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## Pre-adoptive Factors Predicting Lesbian, Gay, and Heterosexual Couples' Relationship Quality Across the Transition to Adoptive Parenthood

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### Abstract

The current study examined pre-adoptive factors as predictors of relationship quality (love, ambivalence, and conflict) among 125 couples (44 lesbian couples, 30 gay couples, and 51 heterosexual couples) across the first year of adoptive parenthood. On average, all new parents experienced declines in their relationship quality across the first year of parenthood, regardless of sexual orientation, with women experiencing steeper declines in love. Parents who, pre-adoption, reported higher levels of depression, greater use of avoidant coping, lower levels of relationship maintenance behaviors, and less satisfaction with their adoption agencies reported lower relationship quality at the time of the adoption. The effect of avoidant coping on relationship quality varied by gender. Parents who, pre-adoption, reported higher levels of depression, greater use of confrontative coping, and *higher* levels of relationship maintenance behaviors reported greater declines in relationship quality. These findings have implications for professionals who work with adoptive parents both pre- and post-adoption.

### Keywords

adoption; gay; indistinguishable dyads; lesbian; multilevel modeling; relationship quality; transition to parenthood

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The transition to parenthood is recognized as a key life transition, and one that is often stressful (Cowan & Cowan, 2000). Couples must widen their repertoire of roles to include that of a parent, a shift that necessitates changes in already-held roles. Likewise, couples encounter

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major changes in their daily routine, including less sleep and less time alone. A large body of research has documented that intimate relationship quality declines, on average, across the transition to biological parenthood (Belsky & Rovine, 1990). Feelings of love decrease, and the frequency of conflict increases (Cowan & Cowan). Ambivalence regarding one's relationship may also increase (Fish & Stifter, 1993). Such changes are typically attributed to the disruption of intimacy and communication that results from the addition of a child into the parental dyad (Nyostrom & Ohrling, 2004). The extent to which relationships suffer is in part determined by the psychological and social resources that couples possess before the transition (Doss, Rhoades, Stanley, & Markman, 2009), suggesting that prevention efforts should occur pre-parenthood.

Little research has studied relationship quality across the transition to adoptive parenthood, despite the fact that adoptive parents' journey to parenthood differs from that of biological parents in key ways. Heterosexual couples often arrive at adoption due to a lack of success in conceiving, which can cause feelings of helplessness (Daly, 1989). Couples who wish to adopt must undergo a complex evaluation process whereby they are approved as "suitable" adoptive parents, which may elicit feelings of frustration (Daly). Adoptive couples may also experience worries related to the unknowns of adoption (e.g., will their child develop problems?) as well as concerns about societal stigma (e.g., the belief that adoptive families are inferior to biologically related families; Daly).

Adoptive parents' journey to parenthood may also differ from that of biological parents in positive ways. First, parenthood is by definition "planned" for adoptive couples; among biological parents, 50% of pregnancies are unplanned (Rosenfeld & Everett, 1996), which is linked to negative relationship outcomes (Bouchard, 2005). Also, in that neither partner in the adoptive couple experiences pregnancy or childbirth, they may tend to have fairly similar experiences of the transition to parenthood (Nyostrom & Ohrling, 2004). Finally, compared to biological parents, adoptive parents tend to be older and married longer when they become parents and may be more stable with respect to their relationships, finances, and careers (Brodzinsky & Huffman, 1988).

The relatively limited literature concerning adoptive couples' journey to parenthood suggests that their relationships fare quite well. Levy-Shiff, Bar, and Har-Even (1990) studied heterosexual couples who were seeking to adopt and heterosexual couples who were pregnant and found that the adoptive parents-to-be reported greater marital satisfaction, pre-parenthood. The authors speculated that having jointly weathered the stress of the adoption process may have strengthened the marital bond. Ceballo, Lansford, Abbey, and Stewart (2004) used national survey data to examine change in marital quality among persons who had adopted a child or had a child biologically between the late 1980's (Time 1) and the early 1990's (Time 2). They found that adoptive parents reported higher marital quality at Time 2. Given that most adoptive parents had a history of infertility, being deprived of parenthood may have increased its value, leading couples to view it through "rose-colored glasses." Alternatively, the shared experience of infertility and the adoption process may have strengthened their ability to navigate stressful life transitions.

Although the limited research on adoptive parents' relationship outcomes suggests that they may fare better than biological parents in early parenthood, the broader literature on adoption suggests that adoptive families may be exposed to unique stressors which could place couples at risk. Given that parents' relationship quality has implications for their ability to navigate the stresses of parenthood and has been linked to both parenting quality and child outcomes (Moore & Florsheim, 2008), it is important to understand what pre-adoptive factors are associated with relationship quality at the time of the adoption and across the transition to parenthood. Knowledge of factors that undermine parents' relational health can inform prevention and

intervention efforts with adoptive families, such as the development of programming for prospective adoptive parents.

Thus, the goals of this study are (a) to examine change in relationship quality across the transition to adoptive parenthood, and (b) to identify pre-parenthood factors that are associated with relationship quality across the transition. We examine three distinct, interrelated dimensions of relationship quality - love, ambivalence, and conflict - which have been found to change across the transition to biological parenthood (Belsky & Rovine, 1990). Given that same-sex couples are increasingly adopting (Gates et al., 2007), and little attention has been paid to their experiences and adjustment in early parenthood, lesbian, gay, and heterosexual couples are included. Our selection of predictors was driven by (a) our theoretical framework; (b) research on relationship quality during the transition to biological parenthood; and (c) research on adoptive parents.

### Theoretical Framework

According to Bronfenbrenner (1988), development occurs within multiple interacting contexts, with influences ranging from distal settings (e.g., culture) to proximal settings (e.g., family). Individual characteristics thus interact with setting-level processes to shape adjustment. Belsky (1984) used this perspective to theorize specifically about the transition to parenthood. Belsky emphasized intrapersonal factors (e.g., well-being), interpersonal factors (e.g., aspects of the partner relationship), and social-contextual factors (e.g., extrafamilial supports) in studying new parents' adaptation. Parents' adjustment is therefore viewed as multiply determined by their intrapersonal strengths and vulnerabilities, as well as sources of contextual stress and support.

