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At the Intersection of Sexual Orientation and Gender Identity: Variations in Emotional Distress and Bullying Experience in a Large Population-based Sample of U.S. Adolescents

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Abstract

This study examines the intersection of sexual and gender identities among adolescents, including the prevalence of these groups and rates of emotional distress and bullying victimization. Data come from a large population-based sample; two measures of sexual orientation and gender identity create eight identity groups. Youth who report identifying both as lesbian, gay, bisexual, or queer/questioning (LGBQ) and as transgender/gender diverse (TGD) had significantly higher levels of two measures of emotional distress and four measures of bullying victimization than those who report only identifying as LGBQ non-TGD or straight TGD. Implications for research and practice are discussed.

Introduction

Health disparities by sexual orientation and gender identity in adolescents

An extensive body of epidemiologic research demonstrates mental health disparities affecting lesbian, gay, bisexual, and queer/questioning (LGBQ) youth (Haas et al., 2011; Institute of Medicine, 2011; Kann et al., 2016; Marshal et al., 2011), and several recent studies with population-based data have begun to document similar disparities among transgender and gender diverse (TGD) youth (Clark et al., 2014; Eisenberg, Gower, McMorris, et al., 2017; Perez-Brumer, Day, Russell, & Hatzenbuehler, 2017; Veale, Watson, Peter, & Saewyc, 2017). For example, Kann and colleagues (2016) found that nationwide, the rate of seriously considering suicide was almost three times higher among gay, lesbian, or bisexual students than heterosexual students (43% vs. 15%; Kann et al., 2016). Our own recent work with a large statewide sample of TGD adolescents found rates of attempting suicide that were over four times higher than in non-TGD youth (31% vs. 7%; Eisenberg et

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al., 2017). Both of these vulnerable groups are at similarly elevated risk of experiencing bullying and other harassment (Berlan, Corliss, Field, Goodman, & Austin, 2010; Bucchianeri, Gower, McMorris, & Eisenberg, 2016; Eisenberg, Gower, McMorris, et al., 2017; Institute of Medicine, 2011; Kann et al., 2016), which have been shown to contribute to emotional distress, self-harm, and suicidal ideation (Almeida, Johnson, Corliss, & Molnar, 2009; Augelli, Grossman, & Starks, 2006; Haas et al., 2011; Toomey, Ryan, Diaz, Card, & Russell, 2010).

Importantly, LGBQ and TGD populations¹ are not homogenous, although they are often grouped together for research and service delivery. Where comparisons are made, research with large samples have found differences across sexual orientation subgroups (e.g. bisexual vs. gay/lesbian adolescents) in a variety of health domains (Bucchianeri et al., 2016; Corliss, Rosario, Wypij, Fisher, & Austin, 2008; Laska et al., 2015; Saewyc et al., 2007), as well as demographic categories such as race/ethnicity and economic status (Mueller, James, Abrutyn, & Levin, 2015). Likewise, the few studies examining subgroups of TGD individuals indicate this group is also diverse with regard to birth-assigned sex, binary/non-binary conceptualization of gender, gender fluidity over time, gender expression/presentation (e.g., manner of dress, speech, etc., on a spectrum from masculine to feminine), and demographic characteristics. The decision to analyze all LGBQ and TGD individuals together is typically a practical one, determined by sample sizes that are often too small to permit statistically valid subgroup comparisons (Institute of Medicine, 2011).

Theoretical underpinnings

The National Academy of Medicine (formerly the Institute of Medicine, 2011) suggests conceptualizing health research involving LGBTQ individuals as part of both the Minority Stress Theory (Hendricks & Testa, 2012; Meyer, 1995, 2003) and an intersectionality framework (Bowleg, 2012; Crenshaw, 1994; Parent, DeBlaere, & Moradi, 2013). Minority Stress Theory posits that individuals who identify with marginalized groups are subject to chronic social stressors (e.g., experiences of discrimination and prejudice-based harassment). As a result, marginalized individuals may experience proximal stress by internalizing negative messages about their identities, having a heightened awareness of stigma, and/or developing hypervigilance, which in turn negatively impacts health. The theory was originally conceptualized with regard to sexual orientation (Meyer, 1995, 2003) but has more recently been applied to the study of TGD individuals (Gordon & Meyer, 2007; Hendricks & Testa, 2012).

