

Disparities in Childhood Abuse Between Transgender and Cisgender Adolescents

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abstract

BACKGROUND AND OBJECTIVES: Transgender adolescents (TGAs) exhibit disproportionate levels of mental health problems compared with cisgender adolescents (CGAs), but psychosocial processes underlying mental health disparities among TGAs remain understudied. We examined self-reported childhood abuse among TGAs compared with CGAs and risk for abuse within subgroups of TGAs in a nationwide sample of US adolescents.

METHODS: Adolescents aged 14 to 18 completed a cross-sectional online survey ($n = 1836$, including 1055 TGAs, 340 heterosexual CGAs, and 433 sexual minority CGAs). Participants reported gender assigned at birth and current gender identity (categorized as the following: cisgender males, cisgender females, transgender males, transgender females, nonbinary adolescents assigned female at birth, nonbinary adolescents assigned male at birth, and questioning gender identity). Lifetime reports of psychological, physical, and sexual abuse were measured.

RESULTS: Seventy-three percent of TGAs reported psychological abuse, 39% reported physical abuse, and 19% reported sexual abuse. Compared with heterosexual CGAs, TGAs had higher odds of psychological abuse (odds ratio [OR] = 1.84), physical abuse (OR = 1.61), and sexual abuse (OR = 2.04). Within separate subgroup analyses, transgender males and nonbinary adolescents assigned female at birth had higher odds of reporting psychological abuse than CGAs.

CONCLUSIONS: In a nationwide online sample of US adolescents, TGAs had elevated rates of psychological, physical, and sexual abuse compared with heterosexual CGAs. Risk for psychological abuse was highest among TGAs assigned female at birth. In the future, researchers should examine how more frequent experiences of abuse during childhood could contribute to disproportionate mental health problems observed within this population.



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WHAT'S KNOWN ON THIS SUBJECT: Limited evidence indicates transgender adolescents (TGAs) are at risk for abuse during childhood. However, in no nationwide study have researchers examined disparities in abuse between TGAs and cisgender adolescents, and risk within subgroups of TGAs is unknown.

WHAT THIS STUDY ADDS: In a nationwide sample of US adolescents, TGAs had higher odds of reporting psychological, physical, and sexual abuse than heterosexual cisgender adolescents. TGAs assigned female at birth had the highest odds of psychological abuse.

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Empirical attention to the experiences of transgender adolescents (TGAs) (adolescents whose gender identity is different from their sex assigned at birth) has increased in the past decade, and mounting evidence indicates TGAs disproportionately experience mental health problems when compared with cisgender adolescents (CGAs) (adolescents whose gender identity is the same as their sex assigned at birth).¹⁻⁵ TGAs report high rates of suicidality, depressive symptoms, and anxiety.^{3,4,6,7} In particular, TGAs experience very high rates of suicidality, and as many as one-half of TGAs report making a suicide attempt in their lifetime.³ Despite emerging evidence of stark mental health disparities between TGAs and CGAs, little work has examined psychosocial factors that could underlie mental health problems among TGAs.

Experiences of abuse during childhood contribute to the onset of mental health problems during adolescence and adulthood, including suicidality and depression.⁸⁻¹¹ Individuals who experience abuse during childhood are 3 to 5 times more likely to develop suicidality later in development.¹² Experiencing sexual or physical abuse during childhood is related to chronic and repeated suicidal behavior into adulthood.^{13,14} Initial reports have revealed higher risk for suicidal behavior among TGAs who report childhood abuse.¹⁵ Given the extremely high rates of suicidal ideation and behavior observed within samples of TGAs, greater attention to this population's psychosocial experiences, which could underlie their disproportionate rates of mental health problems, is needed.

Furthermore, TGAs could be at elevated risk for enduring abuse

during childhood because of this population's distinct experiences with gender identity and gender expression across development. TGAs are less conforming to societal expectations of gender expression during childhood, even before their identification with a gender identity that differs from their sex assigned at birth.^{16,17} Children who are gender nonconforming are more likely to experience abuse when compared with gender-conforming peers.¹⁸⁻²⁰ Thus, TGAs could be more likely to experience abuse during childhood, and it is particularly important to document this population's level of risk for abuse compared with their peers given their elevated rates of mental health problems during adolescence.

However, little research has examined rates of childhood abuse among TGAs compared with CGAs, and relative risk of abuse among subgroups of TGAs (eg, transgender males, transgender females, nonbinary adolescents) compared with CGAs has never been examined. Most research examining childhood abuse among transgender individuals has been conducted with adults, and few studies have investigated abuse among TGAs 18 and younger.²¹ One study found TGAs reported higher levels of abuse than sexual minority CGAs (CGAs who identify as lesbian, gay, or bisexual),²² a population with elevated risk for experiencing childhood abuse.²³ Similar findings were reported in a sample of lesbian, gay, bisexual, and transgender youth and young adults.²⁴ In only one previous study has childhood abuse among TGAs been compared with a subsample of CGAs that was not limited to sexual minority CGAs.²⁵ Using a statewide survey of adolescents, the Minnesota Student Survey, Baams²⁵ reported TGAs were more likely than non-TGAs to report psychological or

physical abuse, as well as polyvictimization. However, the Minnesota Student Survey only allowed adolescents to answer "yes" or "no" to the following question: "Do you consider yourself transgender, genderqueer, genderfluid, or unsure about your gender identity?" This approach to measurement ignores heterogeneity among TGAs and implicitly assumes the psychosocial experiences and mental health sequelae of TGAs do not differ across subgroups. Recent evidence indicates TGAs with binary identities (eg, transgender males and transgender females) have elevated rates of suicidal ideation and behavior compared with CGAs, but these same elevations are not uniformly observed among nonbinary TGAs (TGAs who identify as nonbinary, genderqueer, agender, etc).³ In addition, sex assigned at birth likely contributes to differences in psychosocial experiences among TGAs because TGAs assigned female at birth have reported higher levels of peer victimization than TGAs assigned male.⁷ Furthermore, sex assigned at birth predicts experiences of childhood abuse in the general population.^{9,26,27} However, no previous research has documented relative risk of childhood abuse among TGA subgroups subdivided by sex assigned at birth or binary versus nonbinary identities compared with CGAs.

