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Parenting and Child Development in Adoptive Families: Does Parental Sexual Orientation Matter?

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This study investigated child development and parenting in 106 families headed by 27 lesbian, 29 gay, and 50 heterosexual couples (80% White, $M = 42$ years) with young adopted children (41% White, $M = 3$ years). Parents and teachers reported that, on average, children were developing in typical ways. Measures of children's adjustment, parenting approaches, parenting stress, and couple relationship adjustment were not significantly associated with parental sexual orientation. However, several family process variables—parenting stress, parenting approaches, and couple relationship adjustment—were found to be significantly associated with children's adjustment, regardless of parental sexual orientation. Implications for understanding the role of gender and sexual orientation in parenting, as well as for legal and policy debates, are discussed.

Should the sexual orientation of prospective adoptive parents be considered when placing children in adoptive homes? The adoption of minor children by lesbian and gay adults has been a topic of considerable debate. Although substantial research has demonstrated that children of lesbian and gay parents develop in ways that are similar to those of heterosexual parents, families with lesbian and gay parents remain controversial in courtrooms, legislatures, and in the media. Meanwhile, many children await placement with permanent families. For example, in the United States, there are over 500,000 children in the child welfare system and over 100,000 children currently waiting to be adopted (U.S. Department of Health, 2008). If lesbian and gay adults are found to be capable adoptive parents, it is likely in the interest of waiting children that they be considered (Ryan, Pearlmutter, & Groza, 2004; Wald, 2006).

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Controversies Surrounding Lesbian and Gay Parenting

The ability of lesbian and gay adults to be capable and effective parents has been questioned, as evidenced by legal proceedings and custody battles fought by lesbian and gay parents, as well as legislation regarding the adoption of children by lesbian and gay adults (Patterson, 2009). At the present time, adoptions by lesbian and gay adults are permitted by law in some countries, but not in others. For instance, adoption by

same-sex couples is legal in Canada, the Netherlands, Spain, Sweden, and the United Kingdom, but not in most other countries around the world (LaRenzie, 2010). In the United States, several states limit or prohibit adoptions by lesbian or gay prospective adoptive parents, either explicitly or by banning unmarried couples (including same-sex couples) from adopting children (Gates, Badgett, Macomber, & Chambers, 2007). Legislatures in at least three states have recently debated resolutions to limit or prohibit adoptions by lesbian and gay adults (Patterson, 2009). Thus, the extent to which the sexual orientation of prospective adoptive parents should be considered when placing children in adoptive homes is a controversial policy issue in many parts of the world.

There are several important conceptual issues at the center of debates about how parental sexual orientation impacts child development (e.g., Baumrind, 1995; Patterson, 2006, 2009). The deeply entrenched belief that children need one male and one female parent for optimal development suggests that children reared by same-sex couples should experience difficulties (Biblarz & Stacey, 2010). Indeed, there has been substantial debate about the possibility that children of lesbian and gay parents may be at risk for negative consequences in domains such as psychological adjustment, peer relationships, and gender and sexual identity (Biblarz & Stacey, 2010). Children's gender development is often a topic of special interest, with concerns raised about children's development of gender-related identities, preferences, and activities (Baumrind, 1995; Patterson, 2002). Will boys reared by lesbian mothers fail to develop appropriate male identities, attractions, and patterns of behavior? What about girls reared by gay fathers with no mother in the household? From psychoanalytic theories to social cognitive theories, major conceptualizations of human development have often been interpreted as predicting difficulties in gender development for children of lesbian and gay parents (Patterson, 2002, 2006).

It is well-established in the literature that children's development should be considered within the context of parent-child relationships (e.g., Baumrind, 1995; Golombok et al., 2003; Lamb & Lewis, 2005). Socialization practices and co-parenting relationships are related to outcomes for children reared in a variety of family structures (Patterson & Hastings, 2008) and similar findings are expected among children with lesbian and gay parents. Differences in children's adjustment would be expected to the extent that lesbian and gay parents differ from heterosexual parents in their parenting behaviors (Baumrind, 1995; Golombok et al., 2003).

To the extent that early family experiences impact children's outcomes in later life, it is crucial to examine associations between parenting and child development among young children with lesbian, gay, and heterosexual parents. Children's development during the toddler and preschool years is particularly important to assess because it is at this time that behavior problems and gender differences begin to emerge (Blakemore, Berenbaum, & Liben, 2009). As early as one year of age, boys and girls show differences in toy preferences. By three or four years, boys are more likely to prefer toys like cars, trains, toy guns, and swords; girls are more likely to prefer toys like tea sets, dolls, and dollhouses. During the preschool years, children develop a clear sense of their gender identity as male or female and, often, become more rigid in their attitudes about gender. By five years, children generally achieve gender constancy, or the realization that gender is fixed and stable across the lifespan (Blakemore et al., 2009).

Different predictions arise from several psychological theories regarding the extent to which children's gender development depends on parenting. For example, a large body of research indicates that biological influences and prenatal hormones are related to children's gender role behavior and activities (e.g., Golombok, Rust, Zervoulis, Croudace, Golding, & Hines, 2008), over and above the influence of parenting. On the other hand, social cognitive theories suggest that gender development is the result of dynamic interactions between social experiences and complex cognitive processes. This approach would suggest that parenting behaviors would be relevant to children's gender development, and that both differences and similarities might be expected among children reared by lesbian, gay, and heterosexual parents (Blakemore et al., 2009). However, the extent to which parenting practices and socialization behaviors matter for gender development and psychological adjustment among young children adopted by lesbian, gay, and heterosexual parents has not been closely examined.

Research on Lesbian- and Gay-Parented Families

Research can inform policy and theoretical debates about children reared by lesbian and gay adults. The healthy development of children born to lesbian and gay parents has been documented by numerous studies, demonstrating that children of lesbian and gay parents have scored similarly to children born to heterosexual parents on a variety of psychological measures (for a review, see Goldberg, 2009). Children born to lesbian parents have not been found to differ from children born to heterosexual parents in terms of behavior problems (e.g., Flaks, Ficher, Masterpasqua, & Joseph, 1995; Vanfraussen, Ponjaert-Kristoffersen, & Brewaeys, 2002), or gender role behavior and activities (e.g., Golombok et al., 2003; Golombok & Tasker, 1996).

A large and growing research literature indicates that lesbian and gay adults are capable parents (e.g., Tasker

& Patterson, 2007). Lesbian and gay parents appear to show parenting styles and have parenting experiences that are similar in many ways to those of heterosexual parents (e.g., Bos, van Balen, & van den Boom, 2004; Golombok et al., 2003). Lesbian and gay parents have also been found to report levels of parenting stress that are similar to those reported by heterosexual parents (e.g., Chan, Raboy, & Patterson, 1998; Golombok et al., 2003). Furthermore, lesbian and gay couples, including those who are coparenting, are as satisfied in their romantic relationships as are their heterosexual counterparts (e.g., Goldberg, 2009).

