US National Longitudinal Lesbian Family Study: Psychological Adjustment   
of 17-Year-Old Adolescents

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Abstract

The objective of this study was to document the psychological adjustment of adolescents who were conceived through donor insemination by lesbian mothers who enrolled before these offspring were born in the largest, longest running, prospective, longitudinal study of same-sex–parented families. Between 1986 and 1992, 154 prospective lesbian mothers volunteered for a study that was designed to follow planned lesbian families from the index children's conception until they reached adulthood. Data for the current report were gathered through interviews and questionnaires that were completed by 78 index offspring when they were 10 and 17 years old and through interviews and Child Behaviour Checklists that were completed by their mothers at corresponding times. The study is ongoing, with a 93% retention rate to date. According to their mothers' reports, the 17-year-old daughters and sons of lesbian mothers were rated significantly higher in social, school/academic, and total competence and significantly lower in social problems, rule-breaking, aggressive, and externalizing problem behaviour than their age-matched counterparts in Achenbach's normative sample of American youth. Within the lesbian family sample, no Child Behaviour Checklist differences were found among adolescent offspring who were conceived by known, as-yet-unknown, and permanently unknown donors or between offspring whose mothers were still together and offspring whose mothers had separated. Adolescents who have been reared in lesbian-mother families since birth demonstrate healthy psychological adjustment. These findings have implications for the clinical care of adolescents and for pediatricians who are consulted on matters that pertain to same-sex parenting.

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There is a scarcity of data on the psychological adjustment of adolescents who have been raised in lesbian households since birth. No other study has followed a **cohort** of such offspring from **conception** through adolescence, both in the future and over the long term. This study expands understanding of psychological well-being in adolescent biological children of lesbian mothers and therefore has **implications** for the **pediatric** care of these adolescents and for public **policies** concerning same-sex parenting.

**Literature Review**

*Note: the period comes after the last bracket of the in text citation and not before the first.*

According to US census data, an estimated 270 313 American children were living   
in households headed by same-sex couples in 2005, and nearly twice that number had a   
single lesbian or gay parent (Romero, Baumle, Badgett, & Gates, 2007). Although research   
had established by the late 1960s that homosexuality is not a mental illness, public opinion   
has been slow to catch up (Bayer, 1981; Paul, Weinrich, Gonsiorek, & Hotvedt, 1982).   
After homosexuality was removed from the *Diagnostic and Statistical Manual of Mental Disorders* in 1973 (American Psychiatric Association, 2000), women who had conceived children in the context of heterosexual marriage and identified as lesbian at the time of divorce faced stiff opposition in the courts when they sought to retain custody (Falk, 1989; Golombok, Perry & Burston, 2003). Subsequently, studies have shown that there are no significant differences in psychosocial development between children who are reared in lesbian and heterosexual households (Golombok S, Perry B, Burston, 2009; Bos, Van Balen, & Van den Boom, 2007). These findings formed the basis of the Technical Report from the American Academy of Pediatrics Committee on Psychological Aspects of Child and Family Health (Perrin, 2002b).

*Note: different articles are separated with a semi colon ;*

Despite more than 3 decades of cross-sectional research demonstrating that the psychological adjustment of children is unrelated to their parents' sexual orientation, the legitimacy of lesbian and gay biological, foster, and adoptive parenting is still under scrutiny (Tasker, 2005; Bos, Van Balen, & Van den Boom, 2007; Stern, Cramer, Garrod, Green, 2001). Contemporary critics point to a **dearth** of longitudinal studies on lesbian families and limited data on adolescents who have been living in lesbian or gay households since birth (Bos, Van Balen, Van den Boom, 2007; Wald, 2006). Within the cohort of families headed by same-sex parents in the United States, the first generation of children who were conceived by lesbians through **donor insemination** (DI) is coming of age. This phenomenon provides a rich opportunity for social scientists to study the well-being of teenagers who have been raised since birth in what is known as **planned lesbian families** (Tasker, 2005; Baumrind, 1995; Bos, Gartrell, Peyser, van Balen, 2008).

Psychosocial research on young children in planned lesbian families has focused primarily on 4 key developmental outcomes: psychological adjustment, peer relationships, family relationships, and progress through school (Tasker, 2005; Golombok, 2007; Bos, Van Balen, Van den Boom, 2007; Rosenfeld, 2010). In young children, adjustment is largely determined by family functioning: regardless of their parents' gender or sexual orientation, children fare better when their parents are compatible, share responsibilities, provide financial stability, and have healthy interpersonal connections (Perrin, 2002b). During adolescence, peer relations become more important as teenagers develop a sense of identity, a deeper appreciation of inter-individual difference, and a keener awareness of minority status (Baumrind, 1995; Wainright, Russell, Patterson, 2004; Rivers, Poteat & Noret, 2008). Teenage children may be more reflective about their earlier experiences of stigmatization, yet relatively little has been reported about the psychological well-being of adolescents who have been raised in lesbian families since birth (Bos, Van Balen, Van den Boom, 2007; Baumrind, 1995; Bos, Gartrell, Peyser, van Balen, 2008; Wainright, Russell, Patterson, 2008; Gershon, Tschann, & Jemerin, 1999; Fergusson, Horwood, & Ridder , 2005). Studies on the teenage offspring of lesbians are largely based on data gathered in the 1990s, in which the majority of teenagers studied were conceived in heterosexual relationships before their mothers divorced and came out as lesbian (Tasker, 2005; Golombok, 2007; Wainright, Russell, Patterson, 2004; Gershon, Tschann, & Jemerin, 1999; Biblarz, Stacey, 2010). These teenagers' experience differs from that of those who grow up in planned lesbian families, because having a heterosexual father may diminish the sense of marginalization that teenagers with lesbian parents experience (Baumrind, 1995).

