Gay Fathers by Surrogacy: Prejudice, Parenting, and Well-Being of Female and Male Children

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This research focused on behavioral functioning of children conceived via gestational surrogacy and raised by gay fathers. Gay fathers from 68 families with children aged 3–10 years completed the Achenbach Child Behavior Checklist. Their scores were compared to those from a normative sample of parents matched for parent’s occupation and children’s gender, age, and race/ethnicity. Children of gay fathers received significantly lower scores on internalizing (anxiety, depression) and externalizing (aggression, rule-breaking) than children in the comparison sample. Most notably, daughters of gay fathers had significantly lower internalizing scores than did daughters in the national database. Gay fathers also completed measures of parenting styles, social support, and perceived prejudice. Fathers who reported less authoritarian or permissive parenting, more positive coparenting, and more social support from friends had children with fewer behavior problems. Gay fathers’ reports of family members receiving higher levels of antigay microaggressions were associated with parents’ greater stigma consciousness, more anger/aggression from spouse/partner, and less positive parenting and coparenting. Results are discussed in terms of gay and heterosexual parents’ gender-related socialization of daughters’ internalizing problems and the impact of minority stress on same-sex couples’ parenting.

Public Significance Statement
In this study, 68 children conceived via surrogacy and raised by gay fathers received significantly lower scores on externalizing problems (aggression, rule-breaking) and internalizing problems (anxiety, depression) than a comparison sample of 68 matched children drawn from a normative population. In particular, being raised by gay fathers was markedly associated with daughters’ lower internalizing scores. Gay fathers who experienced more antigay prejudice had less positive parenting, couple relationships, and social support. These results suggest that children of gay fathers by surrogacy are functioning as well as or better than children in the general population. Public policy should be targeted toward the reduction of prejudice against gay father families and helping them cope with stigma and discrimination.

Keywords: gay fathers, surrogacy, microaggressions, children of gay fathers, girls internalizing problems
The vast majority of research on children raised by sexual minority parents has focused on lesbian parents. Initially, the research examined lesbian women who had conceived or adopted children in the context of an earlier heterosexual relationship before coming out (cf. Allen & Burrell, 1996; Falk, 1989; Patterson, 1992, for early reviews). More recent studies have centered on lesbian women who conceived children via adoption or sperm donor insemination in the context of being in a relationship with a female partner/coparent—after coming out (cf. Farr, 2010; Farr, Forsell, & Patterson, 2010; Gartrell & Bos, 2010; Goldberg, 2010).

In contrast, there has been very little research on gay male parents. The early research about gay fathers focused on men who had children in prior heterosexual relationships (marriages) that ended in divorce (cf. Bozett, 1989, for a review). These studies often had very small samples and included fathers who did not currently live with, have custody of, or visitation rights with their children. More recent research has examined outcomes of children adopted and raised by gay fathers after they came out (cf. Goldberg, 2012; Tornello, Farr, & Patterson, 2011).

The research consistently shows that children raised by same-sex parents are functioning as well as, and sometimes better than, children raised by different-sex parents (for reviews, see Fedewa, Black, & Ahn, 2015; Patterson, 2009; Patterson & Goldberg, 2016; Stacey & Biblarz, 2001). The research of Farr et al. (2010) found no difference between child adjustment, child development, and parenting among U.S. lesbian, gay, and heterosexual parents who had adopted children. Gartrell and Bos (2010) found that U.S. lesbian mothers rated their adolescent daughters and sons conceived via donor insemination higher on social and academic competence and lower on problem behavior, compared with mothers’ reports of age-matched controls from Achenbach’s normative Child Behavior Checklist (CBCL) sample. In a study in the United Kingdom comparing lesbian couples, gay male couples, and heterosexual couples with adopted children ages 3–9 years (Golombok et al., 2014), gay male parents reported more positive wellbeing and parenting than heterosexual parents. Using data from the 2010 U.S. Census, Rosenfeld (2010) found that children raised by same-sex and different-sex couples were comparable on educational achievement. A study in Australia (Crouch, Waters, McNair, Power, & Davis, 2014) indicated that children from same-sex parents scored higher on general health, socioemotional behavior, and family cohesion when compared with data from the larger Australian population. In a meta-analysis by Fedewa et al. (2015), children with same-sex parents had more positive adjustment than those with different-sex parents.

It is important to emphasize that the early studies, which looked at sexual minority parents who had children in the context of a prior heterosexual relationship, are essentially studies of children whose parents divorced or otherwise terminated their couple relationship. Comparing children of divorced gay parents to heterosexual parents, most of whom were still married, introduced a confound. Similarly, children who were adopted may have experienced stress and trauma in infancy or early childhood. For example, adopted children may have experienced poorer prenatal maternal care, neglectful or abusive parenting before adoption, inadequate care in residential group settings (e.g., in Romania and other Eastern European countries), or multiple short-term caretakers before adoption (including in a sequence of foster families or residential care settings). Golombok et al. (2014) found that children adopted by gay male parents were adopted at older ages and had been with their adopted parents for a shorter time period than children adopted by heterosexual parents. The research of Tornello et al. (2011) found that gay men reported more parenting stress when their children were adopted at older ages. In both of these studies, it is possible that children adopted by gay men had spent more time in residential settings or foster care.

To control for confounds that may be due to different rates of divorce or adoption, it is important that children in the comparison groups are not differentially at risk for poorer outcomes attributable to factors that occurred before the child joined the family. It is also useful to focus on same-sex parents who conceived and raised their children in the context of a couple relationship in which the parents were out of the closet before having children. This is why the U.S. National Longitudinal Lesbian Family Study (Gartrell & Bos, 2010) has been so valuable—the children were conceived via donor insemination and raised from birth in the context of a committed lesbian couple relationship and were biologically related to one of the mothers in the couple. In contrast, there has been very little research on children conceived via surrogacy and raised from birth by their gay fathers (one of whom is biologically related to the child; Mitchell & Green, 2007).

Children Born via Surrogacy to Gay Fathers

In surrogacy, a woman agrees to become pregnant and to give birth so that the intended parents can have a child they could not otherwise have on their own (cf. Bergman, in press; Ragone, 1996). In traditional surrogacy, a male intended parent’s sperm is used to fertilize the surrogate’s own egg to create an embryo via alternative insemination. Thus, the child is genetically related both to the female surrogate and to the male parent who is the sperm donor. By contrast, in gestational surrogacy, an embryo is created by in vitro fertilization from the father’s sperm and an egg from a woman who is not the surrogate. A fertility physician transfers the embryo to the surrogate’s womb to achieve pregnancy. Thus, in gestational surrogacy, the surrogate is not genetically related to the child, and almost all fertility clinics and surrogacy agencies nowadays utilize gestational rather than traditional surrogacy (Bergman, in press).