Overall, parental sexual orientation has not been found to be associated with child and parent outcomes in studies of lesbian and gay parents and their children. Rather, research suggests that family processes, such as parenting quality and attachment, are more important predictors of child outcomes than is family structure. These associations have been found both in biological and adoptive families, and among families with lesbian, gay parents and heterosexual parents (e.g., Chan et al., 1998; Erich, Kanenberg, Case, Allen, & Bogdanos, 2009; Lansford, Ceballo, Abbey, & Stewart, 2001). These family process variables are likely to emerge as more important than parental sexual orientation to child and parent outcomes in adoptive families with lesbian, gay, and heterosexual parents, but these issues have not yet been explicitly studied.

Despite research evidence suggesting that lesbian and gay adults make good parents and that their children are generally happy and healthy, this literature has been subject to several criticisms. First, much less research has focused on families with gay fathers than on those with lesbian parents, so knowledge about children reared by gay fathers is still relatively sparse (Tasker & Patterson, 2007). In addition, many studies involving lesbian or gay parents and their children have employed convenience samples (e.g., Flaks et al., 1995; Vanfraussen et al., 2002), relied entirely on self-report data (e.g., Bigner & Jacobsen, 1992), or have not included comparison groups (e.g., Gartrell, Deck, Rodas, Peyser, & Banks, 2005). For these reasons, the extent to which previous findings may generalize to other samples is unknown.

In particular, the importance of multiple informants to increasing validity and reliability of assessments has been emphasized, especially for assessments of child behavior problems and psychiatric symptoms (Achenbach & Rescorla, 2000). Children may exhibit different behaviors across environments (e.g., from home to school), so gathering data from both parents and teachers can facilitate a more complete picture of children's behavior. Multiple informants may be especially critical in comparing children reared by same-sex and other-sex parents.

Adoptive Families with Lesbian and Gay Parents

In general, less is known about lesbian and gay adoptive families than about other families headed by lesbian and gay parents. There are only a small number of studies exploring family functioning and children's adjustment in adoptive families with lesbian, gay, and heterosexual couples (Erich et al., 2005; Erich et al., 2009; Leung, Erich, & Kanenberg, 2005). The findings of these studies are consistent with those of previous research in that parental sexual orientation has not been found to be significantly associated with child outcomes or family functioning. Rather, family process variables, such as quality of parenting and attachment relationships, were significantly associated with family outcomes.

For several reasons, however, the generalizability of Erich et al.'s (2005, 2009) and Leung et al.'s (2005) results can be questioned. Convenience samples of families were recruited using various nonsystematic means (e.g., solicitations at lesbian and gay support groups). No information was obtained from sources outside the adoptive families; for instance, no data were collected from teachers. The samples of adopted children recruited by Erich et al. (2005) and Leung et al. (2005) ranged widely in age (i.e., from less than one year old to over 10 years old) and represented a variety of adoption experiences (e.g., public versus private adoptions, domestic versus international adoptions, etc.). Erich et al. (2009) recruited older adopted children between 11 and 19 years of age. No systematic research exists on outcomes for adopted children of lesbian and gay parents who were placed permanently as infants.

In sum, very little empirical research about adoptive lesbian and gay families has been reported. Existing research, while valuable, can be criticized on a number of grounds. Thus, the appropriateness of lesbian and gay adoptions continues to be questioned, and conceptual questions about the role of sexual orientation in parenting remain unsettled.

The Present Study

The current study investigated the extent to which parents' sexual orientation is associated with development of young children placed early in life with adoptive parents to whom they are not biologically related. We used systematic methods to recruit lesbian and gay parenting couples, as well as a comparison group of heterosexual parenting couples, from many locations across the United States. All of the couples had young children who had been adopted in infancy through one of a small group of private adoption agencies.

Overall, the objectives of this study were three-fold: (1) to examine associations between parental sexual orientation and children's development using data

gathered from parents as well as from teachers and caregivers; (2) to examine associations among parental sexual orientation, parenting styles, parenting stress, and couples' relationship adjustment; and (3) to examine associations between child outcomes and family process variables, such as parenting stress, parenting techniques, and couples' relationship adjustment. Based on findings from earlier research comparing children born to lesbian, gay, and heterosexual parents, we did not expect children or parents in adoptive lesbian and gay families to fare worse than those in adoptive heterosexual families. Based on family systems' views, however, we expected greater parenting stress, less effective parenting techniques, and more couple relationship dissatisfaction to be associated with more child behavior problems across all family types (Patterson & Hastings, 2008). In short, we expected that family processes would be more clearly linked than family structure with child, parent, and couple adjustment.

METHOD

Participants

Adoptive families were recruited through five cooperating adoption agencies in the United States. Adoption agencies were selected to collaborate on the research project on the basis of several criteria: (1) agencies were located in a jurisdiction which allowed same-sex couples to complete legal adoptions; (2) agencies worked openly with lesbian, gay, and heterosexual couples; and (3) agencies had placed infants (through domestic adoption) with lesbian and gay couples, as well as with heterosexual couples. For eligible agencies, a researcher contacted the agency director to invite participation. Five directors agreed to collaborate on the research project, which entailed their notification of eligible families about the study through a letter or an email. All agencies were private, domestic adoption agencies that provide adoptive and birth families with options for open adoption (i.e., sharing of information and relationships between birth and adoptive families).

Two-parent families with an adopted child between one and five years of age in a jurisdiction where joint adoptions are legally recognized for same-sex couples were considered eligible to participate. The primary cooperating agency, in the Mid-Atlantic United States, identified 117 eligible families—23 lesbian, 21 gay, and 73 heterosexual couples. All were invited to participate in a study about "adoptive family functioning, child development, parenting, and family relationships." Families were first contacted with a letter or email from the agency director about participation in the study, and then follow-up phone calls requesting participation were made by a researcher. Identical recruitment procedures were used for all families, regardless of parental sexual orientation.

Of the 117 eligible families from the primary cooperating agency, 63 couples (17 lesbian, 16 gay, and 30 heterosexual couples) agreed to participate. Thus, response rates were 75% for lesbian and gay couples and 41% for heterosexual couples. Lesbian and gay couples were more likely than heterosexual couples to participate, $\chi^2(2, n = 117) = 12.72$, $p < .01$. The most common reason parents gave for non-participation was lack of time.

As a result of recruiting families from four other cooperating domestic infant adoption agencies in the Northeast, the South, and along the West Coast of the U.S., 43 additional families (11 lesbian, 12 gay, and 20 heterosexual couples) agreed to participate. Adoptive families received a letter of invitation from the agency director via mail or email, and then contacted the researcher directly to participate. Identical recruitment procedures were used for families with lesbian, gay, and heterosexual parents. However, due to concerns about confidentiality, the number of families who were eligible to participate could not be disclosed by these agencies, so participation rates could not be calculated for this subsample.

The final sample recruited from the five agencies consisted of 106 families ($n = 29$ lesbian, 27 gay, and 50 heterosexual couples), with a total of 212 parents and 106 children. See Table 1 for demographic characteristics of participating families. Parents ranged in age from 30 to 60 years ($M = 41.69$, $SD = 5.51$) and children ranged in age from 13 to 72 months ($M = 36.14$, $SD = 15.74$) at the time of assessment. Eighty percent of parents were White, 17% were Black, and 3% of parents were Latino, Asian, or Multiethnic/Biracial. Parents were generally well-educated. Most worked full-time and earned family incomes above national averages. Most families lived in Maryland or the District of Columbia ($n = 56$), and others lived in 10 additional states along the East Coast, West Coast, or in the Southern United States.

