



Worsening Perceptions of Family Connectedness and Parent Support for Lesbian, Gay, and Bisexual Adolescents

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Abstract

Objectives Lesbian, gay, and bisexual (LGB) adolescents often report compromised relations with their families. Given the recent changes in societal attitudes toward LGB individuals, in respect to rights for marriage and other legal statuses, we explore whether or not there has been a change in how LGB and heterosexual adolescents perceive their family relations over time.

Methods Using the British Columbia Adolescent Health Survey from British Columbia, Canada ($N = 99,373$; $M_{\text{age}} = 14.8$), we investigated the trends and disparities in family connectedness and mother/father support in four data sets from 1998 to 2013.

Results We found that while levels of perceived family connectedness and parent support have increased for heterosexual adolescents since 1998, the same increases were not found for LGB adolescents. Among LGB participants, levels of perceived connectedness/support generally decreased in each survey wave, especially among females. Alarming, significant disparities in these perceptions remained for LGB youth over time.

Conclusions Our findings have implications for supportive interventions focused on LGB adolescents and their families and in particular, the role of father support.

Keywords Family connectedness · LGB · Mothers · Fathers · Sexual minorities

Many lesbian, gay, and bisexual (LGB) adolescents experience negative experiences and health outcomes, in part because of stigma, discrimination, and victimization related to identifying as part of a minority group (Institute of Medicine 2011). Research consistently shows that negative outcomes (e.g., suicidality) are typically found among sexual minority adolescents to a greater extent than they are among heterosexual adolescents (e.g., Coker et al. 2010; Saewyc 2011). One critical support contributing to the well-being and health of all young people is their relationship with their family; however, we are unsure whether the documented differences in family relations (specifically, support from parents and family connectedness) between

sexual minorities and their heterosexual counterparts have changed in recent time. Virtually no research has documented how these relationships have changed at a population level over time, whether these changes might be different for sexual minorities compared to their sexual majority counterparts, and if these changes differ by gender of parent or in the larger family context (e.g., extended family such as grandparents, aunts, uncles, and siblings).

Support from parents (e.g., warmth, care, closeness between child and parent) is typically associated with better outcomes among adolescents in general (e.g., Helsen et al. 2000; Rodgers and Rose 2002) and college students (e.g., Holahan et al. 1994). The positive relation between supportive parents and better outcomes extends beyond all adolescents in general to also include sexual minorities. Based on their meta-analytic study of parental influence on the health and well-being of LGB adolescents, Bouris et al. (2010) concluded that positive affect in the context of the parent-child relationship was associated with better physical and mental health outcomes for LGB adolescents. Other researchers have documented that supportive parenting was correlated with adolescents' mental health and well-being (e.g., Floyd et al. 1999; Needham and Austin 2010; Resnick

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et al. 1997). In one example, Teasdale and Bradley-Engen (2010) used the US National Longitudinal Study of Adolescent to Adult Health (Add Health) data to examine prospectively the effects of parental support on adolescent depression a year later; these researchers found that parental support mediated the relationship between mental health and sexual orientation. In a different study using the same data, Needham and Austin (2010) found that lesbian and bisexual young women reported lower scores on parental support than heterosexual young women, and that gay young men reported lower scores on parental support than bisexual and heterosexual young men. Furthermore, this study showed that parental support mediated associations between sexual identity and depression, suicidal thoughts, and drug use for young women, and between sexual identity and suicidal thoughts for young men. The authors concluded that a lack of parental support is a contributing factor to negative health outcomes in LGB adolescents as they transition to adulthood. In this study, we focus on mother and father support separately, given that previous research has found different associations between father and mother acceptance related to health behaviors among same-sex attracted youth (van Beusekom et al. 2015). Van Beusekom et al. (2015) examined a Dutch sample of same-sex adolescents and found that the influence of parent relations (e.g., acceptance) on mental health in same-sex attracted youth depended on the sex of the adolescent and of their parent.

Beyond parental support from families, some scholars have focused on family connectedness (e.g., the ways children feel they participate in activities with their families and how well they understand each other; Ackard et al. 2008; Garofalo et al. 2008). Eisenberg and Resnick (2006) found that family connectedness was negatively associated with suicidality in a school-based sample of adolescents, accounting for greater variance than sexual orientation. Family connectedness has also been linked to a range of positive and negative health outcomes for sexual minority adolescents including self-esteem, depression, and suicidality (Ryan et al. 2010). Ackard et al. (2008) found that family connectedness was negatively associated with risky sexual behaviors regardless of sexual orientation. Poon et al. (2011) found that high levels of family connectedness were linked to reduced odds of problem substance use among lesbian and bisexual East Asian girls in Western Canada, even if they were exposed to violence and stigma. Importantly, family connectedness is a key protective factor when issues of suicidality, problem substance use, and mental health are considered (Eisenberg and Resnick 2006; Poon et al. 2011). In sum, this research suggests how some sexual minority youth exhibit resiliency in the face of sexuality-specific discrimination (D'Amico and Julien 2012; D'Amico et al. 2015; Espelage et al. 2008; Hershberger and D'Augelli 1995): supportive families help adolescents build capacity for adaptive development and resilience by means of

family connectedness (Eisenberg and Resnick 2006; Poon et al. 2011).

Most scholarship addressing parent support and family connectedness has focused primarily on heterosexual adolescents, or has treated sexual minority adolescents as a monolithic population. Almost no scholarship has disentangled how supportive relations differ across sexual orientations. The importance of exploring the diversity that exists among sexual minority adolescents has been noted (e.g., Bouris et al. 2010; Rose et al. 2006; Saewyc 2011). These authors have argued that much of the research, informed by a deficit model of sexual orientation, focused solely on the risks and negative outcomes associated with being a sexual minority. Additionally, most of the research has utilized non-probability samples, rather than representative samples, which limit the ability of researchers to generalize from research samples to the general population and document changes over time (e.g., Bouris et al. 2010; Saewyc 2011). As well, most samples are made up of white, middle-class, urban adolescents from the United States, further limiting the generalizability of findings. There are some notable exceptions (e.g., Poon et al. 2011; Rosario et al. 2012).