In the current study, we investigate disparities in childhood abuse between TGAs and CGAs within a large nationwide sample of adolescents in the United States. Because sexual minority CGAs are known to have an elevated risk of childhood abuse compared with heterosexual CGAs, we compare TGAs and sexual minority CGAs separately with heterosexual CGAs. Additionally, we used the recommended two-item approach to measure gender identity

by assessing both the sex assigned at birth and current gender identity with a number of different identity response options.^{21,28} This approach allowed us to examine potential subgroup differences in childhood abuse in a separate set of analyses between TGAs and CGAs, a critical advancement beyond existing studies.

METHODS

Procedure

The Gender Minority Youth (GMY) Study was a cross-sectional online survey of TGAs and CGAs in the United States conducted from July to October 2018.²⁹ Participants were recruited via advertisements on Facebook and Instagram, social media platforms used by the vast majority of adolescents.³⁰ Two sets of advertisements targeted users ages 14 to 18. One had additional targets to reach TGAs using interest labels such as “transgender,” “gender-specific and gender-neutral pronouns,” “genderqueer,” and “passing (gender).” Almost all TGAs entered the survey through the TGA-specific advertisement, and CGAs who entered through the TGA-specific advertisement were more likely to identify with minority sexual orientations. Thus, the methods of the GMY Study oversampled TGAs and sexual minority CGAs, two difficult-to-reach populations that are underrepresented in adolescent health research.³¹

All participants provided assent (with a waiver of parental permission) before completing the GMY Study. Participants could enter a drawing for a \$50 gift card and were provided with resources related to mental health, child abuse, and sexual assault. The University of Pittsburgh’s Human Research Protection Office approved this study.

Advertisements were served 377 469 times, and 8747 clicks were recorded (2.48% click-through rate). A total of 5642 participants assented, entered the survey, and began responding to questions. Adolescents were screened out of the survey if they were outside the targeted age range; in light of underrepresentation of TGAs assigned male at birth in the early period of data collection, additional screening was used toward the end of recruitment to allow only TGAs assigned male at birth to participate. In total, 1997 participants were screened out of the survey.

Multiple steps were taken to ensure the quality of the collected data. First, Internet Protocol (IP) addresses were used to identify potential duplicate cases, and cases with the same IP address were hand-checked. Duplicates with the same demographic characteristics and height and weight were removed ($n = 320$). Second, outlier analysis indicated that no cases had evidence of values outside the expected range on variables reported as counts. Third, free-response text was reviewed, and 7 cases that had inappropriate responses to survey questions were removed. Additional details of the GMY Study and data set are available elsewhere.²⁹

The current analysis included 1836 participants who completed the survey through the childhood abuse questions. Compared with the full sample of 3318, these 1836 participants were older, more likely to report female sex assigned at birth, and more likely to identify as bisexual or pansexual.

Measures

Gender Identity

Participants reported their sex assigned at birth as either male or female. Participants selected all

gender identities they currently identify with from the following options: male, female, transgender, female-to-male transgender/FTM, male-to-female transgender/MTF, trans male/transmasculine, trans female/transfeminine, genderqueer, gender expansive, intersex, androgynous, nonbinary, two-spirited, third gender, agender, not sure, and other. A 7-category gender identity variable was created, including cisgender male, cisgender female, transgender male (including participants who reported female sex assigned at birth and male, female-to-male transgender/FTM, and/or trans male/transmasculine identities), transgender female (including participants who reported male sex assigned at birth and female, male-to-female transgender/MTF, and/or trans female/transfeminine identities), nonbinary assigned female at birth, nonbinary assigned male at birth, and questioning gender identity (including participants who selected “not sure” and no other gender identities). Adolescents were categorized as nonbinary if they reported a genderqueer, gender expansive, intersex, androgynous, nonbinary, two-spirited, third gender, or agender current gender identity and no binary gender identities. In other words, adolescents were not categorized as nonbinary if they selected any of the binary identities. We have found empirical support for this approach to categorization in previous analyses of this data set.³ Questioning adolescents could not be divided by sex assigned at birth because of small cell sizes.

Childhood Abuse

Abuse items were adapted from the Adverse Childhood Experiences questionnaire.³² Psychological abuse (being sworn

at, insulted, put down, or humiliated or being threatened and made afraid of physical harm), physical abuse (being pushed, grabbed, slapped, or having something thrown at you or being hit so hard you had marks or were injured), and sexual abuse (being touched, fondled, or forced to touch an adult in a sexual way or attempted or actual oral, anal, or vaginal sex with an adult at least 5 years older) during childhood by a parent or other adult were assessed separately with 2 questions each. Each abuse category was dichotomized (0: never experienced this form of abuse; 1: any experience of this form of abuse), a coding strategy implemented in previous research with the Adverse Childhood Experiences questionnaire.³³

Demographic Variables

Participants reported their age, race (coded as white, Black, Hispanic, Asian American or Pacific Islander, mixed, and Native American or other), and sexual orientation (coded as heterosexual, gay or lesbian, bisexual or pansexual, and queer, questioning, or other). Participants were coded as a sexual minority if they endorsed any sexual orientation other than heterosexual. Subjective social status (SSS) was measured with the MacArthur Scale of Subjective Social Status, a measure of adolescents' perceptions of their family's social status compared with all other families in American society, visualized by a 10-rung ladder.³⁴ Demographic covariates were selected because they have conceptual relevance to childhood abuse, evidenced significant associations with constructs of interest in analyses, and/or were associated with attrition in the survey before completing the abuse items.