The majority of adoptive families had only one child (see Table 1). All parents reported being the legal parents of their adopted children. Children in the sample had been adopted at birth or during the first few weeks of life and had not experienced any prior placements. Children were 41% White, 32% Black, 23% Multiethnic or Biracial, and 4% from other racial groups. There were equal numbers of boys and girls. Transracial adoptions were completed by 42% of families, and 58% of families parents had adopted a child of the same race. Transracial adoption in this case refers to the placement of a racial minority child with a family that includes at least one White parent. According to parents' reports, about a third of families regularly visit with their child's

TABLE 1
Demographic Information about Families Headed by Gay, Lesbian, and Heterosexual Parents

	Lesbian Mothers (n = 54)	*Gay Fathers (n = 58)*	*Heterosexual Parents (n = 100)*	*ANOVA F(1, 210) or x^2 Test*
Parents ($n = 212$)				
Mean age at visit (in years)	43 (5)	41 (5)	42 (6)	$F = 2.78$
Race (% White)	80%	86%	78%	$x^2 < 1$
Education (% college degree)	94%	89%	85%	$x^2 < 1$
Work status (% full-time)	72%	81%	77%	$x^2 < 1$
Annual family income ($K)	168 (77)	190 (130)	150 (89)	$F = 1.34$
Mean length of couples' relationship (in years)	13 (5)	13 (6)	14 (5)	$F < 1$
Interracial relationship	11%	28%	8%	$x^2 = 12.14^{**}$
One child in household	63%	62%	50%	$x^2 = 1.69$
Transracial adoption	48%	55%	30%	$x^2 = 13.27^{***}$
Children ($n = 106$)				
Mean age at visit (in months)	35 (20)	35 (13)	36 (16)	$F < 1$
Mean age arriving in home (in weeks)	4.0 (10)	3.3 (7)	1.9 (2)	$F = 2.08$
Sex (% girls)	59%	36%	52%	$x^2 = 3.07^{*}$
Race (% White)	41%	38%	44%	$x^2 < 1$
Developmental status (% special needs adoption)	11%	7%	4%	$x^2 = 1.44$
Any visitation with birthparents? (% yes)	29%	28%	30%	$x^2 = 5.23$

Note: Standard deviations are given in parentheses.
$^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

birthparents, and all families send photographs and letters to their child's birthparents once or twice each year. There were no significant differences among family types in the extent to which children were in contact with their birthparents.

There were some differences in demographic characteristics as a function of parental sexual orientation (see Table 1). Children of lesbian and heterosexual parents were more likely to be daughters, while children of gay fathers were more likely to be sons. As in earlier research (Rosenfeld & Kim, 2005), gay couples were more likely than lesbian or heterosexual couples to be interracial. Lesbian and gay couples completed transracial adoptions more often than heterosexual couples. We have reported elsewhere on the characteristics of the transracial adoptive families and interracial couples in this sample (Farr & Patterson, 2009). Initial analyses revealed that child sex, interracial couple status, and transracial adoptive status were not significantly associated with any of the outcomes of interest in the current study.

Despite a few differences, families headed by lesbian, gay, and heterosexual parents were demographically similar overall. No parents in the sample were biologically related to their adopted child, and all had intentionally become permanent adoptive parents to infants born in the United States using the services of the same private adoption agencies. There were no significant differences among family types with regard to parental age, race, employment status, educational attainment, total family income, length of couples' relationships, number of children in the household, language spoken at home, child age, child race, child developmental status, or contact with birthparents. Overall, the demographic characteristics of this sample of adoptive families were similar to those found in earlier research with families who complete infant adoptions—namely, high educational attainment, high income levels, and older parental age (e.g., Brodzinsky & Pinderhughes, 2002). Our subsample of lesbian and gay adoptive couples was demographically similar to other samples of lesbian and gay adoptive parents in terms of race, income, and educational attainment (e.g., Erich et al., 2005; Gates et al., 2007).

In addition to children and parents, 76 teachers or outside caregivers of the children provided data for the study (72% response rate). All parents noted that some individual, such as a teacher, daycare provider, babysitter, or other relative or adult, provided outside care for their child on a regular basis. Caregivers completed a short demographic form and answered questions regarding children's behavioral adjustment. Response rates for teachers or caregivers of children with lesbian or gay ($n = 44$) and heterosexual parents ($n = 32$) did not differ, $\chi^2(1, n = 76) = 2.76$, *ns*. There were no significant differences in parent-report measures of internalizing, externalizing, or total behavior problems as a function of whether teachers provided data.

Most caregivers (93%) were female and most had attended at least some college (90%). Their average length of experience in teaching or childcare was 11 years ($SD = 8.47$). Most were preschool ($n = 20$; 32%) or elementary school teachers ($n = 4$; 6%), or daycare providers at a center ($n = 15$; 21%) or a home daycare ($n = 23$; 27%). The other 15% included five relatives

and six babysitters who provided regular childcare. There were no significant demographic differences among teachers or caregivers as a function of parental sexual orientation.

Materials

Data were collected from parents and teachers regarding children's behavioral adjustment. Data were collected from parents regarding child gender role behavior, parenting approaches, parental adjustment, and couples' relationship satisfaction.

Child adjustment. Children's behavioral adjustment was assessed using the Child Behavior Checklist (CBCL) and the Caregiver-Teacher Report Form (C-TRF) for one-and-one-half to five year olds (Achenbach & Rescorla, 2000). These measures include parent- or teacher-reports of a total behavior problem score, as well as subscales of internalizing and externalizing behavior problem scores. All 100 items are rated on a scale from 0 to 2 (0 = *not true*; 1 = *somewhat or sometimes true*; 2 = *very true or often true*). The internalizing behavior subscale assesses children's somatic complaints, anxiety, depression, and withdrawn behaviors. An example item is "Looks unhappy for no good reason." The externalizing behavior subscale assesses children's disruptive, aggressive, and delinquent behaviors, and includes items such as "Hits others." The total behavior problem score is a summary score of the internalizing and externalizing behavior problems in addition to sleep, attention, thought, and social problems. Age and sex-specific raw scores on the CBCL and C-TRF can be converted to standard *T* scores. Higher *T* scores represent greater behavior problems. Total score population means are 50.1 ± 9.9 for the CBCL and 50.0 ± 10.6 for the C-TRF. Clinical means are 61.7 ± 11.1 and 62.2 ± 9.6, respectively (Achenbach & Rescorla, 2000). The overall sample means for the CBCL total score, internalizing score, and externalizing score were 45.05 ± 9.57, 43.35 ± 9.63, and 46.46 ± 8.98. For the C-TRF, these were 48.11 ± 8.66, 45.25 ± 8.60, and 50.11 ± 8.55, respectively. For the sample, Cronbach's alphas for total scores were .90 for the CBCL, and .96 for the C-TRF. Alphas for CBCL and C-TRF total scores were .84 and .96 for lesbian mothers, .93 and .98 for gay fathers, and .91 and .81 for heterosexual parents, respectively. Alphas ranged from .74 to .91 among the sample for internalizing and externalizing subscales. Among family groups, alphas for internalizing and externalizing problems ranged from .67 to .98, with a mean alpha of .83.