One of the striking limitations of previous research is the cross-sectional assessment of parental support in populations at one point in time, which makes it difficult to consider how parent-child relations have changed at the population level over time. For example, research consistently shows that sexual minority adolescents report less parental support than heterosexual adolescents (e.g., Espelage et al. 2008; Saewyc 2011), but are these disparities changing over time? Given changing attitudes toward same-sex marriage in the Canadian context (Lyon and Frohard-Dourlent 2015; Rose 2012), for example, we might expect that sexual orientation-based disparities are narrowing over time. Alternatively, these disparities could widen as a negative reaction or backlash against changing laws. The limited scholarship examining parental support and family connectedness among LGB adolescents over time is concerning given the strong positive role of parental influence on the health of sexual minority adolescents in cross sectional research (Bouris et al. 2010; Watson and Russell 2016).

Recent methodological advances have allowed us to test not just population trends generally, but also trends in disparities (Homma et al. 2016). Using this novel method, we explored trends in family connectedness using provincially representative data from the 1998, 2003, 2008, and 2013 British Columbia Adolescent Health Surveys (BCAHS; British Columbia, Canada) for boys and girls who identified as heterosexual, mostly heterosexual, bisexual, and gay/lesbian. We were interested in examining whether population-level patterns of adolescent-reported perceived family connectedness have changed over time for sexual minority adolescents, with further exploration of separate trends in

perceived mother and father support for years that included such items (i.e., 1998 and 2008). We did not hypothesize that family connectedness and/or parent support would change over time for heterosexual youth, but we include this information as a benchmark to compare with sexual minority youth, and to use as a referent group in our models. We also tested whether previously observed disparities in supportive family relationships between heterosexual and sexual minority adolescents have persisted, separately for boys and girls, over 4 different years of data that span 15 years.

Method

Participants

Participants were students in British Columbia with valid responses to a sexual orientation measure ($N = 96,495$ adolescents). The average age of participants was 14.8 ($SD = 1.8$). See Table 1 for detailed sample breakdown by sexual orientation subgroup, age, and survey year. There were no statistical differences on key demographic variables across sexual orientation status. The sample was ethnically diverse: 51% of the 2013 sample reported their family background as European, 18% as East Asian, 10% as Aboriginal,

10% as South Asian, 7% as Southeast Asian, 4% as Latin, 3% as African, 2% as Australian/Pacific Islander, 2% as West Asian, and 10% as do not know/other. Most of the sample lived with their mother/stepmother (85%) and father/stepfather (71%). Additionally, 19% of the sample included youth born outside of Canada (see Smith et al. 2014).

Procedure

Data were drawn from the 1998, 2003, 2008, and 2013 British Columbia Adolescent Health Surveys (BCAHS), conducted by the McCreary Centre Society. Every five years, students in BC high schools are administered surveys by public health nurses, sampled through cluster-stratified random techniques originally developed in consultation with Statistics Canada. Given that data were gathered every 5 years, individual high school students were not included in our analyses more than once as they graduated out of the school system. Participants were public school students in grades 7–12, and the surveys were anonymous and voluntary. The overall response rate was 76% (the procedures have been described in detail elsewhere; see Saewyc et al. 2008). Uniquely, for this study, we created a merged dataset with the 1998, 2003, 2008, and 2013 surveys. Only schools that participated in 3 of the 4 surveys were included in

Table 1 Sample sizes, and per cents, and mean ages for the BCAHS data, by wave and gender

	1998		2003		2008		2013	
	<i>n/M</i>	%/95%CI	<i>n/M</i>	%/95%CI	<i>n/M</i>	%/95%CI	<i>n/M</i>	%/95%CI
Male								
Heterosexual	9552	93.4%	12,995	95.0%	11,058	93.8%	9181	92.6%
Mean age	14.82	14.70–14.95	15.04	14.98–15.09	15.00	14.46–15.04	14.98	14.94–15.02
Mostly hetero	418	4.4%	432	3.4%	459	4.0%	463	4.7%
Mean age	15.24	15.07–15.41	15.39	15.25–15.53	15.55	15.47–15.64	15.54	15.46–15.62
Bisexual	127	1.2%	122	0.9%	141	1.2%	153	1.5%
Mean age	14.74	14.55–14.93	15.52	15.34–15.69	15.55	15.41–15.70	15.59	15.49–15.68
Gay	84	0.9%	89	0.7%	104	0.9%	118	1.2%
Mean age	15.25	15.00–15.49	15.86	15.73–15.99	15.76	15.57–15.95	15.73	15.61–15.85
Female								
Heterosexual	10,829	90.2%	13,013	87.9%	11,268	86.8%	9601	85.9%
Mean age	14.79	14.68–13.89	14.87	14.80–14.93	14.98	14.94–15.03	14.89	14.85–14.93
Mostly hetero	919	7.7%	1304	8.8%	1200	9.2%	1019	9.1%
Mean age	15.59	15.44–15.73	15.58	15.49–14.55	15.55	15.48–15.62	15.62	15.55–15.69
Bisexual	217	1.8%	428	2.9%	444	3.4%	468	4.2%
Mean age	15.48	15.28–15.68	15.61	15.49–15.73	15.44	15.32–15.56	15.55	15.46–15.64
Lesbian	41	0.3%	55	0.4%	65	0.5%	92	0.8%
Mean age	14.75	14.63–14.86	14.80	14.80–15.06	15.41	15.41–15.76	15.48	15.37–15.58

M indicates mean value and 95%CI indicates the 95% confidence interval of means

analyses, to ensure the required three time points for trend analyses (Homma et al. 2016), and to ensure any observed changes in more recent years would not be due to the inclusion of new schools and school districts with potentially different cultural and family attitudes about sexual minority people; 46 of the possible 60 school districts in British Columbia are represented. This project received ethics approval from the University of British Columbia ethics board, certificate #H12-00477.

Measures

Sexual orientation

One item was used to measure sexual orientation: “People have different feelings about themselves when it comes to questions of being attracted to other people. Which of the following best describes your feelings?” Response options in the 1998–2008 surveys included: “100% heterosexual (attracted to persons of the opposite sex)”; “Mostly heterosexual”; “Bisexual (attracted to both males and females)”; “Mostly homosexual”; “100% homosexual (“gay/lesbian”; attracted to persons of the same sex)”; and “Not sure.” For the 2013 survey, responses included: “Completely heterosexual”; “Mostly heterosexual”; “Bisexual”; “Mostly homosexual”; “Completely homosexual”; “Questioning”; and “I don’t have attractions.” This measure was originally developed and validated in the 1986 Minnesota Adolescent Health Survey (Remafedi et al. 1992) and has been used widely in the U.S. and Canada, with further validation studies since (Saewyc et al. 2004; Austin et al. 2007).

