Psychology of Sexual Orientation and Gender Diversity

Trends in Suicidality Among Sexual Minority and Heterosexual Students in a Canadian Population-Based Cohort Study

Tracey Peter, Tamara Edkins, Ryan Watson, Jones Adjei, Yuko Homma, and Elizabeth Saewyc

Online First Publication, December 8, 2016. http://dx.doi.org/10.1037/sgd0000211

Psychology of Sexual Orientation and Gender Diversity

2329-0382/16/$12.00 http://dx.doi.org/10.1037/sgd0000211

Trends in Suicidality Among Sexual Minority and Heterosexual Students in a Canadian Population-Based Cohort Study

Tracey Peter
University of Manitoba

Tamara Edkins
University of Manitoba

Ryan Watson
University of Connecticut

Jones Adjei
Red Deer College

Yuko Homma
Mukogawa Women's University

Elizabeth Saewyc
University of British Columbia

Despite evidence from numerous studies that document disparities in suicidality for sexual minorities, few have investigated whether or not these trends have improved over time, which is the objective of the current study. Using school-based population data over a 15-year period (1998 to 2013), multivariate logistic regressions were used to calculate age-adjusted odds ratios (*OR*s) separately by gender. Interactions were included to test widening or narrowing disparities within orientation groups, which makes this one of the first studies to test whether gaps in disparities between heterosexual and sexual minorities have widened or narrowed over time. Results show that sexual minority youth are persistently at a greater risk for suicidal behavior, a trend that has continued particularly for bisexual youth of both sexes. Results also suggest that the gap in suicidal behavior is widening among some female sexual orientation groups, yet narrowing for other male sexual orientation groups. These findings have important public health implications, especially since we see decreases in suicidal behavior for heterosexual adolescents, but not in the same way for many sexual minority youth, despite advances in social acceptance of gay, lesbian, and bisexual issues in North America.

Public Significance Statement
This study addresses trends in suicidal behavior for youth over a 15-year period, with a particular focus on gay, lesbian, and bisexual students. Although all sexual minority youth are more likely to express suicidal behavior, bisexual boys and girls are at particular risk, as well, the gap in suicidal behavior is increasing for some female sexual orientation groups, yet is narrowing for other male sexual identity groups. These findings have important public health implications, especially since we see decreases in suicidal behavior for heterosexual students, but not for many gay, lesbian, and bisexual youth.

Keywords: sexual orientation, suicidal behavior, heterosexual/bisexual/gay/lesbian, adolescents, population surveys

According to the World Health Organization (WHO), suicide is one of the leading causes of youth fatality (15–24 years of age) around the world (WHO, 2014). In Canada, approximately 500 youth (ages 10 to 24) have died by suicide every year from 2007 to 2011 (Statistics Canada, 2012). Research has found that previous suicidal thoughts and suicide attempts are leading

Tracey Peter, Department of Sociology, University of Manitoba; Tamara Edkins, Faculty of Law, University of Manitoba; Ryan Watson, Human Development and Family Studies, University of Connecticut; Jones Adjei, Department of Humanities and Social Sciences, Red Deer College; Yuko Homma, Mukogawa Women's University; Elizabeth Saewyc, Stigma and Resilience Among Vulnerable Youth Centre (SARAVYC), School of Nursing, University of British Columbia.

These analyses were supported in part by Grants CPP-86374 and MOP-119472 from the Canadian Institutes of Health Research, Institute of Population and Public Health, and Institute of Gender and Health (Saewyc, PI). The authors acknowledge the McCreary Centre Society, Vancouver, for permission to access the 1998, 2003, 2008, and 2013 British Columbia Adolescent Health Surveys.

Correspondence concerning this article should be addressed to Tracey Peter, Department of Sociology, University of Manitoba, 306 Isbister Building, Winnipeg, Manitoba, R3T 2N2, Canada. E-mail: Tracey.Peter@UManitoba.ca

indicators of a subsequent death by suicide (Oquendo, Currier, & Mann, 2006; Troister, Links, & Cutcliffe, 2008). To this end, these suicidal behavior measures are important indicators for research as it allows for the identification of subgroups of youth, which aids in targeted prevention, intervention, and postintervention efforts.

Review of the Literature

Research on sexual minority youth consistently shows that the prevalence of suicidal behavior is higher than for their heterosexual peers. For instance, in a meta-analysis conducted by Marshal and colleagues (2011), sexual minority youth reported significantly higher rates of suicidality ($OR = 2.9$) than heterosexual students. In a study that examined nine population-based data sets of adolescent students from the United States and Canada, Saewyc and colleagues (2007) found that lesbian, gay, and bisexual (LGB) youth were at a significantly higher risk of suicide ideation and attempt than heterosexual and mostly heterosexual students. More specifically, they found in most surveys that one fourth to one third of LGB adolescents reported suicide attempts, compared with one tenth or less for their heterosexual peers. This overrepresentation of sexual minority youth in regard to suicidal behavior has been observed elsewhere in the United States (Hatzenbuehler, 2011; Robinson, & Espelage, 2011) as well as internationally (Värnik et al., 2009).

In general, higher rates of suicide risk are prevalent among sexual minority youth (Saewyc, Poon, Homma, & Skay, 2008), but several studies have reported significant gender disparities. For example, in a study of LGB youth in Chicago, Mustanski, Garofalo, and Emerson (2010) found that sexual minority girls were 2.9 times more likely than sexual minority boys to have attempted suicide, and 1.6 times more likely to have had suicidal thoughts. Similar results were found for suicide attempt.

Disparities in suicide risk have also been observed between sexual orientation subgroups. Numerous studies suggest that youth who identify as bisexual are more likely to engage in suicidal behavior than other orientation groups (Blosnich, & Bossarte, 2012; Hershberger, Pilkington, & D'Augelli, 1997). In Saewyc and colleagues' (2007) study, they found that lesbian and bisexual girls reported higher rates of suicidal ideation than gay and bisexual boys. They also found in most surveys that bisexual boys had higher age-adjusted odds of suicidal ideation than mostly heterosexual boys, but results varied for gay boys. In all but three surveys, they found that bisexual girls had significantly higher age-adjusted odds of suicidal ideation than mostly heterosexual girls, and bisexual girls had either similar odds or lower odds of suicidal ideation than same-aged lesbian girls. Given these findings, researchers argue that studies should avoid simple bifurcations when operationalizing sexual identity (e.g., nonheterosexual vs. heterosexual), but rather separate nonheterosexual respondents, if possible, into more specific orientation groups (e.g., lesbian, gay, bisexual) in order to facilitate a more robust analysis. For instance, as Saewyc and colleagues (2008) note, studies that use nonheterosexual versus heterosexual categories typically miss bisexual respondents and their unique challenges in their analysis.