Children's gender role behavior and activities were assessed using the Preschoolers' Activities Inventory (PSAI; Golombok & Rust, 1993). The 24-item PSAI has three sections: toys (7 items; e.g., "Guns or objects used as guns," "Tea set"), activities (11 items; e.g., "Sports and ball games," "Playing at taking care of babies"), and characteristics (6 items; e.g., "Enjoys rough and tumble play," "Likes pretty things"). Parents report items on a scale from 0 (*Never*) to 5 (*Very Often*). Higher scores represent more masculine behavior and lower scores represent more feminine behavior. The population mean was 60 ± 10 for boys and 40 ± 10 for girls. Recently, gender role behavior of two-and-a-half year-old children was found to predict gender role behavior at age eight using the PSAI (Golombok et al., 2008). The overall sample means were 41.24 ± 11.05 for girl items and 62.15 ± 9.75 for boy items. Cronbach's alphas for the sample were .89 for girl items and .83 for boy items. Alphas for girl items were .79, .89, and .80 for lesbian, gay, and heterosexual parents, respectively. For boy items, alphas were .89 for all three family groups.

Parental disciplinary techniques and parenting stress. Parenting behaviors were assessed using the Parenting Scale, which measures the effectiveness of parent discipline techniques (Arnold, O'Leary, Wolff, & Acker, 1993). There are 30 items assessing parents' emotional reactivity during disciplining incidences, the extent to which parents observe misbehavior but do not discipline their children, and the extent to which parents engage in begging, coaxing, or lengthy explanations as discipline methods. Example items include, "I get so frustrated and angry that my child can see I'm upset;" "When I say my child can't do something, I let my child do it anyway;" and, "I threaten to do things that I know I won't actually do." Parents report items on a scale from 1 to 7, with higher scores indicating less effective parenting. A total score is derived from averaging all items. The population mean was $2.6 \pm .6$ and the clinical mean was $3.1 \pm .7$ (Arnold et al., 1993). The sample mean was $2.56 \pm .46$. Cronbach's alpha was .78 for the sample. Alphas were .80, .78, and .76 for lesbian, gay, and heterosexual parents, respectively.

Parenting stress was evaluated through use of the Parenting Stress Index – Short Form (PSI/SF; Abidin, 1995). There are 36 items that assess aspects of parenting stress, such as individual perceptions of the parenting role, the degree to which a parent feels that his or her child meets expectations in the parent-child relationship, and children's temperament. For each item, parents rate their extent of agreement (1 = *strongly disagree*, 5 = *strongly agree*). Example items include, "I feel trapped by my responsibilities as a parent;" "I expected to have closer and warmer feelings for my child than I do and this bothers me;" and, "My child seems to cry or fuss more than most other children." A total score is calculated from all 36 items. Higher scores indicate higher levels of parenting stress, with a mean of 71.0 ± 15.4 from a large sample of parents (Abidin, 1995). Total scores over 90 suggest clinical levels of

parenting stress. The overall sample mean in this study was 60.42 ± 13.78. Cronbach's alpha for the sample was .90. Alphas were .87 for lesbian mothers, .91 for gay fathers, and .90 for heterosexual parents.

Parental Relationship Satisfaction

The Dyadic Adjustment Scale (DAS; Spanier, 1976) is a 32-item instrument designed to measure satisfaction, consensus, cohesion, and affection within one's current romantic relationship. Items are scored on a 0 ("Never" or "Always Disagree") to 5 ("All the time" or "Always Agree") scale, with higher numbers indicating more favorable adjustment. Example items include "In general, how often do you think that things between you and your partner are going well?" and "Do you and your mate engage in outside interests together?" The sum of the 32 items is calculated for the total relationship adjustment score. The mean total score was 114.8 ± 17.8 for a large sample of married couples with enduring relationships. For relationships that eventually ended, the mean was 70.7 ± 23.8 (Spanier, 1976). In this study, the sample mean was 116.78 ± 13.17. Cronbach's alpha for the sample was .91. Alphas were .91, .94, and .90 for lesbian, gay, and heterosexual couples, respectively.

Procedure

All eligible adoptive families were initially contacted with a letter or email from the director of their cooperating adoption agency that described the study and invited participation. For families that adopted through the primary cooperating agency in the Mid-Atlantic U.S., telephone calls from the researcher followed the letters or emails. Telephone calls to other potential participants were not possible due to restrictions of confidentiality.

After families agreed to participate, a researcher scheduled a two-hour home visit. During this visit, both parents in all families completed the demographic information form and paper-and-pencil questionnaires. Participating families also asked their child's teacher, day-care provider, or another adult providing regular care for the child to fill out the Caregiver-Teacher Report Form, which was mailed back to the researcher in a self-addressed, stamped envelope.

The study was approved by the University of Virgina's and the George Washington University's Institutional Review Boards. Participation was entirely voluntary and the researcher obtained written consent from all participating parents and teachers. Following participation, a researcher debriefed families about the general and specific aims of the study. Participants' questions were answered and each family was thanked for their participation. There was no financial compensation for participants.

Preliminary Analyses

Power analyses were conducted to determine power levels for the analyses of principal interest. Alpha levels were set to .05. For bivariate correlations, power reached .99. For chi-square tests with two degrees of freedom among the three family groups, power reached .99 for large and .98 for medium, but fell to .24 for small effects. For ANOVAs accounting for main effects and interactions with three groups using parent-report data ($N = 212$), power reached .99 for large, .95 for medium, and .31 for small effects. For ANCOVAs using teacher-report data ($N = 76$) accounting for main effects and interactions with three groups and child age as a covariate, power reached .93 for large, .66 for medium, and .14 for small effects. We conclude that, while our analyses were not sufficiently powered to detect small effects (e.g., $d = .20$, $f^2 = .10$), they were adequately powered to detect medium ($d = .50$, $f^2 = .25$) and large ($d = .80$, $f^2 = .40$) effects.

To evaluate the possible role of children's age, initial analyses were conducted to examine associations between child age (in months) at the time of family participation and all measures of child, parent, and couple outcomes. Results showed that child age was associated with parent reports of child internalizing behavior problems, $r(212) = .14$, $p < .05$, girls' age-adjusted score for gender role behaviors and activities, $r(212) = -.33$, $p < .001$, total parenting discipline techniques, $r(212) = .19$, $p < .01$, and total parenting stress, $r(212) = .16$, $p < .05$. None of the other parent report measures and none of the teacher report measures yielded significant correlations, but we included child age as a covariate in all analyses.