There are extremely high costs associated with surrogacy, including health insurance for the surrogate; the medical copayment costs of pregnancy and delivery; liability insurance for the agency and the intended parents; payments to separate attorneys for the egg donor, surrogate, and intended parents; costs of in vitro fertility procedures; payments to the egg donor and surrogate for their participation; and payment for court costs to obtain a prebirth declaration of parenthood from a court or for an adoption by the intended parent(s), depending on what is required to establish legal parenthood of the nonbiological parent in the participants’ state of residence (Bergman, in press). All of these costs are paid for by the intended parents and usually total over $125,000 (or much more if multiple rounds of egg retrieval, embryo creation, and embryo transfers are required to achieve a viable pregnancy). Thus, it is not surprising that the intended parents need to earn very high incomes.
to afford surrogacy. In a study by Blake et al. (2017), the mean annual family income for gay men who utilized surrogacy was $370,000.

The existing research on children conceived via surrogacy has focused primarily on the parents’ experience rather than the child’s functioning; and these studies have focused on somewhat disparate topics. Blake et al. (2017) surveyed 40 gay male couples about motivations to have children via surrogacy. The fathers reported that surrogacy was their preferred method because they would have less control over an adoption process. For example, during the time period when many of our study’s gay father families were created, international adoptions from China and throughout Asia were going through major changes that culminated in single or cohabiting unmarried parents suddenly being prohibited from adopting. Most observers believed that this marriage criterion was specifically designed to preclude adoptions by lesbian or gay people, who were unable to marry a same-sex partner in the United States. Intended gay male parents who were in the midst of doing international adoptions in Asia had to relinquish their hopes, abandon their current efforts, and start the entire adoption process anew in other parts of the world or in the United States. Some chose surrogacy instead.

In another study of 40 gay men who had a child via surrogacy (Bergman, Rubio, Green, & Padrón, 2010), fathers reported greater self-esteem and closeness with their families of origin after becoming a parent via surrogacy. Tornello, Kruczowski, and Patterson (2015) surveyed 52 male same-sex couples who had a child via surrogacy. The fathers reported high relationship quality and, like lesbian coparents, tended to share childcare more equally than like heterosexual parents. However, the largest of the studies (Baiocco, Carone, Ioverno, & Lingiardi, 2018) revealed that gay parents ($n = 70$) and lesbian parents ($n = 125$) reported significantly fewer child behavior problems than did heterosexual parents ($n = 195$). Furthermore, in the study by Carone, et al., teachers reported that children of gay fathers showed significantly lower levels of internalizing problems and that children of lesbian mothers showed significantly higher levels of internalizing problems compared to children in a large normative database in Italy even though children in all three groups scored well within the normative range on the measure of children’s functioning.

It remains unclear to what extent the results of these studies in Italy are generalizable to the U.S. context, given the illegality of surrogacy and donor insemination for gay or lesbian couples in Italy; the greater stigmatization of LGBT parents in Italy due to the influence of the Catholic Church; and the fact that most of the gay and lesbian research participants in Italy were recruited from a single social organization (The Italian Rainbow Family Association), with unusually high participation rates among those invited from this organization (80%–90%) and among the heterosexual parents they invited to participate (85%–98%).

### Same-Sex Parenting and Antigay Prejudice

We also wanted to assess whether gay father families perceive being treated differently or negatively because the father was gay (a phenomenon here termed *family antigay microaggressions*, Green, 2013) and how such prejudicial treatment might be affecting the parents’ or children’s functioning. It is noteworthy that sexual minority families seem to be functioning as well as, or better than, heterosexual families despite the prejudice and discrimination they may encounter. Nevertheless, relatively more exposure to prejudice and discrimination still is associated with less positive functioning among sexual minority families.

In their study of gay fathers who had adopted children, Tornello et al. (2011) found that gay fathers who reported more sensitivity to stigma also reported more stress due to parenting. The research by Crouch et al. (2014) in Australia surveyed male and female same-sex parents about the extent to which they had experienced stigma in the past year. Increased stigma was associated with increased reports of emotional symptoms in the children and less family cohesion. Bos and Van Balen (2008) asked lesbian mothers and their children to complete surveys of stigma and psychological functioning in the Netherlands. Children generally reported low levels of stigma. However, higher levels of stigma were associated with lower self-esteem in girls and hyperactivity in boys.

In the United States, van Gelderen, Gartrell, Bos, and Hermanns (2013) asked adolescents whether they had ever been treated unfairly because of having lesbian mothers. This type of stigma was associated with decreased life satisfaction and increased psychological problems, with family compatibility and fitting-in well with peers serving as protective factors for stigma. It may be that these specific buffers or other coping mechanisms allow lesbian and gay parent families to counteract the negative effects of stigma, and perhaps lesbian and gay parent families generally are experiencing less severe forms of discrimination nowadays.
Objectives of the Current Study

The current study is a first effort to examine the psychosocial behaviors of children conceived via surrogacy and raised by two gay fathers in the United States, comparing them to children of other parents in the general population. A major objective was to determine whether these two groups of children differ in behavioral functioning. Based on prior research that showed children with same-sex parents functioning as well or better than, those with different-sex parents (cf. meta-analysis by Fedewa et al., 2015), we predicted that children of gay fathers conceived via surrogacy also would be functioning as well as, if not better than, children in the general population on the CBCL internalizing, externalizing, and total behavior problem scales.

A second objective—using data from the gay father sample only—was to explore associations among partner’s couple-related behavior, both partners’ parenting behavior, and children’s behavioral/emotional functioning. We hypothesized that more negative couple interaction (e.g., more anger/aggression from partner, less nurturance from partner) and less effective parenting (less positive coparenting, less authoritative parenting, more authoritarian and permissive parenting) would be related to more internalizing, externalizing, and total child behavior problems.

Our third objective—again using data within the gay father sample only—was to examine the intercorrelations among perceived antigay prejudice, social support/acceptance, partner’s couple-related behavior, and both partners’ parenting behavior. We hypothesized that more antigay microaggressions, more stigma consciousness, and less social support/acceptance would be linked to less effective couple and parenting behavior (i.e., more anger/aggression and less nurturance from partner; more authoritarian and permissive parenting; less authoritative parenting; and less positive coparenting).

Several researchers (e.g., Chan et al., 1998; Farr & Patterson, 2013) showed that gay and lesbian coparents report more equal division of childcare responsibilities than do heterosexual coparents (where mothers provide the bulk of childcare). However, Farr and Patterson found that dissatisfaction with the division of childcare, not actual division of childcare, was associated with children’s adjustment. Given these results, we chose not to include division of childcare in a directional hypothesis for the present study but rather simply to explore whether it was associated significantly with our child behavior variables in any way (which it turned out not to be).

Method

Participants and Procedure

The gay father participants were recruited with the assistance of surrogacy agencies, fertility clinics, and LGBT family organizations nationally. To preserve client confidentiality, personnel at those organizations were asked to send a copy of our research invitation directly to their own clients/members via e-mail. Interested parents could then go directly to our survey website to begin their participation in the study. The invitations made clear that the organizations would never be told whether their specific clients/members participated in our research or what their clients’/members’ responses were to our survey questions.