For purposes of tracing trends and disparities, we conceptualized the responses “100% heterosexual” (1998–2008) and “Completely heterosexual” (2013) as equivalent measures of exclusive heterosexuality. In addition, although in all cohorts we found a distinction between “Mostly heterosexual” and “Completely heterosexual” adolescents, but not between “Mostly homosexual” and “Completely homosexual” adolescents, we collapsed the latter options into one “Homosexual” category. There is precedence in separating analyses for “Completely heterosexual” and “Mostly heterosexual” categories, but scholars have not separated analyses for “Mostly homosexual” and “100% homosexual” (Watson et al. 2017). The analyses presented here exclude the “Not sure” and “Questioning” participants ($n = 2878$) because these categories were not asked consistently across all four surveys.

Family connectedness

To measure family connectedness, we used a collection of three items that have been used by many research studies,

including Add Health (see Brown and Manning 2009). An average of the three items measured perceived family connectedness; these items were asked in 1998, 2003, 2008, and 2013. The items asked students how much they felt their families understood them, had fun together, and paid attention to them. Response options were 1 (not at all), 2 (very little), 3 (somewhat), 4 (quite a bit), and 5 (very much). Between 1998 and 2013, Cronbach’s alphas ranged from 0.82 to 0.88 for boys, and 0.86 to 0.91 for girls. After an average score of all three items was computed, we recoded the scale so that family connectedness was presented on a 0 (lowest levels of family connectedness) to 1 (highest levels of family connectedness) scale by dividing each participant’s mean value by 3, so that values ranged from 0–1.

Mother and father support

We used the average of four items that measured perceived mother support and four items that measured perceived father support in 1998 and 2008; these scales were drawn from the Add Health survey and have psychometrically validated in several studies, including the data from the BCAHS. Students were asked how much they thought their mother/father cared about them, how close they felt to their mother/father, whether or not their mother/father was warm and loving toward them most of the time, and if they were satisfied with their relationships with their mother/father. Response options were 1 (not at all), 2 (very little), 3 (somewhat), 4 (quite a bit), and 5 (very much). For perceived mother support, Cronbach’s alphas were 0.68 in 1998, and 0.77 in 2008 for boys, and 0.75 in 1998, and 0.79 in 2008 for girls. For perceived father support, Cronbach’s alphas were 0.74 in 1998 and 0.81 in 2008 for boys, and 0.82 in 1998 and 0.84 in 2008 for girls. We recoded each scale so that perceived mother/father support was presented on a 0 (lowest levels of mother/father support) to 1 (highest levels of mother/father support) scale. To do this, we first averaged the four items (resulting in a value from 1–5) and divided this value by 5, which resulted in a scale from 0–1.

Data Analysis

We used SPSS Complex Samples Version 22 to adjust for the complex stratified nature of the data; specifically, BCAHS was sampled by classroom within schools stratified both by health service delivery area and grade within each of the five health authorities across the province. Analyses were conducted separately by sex, and heterosexual participants were used as the referent category for all analyses. Before family connectedness and mother/father support scales were examined among our population of sexual

minority adolescents, we examined measurement invariance across all 3 measures. Because we found invariance for these measures across our sample of sexual minority adolescents, we continued with our analyses. We used crosstab analyses to examine trends in the prevalence of perceived family connectedness and mother/father support over time among heterosexual and sexual minority adolescents. We then used general linear models (GLM) adjusted for age to determine whether there were any changes in perceived family connectedness and mother/father support over time among the orientation groups.

Next, we used GLM to determine whether there were meaningful differences in perceived family connectedness and mother/father support between sexual minority subgroups. We present the resulting beta coefficients; bolded beta coefficients in Table 3 represent a statistical difference between the sexual orientation subgroup and the heterosexual referent group. Negative beta coefficients indicate that the subgroup reported lower levels (in terms of standard deviation units) of connectedness/support compared to their heterosexual counterparts.

To determine whether these disparities changed over time, we used GLM interaction models; the models tested the main effects of sexual orientation (reference heterosexual) and year (reference 2013) and the interaction of orientation*year, adjusted for age. The interaction beta coefficient is the result of a ratio (e.g., a disparity beta coefficient in one year for a sexual orientation subgroup by another beta coefficient in another year for the same subgroup). For ease of interpretation, we use the exponent of the beta coefficient using the formula: $\Pr(Y_i = 1/x_i) = 1 - \exp[-\exp(x_i B_i)]$, which transforms the beta into an odds ratio (OR) coefficient. With the OR coefficient, we are able to interpret the change in disparity over time. To interpret

this OR, an estimate above 1 indicates that the change in disparities in 2013 has widened since the year of comparison. Likewise, ORs less than 1 indicates a narrowing disparity in 2013 compared to the year of comparison. For more information on this method, see Homma et al. (2016).

Results

Our study's dependent variables were moderately correlated: the Pearson's correlation coefficient for mother and father support was 0.52, mother support and family connectedness was 0.61, and father support and family connectedness was 0.53.

Overall Prevalence and Trends, by Sexual Orientation

First, we present the mean levels of parent support and family connectedness disaggregated by survey year, sex, and sexual orientation. We examined if the mean levels in family connectedness, mother support, and father support significantly differed across survey years within the same sexual orientation subgroups. As shown by Table 2, the mean values of perceived family connectedness increased each survey year for heterosexual boys and girls. Bolded mean values for perceived family connectedness and parent support indicate significant mean differences at the $p < 0.05$ level compared to 2013 for family connectedness, and compared to 2008 for parent support. For boys, higher levels of perceived family connectedness was found only for mostly heterosexual boys from 1998 to 2013, and for bisexual boys from 2008 to 2013. For girls, perceived family connectedness was higher in 2013 compared to

Table 2 Perceived family connectedness (1999–2013) and mother/father support (1998, 2008) by sexual orientation and gender

	Perceived family connectedness (<i>M</i>)				Perceived mother support (<i>M</i>)		Perceived father support (<i>M</i>)	
	1998	2003	2008	2013	1998	2008	1998	2008
Male								
Heterosexual	0.64	0.66	0.69	0.74	0.87	0.88	0.81	0.83
Mostly heterosexual	0.59	0.62	0.62	0.65	0.83	0.84	0.76	0.74
Bisexual	0.57	0.55	0.51	0.58	0.81	0.74	0.72	0.65
Gay	0.58	0.58	0.55	0.59	0.79	0.82	0.71	0.63
Female								
Heterosexual	0.64	0.65	0.68	0.73	0.86	0.86	0.78	0.79
Mostly heterosexual	0.61	0.57	0.60	0.62	0.82	0.54	0.72	0.72
Bisexual	0.57	0.50	0.51	0.55	0.78	0.73	0.70	0.64
Lesbian	0.58	0.44	0.45	0.52	0.79	0.67	0.71	0.70