While there are several studies showing that sexual minority youth are at a greater risk for suicidal behavior, few have examined cohort trends in prevalence over time. A notable exception is Saewyc et al. (2008) where they examined population data over time for British Columbia (BC), Minnesota, and Seattle. In BC, they found that the age-adjusted odds of suicidal ideation among bisexual boys, compared with heterosexual boys, increased from 2.1 in 1992 to 4.8 in 1998, but then stabilized in 2003. Among bisexual girls, compared with their heterosexual peers, the age-adjusted odds of suicidal thoughts increased from 0.9 in 1992 to 2.7 in 1998 to 4.7 in 2003. In comparing suicide attempts among bisexual and gay boys, Saewyc and colleagues (2008) found that in 1992 bisexual boys were at a lower risk than gay boys, although in 2003 gay boys were at a lower risk than bisexual boys. The antithesis was found for lesbian and bisexual girls, where lesbian girls were at a lower risk in 1998, and bisexual girls were at a lower risk in 2003. In Minnesota, bisexual participants reported higher odds of a suicide attempt than heterosexual peers. Compared with gay boys and lesbian adolescents, bisexual boys had increasing odds of suicide attempt, although bisexual girls showed decreasing odds. Finally, in Seattle the odds of bisexual boys seriously considering suicide tripled from 1995 (3 times) to 1999 (10 times). Similar results were found for suicide attempt, but no significant differences were found between bisexual and heterosexual girls for either suicidal ideation or suicide attempt, and no differences were uncovered between bisexual and gay or lesbian peers. There is a significant limitation to these analyses, however. At the time, the *OR*s and confidence intervals for each were reported and used as a simple comparison of change over time, yet some statisticians now suggest that this approach is inadequate to actually test trends, because *OR*s from different samples should not be directly compared, not even with confidence intervals, due to underlying heterogeneity in logistic models that cannot be accounted for (Allison, 1999).

One theorized explanation for the correlation between sexual minority status and suicidality is exposure to increased social stigma, harassment, and victimization. Researchers have associated the high prevalence of suicidal behavior (i.e., ideation and attempts) among LGB youth with the episodes of stigmatization, discrimination, and victimization they have experienced, particularly within a school environment (Burton et al., 2013; Hatzenbuehler, 2011). Saewyc and colleagues (2008) found support for enacted stigma theory using data from the British Columbia Adolescent Health Survey (BC AHS) up to 2003, but does the social stigma resonate as profoundly among BC adolescents in later years? It is reasonable to hypothesize that with the legalization of same-sex marriage in 2005, and judicial interpretations of the Charter of Rights and Freedoms as including sexual orientation among the categories to be protected against discrimination, that in Canada the social landscape has become more accepting and supportive of the LGB population, which could ultimately lead to a decrease in discrimination, harassment, and victimization. Similarly, a growing number of schools and school districts have adopted antihomophobia policies and supportive programs for LGB youth, designed to improve and/or reduce discrimination and bullying toward LGB youth (Russell, Kosciw, Horn, & Saewyc, 2010; Saewyc, Konishi, Rose, & Homma, 2014). It is possible that these improvements would lead to a reduction in suicidal behavior among LGB youth. However, as other researchers have noted (Saewyc, Poon, Homma, & Skay, 2008), perhaps this increased awareness of support for the LGB community has intensified antagonistic and contrasting attitudes from people who disagree

with sexual minority orientations. With the increase of negative attitudes toward LGB populations by individuals (or students from families with such views) who feel themselves marginalized in their morally based antihomosexuality views, LGB youth could experience higher levels of discrimination, victimization, and harassment within their communities, schools and families. As such, analyzing cohort-based population trends in suicidal behavior among a relatively excluded population such as LGB youth could indirectly document whether the numerous policies and laws that have been enacted to promote human rights in Canada appear to have reduced health disparities for LGB youth.

Purpose of the Present Study

While there are numerous studies that focus on suicide trends among youth (Lahti et al., 2011; Värnik et al., 2009), very few include analysis of trends among sexual minority youth from cohorts of the same geographic population. As noted, one exception is the work by Saewyc and colleagues (2008) who documented trends in BC from 1992 to 2003, but have these trends in suicidal behavior remained over time? Given the dramatic changes in social policies and attitudes in Canada, especially since 2005 with the legalization of same-sex marriage, it is important to determine whether the disparities in suicidal behaviors among LGB youth, compared with their heterosexual peers, have narrowed, widened, or remained the same. In looking at whether it is getting better for LGB youth, it is not enough to merely document if there are declines in suicidal behaviors within LGB groups. If there are similar or even steeper declines among heterosexual youth, then the disparity between these sexual minority and heterosexual youth will remain.

As part of an ongoing series of studies exploring the trends of suicidality among sexual minority youth (Saewyc et al., 2008), the purpose of this study is to identify the trends as well as the disparities, and trends in disparities, in suicidal ideation and suicide attempt within and between sexual orientation groups across four cohorts of youth in BC schools. More specifically, in the current project we extend our earlier work by:

1. documenting the population trends in suicidal behaviors and risk factors from 1998 to 2013, separately for each sexual orientation group;

2. comparing each group with the referent (heterosexual) to see whether there are disparities between them in each survey year; and

3. testing whether the gaps in disparities between sexual minority groups and heterosexual peers are narrowing or widening over time using new analytical techniques.

