forms and profiles*. Burlington, VT: University of Vermont.
- Averett, P., Nalavany, B., & Ryan, S. (2009). An evaluation of lesbian/gay and heterosexual adoption. *Adoption Quarterly, 12*, 129–151. doi:10.1080/10926750903313278
- Bagner, D., Pettit, J., Lewinsohn, P., & Seeley, J. (2010). Effect of maternal depression on child behavior: A sensitive period? *Journal of the American Academy of Child & Adolescent Psychiatry, 49*, 699–707. doi:10.1016/j.jaac.2010.03.012
- Bayer, J., Hiscock, H., Ukoumunne, O., Price, A., & Wake, M. (2008). Early childhood aetiology of mental health problems: A longitudinal population-based study. *The Journal of Child Psychology and Psychiatry, 40*, 1166–1174. doi:10.1111/j.1469-7610.2008.01943.x
- Benzies, K., Harrison, M., & Magill-Evans, J. (1998). Impact of marital quality and parent-infant interaction on preschool behavior problems. *Public Health Nursing, 15*, 35–43. doi:10.1111/j.1525-1446.1998.tb00319.x
- Bradley, R. H. (1995). Environment and parenting. In M. H. Bornstein (Ed), *Handbook of parenting. Volume 1. Children and parenting* (pp. 235–261). Mahwah, NJ: Erlbaum.
- Braiker, H., & Kelley, H. (1979). Conflict in the development of close relationships. In R. Burgess & T. Huston (Eds.), *Social exchange in developing relationships* (pp. 135–167). New York, NY: Academic Press.
- Bronfenbrenner, U. (1986). Ecology of the family as a context for human development: Research perspectives. *Developmental Psychology, 22*, 723–742. doi:10.1037//0012-1649.22.6.723