Data were weighted and adjusted for age. Estimates are age-adjusted means (*M*). Mean in bold indicates the estimate is significantly different from the 2013 (referent) wave (2008 was the referent year for mother/father support) estimate, $p < 0.05$. All variables recoded to a 0–1 scale; higher scores indicate more connectedness and support

Table 3 Estimates and 95% confidence intervals for family connectedness and parent support, by year and sexual orientation

	1998 B (95%CI)	2003 B (95%CI)	2008 B (95%CI)	2013 B (95%CI)
Family connectedness				
Male				
Heterosexual	Ref	Ref	Ref	Ref
Mostly heterosexual	-0.08 (-0.14, -0.02)	-0.06 (-0.13, 0.02)	-0.14 (-0.19, -0.09)	-0.38 (-0.46, -0.29)
Bisexual	-0.14 (-0.24, -0.03)	-0.20 (-0.32, -0.09)	-0.36 (-0.47, -0.25)	-0.63 (-0.80, -0.46)
Gay	-0.10 (-0.20, 0.00)	-0.12 (-0.25, 0.02)	-0.27 (-0.37, -0.15)	-0.60 (-0.81, -0.38)
Female				
Heterosexual	Ref	Ref	Ref	Ref
Mostly heterosexual	-0.04 (-0.08, 0.00)	-0.15 (-0.19, -0.10)	-0.15 (-0.18, -0.12)	-0.22 (-0.25, -0.19)
Bisexual	-0.12 (-0.22, -0.03)	-0.29 (-0.38, -0.21)	-0.33 (-0.38, -0.27)	-0.36 (-0.41, -0.32)
Lesbian	-0.13 (-0.29, 0.04)	-0.42 (-0.65, -0.19)	-0.44 (-0.60, -0.28)	-0.42 (-0.53, -0.32)
Mother support				
Male				
Heterosexual	Ref		Ref	
Mostly heterosexual	-0.06 (-0.11, 0.01)	-	-0.04 (-0.07, -0.01)	-
Bisexual	-0.12 (-0.20, -0.05)	-	-0.21 (-0.28, -0.13)	-
Gay	-0.13 (-0.24, -0.02)	-	-0.09 (-0.17, -0.01)	-
Female				
Heterosexual	Ref		Ref	
Mostly heterosexual	-0.05 (-0.08, -0.01)	-	-0.07 (-0.09, -0.04)	-
Bisexual	-0.14 (-0.23, -0.04)	-	-0.19 (-0.23, -0.15)	-
Lesbian	-0.11 (-0.26, 0.03)	-	-0.31 (-0.43, -0.19)	-
Father support				
Male				
Heterosexual	Ref		Ref	
Mostly heterosexual	-0.09 (-0.51, -0.03)	-	-0.11 (-0.15, -0.07)	-
Bisexual	-0.30 (-0.15, -0.07)	-	-0.26 (-0.35, -0.16)	-
Gay	-0.21 (-0.37, -0.06)	-	-0.29 (-0.39, -0.19)	-
Female				
Heterosexual	Ref		Ref	
Mostly heterosexual	-0.09 (-0.14, -0.04)	-	-0.13 (-0.16, -0.10)	-
Bisexual	-0.14 (-0.25, -0.04)	-	-0.22 (-0.27, -0.17)	-
Lesbian	-0.13 (-0.40, 0.14)	-	-0.14 (-0.27, 0.02)	-

Note. Data were weighted. Beta coefficients in bold indicates $p < 0.05$

2003, and in 2013 compared to 2008 all girls, but the mean scores for family connectedness were highest for heterosexual girls.

Higher levels of perceived mother support were reported in 2008 compared to 1998 among heterosexual boys, while bisexual boys and girls, as well as lesbian girls, reported a lower levels of perceived mother support from 1998 to 2008. Higher levels of perceived father support in 2008, compared to 1998, were only reported for heterosexual boys and girls, while lower levels of perceived father support were reported for gay boys in the same time period, and no change in perceived father support was reported for bisexual boys or girls or lesbian girls. In sum, heterosexual boys and girls reported more family connectedness and mother/father

support across all 4 survey years in general, and there were many instances where mostly heterosexual, bisexual, gay, and lesbian youth reported lower levels of family connectedness and mother/father support.

Sexual Orientation-Based Differences, by Survey Year

Next, we tested whether there were disparities in family connectedness and mother/father support within each survey year, and across all four survey years, disaggregated by sex. In these models, heterosexual boys and girls were the referent group. In terms of perceived family connectedness, mostly heterosexual boys were more likely to report lower

levels of family connectedness in 1998, 2008, and 2013 compared to heterosexual boys, as were bisexual boys (see Table 3). For example, in 2008, mostly heterosexual boys were -0.14 standard deviation units lower (on a 0–1 scale) on family connectedness compared to their heterosexual counterparts, while bisexual boys were -0.36 lower. Gay boys were more likely to report lower family connectedness in 2008 and 2013 compared to heterosexual boys. Mostly heterosexual, bisexual, and lesbian girls were more likely to report lower levels of perceived family connectedness compared to heterosexual girls across all survey years, with the exception of lesbians in 1998. Mostly heterosexual, bisexual, gay and lesbian students were more likely to report lower levels of perceived mother and father support compared to heterosexuals in every survey year, with one exception (father support for lesbian girls in 1998). In sum, many disparities were found, and in every single significant disparity, the sexual minority subgroup (i.e., mostly heterosexual, bisexual, gay, lesbian) reported lower support and connectedness as compared to their heterosexual counterpart.

