Quality of Life of Adolescents Raised from Birth by Lesbian Mothers: The US National Longitudinal Family Study

Loes van Gelderen, MSc,* Henny M. W. Bos, PhD,* Nanette Gartrell, MD,*†‡ Jo Hermanns, PhD,* Ellen C. Perrin, MD§

ABSTRACT: Objective: To compare the quality of life (QoL), a measure of psychological well-being, of adolescents reared in lesbian-mother families with that of a matched comparison group of adolescents with heterosexual parents. The adolescents in the comparison group were derived from a representative sample of adolescents in Washington state. The second aim of the study was to assess among teens with lesbian mothers whether donor status, maternal relationship continuity, and self-reported stigmatization are associated with QoL. Methods: In 1986, prospective lesbian mothers were recruited in Boston, Washington, DC, and San Francisco. Currently, 93% of the National Longitudinal Lesbian Family Study (NLLFS) families are still participating in the study. This report is based on an online questionnaire completed by 78 NLLFS adolescent offspring-39 girls and 39 boys. Six items of the Youth Quality of Life Instrument were used to assess QoL. Also, the NLLFS adolescents were asked whether they had experienced stigmatization, and if so, to describe these experiences (e.g., teasing and ridicule). Mothers were queried about donor status and maternal relationship continuity. Results: The results revealed that the NLLFS adolescents rated their QoL comparably to their counterparts in heterosexual-parent families. Donor status, maternal relationship continuity, and experienced stigmatization were not related to QoL. Conclusion: Adolescent offspring in planned lesbian families do not show differences in QoL when compared with a matched group of adolescents reared in heterosexual families. By investigating QoL, this study provides insight into positive aspects of mental health of adolescents with lesbian mothers.

(J Dev Behav Pediatr 33:000-000, 2012) Index terms: adolescents, lesbian families, quality of life, stigmatization.

n 2006, *Pediatrics* published a special article describing the implications of relationship security on lesbian and gay couples and their children.¹ This review cites the growing body of empirical data demonstrating that children of lesbian and heterosexual parents are comparable in psychological adjustment. These results contradict cultural presumptions that children reared by samesex parents will demonstrate behavioral and emotional problems and abnormal psychosexual development.² However, the studies on which the above-mentioned review was based focused on younger children, and their findings may not necessarily be generalizable to adolescents.² During adolescence, the beliefs and attitudes of individuals outside the family, particularly peers, become increasingly important.³ The adolescent

ilies or assessed psychological adjustment without focusing on problem behavior.

Various researchers have argued that the mental health of youths consists not only of the absence of dysfunction but also of optimal functioning in psychological domains (e.g., Ref. 5). This is in line with the positive psychology paradigm, which looks more at intrapsychic strengths than deficits. 6 To obtain insight into

the mental health of adolescents in planned lesbian fam-

ilies, it is important to study not only the absence of

life phase is also a period in which the offspring of

lesbian and gay parents develop a keener awareness of

their minority status.^{3,4} Few studies have documented

the life experiences of adolescents in lesbian-parent fam-

problem behavior but also positive psychological adjustment (e.g., Ref. 7).

The current study focuses on the quality of life (QoL) of adolescents in planned lesbian families. QoL is considered a positive aspect of psychological adjustment. It refers to one's "perceptions of position in life in the context of the culture and value systems in which [she or he] lives, and in relation to [her or his] goals, expectations, standards, and concerns." QoL plays an important role in adolescents' overall adaptation and has been found to be related to affective, cognitive, and behavioral functioning in children and youths. 10 QoL

From the *Research Institute of Child Development and Education, University of Amsterdam, Amsterdam, The Netherlands; †Center of Excellence in Women's Health, University of California, San Francisco, CA; ‡Williams Institute, UCLA School of Law, Los Angeles, CA; \$Floating Hospital, Tufts Medical Center, Boston, MA.

Received July 2011; accepted September 2011.

Disclosure: The authors declare no conflict of interest.