To be included in the study as a gay father family, parents had to have a child who was (a) born via surrogacy, (b) aged 3–10 years, (c) genetically related to one of the two gay fathers in the family, and (d) not a multiple (twin or triplet) birth (a criterion added because a much larger proportion of children born via in vitro fertilization are multiple births, given that more than one fertilized egg frequently was transferred to the surrogate during the time period in which these children were conceived). Recruitment invitations stated that the study was about all families created via surrogacy, and that both heterosexual and same-sex parents were eligible. Despite this wording, not enough heterosexual parents who had children via surrogacy responded to the announcement. We suspect the surrogacy agencies that primarily served heterosexual clients were much less likely to distribute our research invitations to their clients. Furthermore, heterosexual parents who conceived via surrogacy may have been more reluctant to participate. This may be the result of the greater secrecy and sense of failure or shame with which some heterosexual parents view surrogacy—as a “last resort” solution to a problem of “infertility” (Bergman, in press; Lindsey & Driskill, 2013). By contrast, gay male couples obviously do not expect to procreate without the involvement of a third party (a woman) to carry the baby through pregnancy. Thus, gay men do not view surrogacy as the solution to an “infertility problem” or a sign of a personal impairment or failure. Rather gay fathers tend to feel very positively about doing surrogacy and freely talk with their children and others about it.

A total of 68 gay father families expressed willingness to participate, met the study criteria, and filled out the online questionnaire. The parent who self-identified as the “primary caregiving parent” (defined as “the parent who has spent the most time with this child and carried most of the responsibility for taking care of this child overall since birth”) or the “coequal caregiving parent” (defined as “If both parents spend an equal amount of time in this role, then you and your spouse/partner can either flip a coin or self-select who will serve as the parent participant for this study”) completed the surveys.

The gay fathers were on average aged 46.97 and highly educated, with an average of 18.25 years of education. These fathers also had high socioeconomic occupations (i.e., higher executives, major professionals, administrators, medium-sized business owners) with correspondingly high household family incomes averaging over $150,000 a year. The average family size for the gay father sample was 1.66 children.

For comparisons of behavior problems between the children raised by gay fathers via surrogacy and other children in the United States, we selected 68 families from the large CBCL national database (courtesy of its publisher, the Achenbach System of Empirically Based Assessment [ASEBA] Corporation), in which almost all of the children presumably were conceived and being raised by heterosexual parents. This presumption is based on national survey data about the small percentage of U.S. adults who identify as lesbian, gay, or bisexual (approximately 3.5%; Gates, 2014b) and the minority of them who are raising children age 18 or less (19%; Gates, 2014a). Thus, assuming that the large CBCL national database is representative of the general U.S. population of parents who have children ages 3–18, one would expect that only a tiny proportion (less than 1%) of the CBCL database parents would be lesbian, gay, or bisexual.
One consequence of this method is that the parent completing the CBCL surveys in the ASEBA database was much more likely to be a mother (65% in our comparison sample) than a father (32%); or “other” person (e.g., a grandmother) whereas all the parents completing the survey in the gay sample were fathers. However, a comparison group of families in which the CBCL responses were from secondary caregiving heterosexual fathers would be an extremely unrepresentative group of heterosexual families, given that mothers are usually the primary caregivers for their children. Furthermore, a comparison group of families in which the CBCL responses were from secondary caregiving heterosexual fathers would lack equivalence on the primary caregiver statuses of the gay father respondents, which we felt was most important in terms of getting accurate ratings from a parent regarding the child’s behavior and emotions. Thus, we chose to compare our sample of primary or coequal caregiving gay fathers to a sample of whichever parent filled out the CBCL in the comparison group families. We think it is likely that respondents who completed the CBCLs in ASEBA’s database also were primary or coequal parents, as typically would be the case whenever only one parent is voluntarily reporting on the child’s behavior for research studies.

We used all of the other relevant matching data we were able to obtain from the publisher of the CBCL. Each comparison family from the CBCL database was matched with a gay father family for child’s age, gender, race/ethnicity, and parent’s occupation. In terms of the matching process, ASEBA sent us a normative database containing \( N = 700 \) for children ages 1.5–5.0 years old and \( N = 1,753 \) for children ages 6–18 years old. The database included information about child’s age, sex, race/ethnicity, and each family’s highest status parental occupation. Thus, for matching both the gay father and comparison ASEBA samples, we utilized the highest parental occupational status provided. The CBCLs in the ASEBA sample were filled out by one parent in each family (self-selected by the family). ASEBA did not provide any specific data about income, education, or number of parents in the home. These questions are not asked on the CBCL questionnaire itself.

It is worth noting that socioeconomic status (SES) traditionally is calculated using a combination of occupational status and educational attainment, the former variable being weighted more strongly. In the original Hollingshead Index, calculating the SES score of an individual involves multiplying the scale value for the person’s occupational status by a weight of five and the scale value for the person’s educational attainment by a weight of three (Hollingshead, 1975). Furthermore, Hollingshead reported that Occupational Status scores correlated \( r = .78 \) and \( r = .67 \) with income for men and women, respectively. Thus, although we do not have specific data on parents’ income from ASEBA Corporation, parents’ highest occupational status usually is associated with higher income and education (i.e., all aspects of higher SES).

It has been common practice in studies of sexual minority families to match the comparison group children on age, gender and race/ethnicity (e.g., Gartrell, Bos, & Koh, 2018). However, to our knowledge, none of the previous studies comparing lesbian or gay families to normative group families used any variables related to SES for matching purposes. Because we knew (based on previous research and the extremely high costs of surrogacy) that the gay fathers would have extremely high incomes and occupational statuses, we felt it was important to utilize the one SES-related variable (parent’s occupation) that was available to us in the ASEBA database for matching. By contrast, if we had compared our study’s gay father families (whose occupational statuses were very high) to a general population of families (whose occupational statuses were typical of the general population), then SES-related differences would have become a serious confound. In the latter case, any obtained group differences in children’s behavior might be entirely attributable to the two groups’ very different occupational statuses.

Finally, when there was more than one case in the ASEBA database matching our four selection criteria (child’s age, sex, race/ethnicity, and parent’s occupational status), we chose the most recent participant’s data. If there was more than one ASEBA database participant who matched on all criteria and completed the CBCL on the exact same most recent date, we used a randomization procedure to select the cases for inclusion in our comparison sample. For example, if there were nine ASEBA respondents who participated on the same most recent date and otherwise matched a gay father family—and if we needed only three—then every third participant out of those nine matching ASEBA participants was chosen for our study’s comparison group sample.