TABLE 1 Demographic Characteristics for Total Sample, Heterosexual CGAs, Sexual Minority CGAs, TGAs, and Each Gender Identity Subgroup

Categorical Variables	Total Sample (N = 1836)				Heterosexual Sexual Minority (n = 453)				Nonbinary Assigned				Questioning (n = 50)
	Sample (N = 1836)	Cisgender (n = 340)	Cisgender (n = 453)	All Transgender (n = 1055)	Cisgender Males (n = 200)	Cisgender Females (n = 581)	Transgender Males (n = 561)	Transgender Females (n = 60)	Female (n = 341)	Male (n = 43)			
Race, n (%)													
White	1205 (66.0)	219 (64.4)	266 (61.6)	720 (68.2)	121 (60.8)	367 (63.2)	385 (68.6)	45 (75.0)	237 (69.5)	24 (55.8)	29 (58.0)	5 (10.0)	
Black or African American	158 (8.7)	34 (10.0)	43 (9.9)	81 (7.4)	16 (8.0)	63 (10.9)	41 (7.3)	2 (3.3)	26 (7.6)	7 (16.3)	5 (10.0)		
Hispanic	158 (8.6)	36 (10.6)	42 (9.7)	80 (7.6)	20 (10.1)	59 (10.2)	45 (8.0)	3 (5.0)	22 (6.5)	4 (9.3)	6 (12.0)		
Asian American or Pacific Islander	68 (3.7)	19 (5.6)	23 (5.3)	26 (2.5)	12 (6.0)	30 (5.2)	14 (2.5)	3 (5.0)	7 (2.1)	0 (0.0)	2 (4.0)		
Native American	18 (1.0)	1 (0.3)	5 (1.2)	12 (1.1)	1 (0.5)	5 (0.9)	4 (0.7)	2 (3.3)	4 (1.2)	0 (0.0)	2 (4.0)		
Mixed	213 (11.7)	30 (8.8)	50 (11.6)	133 (12.6)	27 (13.6)	55 (9.5)	70 (12.5)	5 (8.3)	45 (13.2)	8 (18.6)	5 (10)		
Other	7 (0.4)	1 (0.3)	3 (0.7)	3 (0.3)	2 (1.0)	2 (0.3)	2 (0.4)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.0)		
Sexual orientation, n (%)													
Straight or heterosexual	370 (20.3)	340 (100)	0 (0)	30 (2.9)	107 (53.5)	233 (40.7)	23 (4.1)	2 (3.4)	1 (0.3)	1 (2.3)	3 (6.0)		
Gay or lesbian	294 (16.1)	0 (0)	101 (23.3)	183 (18.4)	48 (24.0)	53 (9.2)	118 (21.1)	13 (22.0)	45 (13.2)	13 (30.2)	4 (8.0)		
Bisexual or pansexual	798 (43.8)	0 (0)	276 (63.7)	522 (49.7)	41 (20.5)	235 (41.0)	264 (47.3)	34 (57.6)	178 (52.2)	15 (34.9)	31 (62.0)		
Queer or other	347 (19.0)	0 (0)	49 (11.3)	298 (28.4)	3 (1.5)	46 (8.0)	148 (26.5)	9 (15.3)	116 (34.0)	14 (32.6)	11 (22.0)		
Questioning	15 (0.8)	0 (0)	7 (1.6)	8 (0.8)	1 (0.5)	6 (1.0)	5 (0.9)	1 (1.7)	1 (0.3)	0 (0.0)	1 (2.0)		
Continuous variables, mean (SD)													
Age (range 14–18)	15.9 (1.2)	15.8 (1.1)	15.9 (1.1)	16.0 (1.2)	15.9 (1.1)	15.8 (1.1)	16.1 (1.2)	16.1 (1.2)	15.9 (1.2)	16.2 (0.9)	15.6 (1.1)		
SSS (range 1–10)	5.7 (1.6)	6.04 (1.6)	6.04 (1.5)	5.7 (1.6)	6.0 (1.7)	6.0 (1.5)	5.4 (1.5)	5.2 (1.4)	5.5 (1.6)	5.4 (1.4)	5.2 (1.3)		

Participants

Descriptive demographic information for the full sample, for heterosexual CGAs, for sexual minority CGAs, for TGAs, and for each gender identity subgroup is presented in Table 1. According to zip codes, participants lived in all 50 states, as well as Washington, DC, and Puerto Rico. CGAs in the sample were similar to nationally representative data regarding race. Compared with CGAs, TGAs were more likely to report white race, minority sexual orientations, older age, and lower SSS.

Analysis

First, descriptive data for each child abuse outcome were examined for heterosexual CGAs, sexual minority CGAs, TGAs, and each gender identity subgroup. Second, χ^2 tests, including pairwise comparisons between heterosexual CGAs, sexual minority CGAs, and TGAs as well as between each of the 7 gender identity subgroups on each childhood abuse outcome were estimated. Bonferroni corrections were applied to significance levels to account for multiple comparisons ($n = 3$ in 3-category comparisons [$P < .017$]; $n = 21$ in 7-category comparisons [$P < .002$]). Third, multivariable logistic regression models were estimated to examine odds of each abuse outcome for TGAs (aggregated into 1 group) and sexual minority CGAs compared with heterosexual CGAs, while adjusting for sex assigned at birth, age, SSS, and race. Finally, multivariable logistic regression models were estimated for each dichotomized abuse outcome predicted by gender identity (coded as 7 subgroups) while controlling for sexual orientation, age, SSS, and race.