Address for reprints: Loes van Gelderen, MSc, Research Institute of Child Development and Education, University of Amsterdam, PO Box 94208, 1090 GE Amsterdam, The Netherlands; e-mail: L.vanGelderen@uva.nl.

Copyright © 2011 Lippincott Williams & Wilkins

Vol. 33, No. 1, January 2012 www.jdbp.org | 1 Copyright © Lippincott Williams & Wilkins. Unauthorized reproduction of this article is prohibited.

may also enhance or delay recovery after painful experiences.11

Although there are no prior studies of the QoL of adolescents in planned lesbian families, several researchers have reported on the psychological adjustment of lesbian mothers' offspring. One of the first such studies was conducted by Tasker and Golombok in the United Kingdom.^{4,12} Twenty-five young adults born in the context of a heterosexual relationship and reared by their lesbian mothers following divorce were compared on measures of anxiety and depression with 21 young adults reared by divorced, heterosexual single mothers. The adult offspring of lesbian mothers showed no differences from the young adults in the control group.

The participants in the above-mentioned study experienced the coming out of their mothers, as well as parental discord and divorce, which distinguishes them from youths who have been reared since birth in what are known as planned lesbian families. Golombok and Badger¹³ compared the psychological adjustment of young British adults in 20 planned lesbian families, 27 heterosexual single-mother families, and 36 heterosexual 2-parent families. The researchers obtained information about the psychological adjustment of the young adults by using self-reports about psychological disorders (e.g., depression) and self-esteem. The mean age of the offspring was 19 years. The 3 groups did not differ on measures of the young adults' psychological adjustment. Higher levels of self-esteem were found for adolescents in the female-headed families (heterosexual and lesbian) than among their counterparts in traditional families.

Wainright et al¹⁴ have published several studies that were based on the National Longitudinal Study of Adolescent Health (Add Health), for which data collection took place in 1994 and 1995. The studies by Wainright et al are unique in that the participants were drawn from a stratified random sample of American high schools. The Add Health survey did not collect data on the mothers' sexual orientation or on the parental constellation at the time of their offspring's birth. In these studies, 44 adolescents parented by female couples were compared with 44 adolescents parented by fathers and mothers. These 2 groups of teenagers were matched on sex, age, ethnic background, adoption status, learning disability status, family income, and parental educational attainment. Adolescents with 2 female parents were not significantly different in personal adjustment (e.g., anxiety, depression, and self-esteem) from the matched group of adolescents living with opposite-sex parents.14

The above-mentioned studies investigated whether adolescents in lesbian families differ from adolescents in other family types. Gershon et al15 were the first researchers to examine differences in psychological adjustment within a group of adolescents with lesbian mothers. They investigated whether the experience of stigmatization—defined by the researchers as an outcome of negative societal attitudes toward those who are different from culturally agreed-upon norms-was related to lower self-esteem. Gershon et al15 interviewed 76 adolescents (aged between 11 and 18 years old) with lesbian mothers; most of these adolescents had been born in the context of their mothers' previous heterosexual relationships. Their results showed a significant negative relationship between homophobic stigmatization and self-esteem in adolescents with lesbian mothers.

Gartrell and Bos16 recently published a study based on data from the US National Longitudinal Lesbian Family Study (NLLFS), which was initiated in 1986 to examine the social, psychological, and emotional development of children who were conceived by donor insemination and born into planned lesbian families. Data for the NLLFS were collected at 5 time intervals, namely during insemination or pregnancy (T1) and when the children were 2 (T2), 5 (T3), 10, (T4), and 17 (T5) years old. Gartrell and Bos16 investigated whether the psychological adjustment of the NLLFS adolescents was different from that of adolescents in a normative comparison sample. The mothers of the adolescents were queried about the problem behavior of their offspring. The results showed that the 17-year-old adolescents with lesbian mothers were rated higher in social, school/academic, and total competence and lower in social problems, rule-breaking, aggressive behavior, and externalizing problem behavior than their age-matched counterparts in the normative sample. The researchers also found that within the group of NLLFS adolescents, there were no differences in problem behavior between 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.¹⁶

The current study also used self-report data from the fifth wave of the NLLFS. The general aim is to expand our understanding of psychological adjustment in adolescents from planned lesbian families by focusing not on clinical symptomatology or problem behavior but on a more positive aspect of psychological adjustment, namely adolescent QoL. The specific aims of the study are (1) to compare the QoL of the NLLFS adolescents with that of a group of adolescents with heterosexual parents who were matched with regard to gender, age, ethnicity, and parental education and (2) to assess within the NLLFS group whether donor status, maternal relationship continuity, and self-reported stigmatization are associated with QoL.