In the United Kingdom, Golombok and colleagues (Golombok, Tasker, & Murray, 1997; Golombok, Badger, 2010) have been conducting a comparative study of children who were reared in fatherless and traditional families that began when the index offspring was a **mean** age of 6 years. At the third follow-up, the 18 young adults with lesbian mothers and the 20 reared by single heterosexual mothers demonstrated higher levels of self-esteem than the 32 reared in 2-parent heterosexual households.

A recent series of reports on the psychosocial adjustment of American teenagers with same-sex parents was based on the National Longitudinal Study of Adolescent Health (Add Health), for which the data were collected in 1994 and 1995 (Wainright, Russell, & Patterson, 2004; Wainright, & Patterson, 2008; Wainright, & Patterson, 2006). Forty-four adolescents who lived with 2 mothers were compared with 44 who were raised by a mother and a father. No differences between the 2 groups were found in peer relations, academic performance, personal adjustment, and health-related risk behaviours; however, the parents' sexual orientation was not specified in the Add Health survey, so the analyses may be **confounded** by the inclusion of women who live together but do not identify as lesbian (Wainright, Russell, & Patterson, 2004; Wainright, & Patterson, 2008; Wainright, & Patterson, 2006).

The US National Longitudinal Lesbian Family Study (NLLFS) was initiated in 1986 to provide prospective data on a cohort of American lesbian families from the time the children were conceived until they reach adulthood (Gartrell, Hamilton, & Banks, 1996; Bos, Gartrell, Peyser, & van Balen, 2008). At its inception, all NLLFS mothers identified as lesbian. In this article, the psychological adjustment of the 17-year-old NLLFS offspring who were conceived through DI and reared in planned lesbian families is compared through maternal reports with those of an age-matched **normative** sample of American teenagers. Within the NLLFS sample, we analyze the association of adolescent well-being as reflected in **Child Behaviour Checklist** (CBCL) scores with (1) sperm donor status (having a known, as-yet-unknown, or permanently unknown donor); (2) parental relationship continuity (whether the offspring's mothers are together or separated); and (3) experiences of stigma.

**Methods**

**Sampling, Recruitment, and Participants**

Between 1986 and 1992, prospective lesbian mothers who were inseminating or pregnant through DI were recruited via announcements that were distributed at lesbian events, in women's bookstores, and in lesbian newspapers throughout the metropolitan areas of Boston, Washington, DC, and San Francisco. A total of 154 lesbian women in 84 families (70 birth mothers, 70 co-mothers, and 14 single mothers) enrolled in the study before it was closed to new participants in 1992 (Gartrell, Hamilton, & Banks, 1996). The participants originally resided within 200 miles of the aforementioned cities, but many families have since relocated to other regions of the United States (see [Table 1](http://pediatrics.aappublications.org/content/126/1/28.full#T1) in **appendix**). The study is ongoing, with 78 (93%) families still participating.

Of the 6 families who are no longer participating, 4 are single-mother and 2 are 2-mother families. All but 2 dropouts occurred before the children were 5 years old (T3). The specific reasons for dropping out were as follows: 1 single mother is deceased (as a result of cancer); 2 single mothers moved without leaving a forwarding address; 2 continuously coupled families withdrew indicating that they were too overcommitted with childrearing and careers; and 1 single mother withdrew after T4, without explanation (none of this child's CBCL scores at T4 fell within the borderline or clinical ranges).

Data gathering for T5 was completed in May 2009. Because 1 family did not return all portions of the T5 survey instruments, the total number used for analyses was 77 families with 78 offspring, including 1 set of twins (Gartrell, Hamilton, & Banks, 1996; Gartrell, Banks, Hamilton, Reed, Bishop, & Rodas, 1999). As shown in [Table 1](http://pediatrics.aappublications.org/content/126/1/28.full#T1) (see appendix), the 78 adolescent offspring consisted of 39 girls and 39 boys. The mean age of the NLLFS adolescents was 17.05 years (SD: 0.36; range: 16–18 years). Twenty-eight (36%) of the adolescents were conceived  
by using a known sperm donor and 50 (64%) by using an unknown donor, 62% (*n* = 31) of whom were permanently unknown and 38% (*n* = 19) of whom could be identified when the adolescent reached the age of 18. At T5, the mean age of the NLLFS birth mothers was 52.00 years (SD: 3.89) and of the co-mothers was 52.9 years (SD: 5.24). The T5 family constellations consisted of 31 continuously coupled, 40 separated-mother, and 6 single-mother families. Fifty-six percent of the mothers who were co-parents when the index children were born had separated. On average, the mothers had been together 12 years (SD: 5.88) before they separated, and the mean age of the children at the time of their mothers' separation was 6.97 years (SD: 4.42 years). In 71.4% of cases, custody was shared after separating; in 28.6%, the birth mother was the primary custodial parent.

*Note: numbers at beginning of a sentence are written out in full*

The Achenbach comparison group consisted of maternal reports on 49 girls and 44 boys, all 17 years old (Achenbach 17-year-old maternal-report raw data used with permission of Dr. Thomas Achenbach, University of Vermont, 1991 & 2001). The demographic characteristics of the NLLFS and Achenbach samples are presented in [Table 1](http://pediatrics.aappublications.org/content/126/1/28.full#T1).