RESULTS

Percentages, along with 95% confidence intervals (CIs), of heterosexual CGAs, sexual minority CGAs, TGAs, and participants in gender identity subgroups endorsing dichotomized abuse outcomes are presented in Figs 1–3. Means and SEs were multiplied by 100 to transform to percentage metric before calculating CIs. Within subgroup comparisons, each χ^2 omnibus test was significant (all P values $< .001$), indicating each abuse outcome varied significantly across the 3 broad sexual orientation and gender identity categories and the 7 specific gender identity categories.

Psychological Abuse

In unadjusted comparisons, TGAs (aggregated into one group) reported higher rates of psychological abuse than heterosexual CGAs, and sexual minority CGAs did not differ from heterosexual CGAs. In the adjusted model, TGAs had higher odds of

psychological abuse than heterosexual CGAs (odds ratio [OR] = 1.84), but heterosexual and sexual minority CGAs did not differ (see Table 2). Pairwise 7-category gender identity comparisons indicated that transgender males and nonbinary adolescents assigned female at birth reported higher levels of psychological abuse than both cisgender males and females. Within adjusted analyses examining subgroup differences, cisgender males had lower odds of reporting psychological abuse compared with cisgender females. In the same model, transgender males and nonbinary adolescents assigned female at birth had higher odds of reporting psychological abuse than either cisgender group (see Table 3).

Physical Abuse

In unadjusted comparisons, TGAs reported higher rates of physical abuse than heterosexual CGAs, and

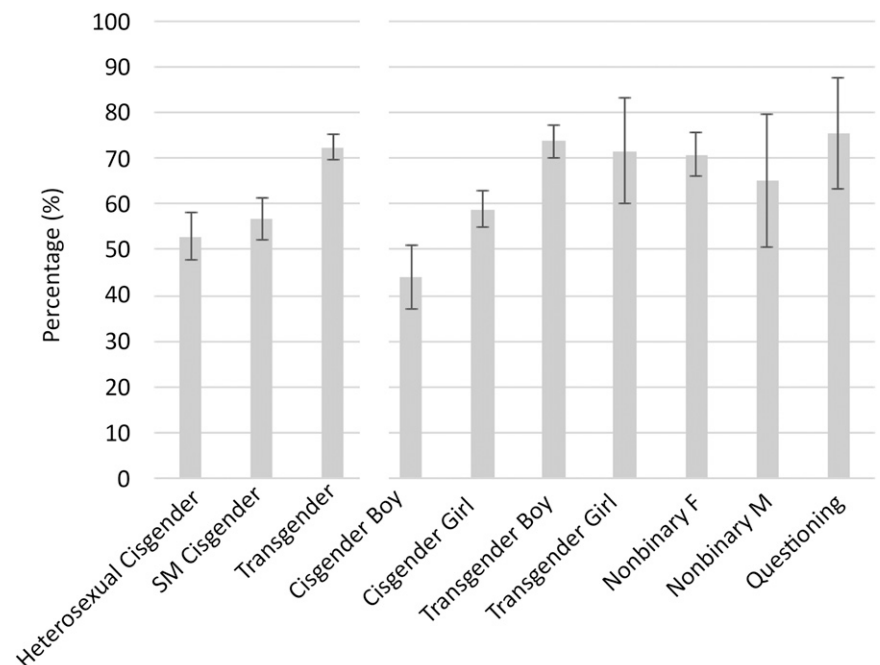


FIGURE 1

Percentage of participants endorsing psychological abuse among heterosexual CGAs, SM CGAs, TGAs, and each gender identity subgroup, including 95% CIs. Nonbinary F, nonbinary adolescents assigned female at birth; Nonbinary M, nonbinary adolescents assigned male at birth; SM, sexual minority.

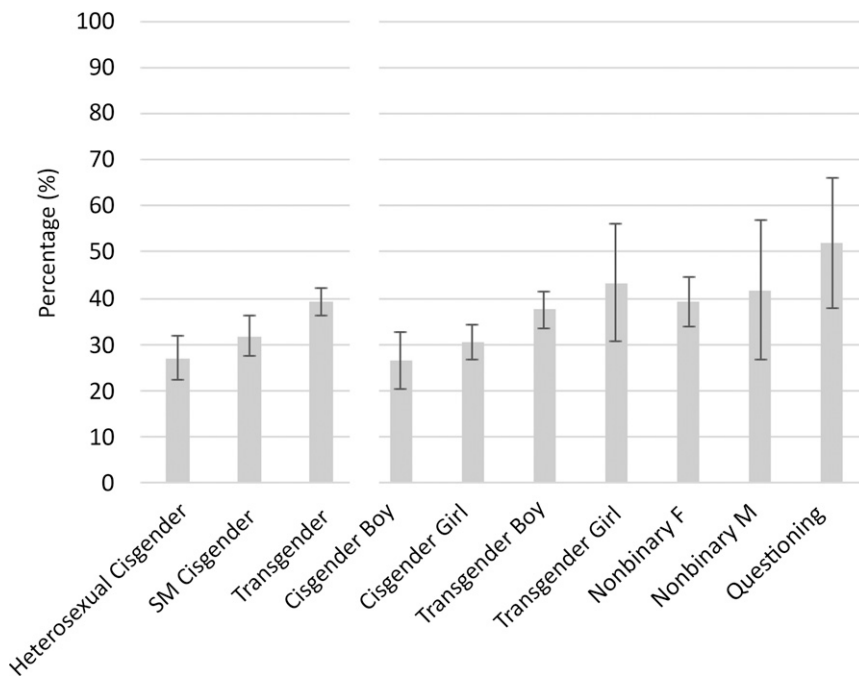


FIGURE 2 Percentage of participants endorsing physical abuse among heterosexual CGAs, SM CGAs, TGAs, and each gender identity subgroup, including 95% CIs. Nonbinary F, nonbinary adolescents assigned female at birth; Nonbinary M, nonbinary adolescents assigned male at birth; SM, sexual minority.

sexual minority CGAs did not differ from heterosexual CGAs. Similar results were observed in the adjusted model after controlling for covariates because TGAs had higher odds of reporting physical abuse than heterosexual CGAs (OR = 1.61). Adolescents questioning their gender identity reported higher levels of physical abuse than CGAs in unadjusted pairwise comparisons by subgroup, and questioning adolescents had higher odds of physical abuse in an adjusted model compared with cisgender female adolescents.