Intersectionality is a framework that highlights the complex ways that multiple social identities intersect with systems of privilege and oppression to shape individuals' subjective lived experiences (Bowleg, 2012; Parent et al., 2013). In particular, experiences of discrimination perpetuate social inequalities and contribute to health disparities. A feminist theoretical model originally used to describe the intersection of race and gender (e.g., the

¹We use the acronym LGBQ to refer to those who identify as lesbian, gay, bisexual, queer, pansexual, questioning, unsure, or other labels describing a sexual orientation that is not exclusively heterosexual and the term "transgender and gender diverse" to refer to those who identify as transgender, genderqueer, genderfluid, gender expansive, gender diverse, gender creative, gender non-conforming, non-binary, or other labels describing an internal sense of gender that is different from their sex assigned at birth (Kuper, Nussbaum, & Mustanski, 2012; Russell, Clarke, & Clary, 2009).

experience of Black women being qualitatively different from both Black men and other women (Crenshaw, 1994)), intersectionality can characterize any combination of social identities, including race/ethnicity, economic status, sex, gender identity, sexual orientation, and age.

Adolescents who identify as LGBQ and TGD have simultaneous social membership in at least three marginalized groups (due to age, sexual orientation, and gender) creating a complex, multifaceted identity structure. These multiple identities intersect and overlap in ways that can compound the effects of minority stress. The challenge is to integrate these identities alongside the broader identity development occurring as a key task of adolescence. LGBQ and TGD identities may be differentially devalued in society and may be a source of shame and stigma. The synergistic interaction between each identity category (age, sexual orientation, and gender identity) creates a unique and meaningful experience for these individuals who often have to learn to navigate and cope within oppressive systems. As a result of the negotiation of multiple forms of discrimination and stigmatization, adolescents who identify as both LGBQ and TGD may internalize experiences of oppression and be vulnerable to health risks such as depressive symptoms and self-harm. Within this framework, we would expect the experience of an individual who identifies with two stigmatized identities (e.g. LGBQ *and* TGD) to differ from those who identify with only one. Select studies have begun to lend support to this theorized association; for example, among LGBQ people, gender role non-conformity was associated with emotional distress and harassment (Friedman, Koeske, Silvestre, Korr, & Sites, 2006; Gordon & Meyer, 2007; Rieger & Savin-Williams, 2012).

Changes to public policy (e.g., equality in marriage rights and military service), media portrayals and public opinion (Pew Research Center, 2017) suggest that social acceptance of LGBQ people has increased in the past decade. For this reason, we may expect LGBQ youth to experience fewer minority-specific stressors than TGD youth, who have more recently entered the limelight with celebrities coming out (Bissinger, 2015; Steinmetz, 2014), portrayals in the popular media (“Transparent,” n.d.), and political controversies (e.g. “bathroom bills,” access to sports teams, military service; Diamond, 2017; Grinberg, 2016; Hensley, 2014). Reports of violent hate crimes against TGD people have also increased in recent years (National Coalition of Anti-Violence Programs, 2017).

The present study

This study builds on our previous research with this same dataset (Eisenberg, Gower, McMorris, et al., 2017), existing theory, and empirical evidence by examining the intersection of sexual and gender identities among adolescents, using a large, population-based sample with adequate numbers in each category to support separate groupings of lesbian, gay, bisexual and questioning youth, further separated by birth-assigned sex. The extent of this overlap in adolescent populations is not well-established. One recent U.S. population-based study of transgender youth indicates that approximately half also identify as lesbian, gay, or bisexual (Perez-Brumer et al., 2017), and similarly, a New Zealand study estimated that 40% of transgender students were not exclusively heterosexual (Clark et al., 2014). Estimates using convenience or other non-representative samples are not

generalizable. Our first research question, therefore, asks what is the prevalence of the intersection of sexual and gender identities among adolescents in a population-based sample in an upper Midwestern state?

Our second research question asks, what are the rates of emotional distress and bullying victimization for those with each combination of LGBQ and TGD identities, compared to a subgroup of matched straight non-TGD youth? Based on the Minority Stress Theory and an intersectionality framework (positing that multiple systems of oppression are detrimental to the well-being of those with multiple marginalized identities), we first hypothesize that those with intersecting LGBQ and TGD identities will be at greater risk for both emotional distress and bullying victimization than those with either an LGBQ non-TGD or straight TGD identity or straight non-TGD youth. Second, based on evidence of increased social acceptance of LGBQ people, we hypothesize those with a straight TGD identity will be at greater risk than those with an LGBQ non-TGD identity. Finally, we hypothesize that those with an LGBQ non-TGD identity or a straight TGD identity will be at greater risk than straight non-TGD adolescents.

We focus specifically on emotional distress and bullying experience as outcomes of interest, recognizing that the bulk of existing research with LGBQ and TGD youth examines these issues; they also fit conceptually with the Minority Stress Theory's emphasis on mental health and minority-related stressors. Exploring intersectionality across a variety of social identities is important to understanding the complex lived experience of young people. However, we center our inquiry specifically on sexual orientation, gender identity, and birth-assigned sex as key social classifications relevant to the outcomes of interest, building on a limited existing literature (Diamond & Butterworth, 2008; McManama O'Brien, Putney, Hebert, Falk, & Aguinaldo, 2016; Parent et al., 2013). We expect that this research will shed light on the heterogeneity within LGBQ and TGD populations, to inform future research, support services, and bullying prevention programs.