Changes in Disparities Over Time Across Cohorts

Last, we examined whether these disparities (presented in Table 3) in perceived family connectedness between sexual minority and heterosexual adolescents widened or narrowed from 1998 to 2003, 2008, and/or 2013 (see Table 4). We also tested whether the disparities in perceived mother/father support between sexual minorities and heterosexuals widened or narrowed from 1998 to 2008. The disparity in perceived family connectedness between heterosexual and mostly heterosexual adolescents widened across all survey years with the exception of the disparity between 1998 and 2013 for boys. For bisexual adolescents, the disparity in perceived family connectedness compared to heterosexual peers widened from 2003 to 2013 (e.g., $OR = 1.20$ for boys, $OR = 1.25$ for girls); the same was true for gay boys ($OR = 1.21$) and lesbian girls ($OR = 1.34$). Finally, there were widening disparities for all sexual minority groups compared to heterosexual peers in mother and father support from 1998 to 2008. In sum, we found several widening disparities in family connectedness between sexual minority and heterosexual boys and girls.

Discussion

We considered the trends and disparities in perceived family connectedness and parent support over the span of nearly two decades. We found that parent and family relations have steadily improved over time for heterosexual adolescents, and the disparities declined or remained unchanged

Table 4 Changes in family connectedness and parent support disparities: interactions between sexual orientation and year presented as odds ratio coefficients

	Male ^a OR (95%CI)	Female ^a OR (95%CI)
Family connectedness		
Heterosexual by year 1998	Ref	Ref
Mostly heterosexual by year 2003	1.11 (1.03–1.19)	1.17 (1.12–1.24)
Mostly heterosexual by year 2008	1.14 (1.05–1.24)	1.08 (1.02–1.13)
Mostly heterosexual by year 2013	1.05 (0.98–1.12)	1.07 (1.02–1.12)
Bisexual by year 2003	1.20 (1.05–1.36)	1.25 (1.24–1.39)
Bisexual by year 2008	1.11 (0.97–1.29)	1.07 (0.97–1.18)
Bisexual by year 2013	0.96 (0.83–1.10)	1.03 (0.96–1.11)
Gay/Lesbian by year 2003	1.21 (1.05–1.41)	1.34 (1.10–1.64)
Gay/Lesbian by year 2008	1.19 (1.01–1.42)	1.00 (0.77–1.29)
Gay/Lesbian by year 2003	1.04 (0.89–1.21)	0.99 (0.81–1.19)
Mother support		
Heterosexual by year 1998	Ref	Ref
Mostly heterosexual by year 2008	0.98 (0.92–1.04)	1.01 (0.97–1.05)
Bisexual by year 2008	1.08 (0.98–1.20)	1.05 (0.95–1.16)
Gay/Lesbian by year 2008	0.95 (0.83–1.09)	1.21 (1.00–1.46)
Father support		
Heterosexual by year 1998	Ref	Ref
Mostly heterosexual by year 2008	0.98 (0.92–1.03)	1.04 (0.98–1.20)
Bisexual by year 2008	1.08 (0.98–1.27)	1.07 (0.96–1.20)
Gay/Lesbian by year 2008	0.95 (0.83–1.07)	1.01 (0.75–1.35)

Note. Data were weighted. ^aOR in bold indicates $p < 0.05$. Reference group: 1998; Models included sexual orientation, age, survey year, and orientation-by-year interaction; *CI* Confidence interval

for some sexual minority adolescents, with stark disparities between heterosexual youth and most sexual minority boys and girls. Importantly, our analyses showed these disparities are widening over time, despite attempts by organizations such as Parents, Families, and Friends of Lesbians and Gays (PFLAG) and by scholars (e.g., Ryan et al. 2010) to improve family relations between sexual minority young people and their parents. Perhaps these mixed findings between family connectedness and parent support are related to how sexual minority youth conceptualize “family.” Given many sexual minority youth identify trusted non-familial adults as “chosen family,” it may be that the differences in findings between family and parental measures are driven by youths’ emerging conceptualization of “family”.

From a theoretical perspective, we know that for all adolescents, including some LGB adolescents, family is

sometimes a source or mediator of risk. At the same time, family can also be a source or mediator of resilience. According to Masten and Monn (2015), family connectedness not only protects adolescents from negative developmental outcomes, it can also help adolescents build capacity for positive developmental outcomes. Given that LGB adolescents are at greater risk for negative outcomes (e.g., Saewyc 2011), including those as a result of discrimination and victimization within the family (D'Augelli et al. 2010; Ryan et al. 2009; Samarova et al. 2014), we believe family connectedness in particular can act as a buffer for sexual minority adolescents who may be a greater risk than their heterosexual peers for negative outcomes (Bouris et al. 2010; Needham and Austin 2010; Ryan et al. 2010).

Our findings suggest fathers of sexual minority adolescents today may not be as supportive of their children as they were a decade ago. Contemporary research has found an increasingly active or involved role of fathers (e.g., Amato and Rivera 1999; Sarkadi et al. 2008). However, in our study, perceived support from fathers declined for gay boys, and over time the disparity between heterosexual and sexual minority teens on measures of father support widened. Despite higher mean levels of mother support compared to father support for all youth, the mean levels of mother support also declined from 1998 to 2008 for bisexual boys and mostly heterosexual, bisexual, and lesbian girls. Contrarily, mother support slightly increased from 1998 to 2008 for boys, and remained the same for girls. Thus, the decline in perceived support was not found only among fathers—the decline among LGB youth extended to mothers as well.

While it is possible that closeted LGB youth may distance themselves from their parent or parents, it is also possible that they may experience lower levels of parent support following disclosure about their orientation. Existing research has demonstrated that relations between parents and adolescents can be particularly strained during the “coming out” period or when adolescents decide to disclose their sexual orientation (Heatherington and Lavner 2008). Further, Savin-Williams (1998) reported that fewer than 10% of young people disclosed their orientation to their parents first, and fathers were rarely the first person young people disclosed their orientation to; when young people do disclose their orientation to a parent, it is more likely to be their mother (Savin-Williams 1998). As we have no data about the coming-out status of the sexual minority youth in our study, this explanation is speculative. Nevertheless, these documented coming-out patterns may help explain why perceptions of father support are lower for sexual minority teens, and why we see distinctions between levels of perceived support from mothers versus fathers.

Our data show that disparities in perceived parental support either decreased or stayed the same from 1998 to

2008 for sexual minority adolescents. In particular, disparities in perceived mother support decreased for sexual minority girls, and perceived father support decreased for gay boys. At the same time, however, disparities in perceived family connectedness increased over time, not only for heterosexual adolescents, but also for sexual minority adolescents (in particular between 2008 and 2013). In other words, in spite of decreased parental support in 2008, sexual minority adolescents reported increased family connectedness in 2013 (we do not have parental support variables in the 2013 data, so cannot determine if support increased during that more recent time period). Nevertheless, compared to heterosexual peers, levels of family connectedness were lower in almost every year for sexual minority teens. Future research could help to tease out the differences between the effects of parental support and family connectedness. For example, one possible explanation could involve the support of siblings—at the family level—in the lives of sexuality minority youth (e.g., D'Augelli et al. 2008; Higa et al. 2014).