METHODS

Procedure

Between 1986 and 1992, families were recruited for the US National Longitudinal Lesbian Family Study (NLLFS) via announcements at lesbian events and in women's bookstores and lesbian-oriented newspapers (e.g., Ref. 16). Lesbians who were planning to become pregnant, or were already pregnant, were eligible for participation. Prospective participants were asked to contact the researchers by telephone. During these calls,

the researchers discussed the nature of the study. All callers became study participants. The total cohort comprised 84 families. At the fifth time interval (T5), 78 families were still participating, constituting a retention rate of 93%. Approval for the NLLFS was granted by the Institutional Review Board at the California Pacific Medical Center in San Francisco.

Participants

Since 1 NLLFS family did not return all parts of the survey instruments, the total N used for the T5 analyses was 77 families with 78 index adolescents (1 set of twins), evenly divided between the 2 sexes. The mean age of the adolescents was 17.05 years (SD = 0.36; range, 16-18 y). Sixty-eight (87%) of the adolescents identified as white, and 73 adolescents (93.6%) had a mother with at least a college education (Table 1).

At T5, the birthmothers' age range was 43 to 60 years (mean = 52.0, SD = 3.89); the comothers ranged in age from 43 to 66 years (mean = 52.9, SD = 5.2). Although all participating families originally resided within 200 miles of Boston, Washington, DC, or San Francisco (e.g., Ref. 15), many have since relocated. At T5, the families were residing in large urban communities, mid-sized towns, and rural areas in northeastern (47%), southern (9%), midwestern (1%), and western (43%) regions of the United States.

Measurements

Once the NLLFS mothers had consented and their adolescent offspring had assented, the adolescents were asked to complete a confidential, password-protected questionnaire on the study's website. All data for the current study were collected at T5.

Quality of Life

Six items of the Youth Quality of Life Instrument— Research Version¹⁷ were used to assess quality of life (QoL). On 5 of these items ("I feel I'm getting along with my parents/guardians," "I look forward to the future," "I feel alone in my life," "I feel good about myself," and "I'm satisfied with the way my life is now"), answers range from 0 (not at all) to 10 (completely). The answer categories of the sixth item ("Compared with others my age I feel my life is.") range from 0 (worse than others) to 10 (much better than others). The correlations between the Youth Quality of Life Instrument—Research Version items in this study ranged from -0.06 to 0.60.

Donor Status

The mothers were asked whether they had used a known, an as yet unknown, or a permanently unknown

Maternal Relationship Continuity

Information about the maternal relationship continuity was obtained by asking each mother whether she was still with the partner she had been with when her child was born.

Stigmatization

Experiences of stigmatization were assessed by asking the NLLFS adolescents "Have you been treated unfairly because you have a lesbian mom?" (1 = no and 2 = yes). Adolescents who answered affirmatively were asked to specify whether they were (1) teased or ridiculed, (2) stereotyped, and/or (3) excluded from activities. They were also asked to indicate by whom they were treated unfairly: classmates, teachers, family members, other adults (indicate who), and/or other people (indicate who).

Comparison Group

We constructed a comparison group of adolescents reared by opposite-sex parents using data from the Washington Healthy Youth Survey (HYS),18 which is a representative statewide sample. A total of 32,531 students at 203 randomly selected schools participated in the HYS.