Sexual Abuse

In unadjusted comparisons, both TGAs and sexual minority CGAs had higher odds of reporting sexual abuse compared with heterosexual CGAs, and these results persisted within adjusted logistic regression analysis (OR = 2.04 for TGAs and OR = 1.87 for sexual minority CGAs). Nonbinary adolescents

assigned female at birth reported higher levels of sexual abuse than CGAs in unadjusted pairwise comparisons. After adjusting for covariates, cisgender males had lower odds of reporting sexual abuse compared with cisgender females, and no TGA subgroups had significantly different odds of reporting sexual abuse compared with cisgender females.

DISCUSSION

TGAs are more likely to report psychological, physical, and sexual abuse during childhood compared with heterosexual CGAs. Our findings align with those of previous studies finding high rates of childhood abuse among transgender individuals.^{22,24,25} Growing evidence indicates TGAs experience mental health problems at higher rates than CGAs, and childhood abuse likely contributes to the onset of mental health problems among TGAs. In the future, researchers should examine

the role of childhood abuse in the etiology of mental health problems among TGAs.

In addition, our data set enabled us to examine subgroup differences in childhood abuse between TGAs and CGAs. In particular, TGAs assigned female at birth were more likely to report psychological abuse by parents or other adults in the household. Researchers have hypothesized that individuals who have experienced physical and/or sexual abuse will also endorse psychological abuse items because of overlap between these constructs, although they may not have experienced discrete psychological abuse.³⁵ Given this possibility, we conducted post hoc analyses examining multivariate associations between our 7-category gender identity variable and psychological abuse while removing all participants who endorsed physical or sexual abuse. In these analyses, transgender males retained higher odds of psychological abuse compared with female CGAs (OR = 1.80; 95% CI: 1.27–2.56), but nonbinary adolescents assigned female at birth no longer had higher odds of psychological abuse (OR = 1.35; 95% CI: 0.89–2.04). These findings indicate transgender males have higher risk for psychological abuse, which is separate from their risk for physical or sexual abuse, but nonbinary adolescents assigned female at birth no longer have higher risk for psychological abuse when accounting for the potential cumulative effect of other forms of abuse on this outcome. Among CGAs, nationally representative data indicate individuals assigned female at birth are more likely to report childhood psychological maltreatment,³⁶ and the same could be true of TGAs assigned female at birth. In the future, researchers should examine how parent-adolescent relationships are

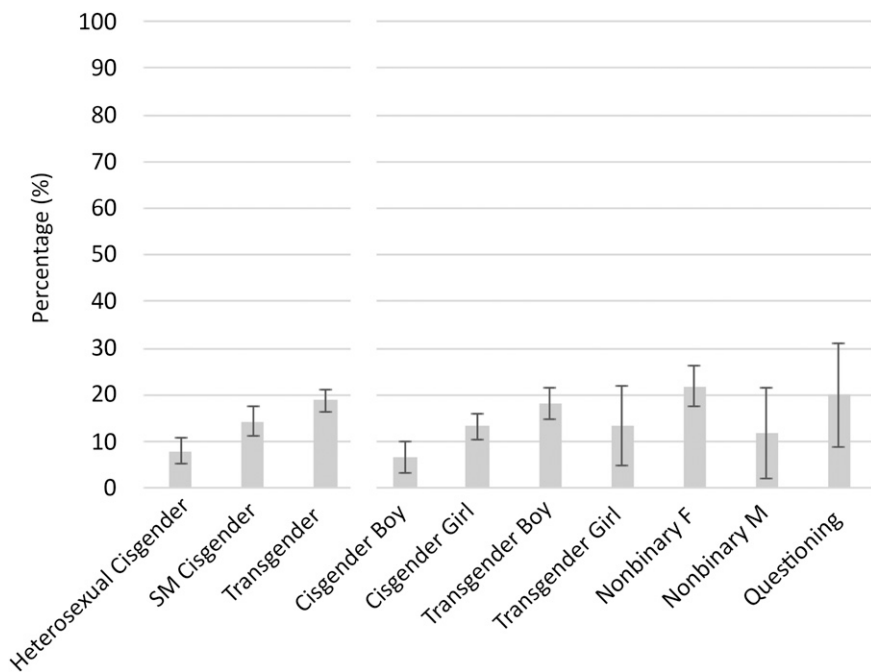


FIGURE 3 Percentage of participants endorsing sexual abuse among heterosexual CGAs, SM CGAs, TGAs, and each gender identity subgroup, including 95% CIs. Nonbinary F, nonbinary adolescents assigned female at birth; Nonbinary M, nonbinary adolescents assigned male at birth; SM, sexual minority.

associated with mental health outcomes among TGA subgroups.

As noted above, the GMY Study included a large sample of adolescents who were racially diverse, and participants resided in all 50 states. The current study achieved a 2.5% click-through rate during recruitment. Although this rate is similar to other recent online studies of sexual minority and transgender youth,^{37,38} it is possible that adolescent social media users who have experienced mental or physical health problems were more likely to click on an ad for a “health” study than those who have not, and these youth may disproportionately report childhood abuse. However, rates of physical and sexual abuse reported by participants in the data set are comparable to rates within other data sets of adolescents. For example, 27% of sexual minority CGAs reported physical abuse (19%–33% reported physical abuse in a large meta-analysis),²³ and ORs

between TGAs and CGAs in adjusted models were similar to those found in a recent statewide survey.²⁵ These qualities of the GMY Study data set indicate our results could generalize to the broader population of adolescents in the United States. However, our sample is not nationally representative, and it is critical that future nationally representative surveys of adolescents in the United States, such as the Youth Risk Behavior Surveillance System, assess both the sex assigned at birth and current gender identity to enable the accurate identification and categorization into subgroups of TGAs in a nationally representative data set.