Methods

Study design and sample

The Minnesota Student Survey (MSS) is a surveillance program conducted every three years in grades 5, 8, 9, and 11 (Minnesota Center for Health Statistics, n.d.). All public school districts are invited, and in 2016, 85% of districts agreed to participate (N=282 districts, 1,081 schools). Participating districts come from all parts of the state and include regular public schools, tribal and charter schools (i.e. tuition-free, independent public schools operated jointly by licensed teachers, parents, and community members ("Minnesota Association of Charter Schools," n.d.)). Passive parental consent was used, in accordance with relevant laws. Anonymous surveys were completed during school time.

Survey items regarding gender identity and sexual orientation were only asked of 9th and 11th graders, so the current analysis focuses on those grades (N=81,885 students attending 348 schools). Participation included 71% of all 9th grade students and 61% of all 11th grade students enrolled in regular public schools statewide. Approximately 2% of surveys had highly implausible (e.g. attended seven different after-school activities every day) or

inconsistent responses (e.g. three or more instances of marking both yes and no to the same behavior, such as no alcohol use in the past 30 days but binge drinking in the past 30 days), or response patterns suggesting exaggeration (e.g. used five kinds of tobacco products on all 30 days of the past month); these cases were discarded in order to improve the validity of the dataset. The University of Minnesota's Institutional Review Board exempted this analysis from review due to use of existing anonymous data.

Instrument and measures

The MSS is a 250-item instrument assessing a wide variety of attitudes, behaviors, and experiences. Several items relevant to sexual orientation and gender were included on the 2016 survey. Sexual orientation was asked as "Which of the following best describes you?" with four response options: "heterosexual (straight)," "bisexual," "gay or lesbian," and "not sure (questioning)." Gender identity was measured with the item "Do you consider yourself transgender, genderqueer, genderfluid, or unsure about your gender identity?" (yes/no). Responses to the sexual orientation and gender identity items were cross-classified to create eight groups for analysis (straight non-TGD, lesbian/gay non-TGD, bisexual non-TGD, not sure non-TGD, straight TGD, lesbian/gay TGD, bisexual TGD, not sure TGD). Approximately 2% of the sample was missing data on either of these two items and were excluded from analysis.

Four measures of emotional distress were included in the survey. The Patient Health Questionnaire-2 (PHQ-2) is a validated two-item screener used to assess depressed mood and anhedonia in the past two weeks, with response options ranging from 1 "not at all" to 4 "nearly every day." Responses were combined ($\alpha=0.80$) and dichotomized at 3 or more points versus fewer, as recommended by the developers to indicate a need for further mental health evaluation among adolescents (Kroenke, Spitzer, & Williams, 2003; Richardson, Rockhill, Russo, & et al, 2010). Self-harm (i.e. "purposely hurt or injure yourself without wanting to die, such as cutting, burning or bruising") was measured in the past year with responses dichotomized as any versus none due to extreme skewness in the distribution. Two separate items measured suicide ideation and attempt ("Have you ever [seriously considered attempting/actually attempted] suicide?"). Response options of "yes, during the past year" and "yes, more than a year ago" were combined and contrasted with those who responded "no."

Four measures of bullying experience were also included in this analysis. Two items on relational bullying victimization asked whether other students "spread mean rumors or lies about you" or "excluded you from friends, other students or activities." Physical bullying victimization consisted of two items ("pushed, shoved, slapped, hit or kicked you when they weren't kidding around?" or "threatened to beat you up"). Two bullying items specific to gender expression and sexual orientation were also included on the MSS, asking how often other students harassed or bullied them because of "your gender expression (your style, dress, or the way you walk or talk)" or because "you are gay, lesbian or bisexual or someone thought you were." All bullying items referred to the past 30 days and used responses that ranged from 1 "never" to 5 "every day."

Demographic items included sex (“what is your biological sex?” male/female), referred to here as birth-assigned sex in keeping with the TGD community’s preferred terminology (“Trans Student Educational Resources. LGBTQ+ definitions,” n.d.) and the preferences of a panel of TGD young people engaged to discuss terminology for this study. Additional demographic items included grade level (9th/11th), race/ethnicity (any of 5 race groups and a separate item regarding Hispanic ethnicity, combined to create 7 categories shown in Table 1), receipt of free/reduced-price lunch at school, and school location (coded by survey administrators as the 7-county Minneapolis/St. Paul metropolitan area vs. other areas of the state).

