

Children With Lesbian Parents: A Community Study

Susan Golombok, Beth Perry, Amanda Burston,
Clare Murray, Julie Mooney-Somers, and
Madeleine Stevens
City University, London

Jean Golding
University of Bristol

Existing research on children with lesbian parents is limited by reliance on volunteer or convenience samples. The present study examined the quality of parent–child relationships and the socioemotional and gender development of a community sample of 7-year-old children with lesbian parents. Families were recruited through the Avon Longitudinal Study of Parents and Children, a geographic population study of 14,000 mothers and their children. Thirty-nine lesbian-mother families, 74 two-parent heterosexual families, and 60 families headed by single heterosexual mothers were compared on standardized interview and questionnaire measures administered to mothers, co-mothers/fathers, children, and teachers. Findings are in line with those of earlier investigations showing positive mother–child relationships and well-adjusted children.

Studies of the development of children with lesbian parents date back to the 1970s when lesbian women began to fight for custody of their children when they divorced (for reviews, see Falk, 1989; Golombok, 1999; Patterson, 1992, 1995). At that time, lesbian mothers were losing custody solely on the basis of their sexual orientation on the grounds that it would not be in the children's best interests to grow up with lesbian parents. From a theoretical perspective, it is well established that children's social and emotional development is fostered within the context of parent–child relationships (Baumrind, 1989, 1991; Bowlby, 1969, 1988; Darling & Steinberg, 1993; Maccoby, 1992). In predicting the outcomes for children of growing up in a lesbian-mother family, difficulties would not necessarily be expected unless lesbian mothers differ from heterosexual mothers with respect to the parenting processes that are associated with children's psychological adjustment. However, relationships between parents and their children do not take place within a social vacuum. The wider social environment can have a marked impact on the quality of family life and children's psychological well-being. The expectation that being raised in a lesbian-mother family would increase the likelihood of psychological problems in children stems from the assumption that they would be teased about their mothers' sexual orientation and

ostracized by their peers. There is wide agreement in the psychological literature that satisfactory relationships with peers are important for positive social and emotional development (Coie, 1990; Ladd, 1999; Parker & Asher, 1987). Thus it has been predicted that children will experience psychological problems if growing up in a lesbian-mother family interferes with the quality of their relationships with peers.

It has also been argued that children with lesbian parents would show atypical gender development, that is, that boys would be less masculine in their identity and behavior, and girls less feminine, than their counterparts from heterosexual homes. Whether or not children of lesbian mothers will differ from children brought up by heterosexual mothers will depend on the extent to which it is possible for parents to influence the gender development of their children. Insofar as gender development is biologically determined, for example, through genetic influences (Iervolino, Hines, Golombok, Rust, & Plomin, 2002) or through the action of prenatal sex hormones such as testosterone in the developing fetus (Collaer & Hines, 1995), the way in which parents raise their children will make little difference. Similarly, from the perspective of cognitive developmental theory (Bem, 1981; Martin, 1989, 1991; Martin & Halverson, 1981), which emphasizes the importance of gender schemas in guiding behavior and the active role of children in seeking out information about gender from the world around them, the role of parents is a minor one. Furthermore, it is increasingly being accepted that peers play an important part in children's acquisition of gender-typed behavior. According to Maccoby (Jacklin & Maccoby, 1978; Maccoby, 1988, 1990, 1998), children segregate by gender largely because of behavioral compatibility with children of the same sex as themselves, and in this way distinctive male and female cultures are established and maintained.

Traditional psychoanalytic theorists, on the other hand, stressing the importance of heterosexual parents for the successful resolution of the Oedipal conflict, have argued that the combination of an absent father and a lesbian mother is likely to lead to atypical gender development (Socarides, 1978). Classic social learning

Susan Golombok, Beth Perry, Amanda Burston, Clare Murray, Julie Mooney-Somers, and Madeleine Stevens, Family and Child Psychology Research Center, City University, London, England; Jean Golding, Department of Paediatric and Perinatal Epidemiology, University of Bristol, Bristol, United Kingdom.

We are extremely grateful to all the mothers who took part in the study, to Pink Parents, to Alice Mills for carrying out the child psychiatric ratings, and to the entire Avon Longitudinal Study of Parents and Children team. We would also like to thank the Wellcome Trust for funding this investigation.

Correspondence concerning this article should be addressed to Susan Golombok, Family and Child Psychology Research Center, City University, Northampton Square, London EC1V 0HB, United Kingdom. E-mail: S.E.Golombok@city.ac.uk

theorists also believe that parents play a key role in the gender development of their children, both by differentially reinforcing their daughters and sons and by acting as models of gender role behavior (Bandura, 1977; Mischel, 1966, 1970). More recently, a social cognitive approach has emphasized the interaction between social factors and complex cognitive processes such as self-regulation and self-efficacy in the acquisition of gender-typed behavior (Bandura, 1986; Bussey & Bandura, 1999). From the perspective of social learning and social cognitive theories it could be argued that different patterns of reinforcement may be operating in lesbian than in heterosexual families such that children with lesbian parents may be less likely to be discouraged from engaging in nonconventional gender role behavior. Also, because of their mothers' atypical parental roles, the sons and daughters of lesbian mothers may hold less rigid stereotypes about what constitutes acceptable male and female behavior and may engage in less conventional gender role behavior themselves. Thus psychological theory gives no clear expectations regarding the gender development of children with lesbian parents; different predictions arise from the different theoretical perspectives.

The early investigations of lesbian-mother families focused on women who had become mothers in the context of a heterosexual marriage before adopting a lesbian identity, and the children studied had lived with their fathers during their early years. Regardless of the geographic or demographic characteristics of the samples studied, the findings of these early investigations were strikingly consistent (Golombok, Spencer, & Rutter, 1983; Green, Mandel, Hotvedt, Gray, & Smith, 1986; Hoeffler, 1981; Huggins, 1989; Kirkpatrick, Smith & Roy, 1981). First, with respect to the children's socioemotional development, children with lesbian parents did not show a higher incidence of psychological disorder, or difficulties in peer relationships, than their counterparts from heterosexual homes. Second, there was no evidence of gender identity confusion for any of the children studied, and in terms of gender role behavior, no differences were found between children with lesbian and heterosexual parents for either boys or girls. A longitudinal study of adults who had been raised as children in lesbian-mother families found that these young men and women continued to function well in adult life and maintained positive relationships with both their mothers and their mothers' partners (Tasker & Golombok, 1995, 1997). More young people from lesbian-mother families than from heterosexual families had experimented in same-sex relationships, although the large majority identified as heterosexual in adulthood (Golombok & Tasker, 1996). Regarding the parenting ability of the mothers themselves, it has been demonstrated that lesbian mothers are just as child-oriented (Kirkpatrick, 1987; Miller, Jacobsen, & Bigner, 1981; Pagelow, 1980), just as warm and responsive to their children (Golombok et al., 1983), and just as nurturant and confident (Mucklow & Phelan, 1979) as heterosexual mothers.

More recently, studies have been conducted on children raised in lesbian-mother families from birth. An increasing number of women are becoming parents after coming out as lesbian, either as single mothers or as couples who plan a family together and share the parenting role. The findings of these studies are of particular interest because the children, often conceived by donor insemination, are being raised by lesbian mothers in the absence of a father from the start. To the extent that early family experiences are important influences on later development, the findings of research

on children in lesbian-mother families who lived with their fathers during their first years of life cannot necessarily be generalized to children raised in lesbian-mother families from the outset. However, comparisons between these children and children in two-parent heterosexual families again failed to find differences with respect to gender development or psychological well-being (Brewaeys, Ponjaert, Van Hall, & Golombok, 1997; Chan, Raboy, & Patterson, 1998; Flaks, Ficher, Masterpasqua, & Joseph, 1995; Golombok, Tasker, & Murray, 1997). The only clear difference to emerge was that co-mothers in lesbian-mother families were more involved in parenting than were fathers in two-parent heterosexual homes.

In a review of studies of children with lesbian parents, Stacey and Biblarz (2001) criticized researchers for downplaying any differences that have been identified between children in lesbian-mother families and their counterparts from heterosexual homes; these authors concluded that children with lesbian parents do differ, particularly in relation to gender development. However, by classifying studies as showing a difference even in cases where this difference was true for only a small number of variables out of many and by failing to consider the spurious differences that result from chance effects when large numbers of individual variables are studied, Stacey and Biblarz (2001) have overemphasized the differences that have been reported between children with lesbian and heterosexual parents. In addition, they made no distinction between core aspects of children's gender development, such as gender identity and gender role behavior, on the one hand, and children's attitudes, such as occupational preferences, on the other. Instead, the authors treated children's attitudes toward gender-related issues and their gender identity as equally important and meaningful indices of gender development. It is well established within the psychological literature that gender identity and gender role behavior are relatively fixed and central to children's well-being and self-esteem (Egan & Perry, 2001), whereas attitudes are more open to parental influence and change (Jodl, Michael, Malanchuk, Eccles, & Sameroff, 2001). Moreover, the psychological processes involved in these different aspects of gender development are not the same (Golombok & Hines, 2002; Maccoby, 1998).