In addition, the current study is limited by its cross-sectional design. Although abuse experiences could be more common among TGAs before their identification as TGAs because of gender nonconformity during childhood,^{19,20} abuse could

also have onset and/or exacerbation after their identification as TGAs. For example, TGAs often report parental rejection after disclosure of their gender identity to parents,¹⁸ potentially resulting in onset of abuse by parents. Longitudinal studies of TGAs across development could shed light on how gender identity development, abuse, and mental health are related over time. Furthermore, the GMY Study battery included only assessments of psychological, physical, and sexual abuse, and did not include assessment of other experiences, such as parental neglect or witnessing domestic abuse between parents. This limitation makes it difficult to examine polyvictimization in this data set. Finally, our sample included fewer TGAs assigned male at birth than TGAs assigned female at birth, and this altered sex ratio is common within samples of TGAs.³⁹ However, this may have limited our power to detect differences between TGAs assigned male and CGAs in the present analyses.

It is recommended that pediatric medical and mental health professionals screen for child abuse to recognize and respond to ongoing maltreatment among children and adolescents,⁴⁰ and this recommendation should apply to TGAs presenting for care. Given the higher risk for psychological abuse by parents and other adults among TGAs assigned female at birth in this sample, providers should pay particular attention to parent-adolescent relationships when treating this population. Because some families of TGAs are rejecting of their gender identity,¹³ providers should assess gender identity privately without parents present if possible, including level of parental knowledge of gender identity among TGAs. This approach will optimize the possibility that TGAs are open

TABLE 2 Adjusted ORs and 95% CIs for Each Abuse Outcome for Heterosexual Cisgender, Sexual Minority Cisgender, and Transgender Groups and Covariates

Variable	aOR (95% CI)		
	Emotional Abuse	Physical Abuse	Sexual Abuse
Gender identity and sexual orientation (heterosexual cisgender reference)			
Sexual minority cisgender	1.10 (0.82–1.48)	1.27 (0.92–1.75)	1.87 (1.15–3.04)*
Transgender	1.84 (1.40–2.41)**	1.61 (1.21–2.14)**	2.04 (1.32–3.16)**
Gender assigned at birth (female reference)			
Male	0.60 (0.46–0.78)**	0.94 (0.71–1.24)	0.48 (0.31–0.74)**
Race (white reference)			
Black or African American	1.34 (0.92–1.95)	1.91 (1.35–2.67)**	0.93 (0.57–1.51)
Hispanic	1.53 (1.04–2.26)*	1.83 (1.30–2.59)**	1.69 (1.12–2.57)**
Asian American or Pacific Islander	1.16 (0.69–1.95)	1.96 (1.18–3.26)	1.36 (0.67–2.76)
Native American or other	2.36 (0.78–7.10)	2.08 (0.92–4.72)	2.77 (1.14–6.71)**
Mixed	1.24 (0.89–1.72)	1.06 (0.78–1.45)	1.23 (0.83–1.84)
Age	0.99 (0.91–1.08)	1.04 (0.96–1.13)	1.23 (1.10–1.38)**
SSS	0.75 (0.70–0.80)**	0.79 (0.74–0.85)**	0.76 (0.69–0.83)**

aOR, adjusted odds ratio.

* $P < .05$.

** $P < .01$.

about their gender identity with providers and limit the chances that interactions with providers could increase family discord related to

gender identity, which has the potential to exacerbate childhood abuse among TGAs. Family-based cognitive-behavioral interventions

could be implemented to reduce the risk of future abuse within families of TGAs,⁴¹ and TGAs who have experienced abuse should be provided access to evidence-based treatment, such as trauma-focused cognitive-behavioral therapy, to reduce mental health symptoms.^{42,43} Providers should carefully tailor their interventions to ensure their care is validating of TGAs' gender identity while limiting rejection and fostering acceptance by family members.^{44,45}

TGAs are more likely to report childhood abuse than heterosexual CGAs, and risk for psychological abuse is highest among TGAs assigned female at birth. Clinicians should be aware that higher levels of abuse could contribute to disproportionate mental health problems among TGAs, and future research should examine how childhood abuse contributes to higher levels of mental health problems among TGAs over time.

TABLE 3 Adjusted OR and 95% CIs for Each Abuse Outcome for Gender Identity Subgroups and Covariates