A total of 45 gay fathers (about two thirds of our sample) answered the question, “Where do you currently live?” \( n = 17 \) from California; \( n = 8 \) from New York; \( n = 4 \) from New Jersey; \( n = 2 \) from Arizona, Florida, and Georgia; and \( n = 1 \) from Colorado, Connecticut, District of Columbia, Illinois, Massachusetts, North Carolina, New Mexico, Oregon, South Carolina, and Texas). Other gay fathers skipped this item, possibly because they wanted to keep their states of residence private. Clearly, these gay fathers via surrogacy were concentrated in the states of California (\( N = 17 \)) and New York–New Jersey (\( N = 12 \)), although seven of them were scattered throughout the South. By contrast, the ASEBA national database sample is distributed more evenly throughout all regions of the United States.

Table 1 indicates demographic characteristics of the children in the gay father and comparison samples, respectively. Among the children, about half the sample (52.9%) was female and half (47.1%) male. The majority of children were White (85.3%), followed by biracial (10.3%), Black (1.5%), and Asian (1.5%). Two thirds of the children were age 3–5 years, and one third of them were 6–10 years old, which seems to reflect the increasing prevalence of gay men conceiving children via surrogacy.

**Measures**

**Parent-report form of the Child Behavior Checklist.** The CBCL (Achenbach, 1991, 2001) has been used extensively in studies of child behavior and well-being, with national norms available for clinical and nonclinical populations spanning the entire age range of children from 1.5–18.0 years old. Either the CBCL preschool form (for children ages 1.5–5 years) or the CBCL school-age form (for children ages 6–18 years) was completed by one parent per family. The CBCL yielded subscales for internalizing behavior problems (anxiety, depression, social withdrawal), externalizing behavior problems (aggression, lying/stealing), and total behavior problems, all of which we used in our subsequent analyses. Test–retest reliability of the preschool form scales are as follows: Internalizing \( r = .90 \); Externalizing \( r = .87 \); and Total Problems \( r = .90 \) (Achenbach & Rescorla, 2000). Internal consis-
tency reliability of the school-age form scales are: Internalizing Cronbach’s α = .90; Externalizing Cronbach’s α = .94; and Total Problems Cronbach’s α = .97 (Achenbach & Rescorla, 2001).

Raw scores were converted to age-standardized scores (T scores having a $M = 50$ and $SD = 10$) to allow comparison with scores obtained from normative samples of children within the same broad age range. For Total Problems, Externalizing Problems, and Internalizing Problems, $T$ scores less than 60 are considered in the normal range, 60–63 represent borderline scores, and scores greater than 63 are in the clinical range (Achenbach, 1991). $T$ scores were used in all analyses involving CBCL data in this study. Our other questionnaire measures (described below) were completed by the gay father participants only (not by a heterosexual comparison group of parents).

**Parenting Styles and Dimensions Questionnaire (PSDQ) Short Form: Self-Report and Observer versions.** The PSDQ (Robinson, Mandleco, Olsen, & Hart, 2001) is a 64-item questionnaire that includes (a) self-report items designed to measure the participating parent’s style of parenting (Authoritative, Authoritarian, Permissive) toward their preschool or school-age children and (b) a set of identical items for the participating parent’s report of the other parent’s style of parenting toward their preschool or school-age children. A composite score for each parenting style was obtained by summing the participating parent’s self-report and his report of the other parent’s behaviors toward the child. Items for Authoritative Parenting (use of reasoning, appropriate limit setting, e.g., “explains to our child how we feel about the child’s good and bad behavior”), Authoritarian Parenting (strict, punitive, e.g., “punishes by taking privileges away from our child with little if any explanation”), and Permissive Parenting (laissez-faire, lax, e.g., “gives in to our child when the child causes a commotion about something”) are scored on 5-point Likert scales ranging from never to always. A high score indicates higher levels of that style of parenting. Internal consistency reliabilities of the PSDQ scales (from the composite coparents’ scores) for this study were as follows: Authoritative Parenting α = .92, Authoritarian Parenting α = .83, and Permissive Parenting α = .82.

**Coparenting Scale–Revised.** The 16-item Coparenting Scale–Revised (McHale, 1997) is a three-part survey of how a parenting couple works together to raise their child. The three areas consist of: child rearing when both parents and child are together (e.g., “make an affirming or complimentary remark about this child to your partner”); behavior that references the absent parent when one parent is alone with the child (e.g., “say something that brings the absent parent into your conversation in a positive way”); and coparents’ overall philosophies of child rearing (e.g., “How frequently do you and your partner agree about the rules for your child’s behavior”). Items are scored on 7-point Likert scales (for the first two parts, absolutely never to almost constantly; for the third part, almost never to almost always). Some items are reverse-scored with a higher score indicating more positive coparenting relations. Internal consistency reliability for the coparenting scale was α = .88.

**Childcare items of the Who Does What Scale.** The Who Does What Scale (Cowan & Cowan, 1990) consists of 13 household and 20 childcare items with scores on a 9-point Likert scale ranging from 1 (I do it all) to 5 (we do this equally) to 9 (my partner does it all) as well as not applicable. We used the childcare items (e.g., “preparing meals for our child, getting up at night for our child”). Scores near the midpoint indicate shared childcare. The Cronbach’s alpha was .92.

**California Inventory for Family Assessment.** The 56-item short form of California Inventory for Family Assessment, using four scales selected from the long versions created by Werner and Green (1999), assesses participants’ views of their partner’s relational behavior in the areas of Nurturance (e.g., “My partner often gives me help with personal problems,” Cronbach’s α in current study = .94), Anger/Aggression (e.g., “My partner’s anger toward me seems to be easily triggered,” Cronbach’s α in current study = .90), Conflict Avoidance (e.g., “My partner tends to avoid an issue if our talking about it might cause tension between us,” Cronbach’s α in current study = .88), and Possessiveness/Jealousy (e.g., “My partner feels he or she has to compete with other people for my love,” Cronbach’s α in current study = .92). Items are scored on a 4-point Likert scale (ranging from very false to very true), with half of the items on each subscale reverse-scored. Higher scores on subscales indicate higher levels of receiving those kinds of relational behaviors from one’s partner.

**Couple Satisfaction Index.** The Couple Satisfaction Index – Brief Form (Funk & Rogge, 2007) is a four-item scale measuring general relationship satisfaction. Three items (e.g., “I have a warm

<table>
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<tr>
<th>Demographic variable</th>
<th>Gay father sample ($n = 68$)</th>
<th>CBCL comparison parent ($n = 68$)</th>
<th>Total ($N = 136$)</th>
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Table 1 *Demographic Characteristics of the Children of the Gay Father and Child Behavior Checklist (CBCL) Comparison Group Parent Samples*
indicating more stigma sensitivity. The Cronbach’s alpha was .83.