Of the 32,531 students, those with missing values on any of the QoL items were deleted, resulting in a sample of 7049 students. This group of 7049 HYS adolescents was used for 1:1 matching with the NLLFS adolescents on gender, age, ethnicity, and parental education (highest degree held by the parents). Each first matching on all these variables was used as a comparison adolescent for the target NLLFS adolescent. This resulted in a sample of 78 HYS adolescents (39 girls and 39 boys; mean age = 17.05) who had been raised by a father and a mother. The demographic characteristics of the NLLFS and HYS samples are presented in Table 1. As shown in this table, our 1:1 matching was done successfully; there were no differences in gender, age, ethnicity, and parental education between the NLLFS sample and the HYS sample.

Analyses

To see whether the selected HYS adolescents differed from the total HYS sample on any QoL variable, we also

Table 1. Demographic Characteristics of the NLLFS Adolescents and the Washington State Adolescents

	NLLFS Sample	Washington State Sample	NLLFS vs Washington State	
Girls, n (%)	39 (50)	39 (50)	$\chi^2 < 1$, ns	
Age (y), mean (SD)	17.05 (0.36)	17.05 (0.36)	t < 1, ns	
With college-educated parents, n (%) ^a	73 (93.6)	73 (93.6)	$\chi^2 < 1$, ns	
Nonwhite ethnic background, n (%)	10 (12.8)	10 (12.8)	$\chi^2 < 1$, ns	

NLLFS, National Longitudinal Lesbian Family Study; ns, not significant. ^aBased on the parent with the highest educational level.

performed a multivariate analysis of covariance with the 6 QoL items as dependent variables, and sex, age, educational background, and ethnic background as covariates. There were no differences between the selected and total HYS samples on any of the QoL items, Wilks' $\Lambda = 1.00$, F(6,7036) = 1.98, p = .065.

To compare QoL between the NLLFS and the HYS samples, a 2 (sample: 1 = NLLFS and 2 = HYS) by 2 (gender: 1 = girl and 2 = boy) multivariate analysis of variance (MANOVAs) were conducted with the 6 QoL items as dependent variables.

To examine possible differences in adolescent QoL associated with donor status, maternal relationship continuity, and experienced stigmatization, we conducted 3 separate analyses: (1) a 3 (donor: 1 = unknown, 2 = as yet unknown donor, and 3 = permanently unknown donor) by 2 (gender: 1 = girl and 2 = boy) MANOVA, (2) a 2 (maternal relationship continuity: 1 = yes and 2 = no) by 2 (gender: 1 = girl and 2 = boy) MANOVA, and (3) a 2 (stigmatization: 1 = no and 2 = yes) by 2 (gender: 1 = girl and 2 = boy) MANOVA.

Before conducting the above-mentioned MANOVAs, a priori power analyses were performed with G*Power 3.0 to determine whether the sample size was sufficient to detect significant differences. 19 These analyses were performed both for the comparisons between the NLLFS and the HYS and for the comparisons within the NLLFS. Results revealed that our sample sizes were sufficient to

detect small to medium effect sizes.²⁰ To adjust for Type 1 errors, we set the alpha in all the MANOVAs that were conducted (for the NLLFS vs HYS comparison and for the within the NLLFS comparisons) at p < .01.

RESULTS

Comparison Between the NLLFS and the HYS Sample

The mean scores on the items that measure quality of life (QoL) are shown in Table 2 for the US National Longitudinal Lesbian Family Study (NLLFS) and Healthy Youth Survey (HYS) samples. The multivariate analysis of variance (MANOVA) showed no significant main effect for group, Wilks' $\Lambda=0.93$, F(6,143)=1.91, p=.083, no main effect for gender, Wilks' $\Lambda=0.89$, F(6,143)=2.87, p=.011, and no main effect for the interaction between group and gender, Wilks' $\Lambda=0.90$, F(6,143)=2.79, p=.014. The adolescent girls and boys in both samples did not differ on any QoL item (Table 2).

Comparisons Within the NLLFS Sample

This section concerns the relationship between donor status (known, as yet unknown, and permanently unknown donors), maternal relationship continuity (offspring whose mothers were still together vs offspring whose mothers had separated), and stigmatization (yes vs no) on the QoL scores of the NLLFS adolescents.