Variable	aOR (95% CI)		
	Psychological Abuse	Physical Abuse	Sexual Abuse
Gender identity (cisgender female reference)			
Cisgender male	0.54 (0.38–0.76)**	0.85 (0.58–1.24)	0.47 (0.25–0.88)*
Transgender male	1.68 (1.26–2.23)**	1.15 (0.87–1.53)	1.00 (0.69–1.45)
Transgender female	1.49 (0.80–2.78)	1.45 (0.82–2.56)	0.64 (0.28–1.46)
Nonbinary assigned female	1.51 (1.09–2.09)*	1.29 (0.94–1.76)	1.36 (0.91–2.03)
Nonbinary assigned male	1.09 (0.55–2.15)	1.34 (0.69–2.60)	0.63 (0.23–1.71)
Questioning gender	1.60 (0.80–3.22)	1.88 (1.03–3.50)*	1.10 (0.51–2.38)
Race (white reference)			
Black or African American	1.33 (0.91–1.94)	1.89 (1.34–2.68)**	0.92 (0.56–1.51)
Hispanic	1.53 (1.04–2.27)*	1.84 (1.30–2.60)**	1.74 (1.15–2.66)*
Asian American or Pacific Islander	1.14 (0.70–1.93)	1.95 (1.17–3.25)*	1.35 (0.66–2.75)
Native American or other	2.19 (0.73–6.62)	1.95 (0.89–4.45)	2.68 (1.11–6.51)*
Mixed	1.25 (0.90–1.73)	1.07 (0.78–1.47)	1.20 (0.81–1.80)
Sexual orientation (straight reference)			
Gay or lesbian	1.01 (0.71–1.45)	1.15 (0.79–1.66)	1.28 (0.74–2.22)
Bisexual or pansexual	1.20 (0.89–1.61)	1.30 (0.95–1.77)	1.76 (1.11–2.78)*
Queer, other, or questioning	1.00 (0.70–1.44)	1.24 (0.85–1.81)	1.63 (0.96–2.76)
Age	0.99 (0.90–1.08)	1.04 (0.95–1.13)	1.22 (1.09–1.37)**
SSS	0.75 (0.70–0.81)**	0.79 (0.74–0.85)**	0.76 (0.69–0.83)**

aOR, adjusted odds ratio.

* $P < .05$.

** $P < .01$.

ABBREVIATIONS

CGA: cisgender adolescent
CI: confidence interval
GMY: gender minority youth
OR: odds ratio
SSS: subjective social status
TGA: transgender adolescent

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REFERENCES

1. Grossman AH, D'Augelli AR. Transgender youth and life-threatening behaviors. *Suicide Life Threat Behav*. 2007;37(5):527–537
2. Perez-Brumer A, Day JK, Russell ST, Hatzenbuehler ML. Prevalence and correlates of suicidal ideation among transgender youth in California: findings from a representative, population-based sample of high school students. *J Am Acad Child Adolesc Psychiatry*. 2017;56(9):739–746
3. Thoma BC, Salk RH, Choukas-Bradley S, Goldstein TR, Levine MD, Marshal MP. Suicidality disparities between transgender and cisgender adolescents. *Pediatrics*. 2019;144(5):e20191183
4. Toomey RB, Syvertsen AK, Shramko M. Transgender adolescent suicide behavior. *Pediatrics*. 2018;142(4):e20174218
5. Veale JF, Watson RJ, Peter T, Saewyc EM. Mental health disparities among Canadian transgender youth. *J Adolesc Health*. 2017;60(1):44–49
6. Chodzen G, Hidalgo MA, Chen D, Garofalo R. Minority stress factors associated with depression and anxiety among transgender and gender-nonconforming youth. *J Adolesc Health*. 2019;64(4):467–471
7. Eisenberg ME, Gower AL, McMorris BJ, Rider GN, Shea G, Coleman E. Risk and protective factors in the lives of transgender/gender nonconforming adolescents. *J Adolesc Health*. 2017;61(4):521–526
8. Liu J, Fang Y, Gong J, et al. Associations between suicidal behavior and childhood abuse and neglect: a meta-analysis. *J Affect Disord*. 2017;220:147–155
9. Hussey JM, Chang JJ, Kotch JB. Child maltreatment in the United States: prevalence, risk factors, and adolescent health consequences. *Pediatrics*. 2006;118(3):933–942
10. Toth SL, Manly JT. Developmental consequences of child abuse and neglect: implications for intervention. *Child Dev Perspect*. 2019;13(1):59–64
11. Petruccelli K, Davis J, Berman T. Adverse childhood experiences and associated health outcomes: a systematic review and meta-analysis. *Child Abuse Negl*. 2019;97:104127
12. Enns MW, Cox BJ, Afifi TO, De Graaf R, Ten Have M, Sareen J. Childhood adversities and risk for suicidal ideation and attempts: a longitudinal population-based study. *Psychol Med*. 2006;36(12):1769–1778
13. Brown J, Cohen P, Johnson JG, Smailes EM. Childhood abuse and neglect: specificity of effects on adolescent and young adult depression and suicidality. *J Am Acad Child Adolesc Psychiatry*. 1999;38(12):1490–1496
14. Ystgaard M, Hestetun I, Loeb M, Mehlum L. Is there a specific relationship between childhood sexual and physical abuse and repeated suicidal behavior? *Child Abuse Negl*. 2004;28(8):863–875
15. Taliaferro LA, McMorris BJ, Rider GN, Eisenberg ME. Risk and protective factors for self-harm in a population-based sample of transgender youth. *Arch Suicide Res*. 2019;23(2):203–221
16. Toomey RB, Ryan C, Diaz RM, Card NA, Russell ST. Gender-nonconforming lesbian, gay, bisexual, and transgender youth: school victimization and young adult psychosocial adjustment. *Dev Psychol*. 2010;46(6):1580–1589
17. Reisner SL, Conron KJ, Tardiff LA, Jarvi S, Gordon AR, Austin SB. Monitoring the health of transgender and other gender minority populations: validity of natal sex and gender identity survey items in a U.S. national cohort of young adults. *BMC Public Health*. 2014;14:1224
18. Grossman AH, D'Augelli AR, Howell TJ, Hubbard S. Parent' reactions to transgender youth' gender nonconforming expression and identity. *J Gay Lesbian Soc Serv*. 2005;18(1):3–16
19. Roberts AL, Rosario M, Corliss HL, Koenen KC, Austin SB. Elevated risk of posttraumatic stress in sexual minority youths: mediation by childhood abuse and gender nonconformity. *Am J Public Health*. 2012;102(8):1587–1593
20. Roberts AL, Rosario M, Slopen N, Calzo JP, Austin SB. Childhood gender

