



Published in final edited form as:

*Ann Epidemiol.* 2020 May ; 45: 1–4. doi:10.1016/j.annepidem.2020.03.009.

## Parent versus Child Report of Children’s Sexual Orientation: Associations with Psychiatric Morbidity in the Adolescent Brain Cognitive Development Study

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### Keywords

psychiatric epidemiology; development; psychopathology

### Introduction

Clear evidence now suggests that the substantial sexual orientation disparity in psychiatric morbidity begins in childhood (1). A complete psychiatric risk assessment and case formulation would therefore ascertain children’s sexual orientation. However, children might be unreliable reporters of their sexual orientation given age-related barriers to identity awareness. Parental report of their children’s sexual orientation might complement children’s own report to more completely identify this population in clinical practice and research. We drew upon a large cohort of parent-child dyads of 9- and 10-year old children (2) to first document parent-child agreement of child’s sexual orientation, and then to preliminarily establish the association between this agreement, or lack thereof, and several psychiatric disorders commonly elevated among sexual minorities starting in childhood.

### Methods

Data were drawn from the baseline assessment of the Adolescent Brain Cognitive Development Study (2016-2018), a longitudinal cohort study that approximates gender, race/

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ethnicity, and socioeconomic status of the US population (3). Sexual orientation questions were asked separately of parents/guardians and children (i.e., “Are you [your child] gay or bisexual?”). For children, possible response options were: Yes, Maybe, No, or I do not understand the question (‘unclear’). For parents, possible response options were: Yes, Maybe/don’t know, or No. From parent-child concordant or discordant responses, we created four groups:

1. ‘Concordant No’ – Parent: No; Child: No/unclear;
2. ‘Discordant, Parent Yes/Maybe’ – Parent: Yes/maybe; Child: No/unclear;
3. ‘Discordant, Parent No’ – Parent: No; Child: Yes/maybe; and,
4. ‘Concordant Yes/Maybe’ – Parent: Yes/maybe; Child: Yes/maybe.

Lifetime incidence of several psychiatric disorders was measured through parent responses to the computerized Kiddie Schedule for Affective Disorders and Schizophrenia based on *DSM-5* criteria. Statistical analyses were conducted in SAS version 9.4. Parent-child dyad groups ( $N = 11,565$  dyads) were compared in terms of psychiatric disorders using two sets of logistic regression analyses incorporating complex sample weights and family clustering. First, we examined the unadjusted association between parent-child dyad group membership and lifetime presence of each psychiatric disorder. Second, we assessed the association between parent-child dyad group and each psychiatric disorder adjusting for potential demographic confounds including child’s gender (male or female) and race/ethnicity (Asian, Black, Hispanic, Other or White) and parents’ combined annual income bracket (low [ $< \$50,000$ ], mid [ $\$50,000$ - $\$100,000$ ], high [ $> \$100,000$ ] or Don’t know/refused). The ABCD data do not include personal identifiers; thus, the Yale Human Subjects Committee deemed the study exempt from review.

## Results

### Parent-child dyadic agreement of a child’s sexual orientation.

Weighted estimates indicated that, of parent-child dyads, 91.9% were in the ‘Concordant, No’ group ( $n = 10,566$ ); 6.9% were in the ‘Discordant, Parent Yes/Maybe’ group ( $n = 856$ ); 1.0% were in the ‘Discordant, Parent No’ group ( $n = 104$ ); and 0.3% were in the ‘Concordant, Yes/Maybe’ group ( $n = 39$ ). In total, approximately 7.9% of parent-child dyads disagreed about the child’s sexual orientation.