Data Analytic Plan

Hierarchical linear modeling data analytic techniques (HLM; Raudenbush & Bryk, 2002) were used in this study to account for the nested structure of the data. The two parents in each family were not independent from one another in their individual reports of child behavior problems, parenting stress, parenting approaches, and couple relationship satisfaction. In statistical terms, parents were nested within families. Thus, HLM was used to control for sources of shared variance and dependency of the data within families.

First, we examined unconditional models with only the outcome measures of interest and no predictors. These measures included internalizing, externalizing, and total child behavior problems, children's gender development, parenting stress, parenting discipline techniques, and couple relationship adjustment. Intraclass correlation coefficients from the unconditional models, which provide measures of variability at Level

2 (the family level), were 24–66% ($M = 42\%$). Overall, these exceed the cutoff value of 25% suggested to require HLM (Guo, 2005).

To examine our hypotheses regarding associations of family type and child behavior problems (Hypothesis 1) and parenting practices and couple relationship adjustment (Hypothesis 2), we examined conditional models in which family type (lesbian, gay, or heterosexual) of the reporting parent was entered as a predictor at Level 1. The Level 1 intercept corresponded to the mean child ratings for heterosexual parents. Child's age was entered as a covariate on Level 1.

Dependent variables that were examined separately were (a) child internalizing behavior problems, (b) child externalizing behavior problems, (c) total child behavior problems, (d) (for the sample containing female children only) girls' age-adjusted scores of gender role behavior and activities, (e) (for the sample containing male children only) boys' age-adjusted scores of gender role behavior and activities, (f) levels of parenting stress, (g) parenting discipline techniques, and (h) couple relationship adjustment. This conditional model can be described as:

$$\text{Level 1: } Y_{ij} = \beta_{0i} + \beta_1(\text{Lesbian Parents}) + \beta_2(\text{Gay Parents}) + \beta_3(\text{Child Age}) + e_{ij}$$

$$\text{Level 2: } \beta_{0i} = \gamma_{00} + u_{0i}$$

In the Level 1 equation, the outcome variable is Y_{ij}. Heterosexual-parent families are represented by β_{0i}, the intercept coefficient. The estimated standardized coefficients for lesbian- and gay-parent families are represented by β_1 and β_2. The estimated standardized coefficient for the covariate of child age is β_3. The error term is e_{ij}. The Level 2 equation represents the family level. No predictors of interest were entered, but Level 2 was included to control for shared variance between parents within the same family. The random effect for the intercept term in Level 2 specifically accounts for within-participant dependence in the repeated observations from two parents for each child.

In a second set of conditional models, we examined Hypothesis 3 to see whether family processes would matter more than family structure for child outcomes. In this set of models, we focused on internalizing, externalizing, and total child behavior problems as our dependent variables of interest. Family type (lesbian, gay, or heterosexual) remained the main predictor at Level 1. Predictors entered into the model, also at Level 1, were parenting stress, parenting practices, and couple relationship adjustment. Child age was included as a covariate at Level 1.

RESULTS

First, descriptive analyses are presented as a function of family type. Next, correlations are presented between our variables of interest to assess which variables should be considered in HLM analyses. HLM analyses were conducted to evaluate the first and second hypothesis regarding whether child, parent, and couple outcomes varied as a function of parental sexual orientation based on parent-report measures. To evaluate differences in teacher-reported child behavior problems as a function of family type, ANCOVAs were conducted. Lastly, to evaluate the third hypothesis that family processes would be more strongly associated than family structure with child behavior problems, additional HLM analyses were conducted.

Descriptive Analyses

Table 2 shows means and standard deviations for all measures of child, parent, and couple variables for each family type as reported by parents and teachers. Both parents and teachers reported that, on average, children in all three family types were functioning well and had relatively few behavior problems. Across the sample, parent- and teacher-reported means for internalizing problems were 43.35 ± 9.63 and 45.25 ± 8.60, respectively. For externalizing problems, these were 46.46 ± 8.98 and 50.12 ± 8.55, respectively. For total behavior problems, parent- and teacher-reported means were 45.05 ± 9.57 and 48.12 ± 8.66, respectively. Thus, average scores for internalizing, externalizing, and total behavior problems as reported by both parents and teachers were comparable to population averages. In terms of gender role behavior, activities, and characteristics as measured by age-adjusted scores on the PSAI, children were within the expected range of age-adjusted scores near population average scores of 40 for girls and 60 for boys (Golombok & Rust, 1993). For the sample, parents reported the mean for girls to be 41.24 ± 11.05, and for boys, this was 62.15 ± 9.75. Similarly, parents described themselves on average to be well-adjusted as compared to available population norms with regard to parenting stress, parent discipline techniques, and couple adjustment. Across the sample, the means for parenting stress, parent discipline techniques, and couple adjustment were 60.42 ± 13.78, 2.56 ± 0.46, and 116.78 ± 13.17, respectively.

To compare means across family types, we conducted ANOVAs for each of the child, parent, and couple measures. For the child measures, we reduced the data such that the two parents' scores within each family were averaged to provide one score for each child. No significant differences resulted from these analyses (see Table 2).

Effect sizes to compare means between families with same- and other-sex parents are also shown in Table 2.

TABLE 2
Means, Standard Deviations, Analysis of Variance, and Effect Sizes for Measures among Family Types

Measures	*Lesbian Mother Families (n = 27)*	*Gay Father Families (n = 29)*	*Heterosexual Parent Families (n = 50)*	*F(1, 104)*	*Same-sex vs. Other-sex Families Cohen's d*
Children ($n = 106$)	*M* (*SD*)	*M* (*SD*)	*M* (*SD*)		
Child Behavior Problems (CBCL, $1\frac{1}{2}$ to 5 years)					
Total BP	43.24 (9.09)	44.60 (9.93)	46.29 (9.54)	1.88	.25
Internalizing BP	42.28 (9.39)	43.19 10.31)	44.03 (9.39)	<1	.13
Externalizing BP	44.76 (9.26)	46.76 (9.76)	47.21 (8.31)	1.35	.16
Child Behavior Problems (TRF, $1\frac{1}{2}$ to 5 years)				*F*(1, 74)	
Total BP	47.08 (8.05)	48.20 (9.27)	48.84 (8.76)	<1	.14
Internalizing BP	43.92 (8.42)	46.20 (8.19)	45.66 (8.97)	<1	.08
Externalizing BP	49.38 (7.75)	50.05 (8.03)	50.72 (9.48)	<1	.12
Gender Role Behavior (PSAI, age-adjusted)				*F*(1, 104)	
Girls*	42.35 (11.22)	40.26 (12.49)	40.97 (10.47)	<1	−.05
Boys*	61.19 (8.44)	64.30 (11.74)	60.98 (8.53)	1.34	.22
Parents ($n = 212$)				*F*(1, 210)	
Parenting Discipline (PS Total)	2.45 (0.46)	2.60 (0.46)	2.60 (0.46)	2.18	.15
Parenting Stress (PSI Total)					
Total parent stress	59.94 (11.36)	61.14 (15.19)	60.26 (14.23)	<1	−.02
Couples' relationship (DAS Total)					
Total relationship adjustment	114.94 (12.10)	118.36 (14.29)	116.85 (13.06)	<1	−.01

Note: *n*s for the CBCL include 106 averaged parent reports (for 106 children), and 76 teacher reports (for 76 children). For the PSAI, *n*s include 106 averaged parent reports (for 106 children).

