

## CORRESPONDENCE



## National Longitudinal Lesbian Family Study — Mental Health of Adult Offspring

**TO THE EDITOR:** The peak incidence of many psychiatric disorders occurs during emerging adulthood.<sup>1</sup> The ongoing, community-based National Longitudinal Lesbian Family Study (NLLFS), which has a 92% retention rate, has followed a cohort of offspring with sexual-minority parents.<sup>2</sup> This longitudinal study (from conception into adulthood) provides the opportunity to examine mental health status in these adult offspring.

During the first epoch of the study (1986–1992), we recruited 154 prospective mothers from 84 planned lesbian families conceiving through donor insemination in Boston, Washington, D.C., and San Francisco.<sup>2</sup> All the callers who responded to study announcements were enrolled. In the sixth epoch, with approval from the institutional review board at Sutter Health (a not-for-profit health system in Northern California) and after obtaining written informed consent from the participants, we administered the standardized Achenbach Adult Self-Report through a protected online software program to assess the psychological health of 77 index offspring (who were 25 years old, 49.4% female, 90.9% white, and 87.0% with a college degree or higher), including one set of twins. The Adult Self-Report is a validated, self-rating form for measuring adaptive functioning and behavioral or emotional problems among adults between the ages of 18 and 59 years.<sup>3</sup> The NLLFS offspring sample was matched with the Achenbach normative sample of persons in the United States<sup>3</sup> with respect to age, sex, race or ethnic background, and educational level. Case-control matching (random sampling without replacement) was used for all Adult Self-Report demographic variables.

A comparison of the NLLFS offspring sample and the matched Achenbach normative sample

showed no significant between-group differences with respect to adaptive functioning (family, friends, spouse or partner relationships, and educational or job performance), behavioral or emotional problems, scores on mental health diagnostic scales, or the percentage of participants with a score in the borderline or clinical range (Table 1, and Table S2 in the Supplementary Appendix, available with the full text of this letter at NEJM.org).

A limitation of our study is that because of the sample size, the effect sizes and statistical power in the post hoc analyses were low. Thus, the results should be interpreted with caution. Furthermore, the study was conducted with a nonrandom sample. These findings need replication in a larger population that includes participants with more diversity with respect to race, ethnic background, education, income, gender identity, and sexual orientation, with parents in more diverse sexual minorities (i.e., lesbian, gay, bisexual, and transgender). In addition, such a study would ideally be conducted in a longitudinal population with multiple informants.

In conclusion, in a large, prospective study involving 25-year-olds with sexual-minority parents, there were no significant differences in measures of mental health between those who were conceived through donor insemination and enrolled

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**Table 1. Adult Self-Report for the NLLFS Offspring and Achenbach Normative Samples.\***

Variable	NLLFS Offspring Sample (N=77)		Achenbach Normative Sample (N=77)		P Value†
	mean	95% CI	mean	95% CI	
Adaptive functioning scales‡					
Family	1.90±0.18	1.55–2.26	1.65±0.18	1.29–2.01	0.91
Friends	9.80±0.26	9.28–10.31	9.00±0.26	8.48–9.51	0.11
Spouse or partner	5.49±0.53	4.42–6.55	5.52±0.34	4.85–6.19	0.62
Education	4.35±0.33	3.68–5.03	4.20±0.43	3.34–5.06	0.59
Job	2.46±0.22	2.03–2.89	2.09±0.24	1.63–2.56	0.98
Empirical small-band scales§					
Anxious or depressed	8.27±0.65	6.99–9.55	5.65±0.65	4.38–6.93	0.01
Withdrawn	2.68±0.23	2.22–3.13	1.85±0.23	1.39–2.30	0.09
Somatic symptoms	2.73±0.33	2.09–3.37	2.79±0.33	2.15–3.43	0.65
Thought problems	2.40±0.26	1.88–2.92	2.20±0.26	1.68–2.72	0.44
Attention problems	7.58±0.59	6.42–8.74	5.77±0.59	4.61–6.93	0.06
Aggressive behavior	4.12±0.50	3.14–5.11	4.48±0.50	3.49–5.46	0.83
Rule-breaking behavior	3.13±0.31	2.51–3.75	2.53±0.31	1.91–3.15	0.13
Intrusive behavior	2.20±0.26	1.68–2.72	2.74±0.26	2.22–3.26	0.12
Empirical broad-band scales§					
Internalizing	13.67±0.98	11.74–15.60	10.29±0.98	8.36–12.22	0.02
Externalizing	9.46±0.84	7.80–11.12	9.75±0.84	8.09–11.41	0.91
DSM-oriented scales§					
Depressive problems	5.19±0.41	4.38–5.99	4.07±0.41	3.27–4.88	0.31
Anxiety problems	4.37±0.35	3.69–5.05	4.65±0.35	3.96–5.33	0.94
Somatic problems	1.51±0.24	1.05–1.98	1.57±0.24	1.10–2.03	0.89
Avoidant-personality problems	2.77±0.26	2.26–3.29	2.36±0.26	1.84–2.87	0.34
Attention-deficit–hyperactivity problems	5.84±0.51	4.84–6.85	5.47±0.51	4.46–6.48	0.87
Antisocial-personality problems	3.48±0.36	2.76–4.20	3.72±0.36	3.00–4.43	0.44
	no. (%)		no. (%)		
≥1 Syndrome in borderline or clinical range					
Adaptive functioning scales	7 (9.1)	0.04–0.18	14 (18.2)	0.11–0.28	0.16
Empirical small-band scales	23 (29.9)	0.21–0.41	24 (31.2)	0.22–0.42	1.00
DSM-oriented scales	18 (23.4)	0.15–0.34	21 (27.3)	0.19–0.38	0.71