### Parent-child dyadic agreement and associations with child psychiatric morbidity.

Parent-child concordance/discordance was associated with patterns of psychiatric morbidity in both unadjusted and adjusted analyses (see Table 1). Weighted estimates demonstrated that the ‘Concordant No’ group generally demonstrated the lowest lifetime incidence of psychiatric disorders as compared to the other three parent-child dyad groups. With one exception (Post-Traumatic Stress Disorder), lifetime incidence of all psychiatric disorders was elevated among the ‘Discordant, Parent Yes/Maybe’ group as compared to the ‘Concordant No’ group. Adjusted odds of psychiatric morbidity for the ‘Discordant, Parent Yes/Maybe’ group as compared to the ‘Concordant No’ group ranged from 1.51 (Attention-Deficit Hyperactivity Disorder; 95% CI: 1.25 – 1.82) to 2.63 (Eating Disorder; 95% CI: 1.39

– 4.68). Compared to the ‘Concordant No’ group, children in the ‘Concordant Yes/Maybe’ group experienced elevated odds of Depressive Disorder, Attention-Deficit Hyperactivity Disorder, Post-Traumatic Stress Disorder, and Conduct Disorder. Children in the ‘Discordant, Parent No’ group experienced only elevated odds of Depressive Disorder compared to those in the ‘Concordant No’ group. Notably, 62% of children in the ‘Discordant, Parent Yes/Maybe’ and 64% in the ‘Concordant Yes/Maybe’ groups met criteria for any psychiatric disorder compared to 55% of children in the ‘Discordant, Parent No’ group and 48% in the ‘Concordant No’ group (not shown in table), a pattern suggesting that a parent’s report of their child’s sexual orientation is a critical indicator of psychiatric morbidity

## Discussion

Drawing on a large sample of parents and 9- and 10-year old children approximating the demographic diversity of the US population (3), we documented that nearly eight percent of parent-child dyads disagree about the child’s sexual orientation, and that this concordance/discordance is associated with the child’s psychiatric morbidity even after adjusting for potential demographic confounds.

This study bolsters evidence suggesting that the life-course-persistent sexual orientation disparity in psychopathology starts as young as age nine. Further, this study is the first to assess parent-child concordance/discordance of a child’s sexual orientation, with results indicating that a parent’s report of their child’s sexual orientation represents a strong predictor of psychiatric morbidity. This finding suggests an important route for identifying this high-risk population in research and clinical practice.

Parents whose children are gender nonconforming – an early visible, though imperfect, indicator of later sexual minority status associated with poorer mental health (4-6) – might be more likely to report their child as being sexual minority regardless of the child’s own report. These children are perhaps particularly likely to belong to the ‘Discordant, Parent Yes/Maybe’ group, which included the largest proportion of the potentially sexual minority youth (i.e., 7% of the sample). Although small sample sizes for the ‘Concordant Yes’ and ‘Discordant, Parent No’ groups likely limited power to detect some differences, results clearly demonstrate that relying solely on a child’s report of their sexual orientation might fail to capture a sizable number of gender/sexuality-diverse children at risk of psychopathology. Pediatricians should consider routinely asking parents to report their child’s sexual orientation as part of comprehensive evaluation and care. Trainings are warranted for pediatricians to be able to provide culturally competent care to gender/sexuality-diverse children including discussing issues related to sexual orientation and gender identity with parents (7, 8). Additionally, researchers assessing sexual orientation disparities in childhood should attain reports from both parents and children when possible.

## Acknowledgements

This study was supported by the National Institute of Mental Health (NIMH), grant #R01MH107495-01A1-S1 (PI: Olinio).

Data used in the preparation of this article were obtained from the Adolescent Brain Cognitive Development (ABCD) Study (<https://abcdstudy.org>), held in the NIMH Data Archive (NDA). This is a multisite, longitudinal study designed to recruit more than 10,000 children age 9-10 and follow them over 10 years into early adulthood. The ABCD Study is supported by the National Institutes of Health and additional federal partners under award numbers U01DA041022, U01DA041028, U01DA041048, U01DA041089, U01DA041106, U01DA041117, U01DA041120, U01DA041134, U01DA041148, U01DA041156, U01DA041174, U24DA041123, U24DA041147, U01DA041093, and U01DA041025. A full list of supporters is available at <https://abcdstudy.org/federal-partners.html>. A listing of participating sites and a complete listing of the study investigators can be found at <https://abcdstudy.org/scientists/workgroups/>. ABCD consortium investigators designed and implemented the study and/or provided data but did not necessarily participate in analysis or writing of this report. This manuscript reflects the views of the authors and may not reflect the opinions or views of the NIH or ABCD consortium investigators.