According to family stress theory (McCubbin & Patterson, 1983), families' capacity to adapt to the demands of life transitions is in part a function of their pre-existing resources and vulnerabilities. Parents with significant vulnerabilities (e.g., emotional instability) may experience the transition to adoptive parenthood as overwhelming and their relationships may suffer, whereas parents who possess notable resources (e.g., strong dyadic communication) may experience less stress. Research on adoptive parenting and on the transition to parenthood supports the need to understand the stresses specific to these processes and the intrapersonal, interpersonal, and contextual factors that affect adjustment. Thus, we attend to intrapersonal factors (e.g., gender, depression), aspects of parents' dyadic relationships (e.g., relationship maintenance), and the broader social context (e.g., the adoption agency) as predictors of relationship quality.

### Intrapersonal Characteristics

**Gender**—Some research on heterosexual biological parents suggests that women experience worse marital outcomes than men across the transition to parenthood. Belsky and Rovine (1990) found that heterosexual couples' marital quality declined significantly across the transition, but this change was more pronounced for wives. Levy-Shiff (1994) found that women reported higher marital quality than men on average, but experienced greater decline than men. Other studies have found that men's and women's marital quality declines at similar rates (Ahmad & Najam, 1998).

**Depression**—Depression has been linked to negative marital outcomes across the transition to biological parenthood. Cox, Paley, Burchinal, and Payne (1999) found that men and women with higher levels of prenatal depression experienced greater increases in marital distress across the transition. Partners with more depressive symptoms are likely to have difficulty maintaining a positive view of their relationship during the transition to parenthood, and are thus susceptible to engaging in behaviors that undermine relationship health during this challenging time (Cox et al.). Although no research has studied the link between depression and marital quality across

the transition for adoptive couples, cross-sectional research indicates that depression is negatively related to marital satisfaction in heterosexual adoptive parents (Glidden & Floyd, 1997).

**Coping strategies**—Coping is defined as a person's efforts to manage demands that are appraised as taxing or exceeding available psychosocial resources (Folkman & Lazarus, 1987). Few studies have examined the relationship between coping and dyadic outcomes, despite calls for more research in this area (Bouchard, Sabourin, Lussier, Wright, & Richer, 1998). It is reasonable to expect that how persons cope with stressful situations may have implications for their relationships inasmuch as relying on less adaptive coping may exacerbate relationship tensions. Persons who tend to withdraw from stressful encounters, and persons who confront stressful situations in a hostile manner, may experience more distant or conflictual relationships (DeLongis & Preece, 2002). The limited research on coping and dyadic outcomes points to two coping strategies as having particularly destructive consequences for relationships. Bouchard et al. (1998) found that women and men who relied heavily on avoidance (i.e., efforts to escape or avoid situations) reported less marital satisfaction. Houser, Konstam, and Ham (1990) found that the use of confrontative coping (i.e., aggressive efforts to alter situations) was related to negative marital outcomes for men and women and the use of avoidance was linked to negative marital outcomes for men. Ptacek, Ptacek, and Dodge (1994) studied women with cancer and their husbands and found that greater use of avoidance predicted lower marital satisfaction for husbands only. Thus, it appears that the effect of avoidance coping on relationship quality may differ by gender.

### Interpersonal Characteristics

**Sexual orientation**—No research has compared the relationship trajectories of heterosexual and same-sex couples across the transition to parenthood. However, Goldberg and Sayer (2006) studied lesbians who became parents via insemination and found that feelings of love declined and reports of conflict increased across the transition. Thus, heterosexual and same-sex adoptive parents may show similar relationship trajectories. Alternatively, sexual orientation may interact with gender to shape relationship quality. Kurdek (2008) compared lesbian and gay male non-parents to heterosexual parents and heterosexual non-parents and found that lesbians reported higher relationship quality than all other groups. He noted that women often emphasize mutuality and communication in their relationships, and thus lesbians' relationships may benefit from a "double dose" of relationship-enhancing influences. Because this study did not include lesbian and gay parents, whether such patterns extend to same-sex couples with children is unknown.

**Relationship duration**—Heterosexual couples' relationship length has been linked to relationship quality during the transition to biological parenthood, although findings differ on the direction of the association. Belsky and Rovine (1990) found that couples who had been together longer showed greater increases in conflict across the transition. Contrastingly, Doss et al. (2009) found that being married longer was related to *smaller* decreases in marital satisfaction for heterosexual biological fathers. Finally, O'Brien and Peyton (2002) found no relation between relationship length and change in relationship quality after the transition to biological parenthood.

Couples who adopt have typically been in their relationships for longer than couples who have their children by birth (Brodzinsky & Huffman, 1988). It has been suggested that their longer relationships might represent a source of resilience during the transition to parenthood (Brodzinsky & Huffman). Adoptive couples in relationships of short duration might consequently experience more distress in their intimate relationships across the transition to parenthood.

**Relationship maintenance**—Relationship maintenance refers to the practice of engaging in behaviors aimed at sustaining the quality and stability of the relationship (Braiker & Kelley, 1979). Maintenance strategies primarily involve openly communicating about one's needs and discussing the quality of one's relationship. Maintenance is an established predictor of other dimensions of relationship quality.<sup>1</sup> Heterosexual couples who engage in more maintenance report more love and less conflict (Curran, Hazen, Jacobvitz, & Feldman, 2005) and higher relationship satisfaction concurrently and two years later (Huston & Chorost, 1994). Thus, maintenance may buffer couples from relationship decline during the transition to parenthood.

**Equal commitment to adoption**—Adoption has historically been stigmatized as a “second-best” route to parenthood, and partners may therefore disagree on whether to pursue adoption as a means of becoming a parent. Even when both partners agree to pursue adoption, this does not necessarily imply that both partners are equally committed to adoption. Daly (1990) studied heterosexual couples in the pre-adoptive phase and found that in one-third of couples, one partner was less ready to adopt or had less positive feelings about adoption. Of interest is whether non-shared readiness to adopt predisposes couples to poor relationship quality across the transition.