- Bronfenbrenner, U. (1989). Ecological systems theory. In R. Vasta (Ed), *Six theories of child development* (Vol. 6, pp. 197–250). Greenwich, CT: JAI Press.
- Cheung, Y., Liu, K. Y., & Yip, P. (2007). Performance of the CES-D and its short forms in screening suicidality and hopelessness in the community. *Suicide & Life-Threatening Behavior, 37*, 79–88. doi:10.1521/suli.2007.37.1.79
- Combs-Orme, T., Wilson, E., Cain, D. S., Page, T., & Kirby, L. D. (2003). Context-based parenting in infancy. *Child and Adolescent Social Work Journal, 20*, 437–472. doi:10.1023/B:CASW.0000003138.32550.a2
- Crea, T., Barth, R., & Chintapalli, L. (2007). Home study methods for evaluating prospective resource families: History, current challenges, and promising approaches. *Child Welfare, 86*, 141–159.
- Cummings, E. M., & Davies, P. T. (1994). Maternal depression and child development. *Journal of Child Psychology and Psychiatry, 35*, 73–112. doi:10.1111/j.1469-7610.1994.tb01133.x
- Dumaret, A., Duyme, M., & Tomkiewicz, S. (1997). Foster children: Risk factors and development at a preschool age. *Early Child Development and Care, 134*, 23–42. doi:10.1080/0300443971340102
- Elliott, A., & McMahon, C. (2011). Anxiety among an Australian sample of young girls adopted from China. *Adoption Quarterly, 14*, 161–180. doi:10.1080/10926755.2011.560792
- Erel, O., & Kissil, K. (2003). The linkage between multiple perspectives of the marital relationship and preschoolers' adjustment. *Journal of Child & Family Studies, 12*, 411–423.
- Farr, R., Forssell, S., & Patterson, C. (2010). Parenting and child development in adoptive families: Does parental sexual orientation matter? *Applied Developmental Science, 10*, 164–178. doi:10.1080/10888691.2010.500958
- Fergusson, D. M., Lynskey, M., & Horwood, L. J. (1995). The adolescent outcomes of adoption: A 16-year longitudinal study. *Journal of Child Psychology and Psychiatry and Allied Disciplines, 36*, 597–615. doi:10.1111/j.1469-7610.1995.tb01313.x
- Gartstein, M. A., Bridgett, D. J., Dishion, T. J., & Kaufman, N. K. (2009). Depressed mood and parental report of child behavior problems: Another look at the depression-distortion hypothesis. *Journal of Applied Developmental Psychology, 30*, 149–160.
- Gates, G., Badgett, M. V. L., Macomber, J. E., & Chambers, K. (2007). *Adoption and foster care by gay and lesbian parents in the United States*. Washington, DC: The Urban Institute.
- Gates, G., & Ost, J. (2004). *The gay and lesbian atlas*. Washington, DC: The Urban Institute.
- Goldberg, A. E. (2010a). The transition to adoptive parenthood. In T. W. Miller (Ed.) *Handbook of stressful transitions across the life span* (pp. 165–184). New York, NY: Springer. doi:10.1007/978-1-4419-0748-6\_9
- Goldberg, A. E. (2010b). *Lesbian and gay parents and their children: Research on the family life cycle*. Washington, DC: American Psychological Association. doi:10.1037/12055-004
- Goldberg, A. E., & Smith, J. Z. (2011). Stigma, social context, and mental health: Lesbian and gay couples across the transition to adoptive parenthood. *Journal of Counseling Psychology, 58*, 139–150. doi:10.1037/a0021684
- Gravener, J., Rogosch, F., Oshri, A., Narayan, A., Cicchetti, D., & Toth, S. (2012). The relations among maternal depressive disorder, maternal expressed emotion, and toddler behavior problems and attachment. *Journal of Abnormal Child Psychology, 40*, 803–813. doi:10.1007/s10802-011-9598-z
- Gunnar, M., van Dulmen, M. H. M., & the International Adoption Project Team. (2007). Behavior problems of postinstitutionalized internationally adopted children. *Development & Psychopathology, 19*, 129–148. doi:10.1017/S0954579407007071
- Harold, G., Rice, F., Hay, D., Boivin, J., van den Bree, M., & Thapar, A. (2011). Familial transmission of depression and antisocial behavior symptoms: Disentangling the contribution of inherited and environmental factors and testing the mediating role of parenting. *Psychological Medicine, 41*, 1175–1185. doi:10.1017/S0033291710001753
- Howard, J. A., Smith, S. L., & Ryan, S. D. (2004). A comparative study of child welfare adoptions with other types of adopted children and birth children. *Adoption Quarterly, 7*, 1–30. doi:10.1300/J145v07n03\_01
- Howe, D. (1997). Parent-reported problems in 211 adopted children: Some risk and protective factors. *Journal of Child Psychology and Psychiatry, 38*, 401–411. doi:10.1111/j.1469-7610.1997.tb01525.x
- Juffer, F., & van IJzendoorn, M. (2005). Behavior problems and mental health referrals of international adoptees. *Journal of the American Medical Association, 293*, 2501–2515. doi:10.1001/jama.293.20.2501
- Kaczynski, K., Lindahl, K., Malik, N., & Laurenceau, J. P. (2006). Marital conflict, maternal and paternal parenting, and child adjustment: A test of mediation and moderation. *Journal of Family Psychology, 20*, 199–208. doi:10.1037/0893-3200.20.2.199
- Konold, T., Hamre, B., & Pianta, R. (2003). Measuring problem behaviors in young children. *Behavioral Disorders, 28*, 111–123.
- Kuo, M., Mohler, B., Raudenbush, S. L., & Earls, F. J. (2000). Assessing exposure to violence using multiple informants: Application of hierarchical linear model. *Journal of Child Psychology and Psychiatry, 41*, 1049–1056. doi:10.1111/1469-7610.00692
- Leckman-Westin, E., Cohen, P. R., & Stueve, A. (2009). Maternal depression and mother-child interaction patterns: Association with toddler problems and continuity of effects to late childhood. *Journal of Child Psychology & Psychiatry, 50*, 1176–1184. doi:10.1111/j.1469-7610.2009.02083.x
- Logan, F., Morrall, P., & Chambers, H. (1998). Identification of risk factors for psychological disturbance in adopted children. *Child Abuse Review, 7*, 154–164. doi:10.1002/(SICI)1099-0852(199805/06)7:3<154::AID-CAR333>3.3.CO;2-T
- Mantymaa, M., Puura, K., Luoma, I., Latva, R., Salmelin, R., & Tamminen, T. (2012). Predicting internalizing and externalizing problems at five years by child and parental factors in infancy and toddlerhood. *Child Psychiatry and Human Development, 43*, 153–170. doi:10.1007/s10578-011-0255-0
- Margolin, G., Gordis, E., & John, R. (2001). Coparenting: A link between marital conflict and parenting in two-parent families. *Journal of Family Psychology, 15*, 3–21. doi:10.1037//0893-3200.15.1.3
- Melina, L. (1997). Researchers are optimistic about drug-exposed children; adoptive parents are apprehensive. *Adopted Child, 16*, 1–4.
- Miller, L., Chan, W., Comfort, K., & Tirella, L. (2005). Health of children adopted from Guatemala: Comparison of orphanage and foster care. *Pediatrics, 115*, e710–7. doi:10.1542/peds.2004-2359
- Moore, J., & Fombonne, E. (1999). Psychopathology in adopted and non-adopted children: A clinical sample. *American Journal of Orthopsychiatry, 69*, 403–409.
- Morris, A., Sheffield, J., Steinberg, L., Sessa, L., Avenevoli, S., & Essex, M. (2002). Temperamental vulnerability and negative parenting as interacting of child adjustment. *Journal of Marriage and Family, 64*, 461–471. doi:10.1111/j.1741-3737.2002.00461.x
- Natsuaki, M., Ge, X., Leve, L., Neiderhiser, J., Shaw, D., & Reiss, D. (2010). Genetic liability, environment, and the development of fussiness in toddlers: The roles of maternal depression and parental responsiveness. *Developmental Psychology, 46*, 1147–1158. doi:10.1037/a0019659
- Nickman, S., Rosenfield, A., Fine, P., MacIntyre, J., Pilowsky, D., & Sveda, S. (2005). Children in adoptive families: Overview and update. *Journal of the American Academy of Child & Adolescent Psychiatry, 44*, 987–995. doi:10.1097/01.chi.0000174463.60987.69
- Niemann, S., & Weiss, S. (2012). Factors affecting attachment in international adoptees at 6 months post adoption. *Child Youth Services Review, 34*, 205–212. doi:10.1016/j.childyouth.2011.10.001