A genuine limitation of the existing body of research is that the majority of studies have relied on volunteer or convenience samples because it has not been possible to obtain a representative sample of lesbian-mother families. Although it is not known how, or to what extent, the samples studied have been biased, lesbian mothers whose children show atypical gender development or psychological problems may have been unlikely to volunteer, particularly because lesbian-mother families are so often the focus of prejudice and discrimination. Exceptions are the studies by Brewaeys et al. (1997) and Chan et al. (1998), both of which examined systematic samples of lesbian-mother families with children conceived by donor insemination through a fertility clinic. Brewaeys et al. (1997) examined a consecutive sample of all 30 women who conceived a child at the Fertility Department of Brussels University Hospital over a 5-year period, and Chan et al. (1998) investigated 55 lesbian-mother families who conceived a child at the Sperm Bank of California, representing 100% of the lesbian couples and 62% of the lesbian single mothers who were invited to take part. An advantage of these studies is that they avoided the potential bias associated with volunteer samples. How-

ever, they focused solely on lesbian mothers who conceived their children through a sperm bank.

The Avon Longitudinal Study of Parents and Children (ALSPAC), a geographic population study of almost 14,000 mothers and their children beginning in pregnancy (Golding & the ALSPAC Study Team, 1996), has provided a unique opportunity to study a representative sample of lesbian-mother families and thus to determine whether the findings of existing investigations will be replicated in a general population sample. Additional advantages of this data set were that extensive background information was available on the families and that matched comparison groups of two-parent heterosexual families and single heterosexual-mother families could easily be obtained because of the detailed information available on the parents' history of cohabiting relationships from the time of the child's birth. This latter comparison group allowed the effects of number of parents in the family home to be examined alongside the effects of parental sexual orientation. The aim of the present investigation was thus to examine the quality of parent-child relationships and the socioemotional and gender development of a representative sample of children with lesbian parents.

Method

Participants

The lesbian-mother families were obtained through the ALSPAC. The ALSPAC enrolled any woman expecting a baby between April 1, 1991, and December 31, 1992, who was resident in Avon, a clearly defined area of southwest England (Golding & the ALSPAC Study Team, 1996; Golding, Pembrey, Jones, & the ALSPAC Study Team, 2001). The study area has a population of 1 million and comprises the city of Bristol (with a population of 0.5 million), moderate-sized towns, and rural areas. The demographic characteristics of the families in the study are closely comparable to those of families in the United Kingdom as a whole with respect to the type of area in which they live, the educational level of the parents, housing, and mobility (Baker, Morris, & Taylor, 1997). The children in the study are similar to children in the rest of the country with respect to the prevalence of preterm delivery, low birth weight, physical and mental disability, physical illness, and psychological disorder. Women were recruited to the study soon after the confirmation of pregnancy, and they completed questionnaires at various time points from pregnancy onward.

The present investigation was initiated when the ALSPAC children were around 7 years old. The lesbian-mother families in the ALSPAC were identified through responses to questions relating to maternal sexual orientation in routine postal questionnaires sent to parents until the target child was 85 months old and through letters about the present investigation sent to all mothers in the study. Mothers who identified themselves as lesbian were contacted by telephone and asked to participate in the present investigation. Eighteen mothers agreed to take part, representing 90% of the lesbian mothers who were identified from the ALSPAC sample and 0.22% of the ALSPAC mothers who remained in the study when their children were 7 years old. This latter proportion is somewhat lower than Patterson and Friel's (2000) estimate of the proportion of lesbian-mother families in the United States from the National Health and Social Life Survey (NHSL; Laumann, Gagnon, Michael, & Michaels, 1994). Of the 1,749 women in that survey, 1,277 were mothers, 7 of whom identified themselves as lesbian. Thus the proportion of lesbian mothers in relation to all mothers in the NHSL sample (the appropriate comparison because all ALSPAC participants were mothers) was estimated to be 0.55%.

Because lesbian-mother families who had moved into the Avon area after the birth of their children would not have been identified by the

ALSPAC, snowballing procedures were used to identify other lesbian-mother families living within the geographical boundaries of the study area. Snowballing is a widely used procedure for sampling hidden populations (Biernacki & Waldorf, 1981; Heckathorn, 1997; Morrison, 1988; Spreen & Zwaagstra, 1994), particularly in situations where members of a population are difficult to locate or may be reluctant to participate in research because membership in the population involves stigmatized behavior. In order to maximize the sample size, the age range of eligible children was extended downward to include children aged 5–6 years. The snowballing was carried out by asking all ALSPAC mothers to approach other lesbian-mother families in Avon who met the study inclusion criteria. Contact was also made with a local lesbian mothers' support group and the local branch of a national lesbian and gay organization, and advertisements were placed in community centers and in the local and national press. This resulted in the recruitment of a further 21 lesbian-mother families.

Of the 39 lesbian-mother families in the study, 20 were headed by a single mother and 19 were headed by a lesbian couple. All identified themselves as lesbian, and all had been involved in a lesbian relationship at some point since the birth of their children. Twenty-eight of the children had been born into a heterosexual family. The average age of these children when their mothers entered into a lesbian relationship was 4.1 years (range = 0–108 months). The remaining 11 children had been conceived by donor insemination, and all of them had been raised since birth without the presence of a father in the family home.

The lesbian-mother families were studied in comparison with two control groups selected from the total ALSPAC sample: (a) 74 two-parent heterosexual families in which the children had lived with both the mother and the father since birth and (b) 60 families headed by single heterosexual mothers in which the children had lived with only the mother since the age of 18 months or younger. The cutoff point of 18 months meant that the children had not experienced the potentially confounding effect of either a father in the home or parental separation in the 6 years prior to the study. The control groups were matched to the lesbian-mother families according to (a) the mother's highest educational qualification during pregnancy and (b) the number of children in the family when the ALSPAC child was 47 months old. A greater number of both two-parent and single-parent heterosexual families than of lesbian-mother families was obtained in order to enhance statistical power and the matching of demographic variables.

Sociodemographic information for each group is presented in Table 1. There were similar proportions of boys and girls in each family type. The age of the mothers did not differ between groups, and the mean age of the mothers was 37 years. No group difference was found for social class as measured by either mother's occupation or mother's educational qualifications. However, children's age differed significantly between family types, $F(3, 169) = 9.84, p < .01$. Children with lesbian parents were younger on average, and the range of ages was greater because of the inclusion of younger children in the non-ALSPAC sample to increase sample size. The number of siblings in the family also differed significantly between family types, $F(3, 169) = 6.54, p < .01$, with fewer siblings in the lesbian-mother and heterosexual single-parent families than in the heterosexual two-parent families. Matching was based on data obtained when the children were 47 months old because this was the most recent age for which such information was available. It was found that more of the heterosexual couples than the single heterosexual mothers or the lesbian mothers had increased their families during the intervening years. Because significant differences between groups were found for child's age and number of siblings in the family, these variables were entered into all of the statistical analyses as covariates.

Researchers trained in the study techniques visited the families at home. Because the ALSPAC children were born over a 21-month period, the assessments of both ALSPAC and non-ALSPAC children were carried out over approximately 2 years. Data were collected from the mothers and their current live-in partners (i.e., the fathers in two-parent heterosexual families and the co-mothers in lesbian-mother families) by interview and question-

Table 1
Sociodemographic Information by Family Type

Variable	Lesbian-mother families				Heterosexual-mother families			
	Single-parent		Two-parent		Single-parent		Two-parent	
Child's age (months)								
<i>M</i>	91.2		89.7		100.7		97.5	
Range	62–115		64–116		90–115		80–113	
Mother's age (years)								
<i>M</i>	35.3		37.1		37.9		37.5	
Range	28–46		30–46		27–51		29–46	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Child's sex								
Boy	11	55	9	47	33	55	39	53
Girl	9	45	10	53	27	45	35	47
Mother's occupation								
Professional/managerial	10	50	12	63	24	40	22	30
Skilled nonmanual	6	30	4	21	21	35	46	62
Skilled manual	1	5	1	5	0		1	1
Partly skilled/unskilled	3	15	2	11	15	25	5	7
Mother's educational qualifications								
None	2	10	2	10	15	25	20	27
Apprenticeship	0				2	3	2	3
Nonprofessional training	6	30	4	21	15	25	24	32
Professional nongraduate	6	30	7	37	15	25	8	11
Graduate	6	30	6	32	13	22	20	27
Number of siblings								
0	10	50	9	47	28	47	10	14
1	8	40	7	37	22	37	40	54
2	1	5	2	11	8	13	18	24
3	1	5	1	5	2	3	6	8

naire. Information obtained by interview was rated according to a standardized coding scheme, and regular meetings were held to minimize rater discrepancy. Interviews were conducted with 99% of mothers, 79% of co-mothers, and 62% of fathers, and assessments were conducted with 99% of the children. Questionnaire data were obtained from 98% of mothers, 84% of co-mothers, 80% of fathers, and 96% of teachers. All of the mothers in the study gave permission for their children's teachers to be contacted. In order to maintain confidentiality and minimize bias, the teachers were not informed about the precise nature of the research. Instead, they were told that the child was participating in a study of child development. The exceptionally high response rate for mothers and teachers resulted from their involvement and commitment to the ALSPAC generally. Regular newsletters were sent to parents describing interesting and valuable findings arising from the study, birthday cards were sent to the children, meetings were held with schools, and publicity about the research frequently appeared in the local media.