### Social Context

**Satisfaction with adoption agencies**—For couples who are seeking to adopt, the adoption agency represents perhaps the most salient aspect of their broader social context, inasmuch as they evaluate adopters' suitability to parent and oversee the process of finding them a child. Because of the scrutiny that they must endure, and the uncertainty inherent in the adoption process, adopters often feel powerless as they wait to be approved and then matched with a child (Daly, 1989). Feelings of strain can be mitigated if couples feel that their agencies support them in practical and emotional ways, while negative agency encounters can exacerbate stress which may in turn affect family functioning. Reilly and Platz (2004) found that heterosexual adoptive parents who reported unmet service needs from their agencies reported lower marital quality. Thus, dissatisfaction with agency interactions or services may contribute to poorer relationship quality across the transition.

### The Current Study

The current study examines predictors of relationship quality among 44 lesbian couples, 30 gay male couples, and 51 heterosexual couples across the transition to adoptive parenthood. Participants' perceptions of their relationships were assessed in the pre-adoptive stage, 3–4 months post-adoptive placement, and 1 year post-placement. Of interest was the extent to which intrapersonal, interpersonal, and social contextual characteristics predicted (a) relationship quality at the time of the adoption and (b) change in relationship quality across the first year (pre-adoption to 1 year post-placement). We expected that more depressive symptoms, greater use of avoidance and confrontative coping, shorter relationships, less maintenance, unequal commitment to adoption, and less agency satisfaction would be related to lower levels of and more negative change in relationship quality. We expected that lesbians would report higher levels of and less negative change in relationship quality than other adoptive parents (gender x sexual orientation interaction). We expected that men who reported greater use of avoidance coping would report lower levels of and more negative change in relationship quality (gender x avoidance interaction).

<sup>1</sup>Maintenance is distinct from love and ambivalence in that it is behavioral (not affective) and it is distinct from conflict in that it indexes individual behavior, whereas reports of conflict index mutual behavior. In turn, maintenance represents a set of behavioral repertoires which are amenable to intervention, thus warranting its consideration as a pre-adoptive predictor of relationship quality.

## Method

### Participant Recruitment

To be included in the study, couples had to be adopting their first child and both partners had to be first-time parents. Adoption agencies in the U.S. were asked to provide study information to clients who had not yet adopted. Census data were used to identify states with a high percentage of same-sex couples and effort was made to contact agencies in those states. Over 30 agencies provided information to clients, often in the form of a brochure that invited them to participate in a study of the transition to adoptive parenthood. Clients contacted the researcher for details. Both heterosexual and same-sex couples were targeted through agencies to facilitate similarity on geographical location and income. Because same-sex couples may not be “out” to their adoption agencies, gay/lesbian organizations also assisted with recruitment.

### Procedure

Members of each couple were interviewed separately over the telephone during the pre-adoption phase (Time 1, or T1) and 3–4 months after they had been placed with a child (T2). At each phase, they were sent questionnaires to complete within a week of the interview. Members of each couple were also sent a packet of questionnaires to complete 1 year post-placement (T3). At T1, all couples had completed their home study and were waiting to be placed with a child.<sup>2</sup>

### Description of the Sample

The average family incomes for lesbian, gay, and heterosexual couples respectively were \$104,747 ( $SD = \$53,118$ ,  $Mdn = \$95,000$ , range \$20,000–\$320,000), \$179,843 ( $SD = \$128,840$ ,  $Mdn = \$122,750$ , range \$53,000–\$650,000), and \$123,947 ( $SD = \$61,484$ ,  $Mdn = \$120,000$ , range \$37,000–\$393,000). This sample is more financially affluent compared to national estimates which indicate that the average household incomes for same-sex couples and heterosexual married couples with adopted children are \$102,474 and \$81,900, respectively (Gates et al., 2007). Analyses using multilevel modeling showed that gay couples' income was higher than lesbians' ( $\gamma = 75,096$ ,  $SE = 18,505$ ,  $t(122) = 4.06$ ,  $p < .001$ ) and heterosexuals' ( $\gamma = 55,891$ ,  $SE = 18,141$ ,  $t(122) = 3.08$ ,  $p < .01$ ), while there was no significant difference between heterosexual and lesbian couples ( $\gamma = 19,200$ ,  $t(122) = 1.18$ ,  $p > .05$ ). Average ages of lesbians, gay men, heterosexual women, and heterosexual men respectively were 39.09 years ( $SD = 5.90$ ), 38.74 years ( $SD = 4.45$ ), 37.97 years ( $SD = 5.01$ ), and 39.32 years ( $SD = 5.71$ ). This is consistent with the demographic profile of adoptive parents in prior studies (Daniluk & Hurtig-Mitchell, 2003). Analyses using multilevel modeling indicated that neither gender ( $\gamma = -.26$ ,  $SE = .33$ ,  $t(244) = -.80$ ,  $p > .05$ ) nor sexual orientation ( $\gamma = .12$ ,  $SE = .39$ ,  $t(122) = .31$ ,  $p > .05$ ) were significant; nor was their interaction ( $\gamma = .43$ ,  $SE = .33$ ,  $t(122) = 1.31$ ,  $p > .05$ ). Average wait times to adopt, in months, were 16.60 ( $SD = 12.16$ ), 12.46 ( $SD = 11.25$ ), and 16.64 ( $SD = 13.38$ ) for lesbian, gay, and heterosexual couples, respectively. Multilevel modeling showed that lesbian and gay couples' wait times did not differ significantly ( $\gamma = -4.59$ ,  $SE = 2.93$ ,  $t(122) = -1.57$ ,  $p > .05$ ), gay and heterosexual couples' wait times did not differ significantly ( $\gamma = 4.18$ ,  $SE = 2.84$ ,  $t(122) = 1.47$ ,  $p > .05$ ), and lesbian and heterosexual couples' wait times also did not differ ( $\gamma = -.04$ ,  $SE = 2.54$ ,  $t(122) = -.02$ ,  $p > .05$ ).

<sup>2</sup>We did not include data from 28 couples because they had not completed any phase of the study beyond Time 1 (i.e., because they had not yet been placed with a child or had stopped the adoption process). Independent samples *t*-tests indicated no significant differences between participants and non-participants on any of the T1 predictor and outcome variables except satisfaction with the agency; non-participants had higher satisfaction,  $t(296) = -2.58$ ,  $p < .01$ .