Procedures

Structured interviews with the NLLFS mothers took place when they were inseminating or pregnant with the index children (T1) and when the index children were 2 years old (T2), 5 years old (T3), 10 years old (T4), and 17 years old (T5). Mothers also completed questionnaires at T2, T3, T4, and T5. The index offspring were interviewed at T4 (Gartrell, Deck, Rodas, Peyser, & Banks, 2005; Bos, Gartrell, Van Balen, Peyser, & Sandfort, 2008; Bos, Gartrell, Peyser, van Balen, 2008) and they completed an online questionnaire at T5. (For more information about the T1–T4 data collections and analyses, see previous reports (Gartrell, Hamilton, & Banks, 1996; Bos , Gartrell, Peyser, van Balen, 2008). Approval for the NLLFS was granted by the institutional review board at the California Pacific Medical Center.

At T5, a member of the NLLFS research team called and/or e-mailed each mother in the study cohort near the time of her adolescent's 17th birthday. The T5 research protocol was explained to the mother, who was asked to complete the institutional review board consent forms before her offspring was contacted. When consent had been obtained from the mother for her own participation as well as for her offspring's, the offspring was contacted, and he or she provided assent.

The mother was then interviewed by telephone, and she completed a CBCL that was provided and returned electronically or by mail. The adolescent completed a questionnaire that was provided and returned through the study's secure online Web site. Each adolescent received a unique identity code that allowed access to a protected part of the NLLFS Web site to complete her or his questionnaire. Participants were assured that their responses would be completely confidential.

Because the Achenbach raw data that were used for this study consisted of a single maternal report per family, for consistency, these analyses are based on the CBCLs completed by 1 NLLFS mother per family—the birth mother—in all but 7 families in which the birth mother was deceased, ill, or otherwise unavailable; in these 7 cases, CBCLs that were completed by the co-mothers were used instead.

**Adolescent Assessments**

Adolescent well-being was assessed by the parental report of Achenbach's CBCL/6–18, which is known for its reliability, internal consistency, and factor structure (Achenbach, 1991; Achenbach & Rescorla, 2001). The CBCL provides information about an adolescent's social functioning and identifies symptoms that are associated with behavioural and emotional problems. Achenbach norms were chosen as comparison groups because they have been used extensively in studies of adolescent well-being, including other studies of child outcomes after the use of assisted reproductive technology (Greene, Herek, Patterson, 1994; Montgomery, Aiello, & Adelman, 1999).

The CBCL consists of 2 sections. The first measures adolescent competence on 4 scales: activities, social, school/academic, and total competence. Elevated competency scores indicate superior functioning (Achenbach & Rescorla, 2001). The second section focuses on behavioural or emotional problems. On each of 113 problem items, the parent is asked to assess her adolescent's behaviour during the previous 6 months and to check either “0 = not true,” “1 = somewhat or sometimes true,” or “2 = very true or often true.” The parent's scores are then tabulated so that the adolescent's problem behaviour can be rated on 8 syndrome scales (anxious/depression, withdrawn, **somatic** complaints, social problems, thought problems, attention problems, rule-breaking behaviour, and aggressive behaviour) and 3 broadband scales that are composites of the syndrome scales (internalizing, externalizing, and total problem behaviour).

Within the NLLFS sample, the following T5 CBCL comparisons of psychological adjustment were conducted: (1) among 17-year-old offspring with known, as-yet-unknown, and permanently unknown donors (Gartrell, Hamilton, & Banks, 1996; Gartrell, Banks, Hamilton, Reed, Bishop, & Rodas, 1999; Gartrell, Banks, Reed, Hamilton, Rodas, & Deck, 2000; Gartrell, Deck, Rodas, Peyser, & Banks, 2005) ; ( 2) between 17-year-old offspring whose mothers had separated (designated “separated couples”) and offspring whose mothers were still together (designated “continuous couples”); (3) between 17-year-old offspring who at age 10 answered affirmatively to homophobic stigmatization and those who answered negatively (“Did other kids ever say mean things to you about your mom[s] being lesbian? 1 = yes, 2 = no”) (Gartrell, Deck, Rodas, Peyser, & Banks, 2005; Bos, Gartrell, Van Balen, Peyser, & Sandfort, 2008; Bos, Gartrell, Peyser, & van Balen, 2008); (4) between 17-year-old offspring who answered affirmatively at age 17 to stigmatization and those who answered negatively (“Have you been treated unfairly

because of having a lesbian mom? yes = 1, no = 2”); and (5) between 17-year-old offspring whose mothers reported that their adolescents had been stigmatized and those who were unaware of any such incidents (“Has your teen been explicitly teased or taunted about having a lesbian mom? 1 = yes, 2 = no”). Details about the T4 interviews with the 10-year-old NLLFS index children are available in previous reports (Gartrell, Deck, Rodas, Peyser, & Banks, 2005; Bos, Gartrell, Van Balen, Peyser, & Sandfort, 2008; Bos, Gartrell, Peyser, & van Balen, 2008).