Multidimensional Scale of Perceived Social Support—Friends and Family subscales (Zimet, Dahlem, Zimet, & Farley, 1988). These focus on overall social support received from family members other than one’s partner or children (four items, Cronbach’s α = .92 in this study); and social support received from friends (four items, Cronbach’s α = .92 in this study). These eight items (e.g., “My family really tries to help me”; “I can count on my friends”) are scored on 7-point Likert scales (very strongly disagree to very strongly agree) with higher scores indicating more perceived support.

Gay and Lesbian Acceptance and Social Support Index (GLASSI). The GLASSI (Roper et al., 1997) is a 12-item questionnaire that measures participants’ outness and perceived acceptance/social support from others for being gay or bisexual. The questions ask about support from key sources in the participant’s social network (i.e., mother, father, siblings, extended family members, partner’s family of origin, heterosexual friends, and LGBT friends). Item responses are on 5-point Likert scales (ranging from not accepting/supportive at all to extremely accepting/supportive, with higher scores indicating greater acceptance/out-ness); or the respondent can mark not out and/or not applicable, if suitable (e.g., if father died). The 12-item GLASSI scale had a Cronbach’s alpha of .76 in the present study.

Family Antigay Microaggressions Scale (FAMS). The 6-item FAMS (Green, 2013) assesses the extent to which family members feel treated differently or negatively because they are part of a gay parent family rather than a heterosexual parent family. The questionnaire uses 6-point Likert scales (e.g., “People made insensitive or ignorant comments about me, my partner, or our child because we are a gay parent family”), with responses ranging from never to very frequently. Higher scores indicate more microaggressions received. Cronbach’s alpha was .82 in the current study.

LGB Parent Stigma Consciousness/Sensitivity Questionnaire. The five-item LGB Parent Stigma Consciousness/Sensitivity Questionnaire was constructed for this study to measure the extent to which gay fathers feel anxious about and anticipate prejudice or discrimination as parents because of their sexual orientation. It was created by adapting (with author’s permission) five items (reworded to refer to “families”) from the original Lesbian Gay Identity Scale (Mohr & Fassinger, 2000). All items (e.g., “I often wonder whether others judge me as a parent because of my sexual orientation”) were scored on 7-point Likert scales (disagree very strongly to agree very strongly), higher scores indicating more stigma sensitivity. The Cronbach’s alpha was .83.

Data Analyses

Profile analysis was used to compare CBCL subscale profiles of two groups: children of gay fathers via surrogacy and children of ASEBA’s CBCL comparison group parents. The group profiles were based on the two problem scales from the CBCL (Internalizing and Externalizing scores). Profile analysis is a special application of a multivariate analysis of variance (MANOVA) to situations where there are two or more dependent variables all measured on the same scale (Tabachnik & Fidell, 2007). The major question answered by profile analysis is whether groups have different profiles on a set of measures. Two statistical tests were employed for the profile analysis: (a) the test of parallelism, used to determine if patterns of highs and lows on the CBCL externalizing and internalizing scales were similar across groups, and (b) the levels test, used to determine if any group scored lower than its comparison group on the CBCL externalizing or internalizing scales as a set. To test for parallelism, difference scores (i.e., segments) were created from juxtaposed pairs of the two CBCL subscales. A one-way MANOVA using these segments as dependent variables and the group as the independent variable was used to test for an interaction effect between group and CBCL subscales.

Assumptions regarding normality of the sample, homogeneity of variance-covariance, linearity, absence of significantly influential outliers, and multicollinearity were all met (SPSS Version 23). According to Tabachnik and Fidell (2007), the sample size in each group is important in profile analysis and necessitates more research subjects in the smallest group than there are dependent variables; thus, the total combined sample size (N = 136) and the sample sizes (n = 68) of each of the comparison groups is acceptable. The assumption of multivariate normality is also met given that there are more cases than dependent variables in the smallest group and group sizes are equal. Box’s M test available in SPSS MANOVA is overly sensitive when evaluating the assumption of homogeneity of variance-covariance matrices. However, given that the comparison group sample sizes are equal, the evaluation of homogeneity of variance-covariance matrices was not necessary and the assumption is safely met.

Results

Comparisons of Children Conceived via Surrogacy by Gay Fathers and Children From the CBCL Database

The parallelism test determined if the patterns of highs and lows on the CBCL subscales were similar or different between the two groups. Using Pillai’s trace criterion, the test for parallelism was not significant, $F(1, 128) = 2.48, p = .118$, $\eta^2 = .02$. The nonsignificant result suggests that the two groups exhibited the same or similar patterns of high and low points in their profiles (i.e., the profiles are parallel). A graphical depiction of this nonsignificant result can be seen in Figure 1. For both groups of children, their reported degree of internalizing problems was essentially the same as their reported degree of externalizing ones.

The test of levels allows for the comparison of the two group means on the two CBCL measures taken together. It was found that these group means differed significantly from each other, $F(1, 128) = 35.64, p < .001$, $\eta^2 = .22$. This effect size is considered large using Cohen’s guidelines (Cohen, 1988). The significant finding on the levels test indicates that children of gay fathers via surrogacy are described as having significantly fewer internalizing and externalizing problems than children from the CBCL comparison sample when both CBCL subscales (internalizing and externalizing) are considered simultaneously.

To discern where the differences resided, follow-up t tests were conducted to compare reports about the children of the gay fathers
via surrogacy and the CBCL comparison sample for each major scale of the CBCL. For the CBCL Internalizing Scale, the t statistic was significant, t(134) = -5.49, p < .001. This indicated that children of gay fathers via surrogacy were reported to have lower internalizing problem scores (M = 41.76, SD = 10.02) compared to children in the CBCL comparison sample (M = 50.56, SD = 8.61). For the CBCL Externalizing scale, the t statistic also was significant, t(134) = -4.31, p < .001. This indicated that children of gay fathers via surrogacy were reported to have lower externalizing problem scores (M = 42.09, SD = 8.37) than children in the CBCL comparison sample (M = 48.38, SD = 8.65).

Furthermore, there was a significant CBCL Scale (Internalizing, Externalizing) × Type of Family (gay fathers, CBCL comparison group) × Gender of Child (female, male) interaction effect, F(1, 128) = 6.19, p < .05, η² = .05. Because the interaction effect was significant, two post hoc univariate analyses of variance (i.e., one for each CBCL problem scale) were conducted to ascertain where the gender differences arose.

The Type of Family × Gender of Child interaction for the CBCL Externalizing scale was not significant. However, a significant Type of Family × Gender of Child interaction effect was evident for the CBCL Internalizing scale, F(1, 132) = 9.78, p < .01, η² = .07. This effect size is considered medium using Cohen’s guidelines (Cohen, 1988). This interaction is depicted in Figure 2. The significant finding indicates that children of gay fathers via surrogacy and children in the CBCL comparison sample differ in their reported internalizing problem scores depending on the gender of the child. Follow-up t tests indicated a significant result for the female children on the CBCL Internalizing scale, t(74) = -6.73, p < .001. Daughters of gay fathers via surrogacy had significantly lower internalizing problem scores (M = 38.89, SD = 7.94) than daughters in the CBCL comparison group (M = 52.00, SD = 9.01).