Method

Sample and Procedures

A secondary data analysis was conducted on the BC AHSs of 1998, 2003, 2008, and 2013, all of which were carried out by the McCreary Centre Society. The BC AHS is a clustered-stratified probability sample that surveyed classrooms of students in Grades 7 through 12 in public schools across the Canadian province of BC. It is important to note that participants are not the same across the four survey years. Only some Grade 7 students in one year may potentially be sampled in a subsequent Grade 12 year, but the stratified random samples, which result in approximately 10% of the enrolled students being surveyed, render even that minor overlap extremely unlikely. As such, the data are repeating cohorts. The majority of school districts in BC participated in the survey each year (at least 45 of 59 districts, or 76%), and these districts represent 92% of enrolled students across the province. Overall student participation rates in the randomly selected classrooms averaged 67% to 76% in each survey year. The health surveys covered a wide range of topics, including perceptions of physical and emotional health, risk exposures and health-compromising behaviors, and sociodemographics. The anonymous surveys were administered by public health nurses and other trained personnel from outside of the school.

Data were weighted to adjust for the differential probability of sampling within regions and response rates, to ensure its representativeness. The final weighted sample for each trend year included only those youth who indicated gender, age, and sexual orientation. In addition, to be sure we used consistent school data and that our analyses were not a product of changing survey procedures, our analyses only include school districts that participated in at least three of the four survey years. A detailed description of the survey sampling and administration methods have been outlined elsewhere (Miller, Cox, & Saewyc, 2010; Saewyc, Stewart, & Green, 2013; Saewyc, Taylor, Homma, & Ogilvie, 2008).

Measures

In the current analysis, variables include self-reported demographic variables such as respondent gender and age. Sexual orientation was assessed through a measure of self-labeling defined by attraction. The response options in the 1998, 2003, and 2008 surveys were: "100% heterosexual (attracted to people of the opposite gender)," "mostly heterosexual," "bisexual (attracted to both males and females)," "mostly homosexual," "100% homosexual (gay/lesbian; attracted to people of the same gender)," and "not sure." Response options changed slightly in the 2013 survey and included: "completely heterosexual (straight; attracted to people of the opposite gender)," "mostly heterosexual," "bisexual (attracted to both males and females)," "mostly homosexual," "completely homosexual (gay/lesbian; attracted to people of the same gender)," "questioning," and "I don't have attractions." After an extensive measurement evaluation pertaining to conceptual and power issues drawing on previous research (Saewyc et al., 2004), the "mostly gay/lesbian" and "completely gay/lesbian" categories were combined into a single group; the number of youth who endorse "mostly gay/lesbian" are so few that we are unable to disaggregate these subgroups in trend and disparity analyses. Further, in order to conduct a comparative longitudinal analysis of groups, in the 1998, 2003, and 2008 surveys the "not sure" group was merged with the heterosexual category, although in the 2013 survey, the "questioning (I'm questioning who I'm attracted to)" and "I don't have attractions" categories were combined with the heterosexual group. This decision was based on empirical evidence showing that the majority of young people who identify as "not sure" of their sexual orientation are more likely, in the future, to

identify as heterosexual and not as a sexual minority (Ott, Corliss, Wypij, Rosario, & Austin, 2011). In addition, an extensive demographic analysis using mean deviations as an indication of temporal stability was conducted for these groups over the multiple survey years. By comparing the mean deviations of the 100% heterosexual group with the composite group (i.e., the heterosexual group with the other groups), results confirm that the composite group was significantly more stable over time—for both males and females at every age. As shown in Table 1, the distribution of sexual orientation groups has changed somewhat over time for girls, but only marginally for boys.

Measures of suicidality among youth included past year suicide attempt and suicidal ideation. To measure suicidal ideation among youth, respondents were asked, "During the past 12 months, did you ever seriously consider killing yourself (Yes/No)?" To measure suicide attempts among youth, respondents were asked, "During the past 12 months, how many times did you actually try to kill yourself," with response categories coded into a dichotomous "Yes" (1) or "No" (0) variable.

Analysis

All analyses were carried out separately by respondent gender. Preliminary analyses conducted here and elsewhere (Saewyc, Taylor, et al., 2008), found that rates of suicidality were prone to maturational effects. As such, in testing differences between heterosexual youth and their gay/lesbian, bisexual, or mostly heterosexual peers, we controlled for age, using multivariate logistic regressions to calculate age-adjusted odds ratios (AORs) with the various suicidality measures. Because of the cluster-stratified sampling, we tested trends in suicidality within sexual orientation subgroups across years using logistic regressions. It has been noted (Altman & Bland, 2003), AORs derived in separate samples cannot be directly compared; instead, we used interaction terms to test changes in disparities over time, testing whether trends in disparities were widening for sexual minority groups in a multivariate logistic regression model that included all sexual orientation groups (reference heterosexual) and years (reference 1998) as well as interaction terms for orientation by year. The interaction term compared the *OR* of a suicidal behavior (e.g., suicide attempt) for a particular subgroup (e.g., gay boys) in a given year (e.g., 2013) with the odds of the same behavior and subgroup of students in another survey year. As a guide in the interpretation of the interactions (AOR), an estimate over 1 indicates that the change in disparities in a given year has widened/increased compared with the referent year. The inverse is the case where the interaction AOR is less than 1, which denotes that the change in disparity over time has narrowed/decreased compared with 1998 (the referent year). The decision to frame the analysis on an anchor or referent year was to aid the reader in interpreting a change with respect to time and history, such as how a meaningful social change (e.g., legalization of gay marriage) related to changes in trends. A detailed explanation of this method is described elsewhere (Homma, Saewyc, & Zumbo, 2016). Further, SPSS Complex Samples 22 was used in order to adjust for the complex stratified sampling weights.

Results

Research Question 1: Prevalence Within Sexual Orientation and Sex Groups

From 1998 to 2013, different orientation groups demonstrated varying trends in prevalence of suicidal behavior measures. For suicidal ideation, among heterosexual boys the overall trend in odds of suicidal ideation significantly decreased, with 2013 as the referent year, from 1998 to 2013 (Table 2), although the overall trend in odds of suicidal ideation among mostly heterosexual significantly decreased only from 2008 to 2013 (AOR = .69, $p < .05$). There were no changes in the odds of suicidal ideation among bisexual boys across the years; an estimated one third of bisexual boys reported suicidal ideation across all survey years. Among gay boys, there was a significant reduction in odds of suicidal ideation from 1998 to 2013 (AOR = .54, $p < .05$); however, there were no significant differences from 1998 to 2003 or from 1998 to 2008. Similar to heterosexual boys, among heterosexual girls there was a significant decrease in the overall trend of odds of suicidal ideation, with 2013 as the referent year, from 1998 to 2013 (see Table 2). For mostly heterosexual and bisexual girls, there was an overall increase in the odds of suicidal ideation from 1998 to 2013 (see Table 2). Among lesbian students, there was a significant increase in the overall trends of suicidal ideation from 1998 to 2013 (see Table 2).