Twenty-nine lesbian couples (66%) had tried to conceive (i.e., one or both partners used alternative insemination), three gay male couples (10%) had tried to conceive (i.e., via surrogacy using one man's sperm), and 41 heterosexual couples (80%) had tried to conceive. Twenty-one lesbian couples (48% of lesbian couples), 22 gay couples (73%), and 27 heterosexual couples (53%) pursued private domestic adoptions; 14 lesbian couples (32%), 6 gay couples (20%), and 8 heterosexual couples (16%) pursued public domestic adoptions<sup>3</sup>; and 9 lesbian couples (20%), 2 gay couples (7%), and 16 heterosexual couples (31%) pursued international adoptions. Forty-five percent of couples lived in the East, 33% in the West, 10% in the Midwest, and 12% in the South.

## Measures

### Outcome

**Relationship quality:** Relationship quality was assessed using the Relationship Questionnaire (Braiker & Kelley, 1979), which contains 4 subscales: love (10 items), conflict (5 items), ambivalence (5 items), and maintenance (5 items). Love, conflict, and ambivalence were treated as outcomes. Items such as "To what extent do you have a sense of 'belonging with your partner?'" (love), "How ambivalent are you about continuing in the relationship with your partner?" (ambivalence), and "How often do you and your partner argue?" (conflict) are answered on a 9-point scale (1 = *not at all* to 9 = *very much*). One item was dropped from the conflict scale due to low reliability. Cronbach's alphas for love ranged from .76–.85 for lesbians, .81–.87 for gay men, .85–.88 for heterosexual women, and .84–.87 for heterosexual men across time points. Alphas for ambivalence ranged from .70–.81 for lesbians, .73–.85 for gay men, .69–.76 for heterosexual women, and .78–.84 for heterosexual men. Alphas for conflict ranged from .73–.85 for lesbians, .60–.64 for gay men, .72–.79 for heterosexual women, and .66–.69 for heterosexual men.

### Intrapersonal Characteristics

**Gender:** Gender was effects coded (1 = female, -1 = male).

**Depression:** Depression was measured using the Center for Epidemiologic Studies Depression Scale (Radloff, 1977), which is a Likert-type scale that assesses depressive symptoms (20 items). The CES-D has established validity and good internal consistency. T1 alphas were .83 for lesbians, .86 for gay men, .80 for heterosexual women, and .84 for heterosexual men.

**Coping:** Coping was examined using two subscales from the 66-item Ways of Coping Questionnaire (Folkman & Lazarus, 1988). Using a 4-point Likert-type scale (0 = *not used* to 3 = *used a great deal*), persons indicate the extent to which they use a particular strategy when confronted with a stressful situation. Confrontative coping (6 items) and escape-avoidance (7 items) were used as predictors. Alphas for confrontative coping were .65 for lesbians, .65 for gay men, .68 for heterosexual women, and .64 for heterosexual men. Alphas for avoidance were .74 for lesbians, .69 for gay men, .67 for heterosexual women, and .70 for heterosexual men.

### Interpersonal Characteristics

**Sexual orientation:** Sexual orientation was effects coded (1 = same-sex, -1 = heterosexual).

**Relationship duration:** Participants were asked, "How long have you been in a committed relationship with your partner?" Thus, relationship duration was defined as the length of time,

<sup>3</sup>Private domestic adoptions are typically managed by private agencies and involve the adoption of infants. Public domestic adoptions are run by counties or states and involve the adoption of children in the child welfare system.

in years, that each individual indicated that they had been in their current committed relationship.

**Relationship maintenance:** A modified version of the 5-item scale (Braiker & Kelley, 1979) was used. Three of the original items were retained: e.g., “To what extent do you reveal or disclose very intimate things about yourself or personal feelings to your partner?” Two items were dropped to improve reliability. Dropped items focus more on problems in the relationship; thus, higher scores conflated maintenance with relationship problems. T1 alphas were .59 for lesbians, .58 for gay men, .59 for heterosexual women, and .63 for heterosexual men. Studies using the full scale show similar alphas, from .52 (Huston & Chorost, 1994) to .64 (Curran et al., 2005).

**Shared commitment to adoption:** Commitment to adoption was categorized as equal (1) if the person’s response indicated that s/he perceived both partners as equally committed to adoption, or unequal (–1) if the response indicated that s/he viewed one partner as less committed. Responses were based on the T1 question, “Which of the following best describes your situation now?” where participants were given these options: I am far less interested in adopting than my partner (1); I am somewhat less interested (2); my partner and I want to adopt equally (3); my partner is somewhat less interested (4); my partner is far less interested (5). Responses were dichotomized (equal commitment; unequal commitment) since 92% of the sample viewed themselves and their partners as equally committed; only 8% perceived any discrepancy between themselves and their partners.

### Social Context

**Satisfaction with adoption agency:** At T1, participants rated their satisfaction with their adoption agency on a 1–5 scale (1 = *very dissatisfied* to 5 = *very satisfied*).

**Analytic Strategy—**Multilevel modeling (MLM) was used to account for the shared variance in the outcomes of partners nested in couples and in repeated measures over time (Raudenbush, Brennan, & Barnett, 1995). An additional challenge is introduced when couple (dyad) members are indistinguishable, i.e., there is no meaningful way to differentiate between dyad members (e.g., male/female). To examine change over time in dyads in which gender is not always a distinguishing feature (i.e., same-sex couples), we employed Kashy, Donnellan, Burt, and McGue’s (2008) adaptation of the dyadic growth model. In this model, separate intercepts and slopes are modeled for each member of the dyad; the two partners’ intercepts are allowed to covary; and likewise their change parameters are allowed to covary (Raudenbush et al., 1995). However, due to the inability to distinguish between dyad members, parameter estimates for the average intercept and average slope (the fixed effects) are pooled across partners and dyads.

