

Sex Assigned at Birth Ratio among Transgender Adolescents in the United States

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Introduction

- Several gender clinics have reported an increase in adolescents presenting for care who were assigned female sex at birth (AFAB) relative to adolescents assigned male sex at birth (AMAB).¹
- Some have argued this as evidence for “rapid-onset gender dysphoria” (ROGD), a hypothesis that AFAB youth may identify as transgender due to their unique vulnerability to social contagion.
- This reported change in the sex assigned at birth (SAAB) ratio has been used in recent legislative debates to argue for prohibition of gender-affirming medical care for transgender adolescents, which may have detrimental impacts on mental health.
- Purpose:** To examine the SAAB ratio among U.S. transgender adolescents in a larger and more representative sample than past clinic-recruited samples.

Methods

- Data were extracted from the 2017 and 2019 Youth Risk Behavior Survey across 16 states that collected gender identity data.
- Percentages were calculated to determine the proportion of transgender adolescents overall as well as by SAAB.
- SAAB ratios were calculated to compare the number of AFAB and AMAB participants who identified as transgender.
- Participants were asked, “Some people describe themselves as transgender when their sex at birth does not match the way they think or feel about their gender. Are you transgender?” Response options were:
 - “Yes, I am transgender,”
 - “No,”
 - “Not sure if I am transgender,” and
 - “Don’t know what question is asking.”
- Youth who chose “Not sure if I am transgender” and “Don’t know what question is asking” were excluded from analyses.

Results

Table 1. Numbers and Percentages of Transgender and Cisgender Adolescents by YRBS Year and Sex Assigned at Birth.

YRBS Year	2017	2019
	N (%)	
AMAB ^a adolescents		
Transgender	1,285 (2.8)	866 (1.7)
Cisgender	43,848 (97.2)	50,618 (98.3)
AFAB ^b adolescents		
Transgender	876 (1.9)	774 (1.4)
Cisgender	45,928 (98.1)	53,179 (98.6)
SAAB ^c ratio (transgender AMAB: transgender AFAB)	1.47:1	1.16:1

Table 2. Demographic and mental health characteristics.

YRBS Year	2017 ^a			2019 ^b		
	Cisgender N = 89,776	Transgender N = 2,161	p	Cisgender N = 103,797	Transgender N = 1,640	p
	N (%)			N (%)		
Sex assigned at birth			<.001			.001
Female	45,928 (51.2)	876 (40.5)		53,179 (51.2)	774 (47.2)	
Male	43,848 (48.8)	1,285 (59.5)		50,618 (48.8)	866 (52.8)	
Age			<.001			<.001
12 years old or younger	235 (0.3)	142 (6.6)		208 (0.2)	110 (6.7)	
13 years old	209 (0.2)	19 (0.9)		443 (0.4)	37 (2.3)	
14 years old	14,326 (16.0)	310 (14.4)		17,933 (17.3)	227 (13.9)	
15 years old	23,947 (26.7)	504 (23.4)		28,377 (27.4)	351 (21.5)	
16 years old	24,005 (26.8)	504 (23.4)		26,648 (25.7)	361 (22.1)	
17 years old	20,250 (22.6)	464 (21.5)		22,287 (21.5)	358 (21.9)	
18 years old or older	6,726 (7.5)	201 (9.3)		7,804 (7.5)	192 (11.7)	
Race/ethnicity			<.001			<.001
American Indian/Alaska Native	1,110 (1.3)	34 (1.7)		1,022 (1.0)	27 (1.7)	
Asian	5,097 (5.8)	94 (4.6)		6,123 (6.0)	81 (5.2)	
Black or African American	11,641 (13.3)	430 (21.2)		14,259 (14.0)	140 (9.0)	
Hispanic/Latino	9,415 (10.7)	396 (19.5)		16,500 (16.2)	408 (26.4)	
Native Hawaiian/Other Pacific Islander	1,783 (2.0)	78 (3.8)		2,131 (2.1)	52 (3.4)	
White	52,859 (60.3)	860 (42.3)		55,261 (54.4)	734 (47.4)	
Multiracial	5,767 (6.6)	140 (6.9)		6,301 (6.2)	105 (6.8)	
Bullied at school ^c	13,052 (14.5)	675 (31.2)	<.001	15,494 (14.9)	567 (34.6)	<.001
Electronically bullied ^d	13,291 (14.8)	628 (29.1)	<.001	15,089 (14.5)	573 (34.9)	<.001
Attempted suicide ^e			<.001			<.001
0 times	41,015 (94.0)	428 (67.0)		56,131 (92.7)	617 (69.2)	
1 time	1,577 (3.6)	75 (11.7)		2,649 (4.4)	111 (12.5)	
2 or 3 times	708 (1.6)	62 (9.7)		1,221 (2.0)	79 (8.9)	
4 or 5 times	138 (0.3)	13 (2.0)		241 (0.4)	23 (2.6)	
6 or more times	175 (0.4)	61 (9.5)		277 (0.5)	61 (6.8)	

Conclusions

- Using a national sample of U.S. adolescents, we found that there were more transgender AMAB than transgender AFAB adolescents in both 2017 and 2019 (**Table 1**). This contrasts with findings from prior studies that utilized smaller samples from single gender identity clinics.¹
- The SAAB ratio, still in favor of more AMAB participants for both years, shifted slightly towards AFAB participants from 2017 to 2019. Importantly, this change was due to a **reduction in the number of AMAB participants** rather than an increase in AFAB participants.
- The SAAB ratio of transgender adolescents in the U.S. does not appear to favor AFAB adolescents and should not be used to argue against the provision of gender-affirming medical care for transgender adolescents.

Limitations

- All participants included in this study lived in states that administered the YRBS gender identity question, thus transgender youth in other states are not represented.
- Future studies should use the two-step method of ascertaining gender identity.³

References/Acknowledgments

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