Table 2. Quality of Life Self-Report for NLLFS and Washington State Samples

Variable	NLLFS Adolescent Sample			Washington State Sample		
	Total	Girls	Boys	Total	Girls	Boys
I feel I am getting along with my parents/guardians	a					
Mean ± SD	8.11 ± 1.96	8.00 ± 2.20	8.23 ± 1.68	7.65 ± 2.65	7.49 ± 2.51	7.82 ± 2.81
95% CI	7.57-8.66	7.37-8.63	7.56-8.89	7.13-8.18	6.64-8.34	6.97-8.67
I look forward to the future ^a						
Mean ± SD	8.72 ± 1.72	8.44 ± 1.94	9.03-1.40	9.01 ± 1.58	8.92 ± 1.77	9.10 ± 1.39
95% CI	8.35-9.11	7.89-8.98	8.45-9.61	8.64-9.38	8.42-9.43	8.60-9.61
I feel alone in my life ^a						
Mean ± SD	$3.12 \pm .2.81$	3.59 ± 2.86	2.60 ± 2.69	2.76 ± 3.36	2.74 ± 3.02	2.77 ± 3.72
95% CI	2.38-3.81	2.70-4.48	1.66-3.54	2.06-3.45	1.66-3.82	1.69-3.84
I feel good about myself ^a						
Mean ± SD	7.08 ± 2.02	6.62 ± 2.01	7.60 ± 1.93	7.45 ± 2.41	6.64 ± 2.47	8.26 ± 2.09
95% CI	6.62-7.60	5.99-7.24	6.94-8.26	6.97-7.93	5.91-7.37	7.53-8.99
I am satisfied with the way my life is now ^a						
Mean ± SD	6.97 ± 2.40	7.00 ± 2.32	6.94 ± 2.53	7.28 ± 2.41	6.59 ± 2.76	7.97 ± 1.78
95% CI	6.43-7.52	6.23-7.77	6.13-7.76	6.75-7.81	5.85-7.33	7.23-8.72
Compared with others my age, I feel my life is worse or much better than others ^b						
Mean ± SD	7.72 ± 1.94	8.08 ± 1.84	7.31 ± 2.00	7.01 ± 2.58	6.51 ± 2.60	7.51 ± 2.49
95% CI	7.18-8.22	7.47-8.69	6.69-7.96	6.51-7.52	5.70-7.33	6.70-8.33

NLLFS, National Longitudinal Lesbian Family Study; CI, confidence interval. Cronbach's α was set at 0.01 to account for the multiple analyses. As such, there were no significant differences. ^aHigh scores reflect more agreement: 0 = not at all, 10 = completely. ^bHigh scores reflect more positivity: 0 = worse than others, 10 = mucb better than others.

Donor Status and QoL

Twenty-eight adolescents (36%) had been conceived using a known sperm donor and 50 (64%) using an unknown donor. Of the unknown donors, 66% (n = 31) were permanently unknown, while 38% (n = 19) could be identified when the adolescent reached the age of 18 years.

The MANOVA showed no main effect for donor status: There were no differences between the QoL scores of NLLFS adolescents conceived by known, as yet unknown, and permanently unknown donors, Wilks' $\Lambda=0.74$, F(12,126)=1.69, p=.076. In addition, there were no differences between girls and boys, Wilks' $\Lambda=0.78$, F(6,63)=3.00, p=.012. The interaction between donor status and gender, Wilks' $\Lambda=0.70$, F(12,126)=2.06, p=.024, was also not significant.

Maternal Relationship Continuity and QoL

At the time of the index adolescents' birth, the sample was composed of 62 2-mother and 11 single-mother families. By T5, 55.6% (n=40) of the mothers who had been coparents when the index offspring were born had separated.