**Analyses**

Using the NLLFS and Achenbach CBCL mother reports on their 17-year-old offspring, we conducted a multivariate analysis of variance (MANOVA) with group (1 = NLLFS, 2 = Achenbach normative sample) and gender (1 = girls, 2 = boys) as independent variables and with all CBCL scales (activities, social competence, school/academic competence, total competence, anxious/depression, withdrawn, somatic complaints, social problems, thought problems, attention problems, rule-breaking behaviour, aggressive behaviour, internalizing behaviour, externalizing behaviour, and total problem behaviour) as dependent variables. When a significant group difference or interaction was found, contrast analyses were conducted (Ivanova, Achenbach, & Dumenciet, 2007). This sequence of analyses has been used in other studies of nontraditional families (Bos, Van Balen, & Van den Boom, 2007; Stams, Juffer, & Rispens, 2007; Rosnati, Montirosso, & Barni, 2008; Verhulst, Althaus, & Versluis-Den Bieman, 1990). To examine possible differences in adolescent well-being within the NLLFS sample, we conducted 3 MANOVAs, with donor status, maternal relationship continuity, and stigmatization as the independent variables and the CBCL scales as dependent variables.

**Results**

**Comparison Between the NLLFS and Achenbach Samples**

A significant multivariate main effect was found for group (Wilks's λ = .31, F14,170 = 23.52, *P* = .0001), but not for gender (Wilks's λ = .86, F14,170 = 1.73, *P* = .055); the interaction between group and gender was significant (Wilks's λ = .80, F14,170 = 2.61, *P* = .002). Contrast analyses found that the 17-year-old NLLFS girls and boys were rated significantly higher in social, school/academic, and total competence and significantly lower in social, rule-breaking, aggressive, and externalizing problem behaviour than the comparison group (see [Table 2](http://pediatrics.aappublications.org/content/126/1/28.full#T2) in the appendix).

**Comparisons Within the NLLFS Sample**

To analyze the influence of donor status, maternal relationship continuity, and stigmatization on CBCL scores, we combined the NLLFS adolescent girls and boys because no significant gender differences were found. No CBCL differences were found among adolescent offspring who were conceived by known, as-yet-unknown, and permanently unknown donors (Wilks's λ = .70, F14,78 = .80, *P* = .752) or between offspring whose mothers were still together and offspring whose mothers had separated (Wilks's λ = .69, F14,52 = 1.68, *P* = .088).

When the CBCL ratings of the 17-year-old index offspring who indicated that they had experienced stigmatization by T4 (41.8%) or T5 (41.1%) were compared with the offspring who did not, no significant multivariate main effects were found for either analysis (T4 Wilks's λ = .74, F14,77 = 1.25, *P* = .273; T5 Wilks's λ = .86, F14,77 = .65, *P* = .81); however, a MANOVA based on 29 mother reports that their adolescents had been stigmatized showed a significant effect (Wilks's λ = .57, F14,61 = 2.53, *P* = .009). Additional univariate analyses showed significantly higher internalizing and total problem behaviour scores for offspring who, according to their mothers, had been stigmatized during adolescence (see [Table 3](http://pediatrics.aappublications.org/content/126/1/28.full#T3) in the appendix).

**Discussion**

This is the first report on adolescents who were conceived through DI and whose mothers enrolled while pregnant in a prospective, longitudinal study of planned lesbian families. The NLLFS was initiated in the mid-1980s, when planned lesbian families were a new phenomenon, and the study has persisted with a remarkably high retention rate since its inception. Because it is a prospective study, the findings are not skewed by overrepresentation of families who volunteer when it is already clear that their offspring are performing well.

The NLLFS adolescents demonstrated higher levels of social, school/academic, and total competence than gender-matched normative samples of American teenagers. These findings may be explained in part by the NLLFS mothers' commitment even before their offspring were born to be fully engaged in the process of parenting. During pregnancy, the prospective mothers took classes and formed support groups to learn about childrearing (Gartrell, Hamilton, & Banks, 1996). They were actively involved in the education of their children (Gartrell, Banks, Reed, Hamilton, Rodas, & Deck, 2000; Gartrell, Deck, Rodas, Peyser, & Banks, 2005; Gartrell N, Rodas C, & Deck A, 2006) and aspired to remain close to them, however unique their interests, orientations, and preferences may be (Gartrell, Hamilton, & Banks, 1996; Gartrell, Banks, Hamilton, Reed, Bishop, & Rodas, 1999; Gartrell, Banks, Reed, Hamilton, Rodas, & Deck, 2000; Gartrell, Deck, Rodas, Peyser, & Banks, 2005; Gartrell N, Rodas C, & Deck A, 2006). To the extent that the NLLFS mothers may have achieved this goal, numerous studies showed that having a satisfying relationship with one's parents is associated with a more favorable adolescent adjustment.

The lower levels of externalizing problem behaviour among the NLLFS adolescents may be explained by the disciplinary styles used in lesbian mother households. The NLLFS mothers reported using verbal limit-setting more often with their children (Gartrell, Banks, Hamilton, Reed, Bishop, Rodas, 1999; Gartrell, Rodas, & Deck, 2006). Other studies have found that lesbian mothers use less corporal punishment and less power assertion than heterosexual fathers (Golombok, Perry, & Burston, 2003; Bos, Van Balen, & Van den Boom, 2007). Growing up in households with less power assertion and more parental involvement has been shown to be associated with healthier psychological adjustment (Golombok, Perry, & Burston, 2003; Wainright, Russell, Patterson, 2004; Wainright, & Patterson, 2008; Wainright, & Patterson, 2006). Also, adolescent boys who are close to their parents are less likely to engage in delinquent behaviour (Wainright, & Patterson, 2006).