Associations Between Children’s Behavioral Functioning and Parenting Variables

Reports by gay fathers of their child’s CBCL subscales were correlated with additional parenting variables, and these are displayed in Table 2. There were significant correlations between permissive parenting and internalizing problems, r(61) = .26, p = .041; externalizing problems, r(61) = .47, p < .001; and total problems, r(61) = .41, p = .002. Similarly, there were significant correlations between authoritarian parenting and internalizing problems, r(61) = .26, p = .039; externalizing problems, r(61) = .38, p = .002; and total problems, r(61) = .38, p = .002. Correlations between authoritative parenting and CBCL subscales were not significant.

Table 2 also indicates a significant negative correlation between total problems on the CBCL and positive coparenting, r(53) = -.28, p = .037. Finally, there was a significant negative correlation between perceived support from friends and internalizing problems, r(55) = -.29, p = .026, externalizing problems, r(55) = -.45, p < .001, and total problems, r(55) = -.36, p = .006 on the CBCL. Gay men who perceived more support from friends described their children as better functioning.

Associations Between Antigay Microaggressions and Parenting Variables

Table 2 presents results of correlations between the FAMS and other questionnaire scales completed by gay fathers. As expected, gay fathers’ experiences of encountering more family antigay microaggressions were associated with higher stigma consciousness (r(54) = .57, p < .001). Furthermore, these parents’ reports of family antigay microaggressions were associated with receiving less overall acceptance for being gay (r(54) = -.45, p = .001); less support from friends (r(54) = -.30, p = .026); less support from family (r(54) = -.27, p = .044); and less total social support (r(54) = -.32, p = .018).

Table 2 also presents results of correlations between the FAMS and parenting variables reported by gay fathers. There was a significant positive correlation between antigay microaggressions and permissive parenting, r(54) = .34, p = .012, and between antigay microaggressions and authoritative parenting, r(54) = .32, p = .018. The correlation between antigay microaggressions and authoritative parenting was not significant. In addition, experiencing more antigay microaggressions was associated with less positive coparenting, r(53) = -.31, p = .024.

Finally, Table 2 displays results of correlations between antigay microaggressions and couple variables. Experiencing more antigay microaggressions correlated significantly with receiving more anger/aggression from partner, r(53) = .42, p = .001.
Fathers Are Functioning Well

The results were consistent with our first hypothesis. The findings indicate that although children in both samples were scoring in the normal range, the children conceived via surrogacy and raised by two gay fathers have significantly fewer externalizing and internalizing problems than children from the general population, as reported by the parents. Children of gay fathers in our study seem to be functioning well overall, similar to other studies that found children of same-sex male and female parents were as or more positively adjusted than other children (cf. meta-analysis by Fedewa et al., 2015).

Why would same-sex parents have children whose behavioral functioning is sometimes better than the functioning of heterosexual parents’ children? One possible reason is that male-male and female-female parents who have children in the context of a same-sex relationship do not get pregnant by accident. By contrast, surveys of women in the general population indicate that 45% of pregnancies in the United States are unintended (this includes pregnancies that are terminated; Finer & Zolna, 2016). Obviously, many unintended pregnancies of heterosexual parents result in other such children remaining unwanted. By contrast, in the case of same-sex parents, having children via surrogacy always involves stresses. Significant results are discussed below in light of our research hypotheses and related literature.

Findings for Equality of Childcare and Couple Satisfaction

Regarding scores for Equality of Childcare (from the Who Does What scale), the gay fathers’ Mean item score was 3.58 (SD = .89), indicating that these parental couples were sharing childcare tasks somewhat equitably whereas a Mean item score of 5 would signify complete Equality of Childcare. Also, the research participant fathers were doing somewhat more childcare than the coparents, which fits with the former being designated as “primary” parents. The Mean score for Couple Satisfaction (from the CSI scale items combined) was 19.60 (SD = 3.91), revealing that participants generally reported high levels of relationship satisfaction.

However, no significant correlations emerged between Equality of Childcare or Couple Satisfaction and the other study variables presented in Table 2. Therefore, these nonsignificant results do not appear in Table 2.

Discussion

In this research, we compared parental reports about child behavior in a sample of gay fathers via surrogacy to parental reports about a sample of children from the national CBCL normative database. We also examined intercorrelations among variables in the sample of families headed by gay fathers, including child’s behavior problems, parenting styles, positive coparenting, aspects of couple functioning, social supports, and sexual minority

Table 2
Spearman’s Rho Correlations Among Parenting, Couple, Child Outcome, and Prejudice Variables

<table>
<thead>
<tr>
<th>Parenting and couple variables</th>
<th>Child outcomes (CBCL)</th>
<th>Prejudice variables</th>
<th>Item</th>
<th>Item</th>
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<tbody>
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<td></td>
<td>INT</td>
<td>EXT</td>
<td>TOT</td>
<td>FAMS</td>
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</tbody>
</table>

Parenting styles (PSDQ)*

Authoritative parenting

Authoritarian parenting

Permissive parenting

Positive coping

Couple relational behavior (CIFA)*

Nurturance received

Possessiveness/Jealousy received

Conflict avoidance received

Anger/Aggression received

Perceived social support (MSPSS)*

Support from family

Support from friends

Total support (both sources)

Acceptance and support (GLASSI)*

Outness

Acceptance for being gay/bisexual

Antigay microaggressions (FAMS)*

Note. Ns for these analyses ranged from 55 to 68 as some participants did not respond to all the measures. INT = Internalizing Problems; EXT = Externalizing Problems; TOT = Total Problems; FAMS = Family Antigay Microaggressions Scale; STIGMA = Parental Stigma Consciousness; PSDQ = Parenting Styles and Dimensions Questionnaire; CIFA = California Inventory for Family Assessment; MSPSS = Multidimensional Scale of Perceived Social Support; GLASSI = Gay and Lesbian Acceptance and Social Support Index.

* Scored on 5-point Likert scales ranging from never to always (higher score = higher levels of that style of parenting). ** Scored on 7-point Likert scales (for the first two parts, absolutely never to almost constantly; for the third part, almost never to almost always; higher score = more positive coparenting relations). *** Scored on 4-point Likert scales (very false to very true; higher scores = higher levels of receiving those kinds of relational behaviors from one’s partner). 4 Scored on 7-point Likert scales (very strongly disagree to very strongly agree; higher scores = more perceived social support). 5 Scored on 6-point Likert scales (not at all accepting/supportive to extremely accepting/supportive; higher scores = greater acceptance/outness). 6 Scored on 6-point Likert scales (never to very frequently; higher scores = more microaggressions received).

p < .05. ** p < .01. *** p < .001.
extensive effort, planning, and very high financial costs. These children are very much wanted. Thus, a group of gay fathers via surrogacy may start out with a higher level of planning ability and greater commitment to having children than a normative group of parents in the general population may have, which in turn could contribute to these gay fathers’ better parenting and better child outcomes overall.