- nonconformity, bullying victimization, and depressive symptoms across adolescence and early adulthood: an 11-year longitudinal study. *J Am Acad Child Adolesc Psychiatry*. 2013;52(2):143–152
21. Tobin V, Delaney KR. Child abuse victimization among transgender and gender nonconforming people: a systematic review. *Perspect Psychiatr Care*. 2019;55(4):576–583
 22. Sterzing PR, Ratliff GA, Gartner RE, McGeough BL, Johnson KC. Social ecological correlates of polyvictimization among a national sample of transgender, genderqueer, and cisgender sexual minority adolescents. *Child Abuse Negl*. 2017;67:1–12
 23. Friedman MS, Marshal MP, Guadamuz TE, et al. A meta-analysis of disparities in childhood sexual abuse, parental physical abuse, and peer victimization among sexual minority and sexual non-minority individuals. *Am J Public Health*. 2011;101(8):1481–1494
 24. Newcomb ME, Hill R, Buehler K, Ryan DT, Whitton SW, Mustanski B. High burden of mental health problems, substance use, violence, and related psychosocial factors in transgender, non-binary, and gender diverse youth and young adults. *Arch Sex Behav*. 2020;49(2):645–659
 25. Baams L. Disparities for LGBTQ and gender nonconforming adolescents. *Pediatrics*. 2018;141(5):e20173004
 26. Thompson MP, Kingree JB, Desai S. Gender differences in long-term health consequences of physical abuse of children: data from a nationally representative survey. *Am J Public Health*. 2004;94(4):599–604
 27. MacMillan HL, Fleming JE, Trocme N, et al. Prevalence of child physical and sexual abuse in the community. Results from the Ontario Health Supplement. *JAMA*. 1997;278(2):131–135
 28. Cahill S, Makadon H. Sexual orientation and gender identity data collection in clinical settings and in electronic health records: a key to ending LGBT health disparities. *LGBT Health*. 2014;1(1):34–41
 29. Salk RH, Thoma BC, Choukas-Bradley S. The gender minority youth study: overview of methods and social media recruitment of a nationwide sample of U.S. cisgender and transgender adolescents. *Arch Sex Behav*. 2020;49(7):2601–2610
 30. Anderson M, Jiang J. *Teens, Social Media & Technology 2018*. Washington, DC: Pew Research Center; 2018
 31. Mustanski B. Ethical and regulatory issues with conducting sexuality research with LGBT adolescents: a call to action for a scientifically informed approach. *Arch Sex Behav*. 2011;40(4):673–686
 32. Dube SR, Felitti VJ, Dong M, Chapman DP, Giles WH, Anda RF. Childhood abuse, neglect, and household dysfunction and the risk of illicit drug use: the adverse childhood experiences study. *Pediatrics*. 2003;111(3):564–572
 33. Murphy A, Steele M, Dube SR, et al. Adverse Childhood Experiences (ACEs) questionnaire and Adult Attachment Interview (AAI): implications for parent child relationships. *Child Abuse Negl*. 2014;38(2):224–233
 34. Goodman E, Adler NE, Kawachi I, Frazier AL, Huang B, Colditz GA. Adolescents' perceptions of social status: development and evaluation of a new indicator. *Pediatrics*. 2001;108(2). Available at: www.pediatrics.org/cgi/content/full/108/2/e31
 35. Taussig HN, Culhane SE. Emotional maltreatment and psychosocial functioning in preadolescent youth placed in out-of-home care. *J Aggress Maltreat Trauma*. 2010;19(1):52–74
 36. Taillieu TL, Brownridge DA, Sareen J, Afifi TO. Childhood emotional maltreatment and mental disorders: results from a nationally representative adult sample from the United States. *Child Abuse Negl*. 2016;59:1–12
 37. Miller-Perusse M, Horvath KJ, Chavanduka T, Stephenson R. Recruitment and enrollment of a national sample of transgender youth via social media: experiences from Project Moxie. *Transgend Health*. 2019;4(1):157–161
 38. Guillory J, Wiant KF, Farrelly M, et al. Recruiting hard-to-reach populations for survey research: using Facebook and Instagram advertisements and in-person intercept in LGBT bars and nightclubs to recruit LGBT young adults. *J Med Internet Res*. 2018;20(6):e197
 39. Zucker KJ, VanderLaan DP, Aitken M. The contemporary sex ratio of transgender youth that favors assigned females at birth is a robust phenomenon: a response to the letter to the editor re: “shifts in assigned sex ratios at gender identity clinics likely reflect change in referral patterns”. *J Sex Med*. 2019;16(6):949–950
 40. Flaherty EG, Stirling J Jr; American Academy of Pediatrics, Committee on Child Abuse and Neglect. Clinical report—the pediatrician's role in child maltreatment prevention. *Pediatrics*. 2010;126(4):833–841
 41. Kjellgren C, Svedin CG, Nilsson D. Child physical abuse—experiences of combined treatment for children and their parents: a pilot study. *Child Care Pract*. 2013;19(3):275–290
 42. Cohen JA, Deblinger E, Mannarino AP, Steer RA. A multisite, randomized controlled trial for children with sexual abuse-related PTSD symptoms. *J Am Acad Child Adolesc Psychiatry*. 2004;43(4):393–402
 43. de Arellano MAR, Lyman DR, Jobe-Shields L, et al. Trauma-focused cognitive-behavioral therapy for children and adolescents: assessing the evidence. *Psychiatr Serv*. 2014;65(5):591–602
 44. Edwards L, Goodwin A, Neumann M. An ecological framework for transgender inclusive family therapy. *Contemp Fam Ther*. 2019;41(3):258–274

45. Golden RL, Oransky M. An intersectional approach to therapy with transgender

adolescents and their families. *Arch Sex Behav.* 2019;48(7):2011–2025