For the parent and couple measures, *n*s include 212 individual parent reports.

BP = behavior problems. Standard deviations are reported in parentheses.

*$n = 16$ girls, 11 boys with lesbian mothers; 11 girls, 18 boys with gay fathers; 26 girls, 24 boys with heterosexual parents ($n = 53$ girls; $n = 53$ boys).

All of the effect sizes were small, and the direction of effects for parent and teacher reports of child behavior problems suggested that children of lesbian and gay parents were described as having fewer behavior problems than children of heterosexual parents.

Correlational Analyses

We explored possible associations between family process variables and outcomes for children and parents, regardless of parental sexual orientation (see Table 3). Results showed that parents' reports of their level of parenting stress, discipline techniques, and couple relationship adjustment were significantly correlated with their reports of children's internalizing, externalizing, and total behavior problems. Parent stress was significantly positively correlated with children's internalizing problems, $r(212) = .49$, $p < .001$, externalizing problems, $r(212) = .55$, $p < .001$, and total behavior problems, $r(212) = .59$, $p < .001$. Dysfunctional discipline techniques were significantly positively correlated with children's internalizing problems, $r(212) = .31$, $p < .001$, externalizing problems,

TABLE 3
Correlations between Ratings of Child, Parent, and Couple Outcome Measures

Variable	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
1. CBCL-Internalizing	–										
2. CBCL-Externalizing	.68***	–									
3. CBCL-Total	.79***	.88***	–								
4. C-TRF-Internalizing	.18*	.13	.13	–							
5. C-TRF-Externalizing	.06	.19*	.14	.62***	–						
6. C-TRF-Total	.13	.23**	.19*	.79***	.93***	–					
7. PSAI-Girl	.05	.17	.06	.04	.09	.12	–				
8. PSAI-Boy	.00	.17	.09	−.26*	.12	.01	–	–			
9. Parent Stress	.49***	.55***	.59***	.01	.13	.14	.08	.04	–		
10. Parent Discipline	.31***	.26***	.34***	.08	.11	.09	−.02	.15	.45***	–	
11. Couple Adjustment	−.26***	−.25***	−.29***	−.02	−.02	−.04	.14	.04	−.44***	−.15*	–

Note: Pearson product moment correlations calculated for all variables.

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

$r(212) = .26$, $p < .001$, and total behavior problems, $r(212) = .34$, $p < .001$. Couple relationship adjustment was significantly negatively correlated with children's internalizing problems, $r(212) = -.26$, $p < .001$, externalizing problems, $r(212) = -.25$, $p < .001$, and total behavior problems, $r(212) = -.29$, $p < .001$. Overall, parents who felt greater stress, reported using ineffective discipline techniques, and who were less satisfied with their relationships described their children as having more behavior problems. Thus, the inclusion of parenting stress, parenting discipline, and couple relationship adjustment as separate predictors in the same HLM model was justified, since these family process variables were significantly correlated with one another and with parent-reported child adjustment.

Child Behavior as a Function of Family Type

HLM analyses were conducted to evaluate our first hypothesis and test associations between parental sexual orientation and parent-reported child outcome measures (see Table 4). Results revealed that family type was not significantly associated with parent reports of child adjustment, including (a) children's internalizing problems, (b) externalizing problems, (c) total behavior problems, (d) girls' gender development, and (e) boys' gender role development. Child age was a significant covariate only for girls' age-adjusted gender role behavior and activities score, such that girls' scores significantly decreased with increasing age.

ANCOVAs were conducted to test associations between parental sexual orientation and teacher-reported child outcomes. Consistent with results for parents' reports, family type was not significantly associated with teachers' reports of (a) children's internalizing problems, $F(3, 72) < 1$, *ns*, (b) externalizing problems, $F(3, 72) < 1$, *ns*, or (c) total behavior problems, $F(3, 72) < 1$, *ns*. Child age was not a significant covariate for any of these analyses. Thus, teachers agreed with parents that children did not differ in terms of behavior problems as a function of parental sexual orientation.

Parenting and Couple Adjustment as a Function of Family Type

To evaluate our second hypothesis that parent and couple outcome measures would not be significantly related to parental sexual orientation, we conducted HLM analyses (see Table 4). Results demonstrated that family type was not significantly associated with parents'

TABLE 4
Parent Ratings of Child Adjustment, Parenting, and Couple Adjustment Predicted by Family Type

Fixed Effects- Parameter		*CBCL-Internalizing*		*CBCL-Externalizing*		*CBCL-Total*		*PSAI (Girls)*		*PSAI Boys*	
		Coeff (SE)	*T(102df)*	*Coeff (SE)*	*T(102df)*	*Coeff (SE)*	*T(102df)*	*Coeff (SE)*	*T(49df)*	*Coeff (SE)*	*T(49df)*
Heterosexual Parents (Intercept)	β_{0j}	40.92 (2.18)	18.80***	46.62 (2.10)	22.18***	44.90 (2.26)	19.83***	49.68 (3.56)	3.95***	60.23 (3.71)	16.25***
Lesbian Parents	β_{1j}	−1.55 (1.92)	−0.81	−2.41 (1.85)	−1.30	−2.96 (1.99)	−1.48	2.33 (3.06)	0.76	0.41 (3.40)	0.12
Gay Parents	β_{2j}	−0.65 (1.87)	0.35	−0.41 (1.81)	−0.23	−1.61 (1.99)	−0.82	−1.45 (3.46)	−0.42	.38 (2.83)	1.20
Child Age	β_{3j}	0.08 (0.05)	1.67	0.02 (0.05)	0.33	0.04 (0.05)	0.72	−0.25 (0.09)	−2.88**	0.02 (0.08)	0.23

Random Effects	σ^2	SE	Z	σ^2	SE	Z	σ^2	SE	Z	σ^2	SE	Z	σ^2	SE	Z
Residual	56.53	7.77	7.28***	43.20	5.93	7.28***	44.91	6.17	7.28***	42.15	8.19	5.15***	32.58	6.33	5.15***
Intercept	35.95	9.79	3.67***	38.28	8.89	4.30***	47.00	10.20	4.61***	70.84	19.01	3.73***	65.37	16.80	3.89***

Fixed Effects- Parameter		*Parenting Stress*		*Parent Discipline*		*Couple Adjustment*	
		Coeff (SE)	*T(102df)*	*Coeff (SE)*	*T(102df)*	*Coeff (SE)*	*T(102df)*
Heterosexual Parents (Intercept)	β_{0j}	55.15 (3.01)	18.32***	2.40 (0.10)	24.89***	117.18 (3.10)	37.77***
Lesbian Parents	β_{1j}	<0.01 (2.65)	0.01	−0.14 (0.08)	−1.60	−1.94 (2.73)	−0.71
Gay Parents	β_{2j}	1.20 (2.59)	0.46	0.02 (0.08)	0.22	1.48 (2.67)	0.56
Child Age	β_{3j}	0.14 (0.07)	1.99*	<0.01 (<0.01)	2.42*	−0.01 (0.07)	−0.13

Random Effects	σ^2	SE	Z	σ^2	SE	Z	σ^2	SE	Z
Residual	132.19	18.16	7.28***	0.16	0.02	7.28***	91.27	12.54	7.28***
Intercept	56.67	19.44	2.92**	0.04	0.03	2.15*	84.81	19.31	4.39***

Note: Level 2 was included to account for parents nesting into children (two parents reported for each child), but no predictors were tested.
*$p < .05$. **$p < .01$. ***$p < .001$.