One possible explanation for the compromised parent/child relations among the sexual minority adolescents might be found at the societal level. The data in our study were collected in British Columbia in 1998, 2003, 2008, and 2013. The year 2003 was a watershed year for gay and lesbian rights in BC: in 2003, same-sex marriage was legalized, first in the Canadian province of Ontario, and a month later in the province of British Columbia; Canada as a nation legalized same-sex marriage in 2005 (Lyon and Frohard-Dourlent 2015; Rose 2012). While for many British Columbians, the legalization of same-sex marriage was a cause for celebration, it was cause for concern among others. While we have no data that examines our participants' reactions to the societal shift that occurred with the legalization of same-sex marriage in 2003, it is hard to imagine that adolescents, and their parents—especially the parents of sexual minority adolescents—would not have been affected by this societal and legal change. Future research should consider how reactions to legislation (e.g., the legalization of same-sex marriage; LGBTQ rights) might spill over into their family interactions. In particular, researchers can examine how father reactions to legislation changes might explain the concurrent changing trends in father support of LGB youth.

Most research on families of sexual minority youth is restricted to the study of parental support and its influence on sexual minority teens (Savin-Williams 1998). The disparities we found for sexual minorities as compared to heterosexual youth pertained to mother and father support, and also to family connectedness more generally. With few studies examining the role of other important family members, such as siblings (D'Augelli et al. 2008; Higa et al. 2014), more research is needed to examine the influence of

support from other family members (e.g., siblings, grandparents) on outcomes for sexual minority adolescents. Ultimately, research can inform practice. For example, interventions targeting families such as the Family Acceptance Project (Ryan 2010) have shown that families who initially reject their LGBT teen can learn ways to support their child's well-being and that a whole-family approach can substantially shift negative paradigms surrounding the health and well-being of sexual minority adolescents.

Strengths and Limitations

Our study has several strengths. First, we utilized a pooled dataset of nearly 100,000 adolescents. Typically, projects that focus on sexual minorities utilize small numbers of adolescents collected from non-probability samples. Our subgroups of sexual minority adolescents are larger than normal due to the sampling of the BCAHS. Second, we were able to look at changes in similar school districts across the span of 15 years. It is rare to have the opportunity to study both trends and disparities over such a time frame, and to be able to identify sexual minority subgroups. We also utilized multi-item scales to operationalize both family connectedness and mother/father support. Finally, we utilized a novel analytical method (Homma et al. 2016) that allowed us to examine changes in disparities among cohort groups across multiple time points—beyond simple population trends within orientation groups—through general linear interaction models. This facilitated our discovery of the finding that family relationships are not improving over time for sexual minority adolescents to the same extent that they are for heterosexual peers.

Like all studies, there are some limitations to our methodology and secondary data analysis, and several of those reflect the fact that we analyzed existing data designed to measure adolescent health in general (i.e., not specifically the health of LGBT youth), and collected in the school context. The data we presented—while provincially representative—are from British Columbia and therefore may not be generalizable to other provinces or countries (e.g., states in the US). British Columbia is known for its progressive stance on LGBT issues, as it was the second province in Canada to legalize same-sex marriage (in 2003). Most studies from Canada, however, find similar risks and disparities for sexual minorities (e.g., Saewyc et al. 2006; Saewyc et al. 2008), as regions of Canada are more similar than different. In addition, the items that assessed family connectedness and parent support may overlap theoretically to some extent, and were primarily designed for use with the general population. Researchers have suggested that sexuality-specific family and parental support is meaningful in different ways for sexual minority youth as compared to

heterosexual youth (Watson et al. 2019), and these processes should be disentangled in future research. Additionally, it is true that some youth, given changing societal norms and social media, may be more expectant of family support in more recent survey years, which could affect how they answered the survey items. Future research might adjust for the expectations of family connectedness and parent support.

Additionally, the changing nature of stigma on disclosure of sexual orientation over time may have resulted in underreporting of sexual minority status in earlier years of our data. As we do not have disclosure data in this sample, an additional limitation, we cannot specifically address this potential underreporting in some years of data. It is possible, given the changing social climate around sexual minority rights (e.g., Lyon and Frohard-Dourlent 2015; Rose 2012), that there were more “out” adolescents (i.e., those who disclosed their sexual identities to others) in later years of our data. Perhaps earlier cohorts who were not “out” to their parents (particularly to fathers), perceived higher levels of support than those who had disclosed their orientation, and this may partially explain lower levels of perceived support over time. Thus, if the time period of this study represents a societal shift with respect to the disclosure of sexual minority teens, it is possible that we would expect to see parental support levels of rise in the next survey period after this period of negative adjustment. Future research should also include data about disclosure, as well as gender identity (i.e., transgender) in addition to sexual orientation.

In summary, we explored whether family connectedness and mother/father support changed differentially for heterosexual and sexual minority adolescents over a span of 15 years. Many might have expected that sexual minority youth's relationships with their families would have ameliorated in recent years, given the advance of LGBT rights and increased visibility, but this societal shift does not seem to have translated to the home environment. Even with the introduction of legal same-sex marriage in British Columbia in 2003 (Lyon and Frohard-Dourlent 2015; Rose 2012), neither the 2008 nor 2013 surveys revealed improving relations between non-heterosexual adolescents and their parents. While it is encouraging that heterosexual family relationships have continued to improve over time, we may need to intervene more actively to help families of sexual minority adolescents better support their youth, so that future cohorts of sexual minority youth will show improvements similar to those found among adolescents in general.

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Author Contributions R.W. ran the data analyses and wrote the paper. H.R. collaborated with the conceptualization of the study and wrote part of the paper. M.D. and J.A. helped to analyze the data and contributed to writing portions of the manuscript. E.S. conceptualized the study, collected data, helped to interpret models, and contributing to writing and revising the manuscript.