Comparisons within the NLLFS sample found that homophobic stigmatization was associated with more problem behaviour in adolescents whose mothers were aware of such incidents. One explanation for this finding is that adolescents who are already experiencing behaviour problems may be more likely to elicit teasing by their classmates and/or to report these experiences to their mothers. Another possibility is that adolescents who chose not to inform their mothers may have wanted to shield them, or these offspring may have been more effectively prepared to deflect homophobic comments (Gartrell, Deck, Rodas, Peyser, & Banks, 2005; Gartrell, Rodas, & Deck, 2006). Indeed, many NLLFS mothers had engaged their offspring in conversations about effective ways of responding to stigmatization [(Gartrell, Deck, Rodas, Peyser, & Banks, 2005; Gartrell, Rodas, & Deck, 2006; ).](http://pediatrics.aappublications.org/content/126/1/28.full#ref-24) Other protective factors—changing cultural attitudes toward lesbian and gay families and peer/teacher support in response to homophobic incidents, among others—may also be involved in helping young people cope with stigmatization.

The finding that adolescents whose mothers had separated since T1 fared as well in psychological adjustment as those whose mothers were still together may reflect another protective factor: the shared custody arrangements in a majority of reconstituted NLLFS families. Custody was more likely to be shared in these families when the mothers had previously completed a co-parent (second parent) adoption agreement (Gartrell, Rodas, & Deck, 2006). Studies show that shared childrearing is associated with more favorable outcomes after separation or divorce (Emery, 2010). Moreover, many American children experience a change in family structure, regardless of their parents' sexual orientation: among heterosexuals, nearly 50% of first marriages in the United States end in divorce, lasting on average 7 to 8 years, (Kreider, & Fields, 2001) with 65% of mothers retaining sole physical and legal custody of their children (Emery, Otto, & O'Donohue, 2005); in the NLLFS, 56% of couples separated after being together an average of 12 years, with 71.4% sharing custody.

This study has several limitations. First, it has a nonrandom sample. When the study began in the 1980s, the targeted population was largely hidden because of the long history of discrimination against lesbian and gay people, so the possibility of recruiting a representative sample of prospective lesbian mothers was even more unrealistic than it is today (Golombok, Perry, & Burston, 2003; Tasker, 2005; Hubert, Bajos, Sandfort & Sandfort, 1998). At T1 and T2, some NLLFS participants expressed fears that legislation could be enacted to rescind the parenting rights of lesbian mothers (Gartrell, Hamilton, & Banks, 1996; Gartrell, Banks, Hamilton, Reed, Bishop, Rodas, 1999). Similar concerns may have deterred other prospective mothers from volunteering for the NLLFS, despite assurances of confidentiality.

A second limitation is that the data did not include the Achenbach Youth Self-Report or Teacher's Report Form (Achenbach, & Rescorla, 2001). A more comprehensive assessment would have included reports from all 3 sources (Achenbach, & Rescorla, 2001; Vanfraussen, Ponjaert-Kristoffersen, & Brewaeys, 2002). A final limitation is that although the NLLFS and the normative samples are similar in socioeconomic status, they are neither matched nor controlled for race/ethnicity or region of residence. The NLLFS sample is drawn from first-wave planned lesbian families who were initially clustered around metropolitan areas with visible lesbian communities, which were much less diverse than they are today; recruiting was limited to the relatively small number of prospective mothers who felt safe enough to identify publicly as lesbian, who had the economic resources to afford DI, and who, in the pre-Internet era, were affiliated with the communities in which the study was advertised (Gartrell, Hamilton, & Banks, 1996).

**Conclusions**

These findings contribute a new dimension to the literature on lesbian and gay families through mental health assessments of the adolescent biological offspring of lesbian parents who have participated in a prospective, longitudinal study since before these teenagers were born. The NLLFS adolescents are well-adjusted, demonstrating more competencies and fewer behavioural problems than their peers in the normative American population.

This study has implications for the clinical care of lesbian families, for the expert testimony provided by pediatricians on lesbian mother custody, and for public policies concerning same-sex parenting (Perrin, 2002a; Gates GJ, Badgett MV, Macomber JE, & Chamber, 2007; US Bureau of Labor Statistics, 2009 ). Our findings show that adolescents who have been raised since birth in planned lesbian families demonstrate healthy psychological adjustment and thus provide no justification for restricting access to reproductive technologies or child custody on the basis of the sexual orientation of the parents.

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Appendix A

TABLE 1

Demographic Characteristics of the NLLFS Sample & the Achenbach Normative CBCL Sample

| Characteristic | NLLFS | Achenbach[a](http://pediatrics.aappublications.org/content/126/1/28/T1.expansion.html#fn-2) |
| --- | --- | --- |
| Adolescent sample size | N = 78[b](http://pediatrics.aappublications.org/content/126/1/28/T1.expansion.html#fn-3) | N = 93 |
| Adolescent gender, % |  |  |
| Girls | 50.0 | 52.7 |
| Boys | 50.0 | 47.3 |
| Adolescent age, mean ± SD, y[c](http://pediatrics.aappublications.org/content/126/1/28/T1.expansion.html#fn-4) | 17.05 ± 0.36 | 17.00 ± 0.00 |
| Parental SES, % [d](http://pediatrics.aappublications.org/content/126/1/28/T1.expansion.html#fn-5),[e](http://pediatrics.aappublications.org/content/126/1/28/T1.expansion.html#fn-6) |  |  |
| Working | 18.2 | 12.0 |
| Middle | 57.1 | 44.1 |
| Upper middle and upper | 24.7 | 43.9 |
| Parental race/ethnicity, % [f](http://pediatrics.aappublications.org/content/126/1/28/T1.expansion.html#fn-7),[g](http://pediatrics.aappublications.org/content/126/1/28/T1.expansion.html#fn-8) |  |  |
| White/Caucasian | 93.0 | 67.7 |
| Black/African American | 3.0 | 14.0 |
| Native American | 2.0 | –[d](http://pediatrics.aappublications.org/content/126/1/28/T1.expansion.html#fn-5) |
| Latina/o | 1.0 | 12.9 |
| Asian/Pacific Islander | 1.0 | –[d](http://pediatrics.aappublications.org/content/126/1/28/T1.expansion.html#fn-5) |
| Mixed or other |  | 5.4 |
| Family region of residence (US), %[h](http://pediatrics.aappublications.org/content/126/1/28/T1.expansion.html#fn-9) |  |  |
| Northeast | 47 | 17 |
| Midwest | 1 | 20 |
| South | 9 | 40 |
| West | 43 | 24 |
| CBCL respondent, % |  |  |
| Mother[i](http://pediatrics.aappublications.org/content/126/1/28/T1.expansion.html#fn-10) | 100 | 100 |
| Father | 0 | 0 |