The MANOVA with "maternal relationship continuity" as independent variable showed that NLLFS adolescents whose mothers were still together and those whose mothers had separated did not differ on reported QoL, Wilks' $\Lambda=0.82$, F(6,60)=2.17, p=.059, nor was there a significant main effect for the interaction between maternal relationship continuity and gender, Wilks' $\Lambda=0.78$, F(6,60)=2.81, p=.018. However, there was a significant main effect for gender, Wilks' $\Lambda=0.68$, F(6,60)=4.64, p=.001. Additional ANOVAs revealed that the NLLFS girls scored lower on the item "I feel good about myself" (mean = 6.62, SD = 2.01) than the NLLFS boys (mean = 7.60, SD = 1.93).

Stigmatization and QoL

Forty-one percent of the adolescents reported having been treated unfairly in relation to having a lesbian mother. When asked what that stigmatization involved, 29 reported being teased or ridiculed, 28 had been stereotyped as "different," and 24 had been excluded from activities because of their lesbian mothers (note that the answers were not mutually exclusive). The stigmatization was perpetrated by classmates in 28 instances, by teachers in 22 instances, by extended family members in 21 instances, by other adults in 7 instances (e.g., friends' parents or employers), and by other people in 3 instances.

A MANOVA with the QoL items as dependent variables showed no significant main effect for stigmatization, Wilks' $\Lambda = 0.97$, F(6,64) = 0.283, p = .943, no main effect for gender, Wilks' $\Lambda = 0.78$, F(6,64) = 2.97, p = .013, and no significant main effect for the interaction between stigmatization and gender, Wilks' $\Lambda = 0.93$, F(6,64) = .846, p = .539.

DISCUSSION

Most studies on the psychological adjustment of adolescents in planned lesbian families have focused on the prevalence of problems in adjustment, such as depression and anxiety. In this study, we assess a more positive aspect of psychological adjustment, namely quality of life (QoL). The aim of the study was to compare the QoL of adolescents in lesbian-parented families with that of a matched group with heterosexual parents and to see whether variability within the US National Longitudinal Lesbian Family Study (NLLFS) group was related to differences in QoL.

Our results revealed that the NLLFS adolescents rated themselves comparably to their counterparts in opposite-sex parent families on QoL. These positive reports about the NLLFS adolescents' QoL are in keeping with the findings of previous studies on the psychological adjustment of adolescents with lesbian mothers^{13,14,16} that suggest that adolescents living with lesbian parents function as well as, or sometimes better than, those reared by opposite-sex parents.

We found no relationship between QoL and donor status for the NLLFS girls and boys. This is in line with the results of a previous report based on behavioral checklists completed by the NLLFS mothers in which it was found that donor status was unrelated to problem behavior in the adolescent girls or boys. ¹⁶

Of the NLLFS mothers, 55.6% had separated by T5, a rate that is significantly higher than the parental divorce rate (36.3%) of the 17-year-old adolescents in the sixth cycle of the US National Survey of Family Growth (see Ref. 21). However, there was no association between the mothers' relationship continuity and the QoL of the NLLFS adolescents. Earlier NLLFS reports also showed that there was no relation between mothers' relationship continuity and the problem behavior of NLLFS adolescents.16 In contrast, the offspring of divorced heterosexual parents have been shown to score lower on measures of emotional, academic, social, and behavioral adjustment (e.g., Ref. 22). That the NLLFS adolescents are doing well despite having experienced their mothers' separation might be due to the fact that nearly three-quarters of the NLLFS separated-parent families share custody, whereas 65% of divorced American heterosexual mothers retain sole physical and legal custody of their children.²³ Shared child rearing after parental relationship dissolution has been associated with more favorable outcomes.24

Nearly half of the NLLFS adolescents reported that they had been treated unfairly as a result of having a lesbian mother. They reported a variety of forms of stigmatization, such as being teased or ridiculed, excluded from activities, or stereotyped as being different. Classmates were most often mentioned as the source of these experiences, suggesting a need for schools to educate students in the appreciation of diversity and to enforce a zero-tolerance policy on bullying and stigma-

tization. Such changes to the educational system would benefit youths from all family types (e.g., Ref. 25).