Data analysis

Just over 10% of the total sample of 9th and 11th grade students indicated a TGD identity and/or LGBQ identity (n=8,546). A random probability matched subsample of straight non-TGD participants (i.e. neither LGBQ nor TGD “controls”) was drawn, using birth-assigned sex, grade level, race/ethnicity, free/reduced-price lunch, and school location as matching criteria (n=8,546; Diseker, n.d.), based on our previous work showing significant associations of these characteristics with gender identity in the present sample (Eisenberg, Gower, McMorris, et al., 2017). Matching was performed using the SAS PROC SURVEYSELECT function (Diseker, n.d.). This case-control sampling procedure reduced the likelihood of Type 1 error resulting from the extremely large size of the full MSS sample and allowed for simpler subsequent analyses by not having to include demographic covariates.

Chi-square tests were used to detect differences in rates of a TGD identity across different sexual orientation groups and of an LGBQ identity across TGD and non-TGD identified youth; tests were run both including the matched subgroup of straight non-TGD youth and not including this group of “controls.” Analysis of variance models were then used to test associations between sexual orientation and gender identity (main effects) and emotional distress and bullying experience. An interaction term of sexual orientation by gender identity was added, and post-hoc t-tests (with Bonferroni correction) were used to compare each of the resulting eight groups with each other group in cases where the interaction term was at least marginally significant ($p < .10$). For dichotomous dependent variables, predicted means were interpreted as predicted probabilities (Lumley, Diehrs, Emerson, & Chen, 2002). All models were stratified by birth-assigned sex, given previously identified differences in the dependent variables (Eisenberg, Gower, McMorris, et al., 2017). Finally, effect sizes were calculated using Cohen’s d statistic as an indicator of practical significance. Interpretation of effects as small ($d=0.2$), medium ($d=0.5$) and large ($d=0.8$) are based on Cohen’s suggestions (Cohen, 1988). All analyses were conducted with SAS version 9.4.

Results

Prevalence and characteristics of students by sexual and gender identity

Using the full dataset, among MSS participants who provided data on sexual orientation and gender identity (n=79,989), 8,158 (10.2%) identified as LGBQ, regardless of gender identity, and 2,101 participants (2.6%²) identified as TGD, regardless of sexual orientation.

As shown in Figures 1 and 2 using LGBTQ participants and the matched sample, rates of TGD identity varied across sexual orientation groups, and LGBQ identities varied between non-TGD and TGD youth for both those assigned male and assigned female. For example, among those who were assigned female and self-reported being gay/lesbian, 39.5% identified as TGD, compared to only 22.5% of bisexual assigned females (Figure 1). Likewise, among TGD youth assigned male, 16.3% identified as gay/lesbian, compared to only 7.6% of non-TGD youth assigned male (Figure 2). Rates of each identity differed significantly for comparisons including the matched subgroup of straight youth ($X^2=147.2$, $p<.001$ for assigned male, $X^2=1277.0$, $p<.001$ for assigned female) as well as when restricted to LGBQ youth ($X^2=19.9$, $p<.001$ for assigned male, $X^2=133.4$, $p<.001$ for assigned female).

Emotional distress and bullying victimization

As shown in Figures 3 and 4, rates of emotional distress differed considerably across the eight sexual orientation/gender identity groups. Main effects were statistically significant for both sexual orientation and gender identity in all models ($p<.001$). However, the interaction of sexual orientation and gender identity was significant only for suicide attempt among those assigned male ($F=5.8$, $p<.001$) and self-harm among those assigned female ($F=3.2$, $p=.023$). Where omnibus tests of interactions were significant, post-hoc tests are noted with letters; within each behavior, groups with different letters differed significantly from each other ($p<.05$). Of 56 post-hoc tests derived from these two models, 47 were statistically significant (83.9%). For example in Figure 3 for suicide attempt, among bisexual non-TGD youth assigned male (red checked bar), 24.1% reported attempting suicide; this is significantly higher than the three other non-TGD assigned male groups (including straight non-TGD; other checked bars) and also significantly lower than the 39.6% among bisexual TGD youth assigned male (solid red bar).

Likewise, the frequency of bullying victimization varied across the eight sexual orientation/gender identity groups, for both those assigned male and assigned female (Figures 5 and 6). Disparities were particularly pronounced for victimization based on gender expression and sexual orientation in contrast to more general measures of physical and relational victimization. Main effects for sexual orientation and gender identity were statistically significant in all models ($p<.001$), and interactions were also significant in all models except relational bullying for those assigned female ($p=.055$). Of 224 post-hoc tests derived from these eight models, 172 were statistically significant (76.8%). In most, but not all cases, post-hoc tests indicated that those with both an LGBQ and TGD identity (solid green, red, and yellow bars) experienced significantly more frequent bullying than those with an LGBQ non-TGD identity (checked bars of the same colors), those with a straight TGD identity (solid blue bars), and straight non-TGD youth (checked blue bars). Of note, for bullying regarding gender expression or sexual orientation, gay/lesbian TGD youth (solid green bars) reported higher levels than almost all other groups. In select cases, straight TGD youth (solid

²This estimate differs slightly from the 2.7% reported in our previous work (Eisenberg, Gower, McMorris, et al., 2017). The discrepancy is due to exclusion of a small number of TGD participants who were missing data on sexual orientation.

blue bars) experienced significantly more bullying than LGBQ non-TGD youth (checked green, red, and yellow bars), but this was not a consistent pattern.