TABLE 5
Parent Ratings of Child Behavior Problems Predicted by Family Structure and Family Process

		CBCL-Internalizing			*CBCL-Externalizing*			*CBCL-Total*	
Fixed Effects- Parameter		*Coeff (SE)*	*t(200df)*		*Coeff (SE)*	*t(198df)*		*Coeff (SE)*	*t(206df)*
Heterosexual Parents (Intercept)	β_{0j}	23.33 (7.99)	2.92**		29.60 (7.21)	4.11***		23.14 (7.18)	3.22**
Lesbian Parents	β_{1j}	−1.32 (1.67)	−0.79		−2.38 (1.50)	−1.59		−2.67 (1.60)	−1.73
Gay Parents	β_{2j}	−0.98 (1.63)	−0.61		−0.78 (1.45)	−0.54		−2.02 (1.55)	−1.31
Parenting Stress	β_{3j}	0.28 (0.05)	5.31***		0.31 (0.05)	6.60***		0.35 (0.05)	7.35***
Parent Discipline	β_{4j}	2.08 (1.42)	1.46		0.38 (1.29)	0.30		1.62 (1.27)	1.28
Couple Relationship Adjustment	β_{5j}	−0.02 (0.05)	−0.48		−0.11 (0.05)	−0.23		−0.01 (0.05)	−0.23
Child Age	β_{6j}	0.03 (0.04)	0.77		−0.03 (0.04)	−0.75		−0.02 (0.04)	−0.45
Random Effects	σ^2	SE	Z	σ^2	SE	Z	σ^2	SE	Z
Residual	45.90	6.37	7.21***	38.48	5.42	7.10***	32.15	4.49	7.16***
Intercept	25.16	7.54	3.34**	19.14	6.24	3.07**	27.85	6.68	4.17***

Note: Level 2 was included to account for parents nesting into children (two parents reported for each child), but no predictors were tested.
*$p < .05$. **$p < .01$. ***$p < .001$.

reports of parenting stress, parent discipline techniques, or couple relationship adjustment. Child age was a significant covariate for parent stress and parent discipline, such that increasing child age was related to increasing levels of stress and less effective discipline techniques.

In summary, parental sexual orientation did not emerge as an important predictor of any outcomes. It was not significantly associated with parents' or teachers' reports of child behavior problems, with parents' reports of children's gender development, or with parents' reports of parent or couple adjustment. Thus, the data were consistent with the first two hypotheses.

Family Process vs. Structure in Relation to Child Outcomes

To evaluate our third hypothesis that family processes would be more strongly associated than family structure with child outcomes, HLM analyses were used to run a second set of conditional models (see Table 5). The dependent variables were parents' reports of (a) children's internalizing problems, (b) externalizing problems, and (c) total behavior problems. Results indicated that parenting stress was significantly associated with children's internalizing, externalizing, and total behavior problems. Family type remained nonsignificant. Parenting practices and couple relationship satisfaction did not emerge as significant predictors of children's behavior problems. Child age was not a significant covariate in any of these analyses. Consistent with our third hypothesis, parenting stress emerged as more strongly associated with child behavior problems than did parental sexual orientation, parenting discipline techniques, or couple relationship adjustment.

Bootstrapping Simulation

Because our sample ($N = 106$ families) was not large enough to allow detection of small effects, we used bootstrapping to understand the stability of our results with a larger simulated sample. Bootstrapping is a resampling technique for hypothesis testing and estimation. In bootstrapping, the simulated sample represents a "pseudo-population" that approximates the broader population from which the actual sample was derived (Preacher, Rucker, & Hayes, 2007). The sampling distribution of any statistic of interest can be determined using simulated repeated sampling of the actual data. Using the data from the current study, we determined that power would reach .81 for small effects with a sample size of $N = 1000$ families. Thus, we simulated F tests with $N = 1000$ and $k = 10$ datasets to test for differences among family groups for each of the variables of interest in the current study. The variables included internalizing, externalizing, and total child behavior problems, gender development for girl and boy children, parenting stress, parent discipline techniques, and couple relationship adjustment. The bootstrapping results showed that, for each variable in each of the 10 replications, the F values never fell below $p < .05$. Thus, it appears unlikely that repeated samples taken under sample size of $N = 1000$ would result in detection of a statistically significant effect of family type for any of the dependent variables of interest in this study.

DISCUSSION

Our findings revealed, for the first time, that young children adopted early in life by lesbian and gay parents

were as well-adjusted as those adopted by heterosexual parents. Our results suggest that lesbian and gay adults can and do make capable adoptive parents. We found no significant differences among families headed by lesbian, gay, or heterosexual parents in terms of child adjustment, parenting behaviors, or couples' adjustment. In addition, reports of children's outside caregivers were consistent with those of parents. It is important to note in particular that gay fathers and their children appeared to be faring as well as were lesbian and heterosexual parents and their children. These findings add to the very limited existing research on gay fathers and their children, as well as to the relatively sparse research on adoptive families with lesbian and gay parents. In all, our results both lend support to earlier research with lesbian- and gay-parented families, and extend these findings to adoptive and gay-father families.

Children in this sample, who had all been adopted in infancy by lesbian, gay, or heterosexual couples, were reported to be developing well by both their parents and outside caregivers. There were no significant differences among children as a function of parental sexual orientation on measures of internalizing, externalizing, or total behavior problems. These results represent the first time that teachers' reports of children's behavior have been considered alongside those of parents in a sample of young adopted children with lesbian, gay, and heterosexual parents. They are consistent with earlier findings that parental sexual orientation is not associated with children's behavioral adjustment (e.g., Golombok et al., 2003). Although effect sizes were small and no significant differences were detected, the direction of effects often favored children with same-sex over other-sex parents. Overall, children adopted early in life by lesbian, gay, and heterosexual parents appeared to be thriving.

We also found that young children adopted by lesbian, gay, and heterosexual parents were assessed as showing typical gender development. Regardless of whether their parents were lesbian, gay, or heterosexual, most boys exhibited behavior typical of other same-aged boys, and most girls exhibited behavior typical of other same-aged girls. There were no significant differences as a function of family type. This finding is particularly noteworthy for the children of gay fathers, whose gender development has rarely been investigated in earlier studies (Tasker & Patterson, 2007). Our results suggest that parental sexual orientation is not as influential in young children's gender development as previously thought (e.g., Baumrind, 1995). Rather than parental sexual orientation, biological influences and other gender-typed socialization influences are likely to be particularly important early in children's development (Golombok et al., 2008).