Estimation of the indistinguishable model required that we create two redundant dummy variables, P1 and P2, which systematically differentiate between the two partners. We define P1 = 1 if the outcome score is from person 1 and P1 = 0 otherwise, and P2 = 1 if the outcome score is from person 2 and P2 = 0 otherwise. One consideration in growth models is the coding for Time, and in particular, the meaning of Time = 0. We defined Time = 0 as the adoption date, and our measure of time is scaled in months. Given these dummy codes and our measure of time, the unconditional level 1 model that includes only an intercept and a slope for time is:

$$Y_{ijk} = \beta_{01j}P1 + \beta_{11j}P1 * Time_{1jk} + \beta_{02j}P2 + \beta_{12j}P2 * Time_{2jk} + r_{ijk}$$

where  $Y_{ijk}$  represents the relationship score of partner  $i$  in dyad  $j$  at time  $k$ , and  $i = 1, 2$  for the two dyad members. Note that in this equation,  $\beta_{01j}$  and  $\beta_{02j}$  represent the intercepts (the



outcome score at the time of adoption) for persons 1 and 2 in couple  $j$ . Likewise, the estimates of the time slopes for the two partners are denoted as  $\beta_{11j}$  and  $\beta_{12j}$ . These slopes estimate the change in relationship quality over time. The intercepts and slopes are then pooled in the following level-2 equations:

$$\beta_{0ij} = \gamma_{00} + u_{0ij} \quad \text{and} \quad \beta_{1ij} = \gamma_{10} + u_{1ij}$$

These two equations show that the intercepts are pooled both within and between dyads (i.e., across both  $i$  and  $j$ ) to estimate the fixed effect,  $\gamma_{00}$ , which is the average intercept, and similarly, the slopes for time are pooled both within and between dyads to estimate the average slope,  $\gamma_{10}$ .

The variances are also pooled within and between dyads. At level 2, the variance in the intercept,  $\text{Var}(u_{0ij})$ , represents the variability in relationship quality at the time of the adoptive placement, and the variance in the slopes,  $\text{Var}(u_{1ij})$ , represents the variability in how relationship quality changes over time. Finally,  $\text{Var}(r_{ijk})$ , is the variance of the level-1 residuals (or the difference between the observed values of relationship quality and the predicted values). This variance was constrained to be equal for both partners and across all time points.

In addition to the variances, dyadic growth models can include three key covariances. There is a covariance between the intercepts that models the degree to which partners are similar in the outcome score at the time of the adoption. There is also a covariance between the slopes that models the degree to which partners change over time in a similar fashion. Finally, there is a time-specific covariance that assesses similarity in the two partners' outcome scores at each time-point after controlling for all of the predictors in the model.<sup>4</sup>

First we fit unconditional models in SPSS using full maximum likelihood for all outcomes estimating average status (at the time of placement) and change in relationship quality (love, ambivalence, and conflict) across the sample. Next, we added all predictors, including interactions. Finally, we trimmed nonsignificant effects, from least significant to nearest to significance, with the restriction that if an interaction was significant, the corresponding main effects were included, regardless of their significance. In all models, there were 240 participants nested within 125 couples; in 10 couples (4 lesbian, 2 gay, and 4 heterosexual couples), data from one partner were missing for Time 1 predictors and therefore these persons could not be included in analyses.<sup>5</sup> Continuous predictors were grand mean-centered and dichotomous predictors were effects coded.

## Results

The means for outcome and predictor variables for lesbians, gay men, heterosexual women, and heterosexual men appear in Table 1. Analyses using multilevel modeling showed no mean

<sup>4</sup>Two additional covariances are often included in dyadic growth models: An intrapersonal covariance between the intercept and slope (if a person has high conflict at the time of adoption, does that person have a slope that shows less of a decline over time), and an interpersonal covariance between the intercept and slope (if a person has high conflict at the time of adoption, does that person's partner have a slope that shows less of a decline). However, because SPSS does not allow for estimation of these covariances, they were not included in the model. In addition, it was necessary to fix the slope covariances and error covariances to zero in order for the model for conflict to converge. Consequently, the findings for the SPSS models were compared to models fit in SAS with the additional intrapersonal and interpersonal covariance parameter estimates and constraints. The unconditional model for ambivalence would not converge using the SAS algorithm (with or without the added parameter estimates and constraints) but there were no differences in the pattern of findings for either love or conflict. The final trimmed models were also fit in SAS estimating all parameters and using all constraints, with no difference in the pattern of findings for any of the three outcomes.

<sup>5</sup>Data from both partners were missing at T3 in 8 lesbian couples, 7 gay couples, and 8 heterosexual couples. Independent samples  $t$ -tests showed no significant differences between these couples and those with complete data on the predictor or outcome variables.

gender differences on any of the outcome variables. With regards to the predictors, gender was related to maintenance, such that women reported higher levels of maintenance pre-adoption.

### Unconditional Models

An unconditional model was run for each of the relationship outcomes. At the time of the adoption, participants' average love score was 7.847 ( $SE = .053$ ,  $t(345) = 148.79$ ,  $p < .001$ ). There was a significant effect of time on love ( $\gamma = -.024$ ,  $SE = .003$ ,  $t(345) = -7.24$ ,  $p < .001$ ), indicating that love was decreasing significantly, at a rate of .024 points per month. Examination of the residual variance revealed that there was significant variance to be explained in level ( $\gamma = .430$ ,  $SE = .049$ ,  $Wald = 8.81$ ,  $p < .001$ ) and change ( $\gamma = .008$ ,  $SE = .00002$ ,  $Wald = 3.86$ ,  $p < .001$ ).

With regard to ambivalence, at the time of the adoption, participants' average ambivalence score was 1.869 ( $SE = .059$ ,  $t(345) = 31.45$ ,  $p < .001$ ). There was a significant effect of time on ambivalence ( $\gamma = .017$ ,  $SE = .004$ ,  $t(345) = 4.76$ ,  $p < .001$ ), indicating that ambivalence was increasing significantly, at a rate of .017 points per month. Examination of the residual variance revealed that there was significant variance to be explained in level ( $\gamma = .646$ ,  $SE = .070$ ,  $Wald = 9.21$ ,  $p < .001$ ) and change, at the level of a trend ( $\gamma = .006$ ,  $SE = .003$ ),  $Wald = 1.82$ ,  $p = .069$ ).