Measures

Parental Measures

Parent-child relationships. The mothers were interviewed with an adaptation of a standardized interview designed to assess the quality of parenting (Quinton & Rutter, 1988). The interview lasted from 1½ to 2 hr and was tape-recorded. This procedure has been validated against observational ratings of mother-child relationships in the home and a high level of agreement has been demonstrated between global ratings of the quality of parenting by interviewers and observers (concurrent validity: $r = .63$).

Detailed accounts were obtained of the child's behavior and the mother's response to it, with reference to the child's progress at school, use of spare time, peer adjustment, and relationships within the family unit.

Overall ratings of the quality of parenting were made according to strict coding criteria that took into account information obtained from the entire interview, as follows: (a) Expressed warmth was rated on a 6-point scale from 0 (*none*) to 5 (*high*) and was based on the mother's tone of voice and facial expression when talking about the child, spontaneous expressions of warmth, sympathy, and concern about any difficulties experienced by the child, and enthusiasm and interest in the child as a person. (b) Emotional involvement was rated on a 5-point scale from 0 (*little or none*) to 4 (*enmeshed*) and measured the extent to which family life and the emotional functioning of the mother were centered on the child and the extent to which the mother was overconcerned or overprotective toward the child. (c) Overall parenting quality was rated on a 5-point scale from 0 (*very poor*) to 4 (*very good*) and measured the extent to which the child and mother enjoyed each other's company and showed affection to one another and the extent to which the mother took responsibility in terms of discipline.

In addition to these overall ratings, the following individual variables were rated from the interview material: (a) Enjoyment of motherhood was rated on a 4-point scale from 0 (*none*) to 3 (*a great deal*) and took account of expressed enjoyment as well as reservations about motherhood. (b) Frequency of disputes measured the number of disputes that had occurred in the previous week between the mother and the child. (c) Severity of disputes was rated on a 4-point scale from 0 (*no confrontations*) to 3 (*major battles*) and assessed the intensity of disputes during conflict with the child.

(d) Frequency of smacking was rated on a 7-point scale from 0 (*none*) to 6 (*more than once per day*). (e) Supervision of outdoor play was rated on a 5-point scale from 0 (*not allowed out*) to 4 (*no specified territory*). (f) Overall supervision was rated on a 5-point scale from 0 (*not allowed out without an adult*) to 4 (*generally poor*) and took account of the mother's age-appropriate monitoring of the child's activities. (g) Chaperonage of child was rated on a 7-point scale from 0 (*not allowed to play with other children*) to 6 (*allowed to play with unknown children in unrestricted territory*).

The frequencies with which the mother engaged in the following types of play with her child were rated on a 5-point scale from 0 (*none*) to 4 (*more than once per day*): imaginative play, constructional play, drawing/writing/reading, watching television, rough-and-tumble play, and domestic play. In addition, the mother's enjoyment of play was rated on a 4-point scale from 0 (*little or none*) to 3 (*a great deal*).

Fathers and co-mothers were separately administered a shortened form of the interview that focused on the partner's relationship with the child. Ratings were made of expressed warmth, emotional involvement, overall parenting quality, frequency of disputes, severity of disputes, frequency of smacking, imaginative play, constructional play, drawing/writing/reading, watching television, rough-and-tumble play, and domestic play.

In order to calculate interrater reliabilities, a second interviewer coded 35 randomly selected mothers' interviews. Pearson product-moment correlation coefficients for the overall ratings from the mother's interview for expressed warmth, emotional involvement, and overall mothering quality were .96, .86, and .95, respectively. Interrater reliabilities for the individual variables were all greater than .80 with the exception of that for enjoyment of play, which was .78. A second interviewer also coded 12 randomly selected partners' interviews. Pearson product-moment correlation coefficients for the overall ratings from the partner's interview for expressed warmth, emotional involvement, and overall parenting quality were .94, 1.00, and 1.00, respectively. Interrater reliabilities for the individual variables ranged from .73 to 1.00.

Children's socioemotional development. The child's psychiatric state was assessed with a standardized interview with the mother, with well-established reliability and validity (Graham & Rutter, 1968). Detailed descriptions were obtained of any behavioral or emotional problems shown by the child. These descriptions of actual behavior, which included information on when the behavior was shown, severity of behavior, and frequency, precipitants, and course of behavior over the last year, were transcribed and rated by an experienced child psychologist unaware of the family type. Psychiatric disorder, when identified, was rated according to severity and type.

The presence of behavioral or emotional problems was also assessed with the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1994, 1997), which was administered both to the mothers and to the children's teachers. The SDQ produces an overall Total Difficulties score and subscale scores for Hyperactivity, Emotional Symptoms, Conduct Problems, Peer Problems, and Prosocial Behavior. Each scale has a cutoff point above which the child is classified as showing abnormal behavior, with 10% of children in a community sample expected to obtain a score above cutoff. The questionnaire has been shown to have good interrater reliability, with correlations between parent and teacher Total Difficulties scores reported to be .62. Evidence for validity comes from the high correlations between the Total Difficulties score on the SDQ and the total scores on the Rutter Parent Questionnaire ($r = .88$; Rutter, Tizard, & Whitmore, 1970) and the Rutter Teacher Questionnaire ($r = .92$; Rutter, 1967), which are designed to assess child psychiatric disorder. In addition, the SDQ discriminates well between psychiatric and nonpsychiatric samples.

Parents' psychological state. The short form of the Parenting Stress Index (PSI/SF; Abidin, 1990), a standardized assessment of stress associated with parenting, was administered to mothers to produce a Total Stress score for the level of parenting stress they were experiencing at the time of the study, as well as subscale scores for Parental Distress, Dysfunctional

Interaction, and Difficult Child, with higher scores reflecting greater parenting stress. Test-retest reliability for this instrument has been shown to be high over a 6-month period. Concurrent and predictive validity has been demonstrated for the full-length questionnaire, and the short form has been reported to correlate highly with the full-length version.

The Trait Anxiety Inventory (Spielberger, 1983) and the Beck Depression Inventory (Beck & Steer, 1987) were completed by the mothers to assess anxiety and depression, respectively. In addition, the mothers and the co-mothers and fathers completed the Golombok Rust Inventory of Marital State (Rust, Bennum, Crowe, & Golombok, 1988, 1990), a questionnaire measure of the quality of the partner relationship. All three of these instruments, for which higher scores represent greater difficulties, have been shown to have good reliability and to discriminate well between clinical and nonclinical groups.

From the interview with the mother, the following ratings were made regarding her current psychological state: (a) Medical consultations, rated on a dichotomous scale (0 = *no*, 1 = *yes*), indicated whether or not the mother had consulted a doctor for psychological problems since the birth of her child, and (b) psychotropic medication, also rated on a dichotomous scale (0 = *no*, 1 = *yes*), measured whether or not the mother had been prescribed anxiolytic or antidepressant medication since the birth of her child.

Child Measures

Each child was administered the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (the Harter scale; Harter & Pike, 1984), which was read out loud to children by the interviewers. This scale measured children's perceptions of their cognitive competence and physical competence and their perceptions of maternal acceptance and peer acceptance, all of which have been shown to be associated with the development of self-esteem in later childhood. For each subscale, the higher the score, the greater was the child's endorsement of the construct. Satisfactory internal consistency has been demonstrated, and the scale has been shown to discriminate between groups of children in predicted ways, indicating that it is a valid measure.

An adaptation of the Children's Peer Relations Scale (Crick, 1991) was used to assess children's perceptions of their peer interactions. This scale produced five subscale scores, Engagement in Caring Acts, Isolation From Peers, Negative Affect in Peer Group, Perceived Peer Acceptance, and Relational Inclusivity, with higher scores indicating higher levels of the construct. Internal consistencies for the subscales ranged from .66 to .76.

Gender role behavior was assessed with the Activities Inventory, an adaptation for 7-year-old children of the Pre-School Activities Inventory (PSAI; Golombok & Rust, 1993a, 1993b). A particular advantage of the Activities Inventory with respect to the current study is that in addition to its ability to show differences between the sexes, it was designed specifically to identify variations in gender role behavior within each sex, allowing "masculine" and "feminine" boys and girls to be differentiated. The Activities Inventory produces an overall score of gender role behavior, with higher scores representing more masculine and less feminine behavior.

The original version of the PSAI is a psychometrically constructed instrument that has been standardized on more than 2,000 subjects, predominantly in the United Kingdom, but also in the United States and the Netherlands. Split-half reliability is .88 ($N = 2,330$) and test-retest reliability over a 1-year period is .64 ($N = 33$; Golombok & Rust, 1993b). The inventory has been validated on boys and girls attending day care in five different centers. Significant correlations were found between inventory scores as completed by mothers and teachers' ratings of gender-typed behavior, showing the inventory to be a valid measure of gender role. The modified version used in the current study contains 24 items and is divided into three sections: toys (7 items), activities (11 items), and characteristics (6 items). Children are read a list of statements about what two types of

children like to do and are asked to decide which group of children they are most like and whether the statement is really true for them or only sort of true for them, according to the format developed by Harter (Harter & Pike, 1984). For example, the experimenter may ask, "Some kids play with jewelry and other kids don't play with jewelry; are you more like the ones who like playing with jewelry, or are you more like the ones who don't like playing with jewelry?" After the child answers, the experimenter then asks, "Is that really true for you, or is that only sort of true for you?" The same procedure is carried out for each of the 24 items, which are then summed across "masculine" and "feminine" items, and an overall score of gender-typed behavior is calculated.