Our results were mostly consistent with the second hypothesis—that positive couple interaction and more effective parenting styles would be associated with more positive functioning among children. These findings indicate that gay fathers who report utilizing more permissive or authoritarian styles of parenting—and who engage in less positive coparenting—have children with more internalizing and externalizing problems. These results are similar to findings from studies of different-sex parents who use more authoritarian and permissive parenting styles and have less positive coparenting (cf. Darling, 1999; and McHale & Lindahl, 2011 for reviews). In this regard, the determinants of child outcomes seem similar in many different types of families. The processes and quality of parenting appear to be more important to children’s well-being than does a family’s composition (whether the family is headed by same-sex male or female coparents, single parents, stepparents, grandparents, etc.).

Girls raised by gay fathers are functioning especially well. To our knowledge, this study is the only effort in the U.S. to examine behavioral differences of girls and boys born to gay fathers via surrogacy compared to girls and boys born to heterosexual parents. We had not expected to discover these sex differences in child outcomes, so were surprised by the finding that girls conceived via surrogacy and raised by gay fathers had markedly lower internalizing problems than a matched sample of girls in the general population. In fact, there is much popular and psychological lore surrounding the notion that a girl, in particular, needs a mother with whom to identify and help her become a well-adjusted, mentally healthy woman (e.g., Chodorow, 1999).

However, consistent with our findings utilizing parent reports, Carone et al. (2018) (using teacher reports in an Italian study) found that children of gay fathers by surrogacy showed significantly less internalizing than did children in a normative database. In addition, the study by Golombok et al. (2018) in the U.S. revealed lower levels of internalizing among children of gay fathers by surrogacy compared to children conceived by lesbian mothers via donor insemination. Thus, three of the most recent studies including the present one, have demonstrated that children conceived by surrogacy and raised by gay fathers seem to have fewer internalizing problems than children raised by heterosexual or lesbian parents. Below, we will discuss the implications of our findings about girls’ internalizing.

Girls raised by heterosexual mothers and fathers. Why would girls, who presumably spend more time with their mothers than with their fathers, have higher internalizing problems? One hypothesis concerns the socialization of children for emotional expression. Chaplin, Cole, and Zahn-Waxler (2005) describe how, during times of stress, girls are socialized by their parents to express sadness and anxiety whereas boys are socialized to express anger and laughter. Regarding gender differences among parents, Brown, Craig, and Halberstadt (2015) found that mothers tend to be more emotionally expressive than fathers and that mothers are also more supportive of children’s negative emotions than are fathers. These findings suggest that girls as compared with boys in heterosexual families may be encouraged directly or subtly by their parents to express more sadness, anxiety, and other internalizing behaviors.

Another hypothesis concerns women’s greater tendency to ruminate, which is defined as “the tendency to respond to negative events with perseverative attention on negative stimuli” (Simonson, Mezulis, & Davis, 2011, p. 938). Women consistently report higher rates of rumination than do men, and this phenomenon has been used to explain the higher rates of depression in women (cf. Jose & Brown, 2008; Mezulis, Abramson, & Hyde, 2002; Nolen-Hoeksema, 1994). Simonson et al. (2011) described how “femininity is associated with an emphasis on experiencing and expressing emotions, particularly emotions of distress such as sadness” (p. 940), and these authors further argue that gender role socialization may predict rumination more than biological sex per se does.

Thus, it seems possible that a higher proportion of heterosexual mothers are modeling rumination for their daughters and that heterosexual fathers also are facilitating daughters’ rumination, either by not rechanneling it into action-oriented coping (as they might do with their sons) or by fathers remaining much less involved than mothers in their daughters’ development of emotional expression overall. Furthermore, research on “corumination” (defined as extensive and repetitive discussion and disclosure of problems with others) indicates that adolescent girls and their mothers engage in more corumination, both about their own problems and their mother’s problems, than do mothers and their adolescent boys (Waller & Rose, 2010). Similarly, corumination between female adolescents who are friends is associated with higher internalizing problems (Tompkins, Hockett, Abaribesh, & Witt, 2011). In some cases, mothers in heterosexual relationships may coruminate with their daughters because husbands are spending more time in paid employment and are thus absent for shared confidences with their spouse (cf. Rothblum, 2017 for a review).

The results of the present study also have implications for heterosexual fathers’ parenting behaviors. Research by Shafer and Malhotra (2011) indicates that when a daughter is born, heterosexual fathers often increase their support for more flexible gender roles for girls, although the effect size is small. Additionally, increased involvement by fathers in the care of their children is associated with positive mental health in the children (cf. Yogman & Garfield, 2016, for a review). Research by Mitchell, Booth, and King (2009) on adolescents whose fathers do not live with them found that children had fewer internalizing and externalizing problems and better grades in school when they perceived their father as being more involved in their lives. However, sons reported feeling closer to nonresident fathers than did daughters. Daughters who felt closer to nonresident fathers had fewer internalizing problems.

These studies imply that greater father involvement in the raising of daughters may decrease the daughters’ internalizing problems, which would seem consistent with our findings that being raised by two fathers is associated with less internalizing by daughters. Do fathers specifically discourage rumination as a coping mechanism and promote a more active type of problem-solving?
and with social support from friends and family. This is consistent with research in Australia (Crouch et al., 2014), Italy (Carone et al., 2018), the Netherlands (Bos & Van Balen, 2008), and the United States (van Gelderen et al., 2013)—increased stigma experienced by sexual minority families is associated with less positive couple and family processes.

Even though gay fathers in the current study had very high incomes and prestigious jobs, these buffers did not necessarily protect them from antigay microaggressions. Research by Goldberg and Smith (2011), for example, found that factors such as low workplace support, higher internalized homophobia, lower perceived gay friendliness in the neighborhood, and residence in states with unfavorable laws for lesbian women and gay men were associated with anxiety and depression among same-sex couples who recently adopted children. Clinicians and policymakers should not assume that financially well-off gay fathers are immune to the effects of antigay discrimination in their communities.

**Strengths, Limitations, and Recommendations for Further Research**

A strength of the present study is its focus specifically on gay fathers who had children via surrogacy and raised them since birth, given that most prior research on gay fathers focused on gay men who had children via adoption or from prior heterosexual relationships that ended in divorce. Also, our gay fathers via surrogacy sample in the United States was matched with a sample from the CBCL national database to control for the gay fathers’ very high status occupations and for children’s age, sex, and race/ethnicity.