The incidence of suicide attempts reported among heterosexual and mostly heterosexual boys did not change significantly across the survey years (Table 3). However, reported suicide attempt odds among both bisexual and gay boys did change significantly. Re-

Table 1
Demographics for Those Indicating Sexual Orientation in the British Columbia Adolescent Health Survey, by Year

	1998		2003		2008		2013	
Year	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Unweighted *n*	10,852	12,006	14,523	14,800	12,250	12,977	10,758	11,180
Weighted *N*	130,533	146,091	138,795	140,932	108,239	115,319	89,220	92,887
% each year	47.2	52.8	49.6	50.4	48.4	51.6	49.0	51.0
Sexual orientation (%)								
100% heterosexual	93.8 (14.8)	90.3 (14.8)	95.3 (15.0)	87.4 (14.9)	94.1 (15.0)	86.7 (15.0)	93.1 (15.0)	85.6 (14.9)
Mostly heterosexual	4.2 (15.2)	7.6 (15.6)	3.2 (15.4)	9.2 (15.6)	3.9 (15.6)	9.6 (15.6)	4.4 (15.5)	9.5 (15.6)
Bisexual	1.1 (14.7)	1.9 (15.5)	.9 (15.5)	3.0 (15.6)	1.1 (15.6)	3.2 (15.4)	1.4 (15.6)	4.0 (15.6)
Gay/lesbian	.9 (15.3)	.3 (14.8)	.6 (15.9)	.3 (14.9)	.9 (15.8)	.5 (15.5)	1.1 (15.7)	.9 (15.5)

Note. Mean age reported in parentheses.

Table 2
Prevalence of Suicidal Behavior Measures Within Sexual Orientation Group (%)

	Girls				Boys			
Year	Het	MoHet	Bi	L	Het	MoHet	Bi	G
Suicidal ideation								
2013	13.1	28.9	48.2	45.3	6.7	16.3	35.6	21.9
2008	11.7	23.8	45.9	52.2	8.0	22.1	35.6	29.9
2003	18.4	33.9	51.8	63.0	10.2	19.4	37.8	25.4
1998	17.1	26.6	37.6	38.6	9.0	20.8	32.8	34.8
Suicide attempt								
2013	6.6	14.1	30.4	27.9	3.0	6.3	22.1	10.6
2008	5.2	11.7	30.6	27.0	2.6	7.8	25.6	22.3
2003	8.1	17.3	30.3	38.1	3.3	7.5	12.9	7.7
1998	8.3	12.1	26.6	24.1	3.2	8.4	17.8	19.6

Note. Het = heterosexual; MoHet = mostly heterosexual; Bi = bisexual; L = lesbian; G = gay.

ported suicide attempt odds among bisexual boys significantly increased from 2003 to 2013 (AOR = 1.92, $p < .05$), whereas the overall trends of suicide attempts among gay boys significantly decreased from 1998 to 2013 (AOR = .41, $p < .001$). The overall trends of suicide attempts among heterosexual girls decreased from 1998 to 2013 (AOR = .79, $p < .001$; see Tables 2 and 3), although among mostly heterosexual girls the overall trend in odds of suicide attempts significantly increased. Among bisexual and lesbian girls there were no significant differences in the overall trend suicide attempt odds; however, an estimated one third of bisexual girls and at least one fourth of lesbian girls consistently reported suicide attempts every survey year (see Table 2).

Research Question 2: Disparities Between Sexual Orientation and Gender Groups

Across all years, lesbian and bisexual girls reported a higher prevalence of suicidal ideation than all other sexual orientation categories (see Table 2). Suicidal ideation was reported by up to 51.8% of bisexual girls and 63% of lesbians, compared with 33.9% of mostly heterosexual girls and 18.4% of heterosexual girls (all reported in 2003). Among boys in the survey, gay and bisexual boys consistently reported higher prevalence of suicidal ideation than both heterosexual and mostly heterosexual boys in all years.

The odds of suicidal ideation among gay, bisexual, and mostly heterosexual boys were consistently higher than heterosexual boys throughout all survey years. Notably, bisexual boys had the highest odds of suicidal ideation, compared with same-aged heterosexual boys throughout all years, excluding 1998 when gay boys had the highest odds of suicidal ideation compared with heterosexual boys (see Table 3).

Similarly, lesbian, bisexual, and mostly heterosexual girls consistently reported a significantly higher prevalence of suicidal ideation than heterosexual girls across all years (see Table 3). With the exception of 2013, lesbian participants were at the highest odds for suicidal ideation compared with same-aged heterosexual girls; however, in 2013, bisexual girls had the highest odds of suicidal ideation. Notably, the odds of suicidal ideation among lesbian students, compared with heterosexual girls, nearly triples from 1998 to 2008, and in 2013 the odds of suicidal ideation decreased. A similar trend is found among bisexual girls, although the level of suicidal ideation consistently increased throughout all years among mostly heterosexual girls.

Across all survey years, bisexual and lesbian students had the highest reports of suicide attempts than all other orientation groups, including gay and bisexual boys (see Table 2). Suicide attempts were reported by up to 38.1% of lesbians (in 2003) and 30.6% of bisexual girls (in 2008), compared with 17.3% of mostly heterosexual (in 2003) and 8.3% of heterosexual girls (in 1998). Among males in the survey, gay and bisexual boys reported a higher proportion of suicide attempts across all survey years compared with mostly heterosexual and heterosexual boys.

Gay, bisexual, and mostly heterosexual boys had higher odds of suicide attempts than heterosexual boys across all years. Bisexual boys always had the highest odds of suicide attempts compared with same-aged heterosexual boys throughout almost all survey years, excluding 1998 when gay boys had the highest odds of suicide attempts compared with heterosexual boys.