- Paulsen, C., & Merighi, J. R. (2009). Adoption preparedness, cultural engagement, and parental satisfaction in intercountry adoption. *Adoption Quarterly, 12*, 1–18. doi:10.1080/10926750902791540
- Pemberton, C., Neiderhiser, J., Leve, L., Natsuaki, M., Shaw, D., & Ge, X. (2010). Influence of parental depressive symptoms on adopted toddler behaviors: An emerging developmental cascade of genetic and environmental effects. *Development & Psychopathology, 22*, 803–818. doi:10.1017/S0954579410000477
- 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. doi:10.1177/014662167700100306
- Raudenbush, S. W. (2008). Many small groups. In J. de Leeuw, E. Meijer, J. de Leeuw, & E. Meijer (Eds.), *Handbook of multilevel analysis* (pp. 207–236). New York, NY: Springer. doi:10.1007/978-0-387-73186-5\_5
- Reitz, M., & Watson, K. W. (1992). *Adoption and the family system*. New York, NY: Guilford Press.
- Rhoades, K., Leve, L., Harold, G., Neiderhiser, J., Shaw, D., & Reiss, D. (2011). Longitudinal pathways from marital hostility to child anger during toddlerhood: Genetic susceptibility and indirect effects via harsh parenting. *Journal of Family Psychology, 25*, 282–291. doi:10.1037/a0022886
- Rosnati, R., Montiroso, R., & Barni, D. (2008). Behavioral and emotional problems among Italian international adoptees and non-adopted children: Father's and mother's reports. *Journal of Family Psychology, 22*, 541–549. doi:10.1037/0893-3200.22.3.541
- Sar, B. (2000). Preparation for adoptive parenthood with a special-needs child: Role of agency preparation tasks. *Adoption Quarterly, 3*, 63–80. doi:10.1300/J145v03n04\_05
- Simmel, C., Brooks, D., Barth, R., & Hinshaw, S. (2001). Externalizing symptomatology among adoptive youth: Prevalence and preadoption risk factors. *Journal of Abnormal Child Psychology, 29*, 57–69.
- Smith, J. Z., Sayer, A. G., & Goldberg, A. E. (2013). Multilevel modeling approaches to the study of LGBT parent-families. In A. E. Goldberg & K. A. Allen (Eds.), *LGBT-parent families: Innovations in research and implications for practice* (pp. 307–323). New York, NY: Springer. doi:10.1007/978-1-4614-4556-2\_20
- Smith, S., Howard, J., & Monroe, A. (1998). An analysis of child behavior problems in adoptions in difficulty. *Journal of Social Service Research, 24*, 61–84. doi:10.1300/J079v24n01\_03
- Steinhausen, H. C., Mas, S. D., Ledermann, C., & Metzke, C. W. (2006). Risk factors for the development of emotional and behavioural problems in children born to drug-dependent mothers. *European Child and Adolescent Psychiatry, 15*, 460–466. doi:10.1007/s00787-006-0568-x
- Stover, C., Connell, C., Leve, L., Neiderhiser, J., Shaw, D., Scaramella, L., & Reiss, D. (2012). Fathering and mothering in the family system: Linking marital hostility and aggression in adopted toddlers. *Journal of Child Psychology & Psychiatry, 53*, 401–409. doi:10.1111/j.1469-7610.2011.02510.x
- Tan, T., Camras, L., Deng, H., Zhang, M., & Lu, Z. (2012). Family stress, parenting styles, and behavioral adjustment in preschool-age adopted Chinese girls. *Early Childhood Research Quarterly, 27*, 128–136. doi:10.1016/j.ecresq.2011.04.002
- Winton, C. (1995). *Frameworks for studying families*. Guilford Press, CT: Duskin.

Received August 19, 2012

Revision received February 25, 2013

Accepted March 11, 2013 ■

### Call for Papers: Special Issue on Gender Diversity Issues

*Professional Psychology: Research and Practice* will feature a special issue related to practice with transgender clients (broadly defined to include those identifying as “gender fluid,” “non-binary gender,” or other related self-styled names). We invite articles on all aspects of professional psychology work with clients with diverse or minority gender identities. Articles addressing psychological issues and interventions at the individual, family, community, and societal level, including health issues and obstacles to care, are sought for a special section of the journal. We are particularly interested in quantitative and qualitative empirical studies, comprehensive literature reviews, conceptual pieces, and program and therapy outcome studies, although descriptions of innovative programs or interventions may be considered. Manuscripts can be submitted through the Journal's electronic portal, under the Instructions to Authors at: <http://www.apa.org/pubs/journals/pro/index.aspx>

Please note in your cover letter that you are submitting for this special issue and send in attention to Kathi A. Borden, Ph.D., Associate Editor, *Professional Psychology: Research and Practice*.