Most parents reported relatively low levels of parenting stress and described themselves as using generally effective parenting techniques. These findings are consistent with those from earlier research with adoptive families, in that adoptive parents often report lower levels of parenting stress than do biological parents (Brodzinsky & Pinderhughes, 2002; Ceballo, Lansford, Abbey, & Stewart, 2004). This may reflect the fact that adoptive parents undergo a rigorous screening process before completing an adoption. Indeed, all parents in this sample had been evaluated by adoption agency personnel, particularly in terms of having positive mental health and high couple relationship quality, prior to adopting their children (Ryan et al., 2004).

Another possible explanation for low levels of parenting stress in this sample focuses on family resources. Most parents in the study were relatively well-educated and financially secure. Parents reported stable professional lives and long-term relationships with committed partners. These findings are consistent with previous research indicating relatively high social and economic capital among adoptive parents (e.g., Bausch, 2006). Families in this sample likely enjoyed equal support and recognition during the adoption process, due to the inclusive policies of the adoption agencies with which parents worked. In addition, lesbian and gay parents were situated within relatively supportive legal landscapes (i.e., families lived in states where they were afforded some legal recognition and security). These factors may explain, at least in part, why we found relatively little evidence of parenting stress among adoptive parents in our sample.

The majority of parents in the sample reported high levels of satisfaction and adjustment in their couple relationships, regardless of whether they were lesbian, gay, or heterosexual. This finding is consistent with earlier reports that lesbian, gay, and heterosexual couples enjoy similar levels of relationship satisfaction (e.g., Goldberg, 2009), and extends these results to lesbian and gay parenting couples, and also to adoptive lesbian and gay parenting couples for the first time.

We found that several family process variables were strongly related to child outcomes. Regardless of parental sexual orientation, parents who reported less parenting stress, use of more effective disciplinary techniques, and greater happiness in their couple relationships had children who were described as well-adjusted. Thus, our results provide further evidence that family process variables are more closely tied to child outcomes than is family structure (e.g., Ceballo et al., 2004). These findings are consistent with existing results with lesbian-parented families (e.g., Chan et al., 1998), and extend them to families headed by gay fathers.

The current study has several strengths. This is the first study of lesbian, gay, and heterosexual adoptive families based on a sample recruited using systematic methods. The high participation rates among lesbian and gay adoptive couples also enhance the likely generalizability of our findings. Our study did not rely exclusively on self-report data; instead, it included reports from both parents within each family and also from outside caregivers. To our knowledge, this is the first study of its kind to include data collected from sources outside the family. Moreover, the sample was drawn not from a single geographical area, but from many locations, and we have studied it using multiple methods. Our results not only contribute to knowledge about adoptive families, but also to knowledge about gay father families. Inasmuch as gay men may face many obstacles in becoming parents (Lobaugh, Clements, Averill, & Olguin, 2006), and considering that relatively little research attention has been devoted to these families, this aspect of our work may be particularly important (Tasker & Patterson, 2007).

Despite its strengths, some limitations of the study should be noted. At the time of data collection, children were still young ($M = 3$ years). The process of coming to understand adoption and developing an adoptive identity will unfold as the children grow older, and some children in the sample were probably too young to understand their adoptive status (Grotevant, Dunbar, Kohler, & Lash Esau, 2007). Our study was not likely to have captured other complex dynamics of gender and sexual development that will emerge as children age. This was a cross-sectional study, and it would be valuable to have longitudinal data. Although this study focused on child outcomes as dependent measures and parenting variables as independent variables in some analyses, we acknowledge that the parent-child relationship is reciprocal and bidirectional. Parenting practices are as likely to be influenced by child behaviors and temperament, as are child behaviors by parenting practices. We also studied families in which both parents had been awarded legal recognition. It remains to be seen whether our findings would hold true in jurisdictions that allow only one partner in a same-sex couple to be legally recognized as a child's parent. More broadly, future research exploring how social, cultural, and legal contexts affect well-being among adoptive families with lesbian and gay parents will be helpful. Future research could also address other aspects of lesbian and gay adoptive families likely to shape child outcomes, such as transracial or open adoption (Grotevant et al., 2007).

One approach to criticism of research on children of lesbian and gay parents has identified issues related to statistical power as being of special concern. This is, however, not likely to be a strong critique of the present findings. Power analyses revealed that our sample sizes were certainly big enough to allow us to detect medium and large effect sizes. If there are small effects to be observed in these data, however, our sample would likely not have been large enough to detect them. Even so, our statistical power was sufficient to detect effects involving substantial amounts of the variance, and our analyses did detect numerous family process effects of interest. Overall, this suggests that even if small effects exist and could be detected, family processes probably have more substantial influence than family structure in affecting child and family outcomes. Furthermore, our bootstrapping simulation revealed that even if we had had a sample size large enough to detect small effects, it was unlikely that differences would have emerged in child, parent, or couple outcomes as a function of parental sexual orientation.

Applications and Implications

From a conceptual perspective, our results have a number of implications. Our findings challenge received notions about the importance of children having both one female and one male parent (Biblarz & Stacey, 2010). In this sample, regardless of whether they had one mother and one father, two mothers, or two fathers, children were thriving. Our findings are also at odds with the notion that only heterosexual adults make capable parents and that lesbian and gay parents are somehow ineffective or harmful. Inasmuch as there were no significant associations between parental sexual orientation and child adjustment, our results are consistent with notions that two parents of the same gender can be capable parents and that parental sexual orientation is not related to parenting skill or child adjustment (e.g., Bos et al., 2004; Golombok et al., 2003; Patterson, 2009; Tasker & Patterson, 2007). Indeed, our findings point to the positive capabilities of lesbian and gay couples as adoptive parents, and add to the limited literature about adoptive lesbian and gay families (e.g., Erich et al., 2005, 2009; Leung et al., 2005).

From a policy perspective, our results provide no justification for denying lesbian and gay adults from adopting children (Wald, 2006). Indeed, barring adoptions to prospective lesbian and gay parents seems likely to produce a number of undesirable outcomes. Although the current sample involved children adopted as infants, and those adopted as infants face different issues than those adopted at older ages or after multiple foster care placements (Howard, Smith, & Ryan, 2004), many children of all ages await permanent homes in the U.S. and elsewhere. Interestingly, Kaye and Kuvalanka (2006) found that, in the United States, the likelihood of adoption from foster care increased for children living in jurisdictions that allow adoption by same-sex couples as well as by lesbian and gay individuals. In jurisdictions

that bar same-sex couples or lesbian and gay individuals from adopting, fewer children were adopted from foster care. Thus, it appears that more children could potentially benefit from having permanent homes with capable parents if lesbian and gay adults were allowed to adopt in the U.S. and elsewhere (Wald, 2006).

In conclusion, the results of this study point to family processes as being more clearly associated than family structure with positive outcomes for parents and children in adoptive families. Family process variables such as parenting stress, parenting strategies, and couple relationship satisfaction were significantly associated with assessments of child behavior problems. In comparison, parental sexual orientation was unrelated to children's adjustment. That family process was more closely associated than family structure with outcomes among adopted children is a result that is important both to developmental theory and to family policy.

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