As shown in Table 3, the odds of suicide attempts among bisexual and gay boys fluctuated across the year, although mostly heterosexual boys had a relatively consistent decline in odds of suicide attempts. Similar to boys, lesbian, bisexual, and mostly

Table 3
Disparities in Odds of Suicidal Behavior Measures Between Heterosexual and Other Sexual Orientation Groups

	Girls			Boys		
Year	MoHet	Bi	L	MoHet	Bi	G
Suicidal ideation						
2013	2.7 (2.3–3.2)	6.2 (5.0–7.6)	5.5 (3.6–8.4)	2.6 (1.9–3.3)	7.3 (5.1–10.3)	3.6 (2.3–5.7)
2008	2.4 (2.0–2.8)	6.5 (5.3–8.1)	8.4 (4.9–14.6)	3.3 (3.5–4.4)	6.5 (4.5–9.2)	5.0 (3.2–7.9)
2003	2.3 (1.9–2.7)	4.8 (3.7–6.2)	7.6 (3.9–14.8)	2.1 (1.6–2.8)	5.3 (3.2–8.6)	2.9 (1.6–5.5)
1998	1.7 (1.4–2.0)	2.8 (1.9–4.0)	3.1 (1.6–5.9)	2.6 (1.8–3.7)	5.0 (3.1–8.1)	5.2 (2.9–9.2)
Suicide attempt						
2013	2.4 (1.9–2.9)	6.3 (5.0–7.9)	5.6 (3.5–8.9)	2.1 (1.4–3.4)	8.9 (5.9–13.5)	3.7 (2.1–6.7)
2008	2.6 (2.1–3.3)	8.7 (6.8–11.1)	7.3 (4.0–13.6)	3.2 (2.2–4.7)	12.9 (8.4–19.7)	10.9 (6.7–17.7)
2003	2.4 (1.9–2.9)	5.0 (3.9–6.5)	7.0 (3.1–15.7)	2.4 (1.5–3.7)	4.3 (2.2–8.5)	2.4 (1.2–5.1)
1998	1.5 (1.2–1.9)	3.9 (2.6–6.1)	3.5 (1.8–7.0)	2.8 (1.7–4.6)	6.6 (3.6–12.2)	7.4 (3.9–13.9)

Note. MoHet = mostly heterosexual; Bi = bisexual; L = lesbian; G = gay. Age adjusted-odds ratio with heterosexual orientation as the reference group; 95% confidence interval in parentheses.

heterosexual girls reported higher odds of suicide attempts compared with heterosexual girls across all years. Bisexual girls reported the highest odds of suicide attempts compared with heterosexual girls across all years, excluding 2003 when lesbians reported the highest of suicide attempts compared with heterosexual girls. Among bisexual, lesbian, and mostly heterosexual girls there was a relatively consistent increase from 1998 to 2013 in odds of suicide attempts compared with heterosexual girls.

Research Question 3: Interaction Effects. In terms of interaction effects, there were no significant widening or narrowing of gaps in odds of suicidal ideation for gay, bisexual, and mostly heterosexual boys, compared with heterosexual boys across the survey years. However, among female participants, two significant findings were noted (Table 4). From 1998 to 2013, the gap in the odds of suicidal ideation disparity between mostly heterosexual and heterosexual girls has widened. Similar to mostly heterosexual girls, the gap from 1998 to 2013 in the odds of suicidal ideation disparity between bisexual and heterosexual girls has widened (see Table 4). Put another way, compared with heterosexual girls, the odds of suicidal ideation among bisexual girls has more than doubled from 1998 to 2013 (see Table 3), which represents a significant widening in disparities of suicidal ideation among bisexual girls (see Table 4).

There were no significant widening or narrowing of gaps in odds of suicide attempts for mostly heterosexual and bisexual boys, as well as bisexual and lesbians. However, two significant findings were noted among mostly heterosexual girls and gay boys (see Table 4). From 2008 to 2013, the gap in the odds of suicide attempts between gay and heterosexual boys has significantly narrowed. In contrast, from 1998 to 2013, the gap in the odds of suicide attempts between mostly heterosexual and heterosexual girls has significantly widened.

Table 4
Interactions (Year-by-Orientation) With Heterosexual and 2013 as the Reference Group

Sexual identity/year	Boys *OR* (95% CI)	Girls *OR* (95% CI)
Suicidal ideation		
MoHet by 2013 (vs. 1998)	1.01 (.65–1.58)	**1.54 (1.21–1.95)**
MoHet by 2013 (vs. 2003)	1.26 (.85–1.86)	1.19 (.95–1.48)
MoHet by 2013 (vs. 2008)	.82 (.56–1.20)	1.15 (.92–1.43)
Bisexual by 2013 (vs. 1998)	1.52 (.84–2.75)	**2.10 (1.39–3.17)**
Bisexual by 2013 (vs. 2003)	1.42 (.78–2.59)	1.29 (.92–1.81)
Bisexual by 2013 (vs. 2008)	1.19 (.73–1.97)	.95 (.71–1.29)
Les/Gay by 2013 (vs. 1998)	.72 (.35–1.49)	1.79 (.82–3.89)
Les/Gay by 2013 (vs. 2003)	1.30 (.59–2.85)	.72 (.33–1.59)
Les/Gay by 2013 (vs. 2008)	.79 (.42–1.50)	.67 (.33–1.33)
Suicide attempt		
MoHet by 2013 (vs. 1998)	.79 (.41–1.55)	**1.51 (1.11–2.04)**
MoHet by 2013 (vs. 2003)	.93 (.49–1.78)	.97 (.73–1.29)
MoHet by 2013 (vs. 2008)	.70 (.39–1.26)	.96 (.72–1.29)
Bisexual by 2013 (vs. 1998)	1.40 (.67–2.91)	1.52 (.95–2.44)
Bisexual by 2013 (vs. 2003)	2.13 (.98–4.66)	1.24 (.88–1.74)
Bisexual by 2013 (vs. 2008)	.72 (.41–1.29)	.76 (.55–1.06)
Les/Gay by 2013 (vs. 1998)	.52 (.22–1.22)	1.57 (.68–3.62)
Les/Gay by 2013 (vs. 2003)	1.58 (.62–3.99)	.79 (.31–2.02)
Les/Gay by 2013 (vs. 2008)	**.34 (.17–.77)**	.80 (.37–1.72)

Note. MoHet = mostly heterosexual; Les/gay = lesbian/gay; CI = confidence interval. Odds ratio (*OR*) in bold indicates $p < .001$; reference group is 2013.