Effect sizes for main effects and interaction terms are shown in Table 1. Effects were mostly of medium size for sexual orientation (average $d=.35$, range=.11-.63) and small for gender identity (average $d=.23$, range=.11-.37). Effect sizes were small for sexual orientation-by-gender interaction terms (average $d=.08$, range=.02-.18).

Discussion

This research examined the prevalence of sexual identity, gender identity, and the intersection of these identities, and the associated rates of emotional distress and bullying victimization in a very large sample, allowing for disaggregation by sexual orientation and birth-assigned sex. Findings partially supported our first hypothesis, showing that those with intersecting LGBQ and TGD identities were at greater risk for select emotional distress measures and all four bullying victimization experience compared to those with either an LGBQ or TGD identity. In regard to our second hypothesis, straight TGD youth did not generally have elevated rates of emotional distress or bullying victimization in comparison to LGBQ non-TGD youth. Finally, those with an LGBQ non-TGD identity or a straight TGD identity were at greater risk of select emotional distress indicators and most types of bullying victimization than straight non-TGD adolescents.

Our primary findings regarding the intersection of LGBQ and TGD identities are consistent with previous research showing that LGBQ youth who are also gender non-conforming report higher rates of emotional distress and victimization than those who are gender conforming (Friedman et al., 2006; Gordon & Meyer, 2007; Rieger & Savin-Williams, 2012). However, these previous studies have examined a specific behavior (i.e. gender non-conformity) exhibited by a subset of LGBQ individuals. In contrast, the present study includes gender identity – a sense of self that might be sensitive to stigmatization regardless of presentation.

The absence of significantly greater risk among youth with a straight TGD identity vs. an LGBQ non-TGD identity raises questions about protective factors or coping strategies that may mitigate hostility from aspects of the social environment. For example, youth who identify as TGD may experience an internal or more private developmental process regarding their gender identity (Steensma, Kreukels, de Vries, & Cohen-Kettenis, 2013), without necessarily presenting or expressing their gender in a way that would be incongruent or transgress societal expectations for their birth-assigned sex. Perhaps because a youth's development of sexual orientation occurs, at least in part, in relation to another person (through partnered sexual behaviors, expressions of romantic interest, etc. (Savin-Williams & Cohen, 2015)), it may be a more visible identity. Not disclosing a minority identity may make a young person less likely to be targeted with bullying, a known risk factor for emotional distress and suicide involvement.

An alternative explanation for this finding is that straight TGD youth may have transitioned to their affirmed gender and are perceived and accepted in this way; doing so might be

expected to reduce the internal distress that arises from living discordantly from their gender. Unfortunately, the MSS instrument did not have items about medical (e.g. hormonal) or social transition, which might signal whether a young person is psychologically aligned in their gender identity, gender presentation, and social roles. Future research should delve into the characteristics of the small straight TGD group to deepen our understanding of their well-being, strengths and needs for support.

Study findings also underscore the challenge of developing a positive individual identity – a fundamental developmental task of adolescence (Erickson, 1968) – while simultaneously experiencing two stigmatized identities. There is a developmental process for both LGBQ and TGD identities, which may be more complicated at their intersection (Bockting, Benner, & Coleman, 2009; Bockting & Coleman, 2016; Coleman, 1982). The unbalanced nature of this intersection - that a minority of LGBQ youth in all categories identify as TGD but a majority of TGD youth identify as LGBQ - might suggest that integrating an LGBQ identity as part of TGD identity development is easier than the reverse, perhaps due to the evolution of social attitudes and recent public discourse about sexuality and gender in the U.S. Likewise, it may be that TGD youth are more likely to use a wide range of sexual orientation labels, particularly those that affirm diverse gender identities (e.g., queer, pansexual), as suggested by emerging research (Eisenberg, Gower, Brown, Wood, & Porta, 2017; White et al., 2018). Questions also remain as to whether one type of identity is “primary,” and the extent to which social norms (such as acceptance of gender fluidity among today’s adolescents) influence the adoption of different identity labels at different times. Additional research is needed to further uncover these developmental processes and health outcomes for both identity and well-being over time, both within person (longitudinally) and across time periods.