With regard to conflict, at the time of the adoption, participants' average conflict score was 3.437 ( $SE = .085$ ,  $t(345) = 40.23$ ,  $p < .001$ ). There was a significant effect of time on conflict ( $\gamma = .021$ ,  $SE = .004$ ,  $t(345) = 5.23$ ,  $p < .001$ ), indicating that conflict was increasing significantly over time, at a rate of .021 points per month. Examination of the residual variance revealed that there was significant variance to be explained in level ( $\gamma = 1.008$ ,  $SE = .123$ ,  $Wald = 8.18$ ,  $p < .001$ ) but not change in conflict ( $\gamma = .005$ ,  $SE = .004$ ),  $Wald = 1.24$ ,  $p > .10$ ). However, given that theory suggests variability in conflict and that MLM tests of fixed effects are more powerful than those for random effects, we chose to predict change.<sup>6</sup>

### Predicting Outcomes at Time of Adoption and Change in Outcomes over Time

The main effects and interactions of the predictors of interest were examined in models predicting love, ambivalence, and conflict, and the results are presented in Table 2. The estimates in the top half of the table represent the degree to which each predictor or interaction showed effects when predicting the intercepts. The estimates in the bottom half of the table represent the degree to which each predictor or interaction moderated the effects of time on the outcomes.

First, a model was fit treating love as the outcome, and intrapersonal variables (gender, depression, avoidance coping, confrontative coping), interpersonal variables (sexual orientation, relationship duration, maintenance, equal investment in adoption) and social contextual variables (agency satisfaction) were included as main effect predictors (Table 2). This model also included the two interactions of interest (gender x sexual orientation; gender x avoidance coping). The effect of depression predicting the intercept for love was significant, such that persons who were more depressed pre-adoption reported lower levels of love at the time of the adoption. Avoidance coping and maintenance were also significantly related to the love intercept, such that persons who relied heavily on avoidance coping reported lower levels of love and persons who reported higher levels of maintenance reported higher levels of love

<sup>6</sup>Reliance on the tests of the variance components as a basis for explaining variability is particularly problematic in dyadic models, as there is more likely to be bias in the estimates of the standard errors of variance components than those of the fixed effects when there are a small number of observations at level 1 (Raudenbush, 2008).

at the time of the adoption. Neither of the interactions included in the model were statistically significant.

With regard to change over time, in addition to the significant overall effect of time, confrontative coping predicted change in love over time, with love decreasing more quickly for persons who relied heavily on confrontative coping. Gender also predicted change in love, with women experiencing greater decreases. Neither interaction was significant in predicting change.

The same set of predictors was examined in relation to ambivalence. As with love, there were significant effects of depression and maintenance on ambivalence at the time of the adoption. These effects suggest that persons with higher levels of depression and lower levels of maintenance reported greater ambivalence at the time of the adoption. The gender x sexual orientation interaction emerged as significant, such that heterosexual men and lesbians reported the highest levels of ambivalence, and heterosexual women the lowest, at the time of the adoption.

With regard to change, depression and confrontative coping emerged as significant predictors of change in ambivalence, such that more depressed persons and persons who relied heavily on confrontative coping had steeper increases in ambivalence.

Finally, the same set of predictors was used to predict conflict. Gender was significantly related to conflict, with women reporting higher levels of conflict at the time of the adoption. As with love and ambivalence, depression and maintenance were significantly related to conflict, with persons who reported higher levels of depression and less maintenance reporting higher levels of conflict. Finally, gender x avoidance coping significantly predicted conflict, such that *women* who relied more heavily on avoidance reported higher levels of conflict at the time of the adoption. With regard to change, maintenance significantly predicted change in conflict, such that persons who reported higher levels of maintenance reported *more* of an increase in conflict.

In the final models, we retained previously significant effects and effects involved in higher order interactions. We trimmed non-significant predictors, starting with the least significant, to see if they became significant when other predictors were trimmed (Table 2). The parameter estimates and statistical tests from the trimmed models were highly similar to those from the models that included the full set of predictors. However, three changes are of note. In the trimmed model for ambivalence, the effect of avoidance coping emerged as significantly and positively related to the ambivalence intercept when the other non-significant predictors were trimmed. In the trimmed model for conflict, avoidance coping became significantly and positively related to the intercept. Also, agency satisfaction became significantly and negatively related to the conflict intercept.

## Discussion

The current study, the first to examine relationship quality across the transition to adoptive parenthood among same-sex and heterosexual couples, yielded some important findings. First, our findings show that similar declines in relationship quality are evident in adoptive couples as in heterosexual couples (Ahmand & Najam, 1998) and lesbian couples (Goldberg & Sayer, 2006) across the transition to biological parenthood. Specifically, we found that partners' feelings of love decreased, and reports of ambivalence and conflict increased. Consistent with some prior research (e.g., Belsky & Rovine, 1990), women experienced steeper decreases in love than men. In contrast to Kurdek's (2008) findings, which indicated that lesbian nonparents reported more positive relationship outcomes than gay or heterosexual couples, we found that lesbians did not experience less negative outcomes than other types of couples, suggesting that

being in a lesbian relationship does not protect partners from the modest decline in relationship quality that is associated with becoming a parent. These data suggest that regardless of route to parenthood, sexual orientation, and to a large extent gender, all new parents, on average, experience relationship decline.

Second, our finding that higher initial depressive symptoms were related to less love and greater ambivalence and conflict at the time of the adoption confirms prior findings on the negative effects of depression on relationships (Cox et al., 1999). Depressed persons often suffer interpersonal deficits and rely on maladaptive conflict resolution tactics, which may contribute to poor relationship quality (Cox et al.). That depressive symptoms appear to have particularly powerful implications for the relationship quality of these new adoptive parents is notable, given that these parents may face additional stresses (e.g., adoption stigma) in early parenthood. Depressive symptoms predicted *change* in ambivalence only, such that more depressed persons were prone to increasing uncertainty about their relationships across the first year. Persons who are depressed often experience a lack of caring about things that were once important to them (Maggi et al., 1998), which may contribute to more relationship ambivalence over time. Practitioners should assess for depression and offer resources to adopters who manifest symptoms.

Third, coping was related to relationship outcomes, although the effect varied by strategy and outcome. Persons who relied heavily on avoidance reported less love and more ambivalence at the time of the adoption. This is consistent with research by Bouchard et al. (1998), which found that both women and men who relied heavily on avoidance reported less marital satisfaction. It is inconsistent with other studies, however, which have found this coping method to be more strongly linked to marital outcomes for men (Houser et al., 1990; Ptacek et al., 1994). Also, *women* who reported more avoidance reported more conflict. Women are more often the “managers” of the adoption process (e.g., the ones filling out the paperwork; Gravois, 2004). Thus, their tendency to withdraw – possibly from a stressful process that they are “expected” to be the primary negotiators of – may lead to heightened conflict. However, inasmuch as we assessed dispositional coping, we do not know the extent to which participants’ general coping style extended to the adoption sphere. Research is needed to determine whether this interpretation is warranted.