Results

Two-way analyses of covariance were carried out for each variable. The between-subjects factors were mother's sexual orientation (lesbian vs. heterosexual) and family structure (two parents vs. single parent). The covariates were child's age and number of children in the family. Because research on lesbian-mother families has been criticized for the underreporting of differences between lesbian and heterosexual families (Redding, 2001; Stacey & Biblarz, 2001), nonsignificant trends are presented in addition to statistically significant effects.

Parental Measures

Mother-Child Relationships

Warmth. With respect to mother's warmth toward the child as assessed by interview with the mother, no main effects were found

for expressed warmth or emotional involvement. Significant main effects for overall parenting quality, $F(5, 166) = 5.15, p = .03$, and enjoyment of motherhood, $F(5, 166) = 4.70, p = .03$, were found for family structure, but not for mother's sexual orientation, reflecting a higher quality of parenting and greater enjoyment of motherhood by mothers in two-parent families (see Table 2).

Conflict. As shown in Table 2, no significant main effects were found for frequency of disputes with the child. However, a significant main effect for severity of disputes was found for family structure, $F(5, 166) = 5.29, p = .02$, but not for mother's sexual orientation, with more severe disputes reported by single mothers. A significant main effect was also found for frequency of smacking. Lesbian mothers reported smacking their children less than did heterosexual mothers, $F(5, 166) = 9.37, p = .003$. There was no difference in frequency of smacking according to family structure.

Supervision. With respect to supervision of the child, there was a nonsignificant trend toward less supervision of outside play by single mothers than by mothers in two-parent families, $F(5, 166) = 3.00, p = .09$. No difference in supervision of outside play was found between lesbian and heterosexual mothers. There were no significant main effects for overall supervision or chaperonage of child (see Table 2).

Play. Significant main effects were found for both mother's sexual orientation, $F(5, 166) = 8.04, p = .005$, and family structure, $F(5, 166) = 5.99, p = .02$, with respect to imaginative play, with lesbian mothers engaging in more imaginative play with their children than heterosexual mothers, and single mothers engaging

Table 2
Means, Standard Deviations, and F Values for Comparisons of Warmth, Conflict, Supervision, and Play Between Family Types

Variable	Lesbian-mother families				Heterosexual-mother families				F(5, 166)		
	Single-parent		Two-parent		Single-parent		Two-parent		Mother's sexual orientation (lesbian vs. heterosexual)	Family structure (single-parent vs. two-parent)	Interaction
	M	SD	M	SD	M	SD	M	SD			
Warmth											
Expressed warmth	4.10	.97	4.44	.86	4.05	1.13	4.17	1.03	0.08	2.52	0.12
Emotional involvement	2.40	.94	2.11	.32	2.37	.88	2.46	.69	2.21	0.45	1.75
Overall parenting quality	3.20	.89	3.50	.62	3.05	.85	3.27	.73	0.44	5.15*	0.00
Enjoyment of motherhood	2.40	.75	2.72	.57	2.35	.76	2.54	.71	0.54	4.70*	0.11
Conflict											
Frequency of disputes	6.26	4.00	6.44	3.33	5.91	4.49	6.06	3.87	1.12	0.00	0.01 ^a
Severity of disputes	1.25	.64	0.94	.42	1.43	.65	1.24	.70	1.67	5.29*	0.11
Frequency of smacking	0.55	.60	0.39	.50	0.85	.55	0.97	.92	9.37**	0.15	0.78
Supervision											
Supervision of outdoor play	0.75	.97	0.61	.78	1.15	.90	0.70	.81	0.00	3.00 [†]	0.73
Overall supervision	0.80	.92	0.72	.75	1.28	1.06	0.81	.73	0.11	2.42	1.19
Chaperonage of child	2.50	1.05	2.50	.62	3.13	1.03	2.57	.76	0.72	2.32	2.49
Play											
Imaginative play	1.30	1.26	0.78	1.00	0.38	.87	0.28	.69	8.04**	5.99*	1.08
Constructional play	1.05	1.05	0.78	.81	0.77	.72	0.74	.76	0.05	0.93	0.72
Drawing/writing/reading	2.60	.88	2.33	1.14	2.07	.92	1.99	.93	1.26	1.38	0.15
Watching television	2.00	1.03	1.83	.99	2.13	1.02	1.81	1.02	0.45	0.98	0.06
Rough-and-tumble play	1.25	1.41	0.72	.89	0.83	.99	0.77	1.05	0.41	2.63	1.13
Domestic play	0.95	.76	1.50	1.04	0.83	.76	0.78	.69	6.79*	3.19 [†]	4.27*
Enjoyment of play	2.10	.79	2.22	.65	2.17	.83	2.05	.77	0.24	0.43	0.05

^a $df = (5, 154)$.

[†] $p < .10$. * $p < .05$. ** $p < .01$.

Table 3
Means, Standard Deviations, and *F* Values for Comparisons of Partner–Child Relationship
Between Partner Types

Variable	Partner type				<i>F</i> (3, 57)
	Co-mother		Father		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Warmth					
Expressed warmth	4.33	.98	3.91	.91	0.77
Emotional involvement	1.87	.35	2.17	.61	5.62*
Overall parenting quality	3.47	.74	3.15	.67	0.44
Conflict					
Frequency of disputes	3.50	2.07	8.03	12.37	3.04 ^{a†}
Severity of disputes	1.13	.52	1.20	.69	1.04
Frequency of smacking	0.27	.59	0.93	.69	10.09**
Play					
Imaginative play	0.80	1.01	0.30	.76	1.93
Constructional play	0.87	.64	0.76	.73	0.09
Drawing/writing/reading	2.00	.76	1.43	.98	2.30
Watching television	1.60	.99	1.46	1.03	0.10
Rough-and-tumble play	1.53	1.06	1.39	1.06	0.04
Domestic play	1.20	.94	0.57	.66	5.23*
Enjoyment of play	2.53	.64	2.13	.65	1.80

^a *df* = (3, 25).

† *p* < .10. **p* < .05. ***p* < .01.

in more imaginative play than mothers in two-parent families. Regarding domestic play, a significant main effect was found for mother's sexual orientation, $F(5, 166) = 6.79, p = .01$, and there was a nonsignificant trend for family structure, $F(5, 166) = 3.19, p = .08$. The interaction was also significant, $F(5, 166) = 4.27, p = .04$, showing that domestic play was most frequent among lesbian mothers in two-parent families. No significant differences were found for constructional play, drawing/writing/reading, watching television, or rough-and-tumble play (see Table 2).

Partner–Child Relationships

Comparisons of variables relating to warmth, conflict, and play were carried out between the two-parent lesbian-mother families and the two-parent heterosexual families (see Table 3). With respect to warmth, no group differences were found for either expressed warmth or overall parenting quality. However, a significant difference was found for emotional involvement, $F(3, 57) = 5.62, p = .02$, with a greater proportion of fathers than co-mothers showing raised levels of emotional involvement with their children.¹

Regarding conflict, the frequency of smacking was greater among fathers than among co-mothers, $F(3, 57) = 10.09, p = .002$. In addition, there was a nonsignificant tendency for the frequency of disputes with children to be higher among fathers than co-mothers, $F(3, 25) = 3.04, p = .09$, although fathers did not differ from co-mothers with respect to the severity of disputes.

The amount of domestic play with children also differed between fathers and co-mothers, $F(3, 57) = 5.23, p = .03$, with co-mothers engaging in more domestic play than fathers. There were no differences between co-mothers and fathers for imagina-

tive play, constructional play, drawing/writing/reading, watching television, or rough-and-tumble play. Neither did co-mothers differ from fathers in their enjoyment of play.

Children's Socioemotional Development

Mothers' reports. As shown in Table 4, no significant differences were found between children in lesbian-mother families and children in heterosexual families with respect to the proportion who obtained scores above cutoff for abnormal behavior on the Total Difficulties scale or on the Hyperactivity, Emotional Symptoms, Conduct Problems, or Prosocial Behavior subscales of the SDQ as completed by mothers. However, there was a nonsignificant trend, $\chi^2(1, N = 169) = 3.20, p < .07$, toward higher scores on the Peer Problems subscale for children of lesbian mothers. No differences in SDQ scores were identified between children in single-parent and two-parent families.

Teachers' reports. Teachers' ratings on the SDQ showed no significant differences between children in lesbian-mother families and children in heterosexual families with respect to the proportion who obtained scores above cutoff for abnormal behavior on the Total Difficulties scale or on the Hyperactivity, Emotional Symptoms, Conduct Problems, Peer Problems, or Prosocial Behavior subscales. However, teachers rated a significantly higher proportion of children in single-parent than in

¹ A comparison between the 8 lesbian co-mothers involved in the birth of the child and the 7 lesbian step co-mothers showed no significant difference in level of emotional involvement. All 8 birth co-mothers and 5 step co-mothers obtained a rating of 2 ("moderate emotional involvement"), and the remaining 2 step co-mothers obtained a rating of 1 ("some emotional involvement").