Limitations and Strengths

Findings must be interpreted in light of several limitations. State-sponsored surveillance programs are subject to political pressures and often trade depth for breadth in order to maintain relevance to the full population-based sample. Measures of specific gender identities (e.g. trans man, genderqueer) and newer sexual orientation labels (e.g. queer, pansexual) are therefore limited, and may be particularly so for racial/ethnic minority groups. Similarly, receipt of gender-affirming medical care (e.g. hormones) and other constructs relevant to sexual orientation and gender identity (e.g. outness, involvement with a school GSA) were not included in the survey. Additional information on these characteristics and experiences would permit a more robust analysis and address possible mechanisms underlying the observed associations. Further, given the wording of the gender identity item, we were unable to distinguish between those who were unsure of their gender identity and those who actively identify as TGD. Being “unsure” is ambiguous; it could reflect a lack of understanding of the question or a genuine developmental process (Saewyc et al., 2004). The prevalence of a TGD identity is higher in the MSS than previously published estimates (Flores, Herman, Brown, Wilson, & Conron, 2017; Perez-Brumer et al., 2017), suggesting a subset of this group may have misunderstood the question. In such a case, true associations may be more pronounced than those found here. Sexual orientation among TGD participants may be particularly subject to misclassification, as some students

might respond to the sexual orientation item in a manner that is consistent with their identified gender, while others might respond consistent with their birth-assigned sex. Finally, because LGBTQ students experience greater bullying and harassment (Eisenberg, Gower, McMorris, et al., 2017; Kann et al., 2016), which contributes to absenteeism, they are more likely to have been out of school on the day of survey administration. Findings may therefore underestimate these negative experiences.

Several strengths also enhance this study's contribution to the field. The very large sample size yielded an adequate number of adolescents who identify as LGBTQ to permit this detailed exploration of experiences within separate and overlapping groups, which are typically not distinguished for analysis. Second, the school-based sampling strategy means that findings have greater generalizability than most research on LGBTQ youth, which often relies on convenience samples and other non-representative methods.

Conclusions

LGBTQ youth experience social inequality and stressors that are complex and mutually constitutive in nature. Their experiences interact in a way that seems to exacerbate emotional distress and bullying victimization, in comparison to their straight non-TGD peers. This research expands on previous literature demonstrating health disparities affecting LGBTQ youth by examining the intersection of separate sexual and gender identities, finding even greater disparities facing young people identifying with both stigmatized groups. Researchers, as well as clinicians, educators, youth workers, and others who work with and on behalf of LGBTQ youth, need to be aware of these distinctions and associated challenges to well-being. When interacting with these youth and when creating programs and interventions, professionals are advised to consider the confluence of these identities, rather than thinking of them as distinct. Creating welcoming and supportive environments in schools, programs, and communities is critical to the development of young people with a variety of identities and lived experiences. Supporting healthy development further involves addressing broader societal barriers, such as heterosexism and transphobia, that prevent positive integration of multiple social identities.

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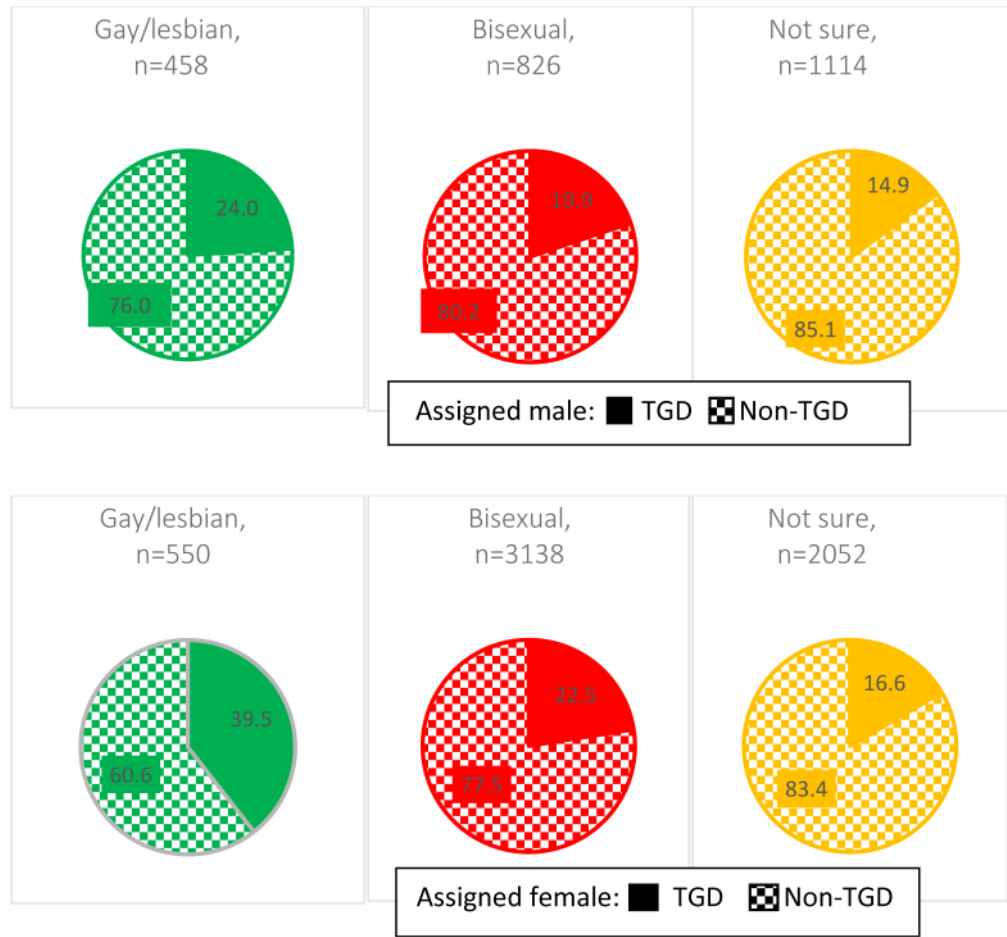