Confrontative coping, which involves aggressive attempts to change undesired situations, was, interestingly, related to *change* in love and ambivalence such that persons who relied heavily on confrontative coping reported less love and more ambivalence about their partners over time. Given the aggressive and often hostile nature of confrontative coping, frequent use of this style of coping may be particularly likely to elicit negative reactions from partners, thereby diminishing the feelings of love and commitment that both partners have for each other over time.

Turning to interpersonal characteristics, initial levels of relationship maintenance were related to all three dimensions of relationship quality, such that persons who engaged in high levels of maintenance in the pre-adoptive period reported more love, less ambivalence, and less conflict at the time of the adoption. It is possible that the size of this relationship was inflated as maintenance was assessed using a scale from the same questionnaire as the outcomes. The strength and consistency of the findings do however suggest that maintenance may be an important protective factor with regards to all aspects of relationship quality. Agencies can easily target maintenance in their efforts to enhance adjustment among pre-adoptive couples by encouraging couples to develop and practice strategies for communicating about their relationships.

Given that higher maintenance was related to less conflict at the time of the adoption, it is surprising that maintenance was also related to greater *increases* in conflict. That is, although persons who engaged in high levels of maintenance pre-adoption had lower conflict early on, they also experienced greater conflict across the first year. Perhaps maintenance serves a positive function early in parenthood, but as parenthood demands increase, (a) it becomes impossible to sustain such high levels of maintenance, which leads to conflict; or (b) persons who engage in high levels of maintenance find these efforts to be less sustaining, and more straining, to their unions, such that their openness about their “needs,” for example, leads to more conflicts.

Contrary to expectation, perceived discrepancy in commitment to adoption was not related to relationship quality. Perhaps more important than perceptions of equal investment in adoption are perceptions of equal investment in *parenthood*. That is, as long as one perceives one’s partner as committed to parenthood, evidence of hesitation regarding adoption may be less likely to cause tension. Alternatively, the lack of association may be due to the lack of variability in our measure of shared commitment, and to the way that it was operationalized (equally/unequally committed).

A curious interaction emerged between sexual orientation and gender in predicting ambivalence at the time of the adoption, such that heterosexual men and lesbians experienced the most ambivalence and heterosexual women the least. Thus, the two groups who are partnered with women showed this pattern. In that women tend to show greater preoccupation with their child in early parenthood, perhaps persons who are partnered with women are especially vulnerable to feeling deprived of their partners’ attentiveness (Nyostrom & Ohrling, 2004). Indeed, research on heterosexual couples shows that men are far more likely than women to express frustration over no longer being the focus of their partners’ affection when the child arrives (Nyostrom & Ohrling).

Turning to the social context, agency satisfaction was related to conflict at the time of the adoption. Persons who are dissatisfied with their agencies likely regard the adoption process as a major source of stress. In turn, frustration with one’s agency may have carryover effects into one’s relationship, inasmuch as negative agency experiences can cause increased friction pre-adoption and beyond (Reilly & Platz, 1994). Or, it is possible that persons who are dissatisfied with their agencies are unhappy because they view themselves as having received insufficient preparation for the adoption, and it is stress about their lack of preparation specifically that causes increased conflict. Research should explore which agency practices contribute to parents’ satisfaction, and should clarify the mechanism by which satisfaction influences conflict in adoptive couples.

### Future Directions

The fact that this is the first study of relationship quality across the transition to adoptive parenthood – and utilized three types of couples – required us to limit the number of predictors and the conceptual scope of this project. In turn, this study has several limitations. First, our sample appears to be more affluent compared to national norms for adoptive parents; thus, our findings may not be generalizable to adoptive parents with lower incomes. Second, our measures rely solely on self-report. Future work might employ additional measures of the major constructs (e.g., observational measures of conflict; partner ratings of love and ambivalence). Further research on relationship maintenance should be conducted with an independent measure, and ideally one that assesses different types of relationship maintenance (including nonverbal behaviors). Third, we were unable to consider the effects of the partner’s predictors on the person’s outcomes in our analyses due to insufficient statistical power (Ackerman, Donnellan, & Kashy, 2010). Future work should include larger samples in order to explore how having a partner who relies heavily on avoidance, for example, affects self-reports of

relationship quality. Relatedly, we were only able to test a limited number of theory-driven hypotheses on how pre-adoptive factors might interact. Future studies can delve deeper into such interactions by including larger samples.

We also did not examine how prior attempts to have a biological child might shape relationship outcomes since so few gay men in the sample had tried to have a child. Given the difficulties that are inherent in surrogacy, future studies examining this question will likely be limited to heterosexual and lesbian couples. It is therefore somewhat reassuring that very few differences in outcomes emerged as a function of sexual orientation.

Another avenue for future research is to examine how situation-specific coping (i.e., coping with the adoption process) predicts outcomes during the transition to parenthood. We chose to assess dispositional coping due to previous work in the relationship literature and our belief that this broader construct would be more useful in understanding outcomes beyond the adoption such as relationship quality post-transition. However, assessment of adoption-related coping would further enhance our understanding of relationship processes during this key life transition.

Although this study makes a key first step in our understanding of the transition to adoptive parenthood, some measurement issues should be addressed in future work. Several of our measures had single or few items with correspondingly low reliability. For example, relationship maintenance was measured using a scale with relatively low reliability. Thus, our estimates and tests of this effect are likely conservative, and future work using more reliable measures will be valuable in establishing a more accurate estimate of the effect size for this construct. We were also disappointed in the lack of variability in shared commitment to adoption. It may be that our construction of this variable limited our ability to detect its effects. Or, it may be that couples who move forward with adoption are largely in agreement on this decision, and there truly is little variance. The effects of a lack of shared commitment may only be addressable in studies with very large samples in which there are sufficient numbers of couples that differ in their commitment.

Finally, our findings raise many additional questions. Future qualitative work would enhance our understanding of relationship processes during the transition to adoptive parenthood.