SES indicates socioeconomic status.

a Achenbach and Rescorla 17-year-old raw data, 2001, courtesy of Dr Thomas Achenbach, University of Vermont.

b *N* = 78 index offspring including 1 set of twins (77 families) at T5.

c NLLFS adolescent age range: 3 were 16 years old, 68 were 17 years old, and 7 were 18 years old.

d NLLFS parental demographic data collected T1 to T3.

e SES for NLLFS and Achenbach samples based on Hollingshead Index by using the parent with the highest occupation and education.

f Achenbach race/ethnicity data combine Native American, Asian/Pacific Islander, and other.

g Based on NLLFS race/ethnicity data for all mothers in 84 families at T121; the 77 mothers who completed the T5 CBCL = 96% white/Caucasian; race/ethnicity for the 78 NLLFS adolescents = white/Caucasian 87.1%, black/African American 2.6%, Native American 1.3%, Latina/o 3.8%, Asian/Pacific Islander 2.6%, and Middle Eastern 2.6%.

h Between T3 and T5, the NLLFS families resided in large urban communities, midsized towns, and rural areas of California, Georgia, Louisiana, Massachusetts, Maryland, Minnesota, New York, Oregon, South Carolina, Texas, Vermont, Virginia, and Wisconsin; Achenbach residential data were derived from total normative CBCL 6–18 sample.

i The Achenbach mothers' CBCL reports were used for comparison with the T5 NLLFS mother reports.