Figure 1:
Percent TGD among LGBTQ youth (N=8138)

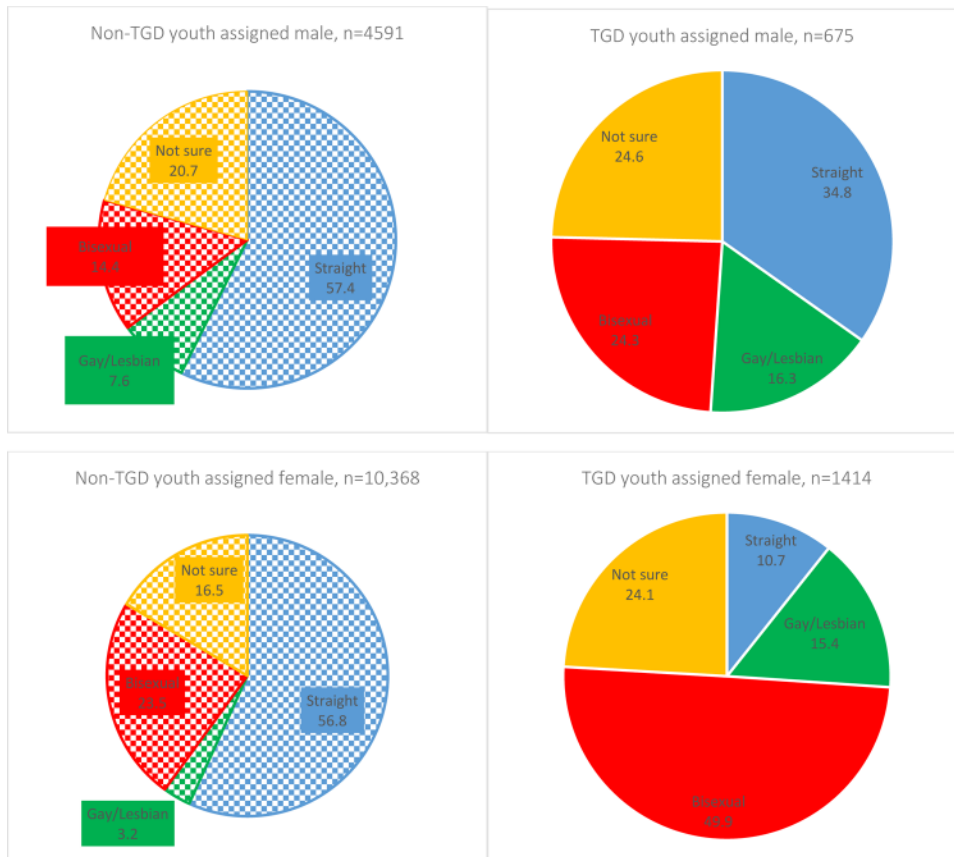


Figure 2: Percent in each sexual orientation group among TGD youth (N=17,048[^])
[^]Non-TGD group includes both matched “controls” and non-TGD LGBQ youth.

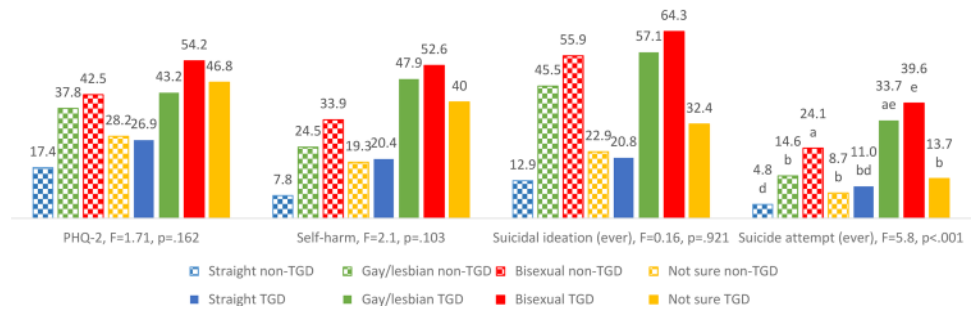


Figure 3:
 Predicted prevalence of emotional distress (assigned male)