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Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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References

- Ackard, D. M., Fedio, G., Neumark-Sztainer, D., & Britt, H. R. (2008). Factors associate with disordered eating among sexually active adolescent males: gender and number of sexual partners. *Psychosomatic Medicine*, *70*, 232–238. <https://doi.org/10.1097/PSY.0b013e318164230c>.
- Amato, P. R., & Rivera, F. (1999). Paternal involvement and children's behavior problems. *Journal of Marriage and Family*, *61*, 375–384.
- Austin, S. B., Conron, K. J., Patel, A., & Freedner, N. (2007). Making sense of sexual orientation measures: Findings from a cognitive processing study with adolescents on health survey questions. *Journal of LGBT Health Research*, *3*(1), 55–65. https://doi.org/10.1300/J463v03n01_07.
- Bouris, A., Guilamo-Ramos, V., Pickard, A., Shiu, C., Lossier, P. S., Dittus, P., Gloppen, K., & Waldmiller, J. M. (2010). A systematic review of parental influences on the health and well-being of lesbian, gay, and bisexual youth: time for a new public health research and practice agenda. *Journal of Primary Prevention*, *31*, 273–309. <https://doi.org/10.1007/s10935-010-0229-1>.
- Brown, S. L., & Manning, W. D. (2009). Family boundary ambiguity and the measurement of family structure: the significance of cohabitation. *Demography*, *46*(1), 85–101. <https://doi.org/10.1353/dem.0.0043>.
- Coker, T. R., Austin, S. B., & Schuster, M. A. (2010). The health and health care of lesbian, gay, and bisexual adolescents. *Annual Review of Public Health*, *31*, 457–477. <https://doi.org/10.1146/annurev.publhealth.012809.103636>.
- D'Amico, E., & Julien, D. (2012). Disclosure of sexual orientation and gay, lesbian, and bisexual youths' adjustment: associations with past and current parental acceptance and rejection. *Journal of GLBT Family Studies*, *8*, 215–242. <https://doi.org/10.1080/1550428X.2012.677232>.
- D'Amico, E., Julien, D., Tremblay, N., & Chartrand, E. (2015). Gay, lesbian, and bisexual youth's coming out to their parents: parental reactions and youth's outcomes. *Journal of GLBT Family Studies*, *11*, 1–27. <https://doi.org/10.1080/1550428X.2014.981627>.
- D'Augelli, A. R., Grossman, A. H., Starks, M. T., & Sinclair, K. (2010). Factors associated with parents' knowledge of gay, lesbian, and bisexual youth's sexual orientation. *Journal of GLBT Family Studies*, *6*, 178–198. <https://doi.org/10.1080/15504281003705410>.
- D'Augelli, A. R., Grossman, A. H., & Starks, M. T. (2008). Families of lesbian, gay, and bisexual youth: what do parents and siblings know and how do they react? *Journal of GLBT Family Studies*, *4*, 95–115. <https://doi.org/10.1080/15504280802084506>.
- Eisenberg, M. E., & Resnick, M. D. (2006). Suicidality among gay, lesbian and bisexual youth: the role of protective factors. *Journal of Adolescent Health*, *39*, 662–668. <https://doi.org/10.1016/j.jadohealth.2006.04.024>.
- Espelage, D. L., Aragon, S. R., & Birkett, M. (2008). Homophobic teasing, psychological outcomes, and sexual orientation among high school students: what influence do parents and schools have? *School Psychology Review*, *37*, 202–216.
- Floyd, F. J., Stein, T. S., Harter, K. S. M., Allison, A., & Nye, C. L. (1999). Gay, lesbian, and bisexual youths: Separation-individuation, parental attitudes, identity consolidation, and well-being. *Journal of Youth and Adolescence*, *28*, 719–739. <https://doi.org/10.1023/A:1021691601737>.
- Garofalo, R., Mustanski, B., & Donenberg, G. (2008). Parents know and parents matter: is it time to develop family-based HIV prevention programs for young men who have sex with men? *Journal of Adolescent Health*, *43*, 201–204. <https://doi.org/10.1016/j.jadohealth.2008.01.017>.
- Heatherington, L., & Lavner, J. A. (2008). Coming to terms with coming out: review and recommendations for family systems focused research. *Journal of Family Psychology*, *22*, 329–343. <https://doi.org/10.1037/0893-3200.22.3.329>.
- Helsen, M., Vollebergh, W., & Meeus, W. (2000). Social support from parents and friends and emotional problems in adolescence. *Journal of Youth and Adolescence*, *29*, 319–335. <https://doi.org/10.1023/A:1005147708827>.
- Hershberger, S. L., & D'Augelli, A. R. (1995). The impact of victimization on the mental health and suicidality of lesbian, gay, and bisexual youths. *Developmental Psychology*, *31*, 65–74. <https://doi.org/10.1037/0012-1649.31.1.65>.
- Higa, D., Hoppe, M. J., Lindhorst, T., Mincer, S., Beadnell, B., Morrison, D. M., Wells, E. A., Todd, A., & Mountz, S. (2014). Negative and positive factors associated with lesbian, gay, bisexual, transgender, queer, and questioning (LGBTQ) youth. *Youth & Society*, *46*, 663–687.
- Holahan, C. J., Valentiner, D. P., & Moos, R. H. (1994). Parental support and psychological adjustment during the transition to young adulthood in a college sample. *Journal of Family Psychology*, *8*, 215–223. <https://doi.org/10.1037/0893-3200.8.2.215>.
- Homma, Y., Saewyc, E., & Zumbo, B. (2016). Is it getting better? An analytical method to test trends in health disparities, with tobacco use among sexual minority vs. heterosexual youth as an example. *International Journal of Equity in Health*, *15*, 79. <https://doi.org/10.1186/s12939-016-0371-3>.
- Institute of Medicine. (2011). *The health of lesbian, gay, bisexual and transgender people: building a foundation for better understanding*. Washington, DC: National Academies Press.
- Lyon, K. A., & Frohard-Dourlent, H. (2015). "Let's talk about the institution": same-sex common-law partners negotiating marriage equality and relationship legitimacy. *Canadian Review of Sociology*, *52*, 402–428. <https://doi.org/10.1111/cars.12084>.