Discussion

In this study of sexual minority and heterosexual adolescents in Grades 7 to 12 throughout the Canadian province of BC, we found that sexual minority youth were still at a significantly increased risk of suicidal behavior compared with their heterosexual peers. Our study is an extension of earlier work done by Saewyc et al. (2008) where suicidal behavior measures among sexual minority adolescents were assessed using, as one of several data sets, the BC AHS cohort surveys for the years 1992, 1998, and 2003. Our research differs in two distinct ways: first, we provide a more rigorous and updated analysis of trends in the BC AHS by incorporating cohorts from 2008 and 2013; and second, by drawing on a new method to document trends in disparities, that is, whether the gap between heterosexual and sexual minority youth is getting worse, getting better, or unchanged.

In addressing our first research objective, that is, reporting trends of suicidality within sexual orientation groups, our findings show substantial movement, especially for girls. In particular, for heterosexual girls there is a downward trend for suicidal thoughts and suicide attempt, which suggests that current suicide prevention strategies are at least somewhat effective among this population. However, the prevalence of suicidal behavior among the "mostly heterosexual" girls grouping has ebbed and flowed over the years, but has neither increased nor decreased substantially. Further, among bisexual girls, there has been an increase between 1998 and 2003 for both ideation and attempt, but trends have stabilized with little movement since then. A similar spike was found among lesbian adolescents, but unlike bisexual girls, the prevalence of suicidal ideation has been steadily decreasing since 2003, and has stabilized for suicide attempts. However, it is important to note that the prevalence of suicidal behavior among lesbian and bisexual girls, even in 2013, is nearly 4 times higher than that of their heterosexual peers.

For sexual minority boys, there has been little shift in suicidal ideation among bisexual boys, with roughly a third reporting serious suicidal thoughts over the years. For gay boys, suicidal ideation has been declining, and suicide attempts trends have oscillated, but have recently seen a decrease from nearly a quarter in 2008 to roughly one in 10 in 2013. The opposite trend is occurring for bisexual boys, where suicide attempts have increased in 2008 and 2013 to around a quarter. However, as with girls, compared with heterosexual boys, suicide ideation is substantially higher for bisexual boys (5 times higher in 2013) and gay boys (3 times higher in 2013).

In terms of our second research objective, which compared the age-adjusted odds of suicidal behavior between sexual minority and heterosexual students, of particular concern is the increasing disparity for bisexual adolescents. By 2013, bisexual boys and girls had more than 6 times the odds of suicidality than their heterosexual peers, and for bisexual boys, the disparity gap for both suicidal ideation and suicide attempt versus heterosexual peers appears to be widening.

There are several possible explanations for the growing disparity in suicidal thoughts and attempts among bisexual youth. One explanation may be due to the lack of visibility of bisexuality in the media, except when bisexuality does appear, it is usually in a negative light. Bisexual youth are also often subjected to poor misrepresentations of what "bisexuality" entails. Such myths and

misconceptions include: bisexuality is an incomplete identity; all bisexual-identified youth will eventually become gay, lesbian, or heterosexual; and bisexual individuals are promiscuous and engage in disproportionate amounts of sexual behavior (Kennedy & Fisher, 2010; Persson & Pfaus, 2015). Such misrepresentations of bisexuality can create an erasure of identity, and produce a climate of biphobia that can negatively impact the mental health of bisexual youth (Elia, 2014; Flanders, Dobinson, & Logie, 2015). Herek (2002), for example, found that heterosexuals held more negative attitudes toward bisexuals than toward lesbians or gay men, but negativity and exclusion of bisexuality are also common from lesbian and gay individuals (Greene, 2003). Given a general lack of acceptance, bisexual adults were more likely to report identity confusion, were less likely to disclose their sexual identity, and participated in fewer community activities than lesbians or gay men (Balsam & Mohr, 2007; Lewis et al., 2009). It is possible that similar feelings of exclusion and lack of belonging are also occurring among bisexual adolescents and the invisibility of positive role models may be an additive effect.

Another potential explanation is the higher risk for violence exposure, whether sexual or physical abuse, experienced by sexual minority youth compared with heterosexual peers, as physical and sexual violence have been linked to suicidal ideation and attempts among adolescents (Borowsky, Ireland, & Resnick, 2001; Saewyc & Chen, 2013). Several studies over the years have documented higher rates of physical and sexual violence toward LGB youth compared with heterosexual peers, including in Canada (Saewyc et al., 2006). In a meta-analysis of these studies, moderation analyses showed bisexual adolescents had even higher odds of family physical abuse and skipping school because they felt more unsafe than gay and lesbian youth (Friedman et al., 2011).

Further exploration of these issues of negativity, exclusion, and violence exposure among adolescents, would shed some light on this widening disparity, especially in terms of the availability of supportive LGB organizations within the school context, such as gay-straight alliance clubs (GSAs). Research by Saewyc et al. (2014) found that the presence of GSAs or explicit school district policy led to a decrease in discrimination based on sexual orientation and suicidal behavior among LGB adolescents, especially when such interventions have been in place for a few years and are thus well established. It would be useful to examine these impacts by separating out lesbian, gay, and bisexual youth, to see if lower odds of suicidal involvement were predominantly driven by the experiences of lesbian and gay students.

The third research objective employed an interaction analysis in order to determine significant widening or narrowing of gaps in suicidality by sexual orientation group across trend years. These analyses found several significant trends in the disparity of suicidality, particularly in terms of widening gaps for suicidal behavior for mostly heterosexual and bisexual girls, compared with heterosexual girls from 1998–2013. For boys, however, there is a narrowing gap for suicide attempts among gay boys compared with their heterosexual peers between 2008 and 2013. These results suggest that disparities in suicidal ideation and attempts are getting better for gay boys, is unchanged for bisexual boys, but among lesbian and bisexual girls, the gap is widening, and thus getting worse. Given the nature of the current analyses, we cannot confidently explain such divergent trends, although they suggest that the recent social and legal improvements in status for LGB people may have differential effects for LGB boys and girls, and for bisexual adolescents. Further research is needed, particularly studies that include multiple indicators of suicidality, and studies that can tease out the differential impacts of supportive policies and programs for lesbian, gay, and bisexual adolescents.