\* Plus–minus values are ±SE. Participants in the National Longitudinal Lesbian Family Study (NLLFS) provided responses on the Achenbach Adult Self-Report, with the results reported according to subscale and matched with a normative population in the United States with respect to age, sex, race or ethnic background, and educational level. Additional statistical data are provided in Table S2 in the Supplementary Appendix. CI denotes confidence interval.

† A P value of less than 0.002 was considered to indicate statistical significance on the basis of a Bonferroni correction of 0.05 divided by 24 comparisons.

‡ Higher scores on the adaptive functioning scales reflect better functioning.

§ Higher scores on the empirical small-band and broad-band scales and on the scales associated with the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) reflect poorer psychological functioning.

before they were born and those in a U.S. population-based normative sample.

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Disclosure forms provided by the authors are available with the full text of this letter at NEJM.org.

1. American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5th ed. Arlington, VA: American Psychiatric Publishing, 2013.
2. Gartrell N, Bos H. US National Longitudinal Lesbian Family Study: psychological adjustment of 17-year-old adolescents. *Pediatrics* 2010;126:28-36.
3. Achenbach TM, Rescorla LA. Manual for the ASEBA adult form & profiles: for ages 18-59. Burlington: University of Vermont Research Center for Children, Youth, and Families, 2003.

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## Duty-Hour Flexibility Trial in Internal Medicine

**TO THE EDITOR:** Do duty-hour restrictions for residents improve patient care and residents' well-being? These are questions that the iCOMPARE (Individualized Comparative Effectiveness of Models Optimizing Patient Safety and Resident Education) trial involving medicine residents (April 19 issue)<sup>1</sup> and the FIRST (Flexibility in Duty Hour Requirements for Surgical Trainees) trial involving surgery residents<sup>2</sup> sought to answer. Medicine residents in programs with flexible duty-hour policies (typically synonymous with longer shifts) reported lower levels of satisfaction with educational quality and well-being than residents in programs with standard duty-hour policies, whereas surgery residents in flexible duty-hour programs reported higher levels of satisfaction with quality of patient care and skills acquisition than those in standard duty-hour programs.

As surgery residents, we believe that these findings reflect the respective biases about work hours between medicine and surgery. Arguably, the surgical culture places value on the stamina needed for long shifts, demanding operations, and lengthy residencies.

The bigger concern is that both trials assume that through duty-hour interventions, we can improve both the quality of patient care and residents' well-being. Duty-hour restrictions are not the silver bullet. Instead, how do we create a culture of competency, quality, and resilience? How do we nurture workplace relationships that encourage teamwork and stave off burnout?

Honest conversation about the culture of our work environment is the sustainable path forward.

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No potential conflict of interest relevant to this letter was reported.

1. Desai SV, Asch DA, Bellini LM, et al. Education outcomes in a duty-hour flexibility trial in internal medicine. *N Engl J Med* 2018;378:1494-508.
2. Bilimoria KY, Chung JW, Hedges LV, et al. National cluster-randomized trial of duty-hour flexibility in surgical training. *N Engl J Med* 2016;374:713-27.

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**TO THE EDITOR:** Desai et al. present data regarding the negative effects of unrestricted shift lengths on educational experience, career satisfaction, and well-being of trainees. Similar studies that have been conducted in the United Kingdom have also highlighted reduced opportunities for training and continuity of patient care with restricted and reduced duty hours but positive effects on work-life balance and enhanced supervision since the European Working Time Directive was introduced for doctors in postgraduate training in 2004.<sup>1,2</sup>

We were particularly concerned to see the high levels of burnout that are present in both groups in this trial, even in those with a better