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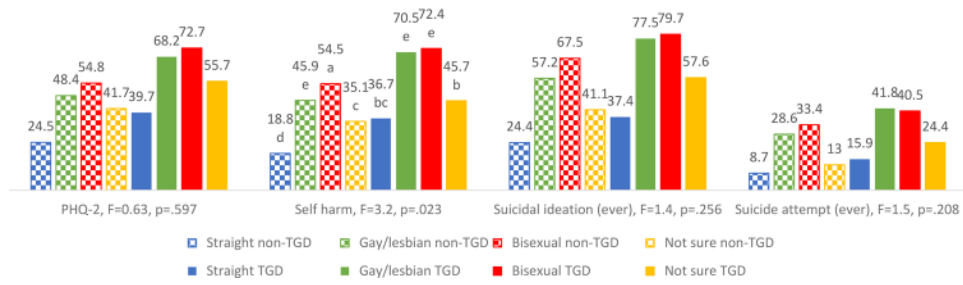


Figure 4: Predicted prevalence of emotional distress (assigned female)
 abcde: within behaviors, bars sharing a superscript do not differ at $p < .05$
 F statistic is for interaction of gender identity and sexual orientation
 Straight non-TGD is matched subsample of students

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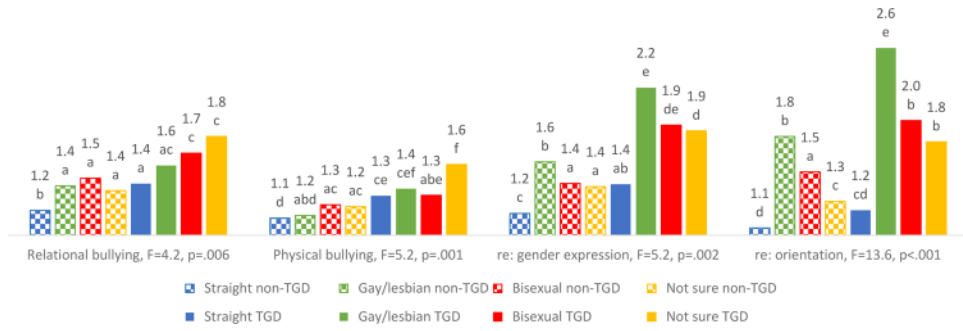


Figure 5:
Mean level of bullying victimization (range=1–5; assigned males)

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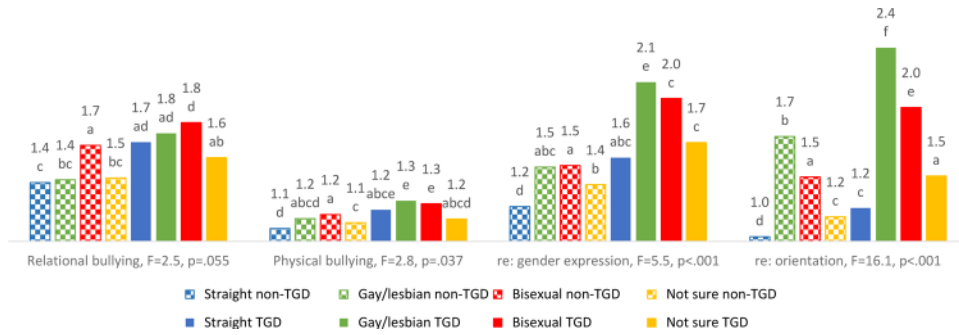


Figure 6: Mean level of bullying victimization (range=1–5; assigned females)
 abcdef: within behaviors, bars sharing a superscript do not differ at $p<.05$
 F statistic is for interaction of gender identity and sexual orientation
 Straight non-TGD is matched subsample of students

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Table 1:

Cohen's d statistics for sexual orientation, gender identity, and orientation x identity interactions

	Assigned male			Assigned female		
	Orientation	Gender identity	Interaction	Orientation	Gender identity	Interaction
Depressive symptoms	0.32	0.16	0.07	0.29	0.19	0.03
Self harm	0.42	0.32	0.07	0.37	0.21	0.06
Suicide ideation	0.58	0.14	0.02	0.42	0.18	0.04
Suicide attempt	0.43	0.23	0.12	0.33	0.14	0.04
Relational bullying	0.23	0.23	0.10	0.17	0.15	0.05
Physical bullying	0.16	0.23	0.11	0.11	0.11	0.05
Teased - gender exp	0.35	0.34	0.11	0.22	0.28	0.07
Teased - orientation	0.63	0.37	0.18	0.53	0.33	0.13

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