Table 4
Chi-Square Values for Comparisons of Children's Socioemotional Development Between Family Types

Variable	Two-parent lesbian families (<i>n</i>)	Single-parent lesbian families (<i>n</i>)	Two-parent heterosexual families (<i>n</i>)	Single-parent heterosexual families (<i>n</i>)	Lesbian vs. heterosexual families (χ^2)	Two-parent vs. single-parent families (χ^2)
Mother's SDQ						
Hyperactivity						
Below cutoff	16	15	66	50	0.03	0.82
Above cutoff	2	3	8	9		
Emotional Symptoms						
Below cutoff	17	16	71	56	0.82	0.38
Above cutoff	1	2	3	3		
Conduct Problems						
Below cutoff	16	14	64	52	0.34	0.06
Above cutoff	2	4	10	7		
Peer Problems						
Below cutoff	16	15	70	56	3.20†	0.10
Above cutoff	2	3	4	3		
Prosocial Behavior						
Below cutoff	17	16	72	57	2.02	0.40
Above cutoff	1	2	2	2		
Total Difficulties						
Below cutoff	17	16	69	56	0.25	0.00
Above cutoff	1	2	5	3		
Teacher's SDQ						
Hyperactivity						
Below cutoff	15	13	60	42	0.06	5.43*
Above cutoff	3	5	9	17		
Emotional Symptoms						
Below cutoff	17	16	67	53	0.20	3.15†
Above cutoff	1	2	2	6		
Conduct Problems						
Below cutoff	16	16	67	47	0.00	7.71**
Above cutoff	2	2	2	12		
Peer Problems						
Below cutoff	17	16	67	55	0.72	1.49
Above cutoff	1	2	2	4		
Prosocial Behavior						
Below cutoff	18	16	64	55	0.10	0.27
Above cutoff	0	2	5	4		
Total Difficulties						
Below cutoff	16	13	66	47	1.44	9.38**
Above cutoff	2	5	3	12		
Child psychiatric ratings						
Below cutoff	17	16	68	54	0.59	1.15
Above cutoff	1	4	6	6		

Note. SDQ = Strengths and Difficulties Questionnaire. For mother's SDQ, $df = 1$, $N = 169$. For teacher's SDQ, $df = 1$, $N = 164$. For child psychiatric ratings, $df = 1$, $N = 172$.

† $p < .10$. * $p < .05$. ** $p < .01$.

two-parent families as showing conduct problems, $\chi^2(1, N = 164) = 7.71$, $p = .005$, hyperactivity, $\chi^2(1, N = 164) = 5.43$, $p = .02$, and total difficulties, $\chi^2(1, N = 164) = 9.38$, $p = .002$, and there was a nonsignificant trend in the same direction for emotional symptoms, $\chi^2(1, N = 164) = 3.15$, $p = .08$ (see Table 4).

Psychiatric ratings. No differences were identified between children in lesbian-mother families and children in heterosexual families, or between children in single- and two-parent families, with respect to the proportion who were rated by a

child psychologist as showing psychiatric disorder. Five of the 38 rated children in lesbian-mother families (13%) were classified as showing psychiatric disorder (1 with conduct disorder, 1 with conduct and emotional disorder, 2 with attention-deficit/hyperactivity disorder, and 1 with developmental disorder) compared with 12 of the 134 children in heterosexual families (9%; 4 with conduct disorder, 3 with emotional disorder, 2 with conduct and emotional disorder, 2 with attention-deficit/hyperactivity disorder, and 1 with developmental disorder; see Table 4).

Mothers' Psychological State

As shown in Table 5, scores on the PSI/SF did not show a main effect for mother's sexual orientation. In contrast, a main effect for family structure was found for the Total Stress score, $F(5, 154) = 4.52, p = .04$, and the Dysfunctional Interaction subscale, $F(5, 154) = 5.71, p = .02$, and a nonsignificant trend was found for the Parental Distress subscale, $F(5, 154) = 3.87, p = .05$, representing higher levels of parenting stress among single mothers than partnered mothers. However, single mothers did not perceive their children to be more difficult than did mothers in two-parent families.

No significant main effects were found for mothers' anxiety or depression as assessed by the Trait Anxiety Inventory and the Beck Depression Inventory, respectively. For two-parent families, there was no difference in relationship satisfaction between lesbian and heterosexual mothers as measured by the Golombok Rust Inventory of Marital State. The lesbian mothers were no more likely than the heterosexual mothers to have been prescribed anxiolytic or antidepressant medication since the birth of their children. However, a higher proportion of lesbian mothers than heterosexual mothers, $\chi^2(1, N = 172) = 5.38, p = .02$, and a higher proportion of single mothers than mothers in two-parent families, $\chi^2(1, N = 172) = 4.52, p = .03$, had consulted a doctor for psychological problems since the birth of their children (see Table 5).

Child Measures

Harter and Peer Relations Scales

For the Harter scale, no significant differences were found between children in lesbian-mother families and children in heterosexual families for any of the subscales. However, a nonsignificant trend was found between children in single-parent families and children in two-parent families for peer acceptance, $F(5,$

$159) = 2.96, p = .09$, with less peer acceptance reported by children of single mothers. This trend was also identified with the Perceived Peer Acceptance subscale of the Peer Relations Scale, $F(5, 163) = 2.76, p = .10$. There were no other significant effects for the Peer Relations Scale (see Table 6).

Activities Inventory

With respect to gender development as assessed by the Activities Inventory, no significant main effects were identified for either boys or girls according to mothers' sexual orientation (see Table 6). A significant effect for family structure was found for boys, $F(5, 84) = 4.70, p = .03$, but not for girls, with boys in single-parent families showing less gender-typed behavior than boys in two-parent families. However, sample sizes for this comparison were very small because the sample had to be further subdivided by sex, and the significant difference was accounted for by the atypically feminine score of 1 son of a single lesbian mother. The Activities Inventory data were reanalyzed using separate t tests for mother's sexual orientation and family structure in order to increase cell sizes. No significant differences were found between lesbian-mother families and heterosexual-mother families for boys, $t(88) = -0.98, p > .1$, or girls, $t(76) = -0.63, p > .1$. In addition, there were no significant differences between single-parent and two-parent families for boys, $t(88) = -1.51, p > .1$, or girls, $t(76) = -0.46, p > .1$.

Family Processes

In order to examine the relationship between parenting and children's psychological adjustment, correlations were first computed between three parenting variables (expressed warmth, frequency of disputes, and mothers' Total Stress scores from the PSI/SF) and two child adjustment variables (mothers' Total Difficulties scores and teachers' Total Difficulties scores on the SDQ)

Table 5
Means, Standard Deviations, and F Values for Comparisons of Mother's Psychological State Between Family Types

Variable	Lesbian-mother families		Heterosexual-mother families		F		Interaction	df				
	Single-parent	Two-parent	Single-parent	Two-parent	Mother's sexual orientation (lesbian vs. heterosexual)	Family structure (single-parent vs. two-parent)						
Parenting Stress Index												
Parental Distress	27.39	9.63	22.65	5.22	24.43	6.55	24.25	6.70	0.68	3.87†	2.53	5, 154
Dysfunctional Interaction	21.11	8.40	16.94	3.88	19.77	5.42	19.03	5.17	0.20	5.71*	2.19	5, 154
Difficult Child	27.28	11.02	23.53	6.72	25.61	8.11	25.10	9.24	0.70	1.68	0.76	5, 154
Total Stress	75.78	27.20	63.12	12.48	69.80	17.38	68.38	17.02	0.75	4.52*	2.23	5, 154
Questionnaires												
Trait Anxiety Inventory	39.61	11.03	38.76	8.58	39.81	10.18	36.36	8.18	0.62	1.84	0.75	5, 161
Beck Depression Inventory	7.59	8.27	6.44	4.10	7.26	7.28	5.71	5.78	0.78	0.93	0.06	5, 159
GRIMS	—	—	21.00	9.46	—	—	25.09	12.14	0.76	—	—	3, 83
Mother's interview	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	χ^2	χ^2		
No. with medical consultations	10	50	10	55.6	26	43.3	17	23	5.38*	4.52*		
No. with psychotropic medication	4	20	4	22.2	14	23.3	15	20.3	0.01	0.77		

Note. GRIMS = Golombok Rust Inventory of Marital State. For mother's interview variables, $df = 1, N = 172$.
† $p < .10$. * $p < .05$.