- Masten, A. S., & Monn, A. R. (2015). Child and family resilience: a call for integrated science, practice, and professional training. *Family Relations*, *64*, 5–21. <https://doi.org/10.1111/fare.12103>.
- Needham, B. L., & Austin, E. L. (2010). Sexual orientation, parental support, and health during the transition to young adulthood. *Journal of Youth and Adolescence*, *39*, 1189–1198. <https://doi.org/10.1007/s10964-010-9533-6>.
- Poon, C. S., Saewyc, & Chen, W. (2011). Enacted stigma, problem substance use, and protective factors among Asian sexual minority youth in British Columbia. *Canadian Journal of Community Mental Health*, *30*, 47–64. <https://doi.org/10.7870/cjcmh-2011-0016>.
- Resnick, M. D., Bearman, P. S., Blum, R. W., Bauman, K. E., Harris, K. M., & Jones, J., et al. (1997). Protecting adolescents from harm: findings from the National Longitudinal Study on Adolescent Health. *Journal of the American Medical Association*, *278*, 823–832. <https://doi.org/10.1001/jama.1997.03550100049038>.
- Remafedi, G., Resnick, M., Blum, R., & Harris, L. (1992). Demography of sexual orientation in adolescents. *Pediatrics*, *89*, 714–721.
- Rodgers, K. B., & Rose, H. A. (2002). Risk and resiliency factors among adolescents who experience marital transitions. *Journal of Marriage and Family*, *64*, 1024–1037. <https://doi.org/10.1111/j.1741-3737.2002.01024.x>.
- Rosario, M., Schrimshaw, E. W., & Hunter, J. (2012). Risk factors for homelessness among lesbian, gay, and bisexual youths: a developmental milestone approach. *Child and Youth Services Review*, *34*, 186–193. <https://doi.org/10.1016/j.chilyouth.2011.09.016>.
- Rose, H. A. (2012). Canada's same-sex marriage law: exception to or exemplar of Canada's family policy? *Journal of Child and Family Studies*, *21*, 88–94. <https://doi.org/10.1007/s10826-011-9479-7>.
- Rose, H. A., Rodgers, K. B., & Small, S. A. (2006). Sexual identity confusion and problem behaviors in adolescents: a risk and resilience approach. *Marriage and Family Review*, *40*, 131–150. https://doi.org/10.1300/J002v40n02_07.
- Ryan, C. (2010). Engaging families to support lesbian, gay, bisexual and transgender youth: the family acceptance scale. *The Prevention Researcher*, *17*, 11–13.
- Ryan, C., Huebner, D., Diaz, R. M., & Sanchez, J. (2009). Family rejection as a predictor of negative health outcomes in white and Latino lesbian, gay, and bisexual young adults. *Pediatrics*, *123*, 346–352. <https://doi.org/10.1542/peds.2007-3524>.
- Ryan, C., Russell, S. T., Huebner, D., Diaz, R. M., & Sanchez, J. (2010). Family acceptance in adolescence and the health of LGBT young adults. *Journal of Child and Adolescent Psychiatric Nursing*, *23*, 205–213. <https://doi.org/10.1111/j.1744-6171.2010.00246.x>.
- Saewyc, E. M. (2011). Research on adolescent sexual orientation: development, health disparities, stigma, and resilience. *Journal of Research on Adolescence*, *21*, 256–272. <https://doi.org/10.1111/j.1532-7795.2010.00727.x>.
- Saewyc, E. M., Bauer, G. R., Skay, C. L., Bearinger, L. H., Resnick, M. D., & Reis, E. A., et al. (2004). Measuring sexual orientation in adolescent health surveys: evaluation of eight school-based surveys. *Journal of Adolescent Health*, *35*, 345.e1–345.e15. <https://doi.org/10.1016/j.jadohealth.2004.06.002>.
- Saewyc, E. M., Skay, C. L., Pettingell, S. L., & Reis, E. A. (2006). Hazards of stigma: the sexual and physical abuse of gay, lesbian, and bisexual adolescents in the United States and Canada. *Child Welfare*, *85*, 195–213.
- Saewyc, E. M., Skay, C. L., Hynds, P., Pettingell, S. L., Bearinger, L. H., Resnick, M. D., & Reis, E. A. (2008). Suicidal ideation and attempts in North American school-based surveys: are bisexual youth at increasing risk? *Journal of LGBT Health Research*, *3*, 25–36. https://doi.org/10.1300/J463v03n02_04.
- Samarova, V., Shilo, G., & Diamond, G. M. (2014). Changes in youths' perceived parental acceptance of their sexual minority status over time. *Journal of Research on Adolescence*, *24*, 681–688. <https://doi.org/10.1111/jora.12071>.
- Sarkadi, A., Kristiansson, R., Oberklaid, F., & Bremberg, S. (2008). Fathers' involvement and children's developmental outcomes: a systematic review of longitudinal studies. *Acta Paediatrica*, *97*, 153–158. <https://doi.org/10.1111/j.1651-2227.2007.00572.x>.
- Savin-Williams, R. C. (1998). The disclosure to families of same-sex attractions by lesbian, gay and bisexual youth. *Journal of Research on Adolescence*, *8*, 49–68. https://doi.org/10.1207/s15327795jra0801_3.
- Smith, A., Stewart, D., Poon, C., Peled, M., & Saewyc, E., McCreary Centre Society. (2014). *From Hastings Street to Haida Gwaii: provincial results of the 2013 BC Adolescent Health Survey*. Vancouver, BC: McCreary Centre Society.
- Teasdale, B., & Bradley-Engen, M. S. (2010). Adolescent same-sex attraction and mental health: the role of stress and support. *Journal of Homosexuality*, *57*, 287–309. <https://doi.org/10.1080/00918360903489127>.
- van Beusekom, G., Bos, H. M., Overbeek, G., & Sandfort, T. G. (2015). Same-sex attraction, gender nonconformity, and mental health: the protective role of parental acceptance. *Psychology of Sexual Orientation and Gender Diversity*, *2*, 307–312. <https://doi.org/10.1037/sgd0000118>.
- Watson, R. J., Adjei, J., Saewyc, E., Homma, Y., & Goodenow, C. (2017). Trends and disparities in disordered eating among heterosexual and sexual minority adolescents. *International Journal of Eating Disorders*, *50*, 22–31. <https://doi.org/10.1002/eat.22576>.
- Watson, R. J., & Russell, S. T. (2016). Disengaged or bookworm: academics, mental health, and success for sexual minority youth. *Journal of Research on Adolescence*, *26*, 159–165. <https://doi.org/10.1111/jora.12178>.
- Watson, R. J., Grossman, A. H., & Russell, S. T. (2019). Sources of social support and mental health among LGB youth. *Youth & Society*, *51*, 30–48. <https://doi.org/10.1177/0044118X16660110>.