Appendix B

TABLE 2

Maternal Report CBCL 6–18 for NLLFS and Achenbach Samples

| Parameter | NLLFS Adolescent Sample | | | Achenbach Normative Adolescent Sample | | | Group | | Gender | | Group × Gender | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Total | Girls | Boys | Total | Girls | Boys | F | P | F | P | F | P |
| Competence scales[a](http://pediatrics.aappublications.org/content/126/1/28/T2.expansion.html#fn-12) |  |  |  |  |  |  |  |  |  |  |  |  |
| Activities |  |  |  |  |  |  |  |  |  |  |  |  |
| Mean ± SD | 10.9 ± 2.6 | 10.7 ± 3.1 | 11.2 ± 2.0 | 10.3 ± 2.6 | 9.8 ± 2.6 | 10.9 ± 2.4 | 2.22 | .138 | 4.14 | .043 | .51 | .476 |
| 95% CI | 10.3–11.5 | 9.8–11.5 | 10.4–12.2 | 9.8–10.9 | 9.1–10.5 | 10.1–11.7 |  |  |  |  |  |  |
| Social |  |  |  |  |  |  |  |  |  |  |  |  |
| Mean ± SD | 11.0 ± 9.6 | 10.3 ± 2.3 | 11.7 ± 13.3 | 8.4 ± 2.4 | 7.8 ± 2.3 | 9.0 ± 2.4 | 6.35 | .013 | 1.61 | .206 | .02 | .890 |
| 95% CI | 9.5–12.5 | 8.1–12.5 | 9.6–13.9 | 7.0–9.8 | 5.9–9.7 | 7.0–11.0 |  |  |  |  |  |  |
| School/academic |  |  |  |  |  |  |  |  |  |  |  |  |
| Mean ± SD | 5.2 ± 0.9 | 5.4 ± 0.9 | 5.0 ± 0.8 | 2.8 ± 0.9 | 2.5 ± 1.0 | 3.2 ± 0.7 | 313.78 | .001 | 1.20 | .275 | 16.76 | .001[c](http://pediatrics.aappublications.org/content/126/1/28/T2.expansion.html#fn-14) |
| 95% CI | 5.0–5.4 | 5.1–5.7 | 4.7–5.2 | 2.6–3.0 | 2.2–2.7 | 2.9–3.4 |  |  |  |  |  |  |
| Total competence |  |  |  |  |  |  |  |  |  |  |  |  |
| Mean ± SD | 26.0 ± 4.3 | 26.3 ± 5.0 | 25.8 ± 3.6 | 21.4 ± 4.5 | 20.3 ± 4.5 | 23.0 ± 4.0 | 45.70 | .001 | 3.34 | .070 | 6.86 | .010[d](http://pediatrics.aappublications.org/content/126/1/28/T2.expansion.html#fn-15) |
| 95% CI | 25.1–27.0 | 24.9–27.7 | 24.4–27.2 | 20.6–22.4 | 18.8–21.2 | 21.7–24.3 |  |  |  |  |  |  |
| Syndrome scales[b](http://pediatrics.aappublications.org/content/126/1/28/T2.expansion.html#fn-13) |  |  |  |  |  |  |  |  |  |  |  |  |
| Anxious/depression |  |  |  |  |  |  |  |  |  |  |  |  |
| Mean ± SD | 2.9 ± 3.1 | 3.4 ± 3.6 | 2.3 ± 2.4 | 2.2 ± 2.7 | 2.8 ± 3.1 | 1.5 ± 2.0 | 2.81 | .096 | 7.62 | .001 | .07 | .786 |
| 95% CI | 2.2–3.5 | 2.5–4.4 | 1.5–3.2 | 1.5–2.7 | 2.0–3.6 | 0.6–2.3 |  |  |  |  |  |  |
| Withdrawn |  |  |  |  |  |  |  |  |  |  |  |  |
| Mean ± SD | 1.8 ± 2.0 | 1.8 ± 2.3 | 1.7 ± 1.8 | 2.1 ± 2.4 | 2.2 ± 2.5 | 1.8 ± 2.4 | .59 | .444 | .56 | .003 | .16 | .691 |
| 95% CI | 1.3–2.3 | 1.1–2.6 | 1.0–2.4 | 1.6–2.5 | 1.6–2.9 | 1.2–2.5 |  |  |  |  |  |  |
| Somatic complaints |  |  |  |  |  |  |  |  |  |  |  |  |
| Mean ± SD | 0.9 ± 1.6 | 1.1 ± 1.9 | 0.6 ± 1.3 | 1.2 ± 1.8 | 1.4 ± 2.0 | 0.9 ± 1.4 | 1.17 | .281 | 3.80 | .053 | .00 | .948 |
| 95% CI | 0.5–1.3 | 0.6–1.7 | 0.1–1.2 | 0.8–1.5 | 0.9–1.9 | 0.4–1.4 |  |  |  |  |  |  |
| Social problems |  |  |  |  |  |  |  |  |  |  |  |  |
| Mean ± SD | 0.5 ± 0.8 | 0.5 ± 0.8 | 0.6 ± 0.9 | 1.1 ± 1.9 | 1.5 ± 2.3 | 0.8 ± 1.2 | 5.66 | .019 | 2.06 | .154 | 2.36 | .126 |
| 95% CI | 0.2–0.9 | 0.1–1.0 | 0.1–1.0 | 0.8–1.4 | 1.0–1.9 | 0.3–1.2 |  |  |  |  |  |  |
| Thought problems |  |  |  |  |  |  |  |  |  |  |  |  |
| Mean ± SD | 1.1 ± 1.8 | 1.3 ± 2.0 | 1.0 ± 1.6 | 1.1 ± 1.4 | 1.1 ± 1.5 | 1.1 ± 1.3 | .01 | .980 | 50 | .482 | .16 | .686 |
| 95% CI | 0.7–1.5 | 0.7–1.8 | 0.5–1.5 | 0.8–1.4 | 0.7–1.6 | 0.6–1.5 |  |  |  |  |  |  |
| Attention problems |  |  |  |  |  |  |  |  |  |  |  |  |
| Mean ± SD | 2.5 ± 3.0 | 2.5 ± 2.9 | 2.6 ± 3.1 | 3.0 ± 3.1 | 2.7 ± 3.0 | 3.3 ± 3.2 | .96 | .329 | 50 | .481 | .18 | .670 |
| 95% CI | 1.8–3.2 | 1.5–3.5 | 1.6–3.6 | 2.4–3.6 | 1.9–3.6 | 2.4–4.2 |  |  |  |  |  |  |
| Rule-breaking behaviour |  |  |  |  |  |  |  |  |  |  |  |  |
| Mean ± SD | 1.7 ± 2.5 | 1.6 ± 2.5 | 1.7 ± 2.5 | 2.8 ± 4.2 | 2.8 ± 3.4 | 2.9 ± 5.0 | 4.46 | .036 | .03 | .858 | .01 | .922 |
| 95% CI | 0.8–2.5 | 0.5–2.8 | 0.6–2.8 | 2.1–3.6 | 1.8–3.8 | 1.9–4.0 |  |  |  |  |  |  |
| Aggressive behaviour |  |  |  |  |  |  |  |  |  |  |  |  |
| Mean ± SD | 2.4 ± 3.2 | 2.6 ± 2.6 | 2.2 ± 3.7 | 3.7 ± 4.4 | 4.0 ± 4.6 | 3.5 ± 4.2 | 4.45 | .037 | .54 | .463 | .01 | .933 |
| 95% CI | 1.5–3.3 | 1.3–3.9 | 1.0–3.5 | 2.9–4.5 | 2.8–5.1 | 2.3–4.6 |  |  |  |  |  |  |
| Broadband scales[b](http://pediatrics.aappublications.org/content/126/1/28/T2.expansion.html#fn-13) |  |  |  |  |  |  |  |  |  |  |  |  |
| Internalizing |  |  |  |  |  |  |  |  |  |  |  |  |
| Mean ± SD | 5.4 ± 5.9 | 6.4 ± 7.0 | 4.6 ± 4.7 | 5.4 ± 5.6 | 6.5 ± 6.4 | 4.2 ± 4.3 | .04 | .837 | 5.08 | .026 | .08 | .784 |
| 95% CI | 4.2–6.6 | 4.5–8.3 | 2.8–6.5 | 4.2–6.5 | 4.8–8.1 | 2.5–5.9 |  |  |  |  |  |  |
| Externalizing |  |  |  |  |  |  |  |  |  |  |  |  |
| Mean ± SD | 4.1 ± 5.2 | 4.3 ± 4.6 | 3.9 ± 5.7 | 6.6 ± 7.8 | 6.7 ± 7.6 | 6.4 ± 8.1 | 5.32 | .022 | .10 | .750 | .01 | .992 |
| 95% CI | 2.5–5.7 | 2.0–6.5 | 1.7–6.1 | 5.1–7.9 | 4.8–8.6 | 4.3–8.4 |  |  |  |  |  |  |
| Total problems |  |  |  |  |  |  |  |  |  |  |  |  |
| Mean ± SD | 15.5 ± 14.7 | 16.5 ± 14.0 | 14.5 ± 15.4 | 19.7 ± 17.6 | 21.5 ± 20.3 | 17.7 ± 14.0 | 2.55 | .112 | 1.27 | .261 | .11 | .738 |
| 95% CI | 11.7–19.2 | 11.3–21.9 | 9.2–19.8 | 16.2–23.0 | 16.8–26.1 | 12.8–22.6 |  |  |  |  |  |  |