Table 6
Means, Standard Deviations, and *F* Values for Comparisons of Children's Socioemotional Development Between Family Types

Variable	Lesbian-mother families				Heterosexual-mother families				<i>F</i>			
	Single-parent		Two-parent		Single-parent		Two-parent		Mother's sexual orientation (lesbian vs. heterosexual)	Family structure (single-parent vs. two-parent)	Interaction	<i>df</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Harter scale												
Peer acceptance	17.44	5.02	18.56	3.78	17.95	3.02	19.27	3.00	0.41	2.96†	0.00	5, 159
Cognitive competence	19.83	3.70	19.94	3.56	19.72	2.93	20.41	2.92	0.10	0.56	0.29	5, 159
Physical competence	18.44	2.97	19.11	3.07	19.47	3.04	20.20	2.59	2.67	1.19	0.01	5, 159
Maternal acceptance	16.61	2.64	16.89	2.61	16.52	2.95	14.49	2.56	0.28	0.51	0.00	5, 159
Peer Relations Scale												
Engagement in caring acts	16.25	2.22	16.83	2.43	15.24	3.14	15.53	3.20	2.57	0.68	0.06	5, 163
Isolation from peers	7.30	2.64	7.94	3.81	7.33	2.76	6.89	2.85	0.05	0.00	1.41	5, 163
Negative affect in peer group	7.00	2.43	7.56	2.85	7.34	2.20	6.70	2.20	0.00	0.00	1.93	5, 163
Perceived peer acceptance	7.85	1.95	8.61	1.58	8.34	1.55	8.66	1.50	0.10	2.76†	0.68	5, 163
Relational inclusivity	7.30	1.95	7.78	1.96	7.03	1.88	7.56	1.92	0.20	2.05	0.01	5, 163
Activities Inventory												
Boys	59.64	9.20	68.56	12.62	65.39	8.76	66.49	8.96	0.40	4.70*	2.40	5, 84
Girls	41.11	10.36	45.00	7.78	46.30	11.09	43.61	10.47	0.07	0.35	0.85	5, 72

† $p < .10$. * $p < .05$.

for all of the families combined. These parenting variables were chosen to represent a positive (expressed warmth) and a negative (frequency of disputes) variable from the interview with mothers as well as a maternal self-report variable (Total Stress score on the PSI/SF). The Total Difficulties score on the SDQ was chosen as a reliable and valid measure of children's emotional and behavioral problems that had been completed independently by mothers and teachers.

As shown in Table 7, significant correlations were found between each of the parenting variables and the mothers' SDQ scores, reflecting fewer emotional and behavioral problems among children whose mothers showed greater expressed warmth ($r = -.29, p < .01$), fewer disputes ($r = .29, p < .01$), and lower parenting stress ($r = .57, p < .01$). Similarly, teachers' SDQ scores indicated fewer emotional and behavioral problems among children whose mothers showed greater expressed warmth ($r = -.20, p = .01$), fewer disputes ($r = .16, p = .05$), and lower parenting stress ($r = .21, p = .01$). The significant correlations between the parenting variables and the teachers' ratings of chil-

dren's emotional and behavioral problems validated the mothers' reports.

Simultaneous multiple regression analyses were then carried out to evaluate the relative contribution of the parenting variables to mothers' and teachers' SDQ scores. Mother's sexual orientation and family structure were each included as independent variables. The age of the child in months was also entered as an independent variable to control for child's age. As shown in Table 8, mothers' Total Stress score on the PSI/SF and child's age were significant predictors of children's psychological adjustment as measured by mothers' SDQ scores. Mother's sexual orientation and family structure were unrelated to children's psychological adjustment. The overall variance accounted for by these variables (adjusted R^2) was 35%, $F(6, 146) = 14.34, p < .01$. When the multiple regression was repeated with teachers' Total Difficulties SDQ scores as the dependent variable, no significant effects were found for any of the independent variables, adjusted $R^2 = 6%$, $F(6, 140) = 2.60, p < .05$.

Discussion

The findings of the present investigation are largely in line with those of earlier studies of lesbian-mother families that pointed to positive mother-child relationships and well-adjusted children. No significant differences were identified between lesbian mothers and heterosexual mothers for most of the parenting variables, although lesbian mothers reported smacking their children less and engaged more frequently in imaginative and domestic play with their children than did heterosexual mothers. Regarding the children, no significant differences in psychiatric disorder were identified by a child psychologist who was unaware of family type or by mothers or teachers using the SDQ. Although there was a nonsignificant trend toward greater peer problems among children in lesbian-mother families as rated by mothers on the SDQ, the children themselves did not report greater problems with peers.

Table 7
Pearson Correlations Between Mother-Child Relationship and Children's Socioemotional Development

Variable	Mothers' SDQ: Total Difficulties		Teachers' SDQ: Total Difficulties	
	<i>r</i>	<i>n</i>	<i>r</i>	<i>n</i>
Frequency of disputes	0.28**	156	0.16*	153
Expressed warmth	-0.29**	168	-0.20*	164
PSI Total Stress	0.57**	160	0.21*	152

Note. SDQ = Strengths and Difficulties Questionnaire; PSI = Parenting Stress Index.

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

Table 8
Summary of Simultaneous Multiple Regression on Children's SDQ Scores

Variable	Mothers' SDQ: Child's Total Difficulties				Teachers' SDQ: Child's Total Difficulties			
	B	SE(B)	β	<i>t</i>	B	SE(B)	β	<i>t</i>
Mother's sexuality	1.29	0.80	0.11	1.61	0.84	1.31	0.06	0.64
Family structure	0.93	0.65	0.65	1.44	2.05	1.05	0.16	1.96
Child's age	0.09	0.04	0.18	2.58*	0.05	0.06	0.08	0.95
PSI Total Stress	0.12	0.02	0.46	6.12**	0.04	0.03	0.12	1.31
Expressed warmth	-0.39	0.32	-0.08	-1.22	-0.65	0.51	-0.11	-1.26
Frequency of disputes	0.11	0.08	0.09	1.29	0.14	0.14	0.09	1
Model summary	Adjusted $R^2 = .35$, $F(6, 146) = 14.34^{**}$				Adjusted $R^2 = .06$, $F(6, 140) = 2.60^*$			

Note. SDQ = Strengths and Difficulties Questionnaire; PSI = Parenting Stress Index.
 * $p < .05$. ** $p < .01$.

With respect to gender development, there were no differences in gender-typed behavior between the children of lesbian parents and the children of heterosexual parents for either boys or girls.

In contrast, the co-mothers in lesbian-mother families were less likely to show raised levels of emotional involvement with the children than were the fathers in heterosexual families; the co-mothers also smacked the children less and showed a tendency toward less frequent disputes with them, which suggests that they may have had less involvement with child discipline. It may be that men and women react differently to the co-parent role or that genetic relatedness is a factor. A further possible explanation relates to the fact that almost half of the co-mothers were stepmothers; only 8 (53%) co-mothers had been actively involved in the decision to have the child and had raised the child from birth. However, larger samples of birth co-mothers and step co-mothers as well as the inclusion of an additional comparison group of stepfather families would be required to test these hypotheses. It should be stressed that co-mothers were just as warm and just as involved in parenting as were fathers and that co-mothers reported a similar or higher level of involvement in all aspects of play. The lower level of smacking by co-mothers than by fathers is also noteworthy because smacking is associated with aggressive behavior in children (Eamon, 2001; Straus, Sugarman, & GilesSims, 1997).

It seems, therefore, that even with a general population sample it remains the case that children reared by lesbian mothers appear to be functioning well and do not experience negative psychological consequences arising from the nature of their family environment. Although the possibility cannot be ruled out that the lesbian mothers in the present investigation presented themselves and their children more favorably than did the other mothers, multiple measures (standardized interviews and self-report questionnaires) and multiple respondents (mother, co-mother/father, child, and teacher) were employed to minimize this problem. It is particularly noteworthy that the teachers, who were independent observers, did not report a higher incidence of psychological problems among the children of lesbian mothers, thus confirming the mothers' reports. The multiple regression analyses also suggest that the sexual orientation of parents has little impact on the psychological adjustment of children.

In order to consider further the meaningfulness of the significant results, we carried out Bonferroni corrections of alpha levels

separately for the mothers' measures, the partners' measures, and the children's measures by dividing alpha levels of .05 by the number of comparisons. For the comparisons between lesbian-parent and heterosexual-parent families, the only finding that remained significant after correcting alpha levels in this way was greater smacking of children by fathers than by co-mothers. The finding that lesbian mothers smacked their children less than did heterosexual mothers also approached significance. Thus the lower frequency of smacking by lesbian parents appeared to be a genuine effect.

In addition to the control group of two-parent heterosexual families, a control group of families headed by single heterosexual mothers was recruited to allow a comparison between children in one-parent and two-parent families. Because half of the lesbian-mother families were headed by single mothers, it was important to examine whether any differences identified between lesbian-mother families and heterosexual families were associated with single parenthood rather than with maternal sexual orientation. Although the comparison between single-mother families and two-parent families was not in itself a focus of the present study, it is interesting to note that single mothers reported more negative relationships with their children than did the mothers with partners. In addition, the children of single mothers showed a higher incidence of psychological problems as assessed by teachers on the SDQ. The higher Total Difficulties scores for children of single parents remained significant after Bonferroni adjustments had been made. This finding corresponds to the results of other studies of the psychological adjustment of children in single-parent families (Amato, 1993; Dunn, Deater-Deckard, Pickering, O'Connor, & Golding, 1998; Hetherington, Bridges, & Insabella, 1998; Hetherington & Stanley-Hagan, 1999; McLanahan & Sandefur, 1994) and thus provides validation of the measures used in the present investigation. Although boys in single-mother families obtained significantly lower (i.e., less masculine) scores on the Activities Inventory than boys from two-parent households, this finding resulted from the atypically feminine score of 1 son of a single lesbian mother and was not confirmed in a study of a larger sample of ALSPAC children specifically designed to address this question (Stevens, Golombok, Beveridge & the ALSPAC Study Team, 2002).

A key issue in the current investigation is the representativeness of the sample of lesbian mothers. At the outset, ALSPAC recruited

85%–90% of the eligible population of pregnant women living within the boundary of Avon, and the retention rate at 47 months was 78% (Golding, 2000). The reduction in sample size over time resulted from a number of factors including miscarriage or death of the child, the family moving out of the Avon area, and natural attrition.