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**Table 1.**

Partial results from logistic regression analyses of associations between parent-child dyad response to questions about child's sexual orientation and children's mental health disorders, Adolescent Brain Cognitive Development Study

Distribution of Parent-Child Dyads <sup>a</sup>	Presence of Mental Health Disorder <sup>±</sup>																							
	Depressive Disorder			Anxiety Disorder			Attention-Deficit Hyperactivity Disorder			Oppositional-Defiant Disorder														
Wt %	OR	95% CI	aOR	95% CI	OR	95% CI	aOR	95% CI	Wt %	OR	95% CI	aOR	95% CI	Wt %	OR	95% CI	aOR	95% CI	Wt %	OR	95% CI	aOR	95% CI	
Concordant Yes/Maybe	8.0	3.04	0.99;9.39	3.16	0.97;10.31	47.7	1.82	0.85;3.86	1.69	0.79;3.62	40.6	2.61	1.18;5.75	2.96	1.32;6.63	20.1	1.57	0.67;3.64	1.51	0.63;3.61				
Discordant, Parent No	7.8	2.96	1.19;7.38	3.11	1.25;7.77	41.4	1.41	0.89;2.22	1.39	0.87;2.22	25.1	1.28	0.76;2.15	1.39	0.83;2.34	15.2	1.11	0.62;2.00	1.13	0.63;2.01				
Discordant, Parent Yes/Maybe	5.5	2.03	1.40;2.97	2.20	1.51;3.21	45.5	1.66	1.41;1.95	1.63	1.38;1.92	28.8	1.55	1.29;1.86	1.51	1.25;1.82	21.5	1.70	1.40;2.07	1.55	1.27;1.90				
Concordant No	2.8	1	1	1	1	33.4	1	1	1	1	20.8	1	1	1	1	13.9	1	1	1	1	1	1		
Distribution of Parent-Child Dyads <sup>a</sup>	Obsessive-Compulsive Disorder						Post-Traumatic Stress Disorder						Eating Disorder						Conduct Disorder					
	Wt %	OR	95% CI	aOR	95% CI	Wt %	OR	95% CI	aOR	95% CI	Wt %	OR	95% CI	aOR	95% CI	Wt %	OR	95% CI	aOR	95% CI	Wt %	OR	95% CI	aOR
Concordant Yes/Maybe	11.0	1.18	0.44;3.21	1.21	0.43;3.41	12.8	6.80	2.34;19.78	6.74	2.09;21.81	1.2	1.43	0.19;10.68	1.72	0.22;13.42	11.1	3.75	1.15 - 12.18	4.48	1.30;15.51				
Discordant, Parent No	11.8	1.28	0.62;2.62	1.33	0.65;2.71	3.0	1.43	0.33;6.29	1.50	0.33;6.79	1.0	1.21	0.17;8.81	1.31	0.18;9.63	4.2	1.33	0.37 - 4.71	1.54	0.45;5.29				
Discordant, Parent Yes/Maybe	13.9	1.55	1.21;1.97	1.63	1.27;2.09	2.9	1.36	0.82;2.26	1.44	0.87;2.40	2.0	2.39	1.28;4.45	2.63	1.39;4.98	5.5	1.75	1.20 - 2.53	1.92	1.31;2.81				
Concordant No	9.5	1	1	1	1	2.1	1	1	1	1	0.9	1	1	1	1	3.2	1	1	1	1	1	1	1	

**Note.** Unadjusted N=11,565; Adjusted N=11,548. Estimates incorporate complex sample weights and clustering. Adjusted models include child's gender and race/ethnicity and parents' combined annual income.

Wt % = Weighted Percent; OR = Odds Ratio; aOR = Adjusted Odds Ratio; 95% CI = 95% Confidence Interval.

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Concordant Yes/Maybe = Parent Report - Yes/Maybe; Child Report - Yes/Maybe; Discordant, Parent No = Parent Report - No; Child Report - Yes/Maybe; Discordant, Parent Yes/Maybe = Parent Report - Yes/Maybe; Child Report - No/Unclear; Concordant No = Parent Report - No; Child Report - No/Unclear.

<sup>‡</sup>Mental health disorders measured by the Kiddie Schedule for Affective Disorders and Schizophrenia (KSADS) based on DSM-5 criteria. Estimates do not include DSM-5 "other specified" and "unspecified" diagnoses.