* CI indicates confidence interval. a High scores reflect healthy adjustment. b High scores reflect poor adjustment.

c NLLFS sample: adolescent girls versus boys: F1,74 = 3.39, P = .070; Achenbach normative sample: adolescent girls versus boys: F1,92 = 15.79, P = .001.   
d NLLFS sample: adolescent girls versus boys: F1,74 = .28, P = .600; Achenbach normative sample: adolescent girls versus boys: F1,92 = 11.26, P = .001.

Appendix C

**TABLE 3**

CBCL Scores and Mothers' Reports of Homophobia Experienced by Adolescents

| Parameter | Mothers' Reports of Homophobia Experienced by Adolescent Offspring | | | |
| --- | --- | --- | --- | --- |
| Yes | No | F | *P* |
| Competence scales |  |  |  |  |
| Activities |  |  |  |  |
| Mean ± SD | 11.2 ± 2.1 | 10.8 ± 2.9 | .18 | .676 |
| 95% CI | 9.6–12.7 | 10.0–11.6 |  |  |
| Social |  |  |  |  |
| Mean ± SD | 10.0 ± 1.2 | 10.2 ± 2.5 | .06 | .812 |
| 95% CI | 8.8–11.3 | 9.6–10.9 |  | SD is Standard Deviation  CI is Confidence Interval  F ANOVA values signify difference  if there is no variance the F value should be close to 1  P values are computed from the F ratios and for the variance to be statistically significant the number needs to be less than 0.05  Look at the P column for the significant differences |
| School/academic |  |  |  |  |
| Mean ± SD | 4.8 ± 1.2 | 5.3 ± 0.8 | 2.58 | .114 |
| 95% CI | 4.3–5.3 | 5.0–5.5 |  |  |
| Total competence |  |  |  |  |
| Mean ± SD | 26.0 ± 2.8 | 26.3 ± 4.7 | .02 | .879 |
| 95% CI | 23.6–28.5 | 25.0–27.5 |  |  |
| Syndrome scales |  |  |  |  |
| Anxious/depression |  |  |  |  |
| Mean ± SD | 4.6 ± 4.7 | 2.2 ± 2.2 | 7.21 | .009 |
| 95% CI | 3.0–6.2 | 1.4–3.0 |  |  |
| Withdrawn |  |  |  |  |
| Mean ± SD | 2.5 ± 3.4 | 1.6 ± 1.7 | 1.76 | .190 |
| 95% CI | 1.3–3.7 | 0.9–2.2 |  |  |
| Somatic complaints |  |  |  |  |
| Mean ± SD | 1.9 ± 2.9 | 0.8 ± 1.3 | 3.91 | .053 |
| 95% CI | 0.9–2.8 | 0.3–1.3 |  |  |
| Social problems |  |  |  |  |
| Mean ± SD | 0.6 ± 0.8 | 0.5 ± 0.8 | .08 | .773 |
| 95% CI | 0.2–1.1 | 0.3–0.8 |  |  |
| Thought problems |  |  |  |  |
| Mean ± SD | 2.5 ± 3.0 | 0.7 ± 1.2 | 12.45 | .001 |
| 95% CI | 1.6–3.5 | 0.2–1.2 |  |  |
| Attention problems |  |  |  |  |
| Mean ± SD | 3.5 ± 3.8 | 2.3 ± 2.8 | 1.58 | .213 |
| 95% CI | 1.8–5.1 | 1.4–3.1 |  |  |
| Rule-breaking behaviour |  |  |  |  |
| Mean ± SD | 1.2 ± 1.3 | 1.4 ± 2.3 | .13 | .717 |
| 95% CI | 0.1–2.3 | 0.8–2.0 |  |  |
| Aggressive behaviour |  |  |  |  |
| Mean ± SD | 3.4 ± 4.0 | 1.8 ± 2.4 | 3.51 | .066 |
| 95% CI | 1.8–4.9 | 0.9–2.6 |  |  |
| Broadband scales |  |  |  |  |
| Internalizing |  |  |  |  |
| Mean ± SD | 8.9 ± 10.5 | 4.6 ± 4.3 | 5.27 | .025 |
| 95% CI | 5.6–12.3 | 2.8–6.3 |  |  |
| Externalizing |  |  |  |  |
| Mean ± SD | 4.5 ± 5.0 | 3.2 ± 4.3 | .97 | .329 |
| 95% CI | 2.1–7.0 | 1.9–4.5 |  |  |
| Total problems |  |  |  |  |
| Mean ± SD | 22.5 ± 21.0 | 12.4 ± 11.6 | 5.26 | .025 |
| 95% CI | 14.7–30.2 | 8.4–16.5 |  |  |