Other studies have shown positive associations between stigmatization and problem behavior. Gershon et al15 found that stigmatized adolescents had lower selfesteem than nonstigmatized adolescents. When the psychological adjustment of the NLLFS offspring was assessed when they were 10 years old, experiences of stigmatization reported by the children themselves were also associated with more parental reports of internalizing, externalizing, and problem behavior.26 In the current study, experiences of stigmatization were not associated with a diminished QoL. The relationship between stigmatization and QoL may have been mediated by the adolescents' close, positive relationships with their lesbian mothers. In a previous report, favorable relationships with their mothers was associated with a reduction in problem behavior in NLLFS adolescents who had been stigmatized.²⁷ In addition, many mothers may teach their children from an early age how to predict and cope with possible stigma and discrimination and provide them with options for interpreting and responding to such stresses. Others have found that positive daily experiences (e.g., hobbies and frequent opportunities to help others) were significantly related to life satisfaction, although positive and negative major events and daily negative events were not significantly related to selfreported life satisfaction.28

A strength of the current study is that the data were obtained through self-reports from adolescents whose families have been followed prospectively and longitudinally since the mothers were inseminating or pregnant with them. The QoL instrument we used adds a new dimension to assessments of the psychological well-being of adolescents in planned lesbian families, by focusing more broadly on well-being rather than on problem behavior.

This study has several limitations related to its samples. The first is that the NLLFS adolescents live in multiple states, while all Healthy Youth Survey (HYS) adolescents live in the state of Washington. Second, no data were obtained from the HYS adolescents on their family socioeconomic status or parental relationship continuity. Therefore, it was not possible to control for these factors in the analyses. However, we did match both samples on adolescents' gender, age, ethnicity, and parental education. A third limitation is that although the NLLFS sample is the largest sample of adolescents from planned lesbian families whose mothers have participated in a prospective, longitudinal study since before these offspring were born, the study could have been strengthened by following a matched cohort of offspring in heterosexual parent families over the same time interval. Fourth, a convenience sample was used for the NLLFS, which is unlikely to be representative of lesbian parents. However, one should keep in mind that the targeted population was largely hidden in the 1980s, due to a long history of discrimination against lesbian and gay

people, and the possibility of recruiting a representative sample of prospective lesbian mothers was even more unrealistic than it is today.²⁹ A fifth limitation is that most of the NLLFS and HYS parents are college graduates and therefore more educated than the US population as a whole.

The current study is based on quantitative findings. Future studies would benefit from the use of qualitative research methods to investigate the nuances of life satisfaction, hopes for the future, and bullying/stigmatization among adolescents who are raised in lesbian-parented households.

In conclusion, the reported QoL for adolescent offspring in planned lesbian families is similar to that reported by the matched adolescents in heterosexual-parent families. This finding supports earlier evidence that adolescents reared by lesbian mothers from birth do not manifest more adjustment difficulties (e.g., depression, anxiety, and disruptive behaviors) than those reared by heterosexual parents.

REFERENCES

- Pawelski JG, Perrin EC, Foy JM, et al. The effects of marriage, civil union, and domestic partnerships laws on the health and well-being of children. *Pediatrics*. 2006;118:349-364.
- Perrin EC; Committee on Psychosocial Aspects of Child and Family Health. Technical report: coparent or second-parent adoption by same-sex parents. *Pediatrics*. 2002;109:341–344.
- Rivers I, Poteat VP, Noret N. Victimization, social support, and psychosocial functioning among children of same-sex and opposite-sex couples in the United Kingdom. *Dev Psychol.* 2008; 44:127-134
- Golombok S, Tasker FL. Do parents influence the sexual orientation of their children? Findings from a longitudinal study of lesbian families. *Dev Psychol.* 1996;32:3–11.
- Kazdin AE. Adolescent mental health: prevention and treatment programs. Am Psychol. 1993;48:127-141.
- Seligman MEP, Csikszentmihalyi M. Positive psychology: an introduction. Am Psychol. 2000;55:5-14.
- Antaramian SP, Scott Huebner E, Hills KJ, Valois RF. A dualfactor model of mental health: toward a more comprehensive understanding of youth functioning. *Am J Orthopsychiatry*. 2010:80:462-472.
- Edwards TC, Huebner CE, Connell FA, Patrick DL. Adolescent quality of life, part 1: conceptual and measurement model. J Adolesc. 2002;25:275–286.
- Lewis AD, Huebner ES, Malone PS, et al. Life satisfaction and student engagement in adolescents. *J Youth Adolesc.* 2011;40: 249-262.
- Huebner ES. Research on assessment of life satisfaction or children and adolescents. Soc Indic Res. 2004;66:3-33.
- Huebner ES, Suldo SM, Smith LC, McKnight CG. Life satisfaction in children and youth: empirical foundations and implications for school psychologists. *J School Psychol.* 2004;41:81–93.
- Tasker FL, Golombok S. Growing up in a Lesbian Family: Effects on Child Development. New York, NY: Guilford Press; 1997.
- Golombok S, Badger S. Children raised in mother-headed families from infancy: a follow-up of children of lesbian and single heterosexual mothers, at early adulthood. *Hum Reprod.* 2010;25:150-157.
- Wainright JL, Russel ST, Patterson CJ. Psychosocial adjustment, school outcomes, and romantic relationships of adolescents with same-sex parents. *Child Dev.* 2004;75:1886-1898.