## Conclusion

Insomuch as children who are adopted are at a somewhat greater risk for developing emotional/behavioral problems (Nickman et al., 2005), and aspects of the child (e.g., perceived difficultness) are often linked to parents' relationship quality (Levy-Shiff, 1994), the intimate relationships of adoptive parents may be at risk during the transition to parenthood. Thus, it is important to clarify what factors, present in the pre-adoptive period, are linked to relationship quality over time, as such knowledge can directly inform prevention efforts. This study points to several factors which may be particularly important to couples' relationship trajectories across the transition. Prevention efforts that encourage couples to engage in relationship maintenance strategies before they become parents, for example, may help them to effectively weather the unique challenges of becoming adoptive parents. Also, early identification and treatment of depressive symptoms may enhance adoptive parents' relationship health. Prevention efforts that seek to minimize relationship distress across the transition to adoptive parenthood can, in turn, influence a wide range of family outcomes, insomuch as relationship distress has been linked to negative views of one's child, poor parenting quality, and stress (Moore & Florsheim, 2008).

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**Table 1**

Descriptive data for predictor and outcome variables

	Lesbians (M, SD)	Gay Men (M, SD)	Het W (M, SD)	Het M (M, SD)
<b>Outcomes</b>				
Love	8.10 (.62)	7.97 (.67)	8.08 (.60)	7.83 (.81)
Ambivalence	1.70 (.77)	1.86 (.86)	1.48 (.58)	2.01 (1.03)
Conflict	3.26 (1.39)	3.27 (1.07)	3.32 (1.09)	3.29 (1.20)
<b>Predictors</b>				
Depression	.47 (.33)	.52 (.40)	.51 (.40)	.44 (.33)
Escape-Avoidance Coping	3.39 (3.45)	3.73 (2.97)	3.96 (3.17)	3.68 (3.42)
Confrontative Coping	4.84 (2.87)	5.40 (2.88)	4.55 (3.15)	5.54 (3.05)
Relationship Duration	7.73 (3.70)	8.25 (3.87)	8.86 (3.95)	8.86 (3.95)
Relationship Maintenance <sup>a</sup>	6.84 (1.25)	6.12 (.30)	6.82 (1.24)	5.69 (1.67)
Equal Commitment to Adopt (% YES)	88%	94%	94%	92%
Satisfaction with Adoption Agency	4.28 (.98)	4.42 (.98)	3.96 (1.30)	4.21 (1.11)

<sup>a</sup>MLM revealed an effect for gender, such that women reported higher levels of relationship maintenance than men ( $\gamma = .451$ ,  $SE = .082$ ,  $t(240) = 5.44$ ,  $p < .001$ ).

Table 2

Full and trimmed models predicting love, ambivalence, and conflict

	Love			Ambivalence			Conflict		
	Full Model ( $\gamma$ , SE)	Trimmed ( $\gamma$ , SE)	Full Model ( $\gamma$ , SE)	Trimmed ( $\gamma$ , SE)	Full Model ( $\gamma$ , SE)	Trimmed ( $\gamma$ , SE)	Full Model ( $\gamma$ , SE)	Trimmed ( $\gamma$ , SE)	
<b>Intercept</b>	<b>7.741 (.083)</b> ***	<b>7.739 (.053)</b> ***	<b>1.883 (.101)</b> **	<b>1.937 (.062)</b> ***	<b>3.560 (.134)</b> **	<b>3.50 (.087)</b> ***			
Gender	.001 (.047)	-.001 (.042)	-.045 (.061)	-.033 (.057)	.173 (.075)*	.156 (.069)*			
Depression	-.295 (.120)*	-.273 (.120)*	.467 (.164)**	.518 (.165)**	.504 (.185)**	.524 (.184)**			
Escape-Avoid	-.041 (.013)**	-.038 (.013)**	.032 (.018)	.035 (.018)*	.031 (.022)	.044 (.018)*			
Confrontative	.004 (.015)	.006 (.014)	.031 (.020)	.017 (.020)	.031 (.022)				
Sexual Orient	-.013 (.050)		.005 (.055)	.017 (.056)	-.049 (.084)				
Relat Duration	.014 (.012)		-.016 (.014)		-.007 (.021)				
Relat Maint	.203 (.031)***	.195 (.031)***	-.201 (.040)***	-.179 (.041)***	-.149 (.049)**	-.141 (.049)**			
Equal Comm	.002 (.075)		.066 (.095)		-.081 (.119)				
Agency Sat	-.035 (.039)		-.046 (.051)		-.114 (.061)	-.119 (.060)*			
Gender x Avoid	.010 (.011)		-.016 (.016)		.039 (.017)*	.036 (.017)*			
Gender x Sex Or	-.020 (.041)		.117 (.053)*	.110 (.054)*	-.026 (.066)				
<b>Change</b>	<b>-.025 (.006)</b> ***	<b>-.023 (.004)</b> ***	<b>.017 (.007)</b> **	<b>.017 (.004)</b> ***	<b>.023 (.008)</b> **	<b>.019 (.004)</b> ***			
Gender	-.007 (.003)*	-.006 (.003)*	.002 (.004)		-.006 (.005)				
Depression	.006 (.009)		.025 (.011)*	.021 (.010)*	-.013 (.012)				
Escape-Avoid	.001 (.001)		.001 (.001)		.002 (.001)				
Confrontative	-.003 (.001)**	-.003 (.001)**	.002 (.001)*	.003 (.001)*	-.001 (.002)				
Sexual Orient	.001 (.003)		-.002 (.004)		-.002 (.004)				
Relat Duration	.001 (.001)		-.001 (.001)		-.001 (.001)				
Relat Maint	.001 (.002)		.001 (.003)		.006 (.003)*	.005 (.002)*			
Equal Comm	.004 (.006)		.002 (.006)		.001 (.007)				
Agency Sat	.001 (.002)		.002 (.003)		-.002 (.004)				
Gender x Avoid	-.001 (.001)		-.001 (.001)		-.001 (.001)				
Gender x Sex Or	.001 (.003)		-.001 (.004)		-.003 (.004)				

\*  $p < .05$ .

100 >  $p$   
\*\*\*  
10 <  $p$   
\*\*