A related issue concerns the proportion of the lesbian mothers in the ALSPAC sample who were recruited to the present investigation. Although a cooperation rate of 90% was achieved among those who declared a lesbian identity, it remains possible that not all of the lesbian mothers were open about their sexual orientation. As Patterson and Friel (2000) have pointed out, lesbian women may be reluctant to disclose their lesbian identity because of the prejudice experienced by the lesbian community, and a tendency toward secrecy may be even greater among lesbian women with children. It is not possible to establish the proportion of mothers who declined to state their lesbian identity. However, the snowballing procedures used to find other lesbian mothers in the Avon area did not identify any lesbian mothers involved in the ALSPAC who had failed to disclose their sexual orientation. Moreover, no lesbian mothers were found who had been eligible for recruitment to the ALSPAC but had declined to take part, which suggests that lesbian mothers did not tend to opt out of the initial ALSPAC sample. This may have been due to the ALSPAC mothers' high level of trust in the confidentiality of the study.

The representativeness of the non-ALSPAC lesbian mothers cannot be determined. However, the process of snowballing is most effective when initiated from a representative sample (Heckathorn, 1997; Rollnick, Butler, & Hodgson, 1997), as was the case with the ALSPAC. Comparisons were carried out between ALSPAC and non-ALSPAC lesbian mothers for all of the study variables to determine the nature and extent of differences between them. After age was controlled for, significant differences were identified for only 5% of the variables, the proportion that would be expected by chance, which suggests that the non-ALSPAC families were closely comparable to those recruited directly through the ALSPAC. The few differences that emerged reflected higher occupational status and fewer psychological problems among the ALSPAC mothers. There were no differences in parenting other than greater supervision of their children and less drawing/writing/reading by the ALSPAC mothers. The only difference identified with respect to children's socioemotional development was that the ALSPAC mothers reported fewer emotional symptoms on the SDQ. This contradicts the view that lesbian mothers who are experiencing problems are less likely to volunteer for research. Although the families investigated in the present study cannot be deemed truly representative of the general population of lesbian-mother families because of the supplementation of the sample through snowballing, the study constitutes the closest approximation achieved so far. Whereas the investigations by Brewaeys et al. (1997) and Chan et al. (1998) benefited from systematic samples, only 28% of children in the present study were conceived at a fertility clinic, which suggests that only around one quarter of lesbian-mother families, in the United Kingdom at least, are created in this way.

Research on lesbian-mother families not only is of interest in its own right but also has broader implications for increasing theoretical understanding of the role of parents in children's psychological development in general. For example, the findings of the

present investigation suggest that the presence of two parents irrespective of their gender, rather than the presence of a parent of each sex, is associated with more positive outcomes for children's psychological well-being than is rearing by a single mother. That is, it may be the involvement of a second parent rather than the involvement of a male parent that makes a difference.

It also appears that maternal sexual orientation is not a major influence on children's gender development because boys and girls in lesbian-mother families were not found to differ in gender-typed behavior from their counterparts from heterosexual homes. This finding, obtained from a representative sample of children with lesbian parents using a measure that was specifically designed to assess within-sex variation in gender role behavior, is of particular interest given the suggestion by Stacey and Biblarz (2001) that possible differences in gender development among children of lesbian mothers may be underemphasized by researchers in this area. From a theoretical perspective, this contradicts the view that heterosexual parents are essential for children's acquisition of gender-typed behavior. Instead, it lends support to theoretical explanations that emphasize the importance of either prenatal or cognitive processes in children's gender development and to explanations that focus less on the role of parents and more on the role of peers. Alternatively, lesbian mothers may reinforce gender-typed behavior in the same way as do heterosexual mothers and may closely resemble heterosexual mothers in terms of those aspects of gender-typed behavior that influence children's gender development.

References

- Abidin, R. (1990). *Parenting Stress Index test manual*. Charlottesville, VA: Pediatric Psychology Press.
- Amato, P. R. (1993). Children's adjustment to divorce: Theories, hypotheses and empirical support. *Journal of Marriage and the Family*, 55, 23–38.
- Baker, D., Morris, S., & Taylor, H. (1997). *A census comparison to assess the representativeness of the ALSPAC sample*. Unpublished manuscript, University of Bristol, Bristol, England.
- Bandura, A. (1977). *Social learning theory*. London: Prentice-Hall.
- Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. *Journal of Social and Clinical Psychology*, 4, 359–373.
- Baumrind, D. (1989). Rearing competent children. In W. Damon (Ed.), *Child development today and tomorrow* (pp. 349–378). San Francisco: Jossey-Bass.
- Baumrind, D. (1991). Effective parenting during the early adolescent transition. In P. A. Cowan & M. Hetherington (Eds.), *Family transitions* (pp. 111–163). Hillsdale, NJ: Erlbaum.
- Beck, A. & Steer, R. (1987). *The Beck Depression Inventory manual*. San Antonio, CA: Psychological Corporation.
- Bem, S. L. (1981). Gender schema theory: A cognitive account of sex typing. *Psychological Review*, 88, 354–364.
- Biernacki, P., & Waldorf, D. (1981). Snowball sampling: Problems and techniques of chain referral sampling. *Sociological Methods and Research*, 10, 141–163.
- Bowlby, J. (1969). *Attachment and loss: Vol. I. Attachment*. London: Hogarth Press.
- Bowlby, J. (1988). *A secure base: Clinical applications of attachment theory*. London: Routledge.
- Brewaeys, A., Ponjaert, I., Van Hall, E., & Golombok, S. (1997). Donor insemination: Child development and family functioning in lesbian-mother families with 4–8 year old children. *Human Reproduction*, 12(6), 1349–1359.