Strengths and Weaknesses

The findings from our study are unique in that they are based on large-scale population studies, which can be generalized to a wider population of school-aged adolescents. In addition, given that the BC AHS is repeated over multiple years, we are able to identify trends in both suicidality and trends in the disparity between sexual minority and heterosexual teens around suicidality. Finally, the large size of the data sets also enables an analysis separated by respondent gender and sexual orientation and results have shown some important findings when bisexuality is disaggregated from gay and lesbian identities.

Several limitations are also noteworthy to report. First, these data rely on self-reports of sexual orientation, so groupings that represent a young person's current orientation self-label and may not represent all youth in that orientation group, mostly due to the well-documented research that shows sexual identity develops over time and thus self-labels and behavior may change (Kinnish, Strassberg, & Turner, 2005). Second, given that these surveys are school-based, any generalizability can only be made to these populations, thus missing youth who do not attend school. It is suggested in some research that sexual minority youth are at a greater risk of dropping out of school, which these data would not capture (Smith et al., 2007). Lastly, one should note that the trends are curvilinear in nature for some mental health outcomes. In this paper, we have reported on meaningful changes in trends when they were statistically significant and spanned several survey waves; we were most interested in long-term change over the span of 15 years' time.

Recommendations for Research and Practice

Despite these limitations, our research offers important insight, particularly in the areas of suicide prevention, intervention, and postvention efforts. In terms of prevention, our research shows that there is an increasing disparity of suicidal behavior, particularly for bisexual girls, and it is important that prevention strategies specifically target this vulnerable group. Bisexual youth may be more likely to engage in suicidal behavior because they experience marginalization from both heterosexual as well as gay and lesbian groups (Lucassen et al., 2011). Increasing the visibility of positive bisexual role models, as well as validating bisexual identities by dispelling stereotypes and myths, may help improve social support for bisexual adolescents in schools and families.

Intervention strategies could include fostering stress coping skills, and intervening if someone is experiencing suicidal ideation or behaviors. Therapy could be one method of intervention, wherein bisexual youth, as well as other sexual minority individuals, could comfortably discuss their emotions or their insecurities, and develop sufficient coping strategies as to reduce suicidal behavior and/or thoughts. Therapists should strive to create a more supportive and inclusive environment for all youth, and therapists should especially try to better understand the unique identity-

related and mental health challenges bisexual youth may experience (Pallotta-Chiarolli & Martin, 2009). In addition, therapy approaches may vary depending on gender, given our findings that suicidal behavior is reported at a higher rate among sexual minority girls than boys.

Finally, postvention involves developing the skills and strategies for taking care of oneself after the occurrence of suicidal thoughts or a suicide attempt, as well as support for those who have lost a friend or family member to suicide. Due to the higher odds of suicidal behavior among sexual minority students, particularly those who identify as bisexual, it is critical that postvention programs are developed that are focused on the issues facing sexual minority youth, preferably before a completed suicide occurs. In the worst-case scenario, when a young person dies by suicide, postvention efforts are paramount, as research suggests that adolescents are especially vulnerable to suicide contagion (Bridge, Goldstein, & Brent, 2006).

Concluding Remarks

The current study adds to the literature in two respects: first, the study explores trends and disparities in suicidality among LGB and heterosexual youth in Canada, and second, it explores how these trends or disparities remain constant, widen, or narrow over time among Canadian youth. Our findings support a growing body of research that has found sexual minority youth to be at greater risk for suicidal behavior such as suicidal ideation and attempts. There is some room for hope; things appear to be improving for gay boys, but not for other sexual minority youth. This analytical approach can help monitor trends in suicidal behavior over time, and, in turn, guide policymakers to take action where suicide trends are widening or are consistently heightened among certain groups, such as bisexual and lesbian girls, as well as bisexual boys.

References

Allison, P. D. (1999). *Logistic regression using the SAS system: Theory and application*. Cary, NC: SAS Institute.

Altman, D. G., & Bland, J. M. (2003). Interaction revisited: The difference between two estimates. *British Medical Journal, 326,* 219. http://dx.doi.org/10.1136/bmj.326.7382.219

Balsam, K. F., & Mohr, J. J. (2007). Adaptation to sexual orientation stigma: A comparison of bisexual and lesbian/gay adults. *Journal of Counseling Psychology, 54,* 306–319. http://dx.doi.org/10.1037/0022-0167.54.3.306

Blosnich, J., & Bossarte, R. (2012). Drivers of disparity: Differences in socially based risk factors of self-injurious and suicidal behaviors among sexual minority college students. *Journal of American College Health, 60,* 141–149. http://dx.doi.org/10.1080/07448481.2011.623332

Borowsky, I. W., Ireland, M., & Resnick, M. D. (2001). Adolescent suicide attempts: Risks and protectors. *Pediatrics, 107,* 485–493. http://dx.doi.org/10.1542/peds.107.3.485

Bridge, J. A., Goldstein, T. R., & Brent, D. A. (2006). Adolescent suicide and suicidal behavior. *Journal of Child Psychology and Psychiatry, 47,* 372–394. http://dx.doi.org/10.1111/j.1469-7610.2006.01615.x

Burton, C. M., Marshal, M. P., Chisolm, D. J., Sucato, G. S., & Friedman, M. S. (2013). Sexual minority-related victimization as a mediator of mental health disparities in sexual minority youth: A longitudinal analysis. *Journal of Youth and Adolescence, 42,* 394–402. http://dx.doi.org/10.1007/s10964-012-9901-5

Elia, J. P. (2014). Bisexuality and schooling: Erasure and implications for health. *Journal of Bisexuality, 14,* 36–52. http://dx.doi.org/10.1080/15299716.2014.872461

Flanders, C. E., Dobinson, C., & Logie, C. (2015). "I'm never really my full self": Young bisexual women's perceptions of their mental health. *Journal of Bisexuality, 15,* 454–480. http://dx.doi.org/10.1080/15299716.2015.1079288

Friedman, M. S., Marshal, M. P., Guadamuz, T. E., Wei, C., Wong, C. F., Saewyc, E., & Stall, R. (2011). A meta-analysis of disparities in childhood sexual abuse, parental physical abuse, and peer victimization among sexual minority and sexual nonminority individuals. *American Journal of Public Health, 101,* 1481–1494. http://dx.doi.org/10.2105/AJPH.2009.190009

Greene, B. (2003). Beyond heterosexism and across the cultural divide—Developing an inclusive lesbian, gay, and bisexuality: A look to the future. In L. D. Garnets & D. C. Kimmel (Eds.), *Psychological perspectives on lesbian, gay, and bisexual experiences* (2nd ed., pp. 357–400). New York, NY: Columbia University Press.