An unavoidable complication in our study is that the primary caregiving parent completing the CBCL in the heterosexual families was much more likely to be a mother (a woman) rather than a father (a man). This difference does confound gender of respondent, sexual orientation of respondent, and primary caregiving status of respondent in our comparisons. However, these three variables are inextricably linked in the two kinds of families as they exist in the real world. In gay father families, the parent filling out the CBCL (a primary or coequal caregiving parent) always would be a father (gay and male) whereas in heterosexual families, the respondent completing the CBCL usually would be a mother (heterosexual and female). Second, one cannot assume that using a comparison group consisting entirely of heterosexual fathers (to control for parents’ gender in the two groups) would, in fact, have been “gendered” similarly to gay fathers even if both types of fathers self-labeled as “male” and served as primary parents. Primary caregiving heterosexual fathers may still be more traditionally male-gendered whereas gay men who choose to become primary caregiving fathers may be more androgynously gendered (less traditionally gender-conforming in a variety of ways). Third, a comparison group of heterosexual fathers all of whom were primary caregivers would be an extremely unrepresentative group of outliers in the general U.S. population, given that mothers usually serve as primary caregivers.

Thus, there is no perfect solution to this complication of parents’ genders and sexual orientations being inextricably intertwined if one is comparing gay father and heterosexual families using primary or coequal caregivers’ reports. We believe the strategy used in the present study enabled us to compare primary or coequal caregiver reports in the two types of families as such families generally exist in the real world. Studies in the future might use...

**Antigay Microaggressions Are Associated With Aspects of Family Functioning**

Most of the findings were consistent with our third hypothesis as well. Gay fathers’ reports of family members having been treated negatively because they are part of a gay father family were positively associated with more authoritarian parenting, permissive parenting, parental stigma consciousness, and anger/aggression from partner—and negatively associated with positive coparenting and with social support from friends and family. This is consistent...
multiple comparison groups for gay father families (e.g., families with only primary caregiving heterosexual fathers, families with only secondary caregiving heterosexual fathers, families with only primary caregiving mothers, and so on). However, use of any of these comparison groups would present other interpretive dilemmas. Because each of these three linked variables (parent’s sexual orientation, gender, and primary caregiver status) cannot be isolated for separate study, researchers either must forgo all group comparisons between gay and heterosexual parent families or (as we believe is best) compare these families as they generally “exist in nature” where parent’s sexual orientation, gender, and primary caregiver status are nested together.

A limitation of the present study is that all measures were based on parent’s self-report. However, it is noteworthy that Carone et al. (2018) showed that parent and teacher reports of child behavior problems converged and that gay and lesbian parents did not underreport their children’s psychological problems compared with teachers’ ratings. Ideally, as did Carone et al., future research should include reports by children, teachers, and other outside observers (e.g., clinicians, family interaction raters). It also would be valuable to compare and contrast self-reports by both members of a parenting couple, although getting both parents in a family to participate in research is often extremely difficult in national samples where data collection is online rather than face-to-face in participants’ homes or local communities.

It is not possible to know precisely how representative this volunteer sample of 68 gay fathers is to the general population of gay fathers by surrogacy in the United States, the vast majority of whom as of this writing are White and financially successful. It certainly is not representative of racial minority gay fathers or of gay fathers who cannot afford the high medical and legal costs of egg donation, in vitro fertilization, and surrogacy. We hope that in the future, reproductive technologies will advance to the point where gestational surrogacy or another method of achieving biological parenthood is available at much less expense and accessible to the widest population.

We were unable to obtain a comparison sample of heterosexual parents who had children via surrogacy, although that sample would have introduced yet other confounds because of the different psychological issues associated with surrogacy for heterosexual versus gay male parents and the fact that primary caregivers in those families would still tend to be mothers. Heterosexual parents who do surrogacy typically have very difficult experiences emotionally of trying to get pregnant for months or years after encountering unexpected infertility (Lindsey & Driskill, 2013), and they sometimes keep aspects of the surrogacy a secret from friends, family of origin members, or the children (e.g., they may not disclose whether the mother’s, surrogate’s, or other donor’s eggs were used to create the embryo). Thus, even having a heterosexual parents-via-surrogacy comparison group would present significant limitations for group comparisons with gay fathers by surrogacy.

The ages of the children ranged from 3–10 years. This wide range reflects the challenges of recruiting a sizable sample of gay fathers via surrogacy whose children are closer in age. Because surrogacy among gay men is a small but growing phenomenon of recent origin, children conceived this way are usually quite young. As these children grow into adolescence and adulthood, research using their self-reports will become possible. In contrast, longitudinal research on lesbian women who had children via donor insemination has been ongoing since the mid-1980s. Those children have been followed from birth into young adulthood (Bos & Gartrell, 2010; Gartrell et al., 2018) and can complete self-reports of their family relations and psychological functioning.

It would be useful to conduct qualitative research with gay fathers and their older children to obtain more nuanced information about factors affecting girls’ and boys’ psychosocial development in gay father families created by surrogacy. There has been some research using observational methods (e.g., videotaping) to study communication patterns among heterosexual, lesbian, and gay male couples (Julien, Chartrand, Simard, Bouthilier, & Bégin, 2003); conflict-resolution among heterosexual and same-sex couples (Gottman et al., 2003); interactions between lesbian, gay, and heterosexual adoptive parents and their children (Farr & Patterson, 2013); as well as the recent studies by Carone et al. (2018) and Golombok et al. (2018) who observed interactions of gay fathers and their children conceived via surrogacy compared to lesbian mothers and their children conceived via donor insemination.

In light of our results, we suggest that future researchers observe and compare fathers and mothers in gay and heterosexual parent families as they interact with their daughters and sons specifically about the children’s anxiety, sadness, or other kinds of emotional upset. This research should investigate whether heterosexual fathers, heterosexual mothers, and gay fathers spend different amounts of time helping their daughters versus sons cope with emotional distress; whether the parents display greater comunication versus problem-solving coping in these interactions; and whether they otherwise reinforce traditional norms for girls to show more internalizing.

Conclusion

The current study should be viewed as only one of many studies that will be needed to understand the impact on child development of being conceived by gestational surrogacy and raised by gay fathers. Future studies should replicate and extend our methodology to include other samples of gay fathers via surrogacy, different heterosexual parent comparison groups, observational measures of parent–child interaction, qualitative interviews with parents and older children, a wider array of child development outcome measures, and longitudinal research designs following children’s development into adulthood.

At this early stage in this line of research, the present results suggest that (a) children (especially girls) conceived by surrogacy and raised by gay fathers seem to have fewer behavior problems than a reasonably matched sample of children drawn from the larger U.S. population; and (b) parents’ experiences of more antigay family microaggressions are associated with less social support/acceptance from friends and family, more anger in the couple relationship, and less effective parenting practices. Further research will be necessary to replicate this study and understand the psychological mechanisms underlying these associations. Moreover, the directions of the correlations between gay fathers’ parenting practices and children’s well-functioning are strikingly similar to what has been found in previous extensive research on families headed by heterosexual parents. Overall, the great similarity in these findings demonstrates that specific qualities of parenting are salient for children’s well-being regardless of parents’ genders or sexual orientations.
References


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