- Bussey, K., & Bandura, A. (1999). Social cognitive theory of gender development. *Psychological Review*, *106*, 676–713.
- Chan, R. W., Raboy, B., & Patterson, C. (1998). Psychosocial adjustment among children conceived via donor insemination by lesbian and heterosexual mothers. *Child Development*, *69*, 443–457.
- Coie, J. D. (1990). Toward a theory of peer rejection. In S. R. Asher & J. D. Coie (Eds.), *Peer rejection in childhood* (pp. 365–398). New York: Cambridge University Press.
- Collaer, M. L., & Hines, M. (1995). Human behavioural sex differences: A role for gonadal hormones during early development? *Psychological Bulletin*, *118*, 55–107.
- Crick, N. (1991, April). *Subgroups of neglected and rejected children*. Paper presented at the biennial meeting of the Society for Research in Child Development, Seattle, WA.
- Darling, N., & Steinberg, L. (1993). Parenting style as context: An integrative model. *Psychological Bulletin*, *113*, 487–496.
- Dunn, J., Deater-Deckard, K., Pickering, K., O'Connor, T., & Golding, J. (1998). Children's adjustment and prosocial behaviour in step-, single-parent, and non-stepfamily settings: Findings from a community study. *Journal of Child Psychology and Psychiatry*, *39*, 1083–1095.
- Eamon, M. K. (2001). Antecedents and socioemotional consequences of physical punishment on children in two-parent families. *Child Abuse and Neglect*, *25*, 787–802.
- Egan, S. K. & Perry, D. G. (2001). Gender identity. A multidimensional analysis with implications for psychosocial adjustment. *Developmental Psychology*, *37*, 451–463.
- Falk, P. J. (1989). Lesbian mothers, psychosocial assumptions in family law. *American Psychologist*, *44*, 941–947.
- Flaks, D. K., Ficher, I., Masterpasqua, F., & Joseph, G. (1995). Lesbians choosing motherhood: A comparative study of lesbian and heterosexual parents and their children. *Developmental Psychology*, *31*, 105–114.
- Golding, J. (2000). ALSPAC: The Avon Longitudinal Study of Parents and Children. In *Aims and study design 6th edition of ALSPAC protocol*. Bristol, England: University of Bristol.
- Golding, J., & the ALSPAC Study Team. (1996). Children of the nineties: A resource for assessing the magnitude of long-term effects of prenatal, perinatal and subsequent events. *Contemporary Review of Obstetric Gynaecology*, *8*, 89–92.
- Golding, J., Pembrey, M., Jones, R., & the ALSPAC Study Team. (2001). ALSPAC—The Avon Longitudinal Study of Parents and Children. 1. Study methodology. *Paediatric and Perinatal Epidemiology*, *15*, 74–87.
- Golombok, S. (1999). Lesbian mother families. In A. Bainham, S. D. Sclater, & M. Richards (Eds.), *What is a parent? A socio-legal analysis* (pp. 161–180). Oxford, England: Hart.
- Golombok, S., & Hines, M. (2002). Sex differences in social behaviour. In P. Smith & C. Hart (Eds.), *Blackwell handbook of childhood social development* (pp. 117–136). Oxford, England: Blackwell.
- Golombok, S., & Rust, J. (1993a). The measurement of gender role behaviour in pre-school children: A research note. *Journal of Child Psychology and Psychiatry*, *3*, 805–811.
- Golombok, S., & Rust, J. (1993b). The Pre-School Activities Inventory: A standardized assessment of gender role in children. *Psychological Assessment*, *5*, 131–136.
- Golombok, S., Spencer, A., & Rutter, M. (1983). Children in lesbian and single-parent households: Psychosexual and psychiatric appraisal. *Journal of Child Psychology and Psychiatry*, *24*, 551–572.
- Golombok, S., & Tasker, F. (1996). Do parents influence the sexual orientation of their children? Findings from a longitudinal study of lesbian families. *Developmental Psychology*, *32*, 3–11.
- Golombok, S., Tasker, F., & Murray, C. (1997). Children raised in fatherless families from infancy: Family relationships and the socioemotional development of children of lesbian and single heterosexual mothers. *Journal of Child Psychology and Psychiatry*, *38*, 783–792.
- Goodman, R. (1994). A modified version of the Rutter Parent Questionnaire including extra items on children's strengths: A research note. *Journal of Child Psychology and Psychiatry*, *35*, 1483–1494.
- Goodman, R. (1997). The Strengths and Difficulties Questionnaire: A research note. *Journal of Child Psychology and Psychiatry*, *38*, 581–586.
- Graham, P., & Rutter, M. (1968). The reliability and validity of the psychiatric assessment of the child: II. Interview with the parent. *British Journal of Psychiatry*, *35*, 1483–1494.
- Green, R., Mandel, J. B., Hotvedt, M. E., Gray, J., & Smith, L. (1986). Lesbian mothers and their children: A comparison with solo parent heterosexual mothers and their children. *Archives of Sexual Behavior*, *15*, 167–184.
- Harter, S., & Pike, R. (1984). The Pictorial Scale of Perceived Competence and Social Acceptance for Young Children. *Child Development*, *55*, 1969–1982.
- Heckathorn, D. D. (1997). Respondent-driven sampling: A new approach to the study of hidden populations. *Social Problems*, *44*, 474–499.
- Hetherington, E. M., Bridges, M., & Insabella, G. M. (1998). What matters? What does not? Five perspectives on the association between marital transitions and children's adjustment. *American Psychologist*, *53*, 167–184.
- Hetherington, E. M., & Stanley-Hagan, M. (1999). The adjustment of children with divorced parents: A risk and resiliency perspective. *Journal of Child Psychology and Psychiatry*, *40*, 129–140.
- Hoeffler, B. (1981). Children's acquisition of sex-role behaviour in lesbian-mother families. *American Journal of Orthopsychiatry*, *24*, 518–530.
- Huggins, S. L. (1989). A comparative study of self-esteem of adolescent children of divorced lesbian mothers and divorced heterosexual mothers. In F. Bozett (Ed.), *Homosexuality and the family* (pp. 123–135). New York: Harrington Park.
- Iervolino, A. C., Hines, M., Golombok, S., Rust, J., & Plomin, R. (2002). *Genetic and environmental influences on sex-typed behavior in pre-school children: A study of 2,434 same-sex twin pairs at 3 and at 4 years of age*. Manuscript submitted for publication.
- Jacklin, C. N., & Maccoby, E. E. (1978). Social behavior at 33-months in same-sex and mixed-sex dyads. *Child Development*, *49*, 557–569.
- Jodl, K. M., Michael, A., Malanchuk, O., Eccles, J. S., & Sameroff, A. (2001). Parents' roles in shaping early adolescents' occupations. *Child Development*, *72*, 1247–1265.
- Kirkpatrick, M. (1987). Clinical implications of lesbian mother studies. *Journal of Homosexuality*, *14*, 201–211.
- Kirkpatrick, M., Smith, C., & Roy, R. (1981). Lesbian mothers and their children: A comparative survey. *American Journal of Orthopsychiatry*, *51*, 545–551.
- Ladd, G. W. (1999). Peer relationships and social competence during early and middle childhood. *Annual Review of Psychology*, *50*, 333–359.
- Laumann, E. O., Gagnon, J. H., Michael, R. T., & Michaels, S. (1994). *The social organization of sexuality: Sexual practices in the United States*. Chicago: University of Chicago Press.
- Maccoby E. E. (1988). Gender as a social category. *Developmental Psychology*, *24*, 755–765.
- Maccoby, E. E. (1990). Gender and relationships: A developmental account. *American Psychologist*, *45*, 513–520.
- Maccoby, E. E. (1992). The role of parents in the socialization of children: An historical overview. *Developmental Psychology*, *28*, 1006–1017.
- Maccoby, E. E. (1998). *The two sexes: Growing up apart, coming together*. Cambridge, MA: Belknap Press/Harvard University Press.
- Martin, C. L. (1989, April). *Beyond knowledge-based conceptions of schematic processing*. Paper presented at the meeting of the Society for Research in Child Development, Kansas City, KS.
- Martin, C. L. (1991). The role of cognition in understanding gender effects. In H. Reese (Ed.), *Advances in child development and behaviour* (pp. 113–164). New York: Academic Press.
- Martin, C. L., & Halverson, C. (1981). A schematic processing model of

- sex typing and stereotyping in children. *Child Development*, 52, 1119–1134.
- McLanahan, S., & Sandefur, G. (1994). *Growing up with a single parent: What hurts, what helps*. Cambridge, MA: Harvard University Press.
- Miller, J. A., Jacobsen, R. B., & Bigner, J. J. (1981). The child's home environment for lesbian vs. heterosexual mothers: A neglected area of research. *Journal of Homosexuality*, 7, 49–56.
- Mischel, W. (1966). A social learning view of sex differences in behavior. In E. E. Maccoby (Ed.), *The development of sex differences* (pp. 56–81). Stanford, CA: Stanford University Press.
- Mischel, W. (1970). Sex-typing and socialization. In P. Mussen (Ed.), *Carmichael's manual of child psychology* (pp. 3–72). New York: Wiley.
- Morrison, V. L. (1988). Observation and snowballing: Useful tools for research into illicit drug use? *Social Pharmacology*, 2, 241–271.
- Mucklow, B. M., & Phelan, G. K. (1979). Lesbian and traditional mothers' responses to child behavior and self-concept. *Psychological Reports*, 44, 880–882.
- Pagelow, M. D. (1980). Heterosexual and lesbian single mothers. A comparison of problems, coping and solutions. *Journal of Homosexuality*, 5, 198–204.
- Parker, J. G., & Asher, S. R. (1987). Peer relations and later personal adjustment: Are low-accepted children at risk? *Psychological Bulletin*, 102, 357–389.
- Patterson, C. J. (1992). Children of lesbian and gay parents. *Child Development*, 63, 1025–1042.
- Patterson, C. J. (1995). Lesbian mothers, gay fathers and their children. In A. R. D'Augelli & C. J. Patterson (Eds.), *Lesbian, gay and bisexual identities over the lifespan: Psychological perspectives* (pp. 262–290). Oxford, England: Oxford University Press.
- Patterson, C. J., & Friel, L. V. (2000). Sexual orientation and fertility. In G. Bentley & C. G. Mascie-Taylor (Eds.), *Infertility in the modern world: Present and future proposals* (pp. 238–260). Cambridge, England: Cambridge University Press.
- Quinton, D., & Rutter, M. (1988). *Parenting breakdown: The making and breaking of intergenerational links*. Aldershot, England: Avebury Gower.
- Redding, R. E. (2001). Sociopolitical diversity in psychology: The case for pluralism. *American Psychologist*, 56, 205–215.
- Rollnick, S., Butler, C., & Hodgson, R. (1997). Brief alcohol intervention in medical settings: Concerns in the consulting room. *Addiction Research*, 5, 331–341.
- Rust, J., Bennum, I., Crowe, M., & Golombok, S. (1988). *The handbook of the Golombok Rust Inventory of Marital State*. Windsor, England: NFER-Nelson.
- Rust, J., Bennum, I., Crowe, M., & Golombok, S. (1990). The GRIMS: A psychometric instrument for the assessment of marital discord. *Journal of Family Therapy*, 12, 425–457.
- Rutter, M. (1967). A children's behaviour questionnaire for completion by teachers: Preliminary findings. *Journal of Child Psychology and Psychiatry*, 8, 1–11.
- Rutter, M., Tizard, J., & Whitmore, K. (1970). *Education, health and behaviour*. London: Longman.
- Socarides, C. W. (1978). The sexual deviations and the Diagnostic Manual. *American Journal of Psychotherapy*, 32, 414–426.
- Speilberger, C. (1983). *The handbook of the State-Trait Anxiety Inventory*. Palo Alto, CA: Consulting Psychologists Press.
- Spreeen, M., & Zwaagstra, R. (1994). Personal network sampling, outdegree analysis and multilevel analysis: Introducing the network concept in studies of hidden populations. *International Sociology*, 9, 475–491.
- Stacey, J., & Biblarz, T. (2001). (How) Does the sexual orientation of parents matter? *American Sociological Review*, 66, 159–183.
- Stevens, M., Golombok, S., Beveridge, M., & the ALSPAC Study Team. (2002). Does father absence influence children's gender development? Findings from a general population study of pre-school children. *Parenting: Science and Practice*, 2, 49–62.
- Straus, M. A., Sugarman, D. B., & GilesSims, J. (1997). Spanking by parents and subsequent antisocial behavior of children. *Archives of Pediatrics & Adolescent Medicine*, 151, 761–767.
- Tasker, F., & Golombok, S. (1995). Adults raised as children in lesbian families. *American Journal of Orthopsychiatry*, 65, 203–215.
- Tasker, F., & Golombok, S. (1997). *Growing up in a lesbian family*. New York: Guilford Press.

Received October 16, 2001

Revision received July 22, 2002

Accepted July 22, 2002 ■