- Gershon TD, Tschann JM, Jemerin JM. Stigmatization, selfesteem, and coping among the adolescent children of lesbian mothers. *J Adolesc Health*. 1999;24:437–445.
- Gartrell NK, Bos HMW. US National Longitudinal Lesbian Family Study: psychological adjustment of 17-year-old adolescents. *Pediatrics*. 2010;126:28 - 36.
- Patrick DL, Edwards TC, Topolski TD. Adolescent quality of life, part II: initial validation of a new instrument. *J Adolesc.* 2002;25: 287–300.
- 18. Washington State Department of Health, Office of the Superintendent of Public Instruction, Department of Social and Health Services, Department of Commerce, Family Policy Council and Liquor Control Board. Healthy youth survey: 2008 analytic report. Available at: https://fortress.wa.gov/doh/hys. Accessed February 9, 2011.
- 19. Faul F, Erdfelder E, Lang A-G, et al. G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behav Res Methods*. 2007;39:175–191.
- Cohen J. Statistical Power Analysis for the Behavioral Sciences.
 2nd ed. Hillsdale, NJ: Erlbaum; 1988.
- Gartrell NK, Bos HMW, Goldberg N. Adolescents of the U.S. National Longitudinal Lesbian Family Study: sexual orientation, sexual behavior, and sexual risk exposure. *Arch Sex Behav.* 2011;40:1199-1209.

- 22. Amato PR. The consequences of divorce for adults and children. *J Marriage Fam.* 2000;62:1269-1287.
- Emery RE, Otto RK, O'Donohue WT. A critical assessment of child custody evaluations: limited science and a flawed system. *Psychol Sci Public Interest*. 2005;6:1–29.
- Emery RE. Renegotiating Family Relationships: Divorce, Child Custody, and Mediation. 2nd ed. New York: Guilford; 1994.
- Sandfort TGM, Bos HMW, Collier KL, Metselaar M. School environment and the mental health of sexual minority youths: a study among Dutch young adolescents. *Am J Public Health*. 2010;100:1696-1700.
- Bos HMW, Gartrell NK, Peyser H, van Balen F. The USA National Longitudinal Lesbian Family Study (NLLFS): homophobia, psychological adjustment, and protective factors. *J Lesbian Stud.* 2008;12:455-471.
- Bos H, Gartrell N. Adolescents of the USA National Longitudinal Lesbian Family Study: can family characteristics counteract the negative effects of stigmatization? Fam Process. 2010;49:559–572.
- McCullough G, Huebner ES, Laughlin JE. Life events, selfconcepts, and adolescents' positive subjective well-being. *Psychol Sch.* 2000;37:281–290.
- Golombok S, Perry B, Burston A, et al. Children with lesbian parents: a community study. *Dev Psychol.* 2003;39:20-33.

Vol. 33, No. 1, January 2012 © 2011 Lippincott Williams & Wilkins **7**