Hatzenbuehler, M. L. (2011). The social environment and suicide attempts in lesbian, gay, and bisexual youth. *Pediatrics, 127,* 896–903. http://dx.doi.org/10.1542/peds.2010-3020

Herek, G. M. (2002). Heterosexuals' attitudes toward bisexual men and women in the United States. *Journal of Sex Research, 39,* 264–274. http://dx.doi.org/10.1080/00224490209552150

Hershberger, S. L., Pilkington, N. W., & D'Augelli, A. R. (1997). Predictors of suicide attempts among gay, lesbian, and bisexual youth. *Journal of Adolescent Research, 12,* 477–497. http://dx.doi.org/10.1177/0743554897124004

Homma, Y., Saewyc, E., & Zumbo, B. D. (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 for Equity in Health, 15,* 79–87. http://dx.doi.org/10.1186/s12939-016-0371-3

Kennedy, K. G., & Fisher, E. S. (2010). Bisexual students in secondary schools: Understanding unique experiences and developing responsive practices. *Journal of Bisexuality, 10,* 472–485. http://dx.doi.org/10.1080/15299716.2010.521061

Kinnish, K. K., Strassberg, D. S., & Turner, C. W. (2005). Sex differences in the flexibility of sexual orientation: A multidimensional retrospective assessment. *Archives of Sexual Behavior, 34,* 173–183. http://dx.doi.org/10.1007/s10508-005-1795-9

Lahti, A., Räsänen, P., Riala, K., Keränen, S., & Hakko, H. (2011). Youth suicide trends in Finland, 1969–2008. *Journal of Child Psychology and Psychiatry, 52,* 984–991. http://dx.doi.org/10.1111/j.1469-7610.2011.02369.x

Lewis, R. J., Derlega, V. J., Brown, D., Rose, S., & Henson, J. M. (2009). Sexual minority stress, depressive symptoms, and sexual orientation conflict: Focus on the experiences of bisexuals. *Journal of Social and Clinical Psychology, 28,* 971–992. http://dx.doi.org/10.1521/jscp.2009.28.8.971

Lucassen, M. F., Merry, S. N., Robinson, E. M., Denny, S., Clark, T., Ameratunga, S., . . . Rossen, F. V. (2011). Sexual attraction, depression, self-harm, suicidality and help-seeking behaviour in New Zealand secondary school students. *Australian and New Zealand Journal of Psychiatry, 45,* 376–383. http://dx.doi.org/10.3109/00048674.2011.559635

Marshal, M. P., Dietz, L. J., Friedman, M. S., Stall, R., Smith, H. A., McGinley, J., . . . Brent, D. A. (2011). Suicidality and depression disparities between sexual minority and heterosexual youth: A meta-analytic review. *Journal of Adolescent Health, 49,* 115–123. http://dx.doi.org/10.1016/j.jadohealth.2011.02.005

Miller, B. B., Cox, D. N., & Saewyc, E. M. (2010). Age of sexual consent law in Canada: Population-based evidence for law and policy. *Canadian Journal of Human Sexuality, 19,* 105–117.

Mustanski, B. S., Garofalo, R., & Emerson, E. M. (2010). Mental health disorders, psychological distress, and suicidality in a diverse sample of lesbian, gay, bisexual, and transgender youths. *American Journal of Public Health, 100,* 2426–2432. http://dx.doi.org/10.2105/AJPH.2009.178319

Oquendo, M. A., Currier, D., & Mann, J. J. (2006). Prospective studies of suicidal behavior in major depressive and bipolar disorders: What is the evidence for predictive risk factors? *Acta Psychiatrica Scandinavica, 114,* 151–158. http://dx.doi.org/10.1111/j.1600-0447.2006.00829.x

Ott, M. Q., Corliss, H. L., Wypij, D., Rosario, M., & Austin, S. B. (2011). Stability and change in self-reported sexual orientation identity in young people: Application of mobility metrics. *Archives of Sexual Behavior, 40,* 519–532. http://dx.doi.org/10.1007/s10508-010-9691-3

Pallotta-Chiarolli, M., & Martin, E. (2009). "Which sexuality? Which service?": Bisexual young people's experiences with youth, queer and mental health services in Australia. *Journal of LGBT Youth, 6,* 199–222. http://dx.doi.org/10.1080/19361650902927719

Persson, T. J., & Pfaus, J. G. (2015). Bisexuality and mental health: Future research directions. *Journal of Bisexuality, 15,* 82–98. http://dx.doi.org/10.1080/15299716.2014.994694

Robinson, J. P., & Espelage, D. L. (2011). Inequities in educational and psychological outcomes between LGBTQ and straight students in middle and high school. *Educational Researcher, 40,* 315–330. http://dx.doi.org/10.3102/0013189X11422112

Russell, S. T., Kosciw, J., Horn, S., & Saewyc, E. (2010). Safe schools policy for LGBTQ students. *Social Policy Report, 24,* 1–17.

Saewyc, E. M., Bauer, G. R., Skay, C. L., Bearinger, L. H., Resnick, M. D., Reis, E., & Murphy, A. (2004). Measuring sexual orientation in adolescent health surveys: Evaluation of eight school-based surveys. *Journal of Adolescent Health, 35,* 345.e1-345.e15. http://dx.doi.org/10.1016/j.jadohealth.2004.06.002

Saewyc, E. M., & Chen, W. (2013). To what extent can adolescent suicide attempts be attributed to violence exposure? A population-based study from Western Canada. *Canadian Journal of Community Mental Health, 32,* 79–94. http://dx.doi.org/10.7870/cjcmh-2013-007

Saewyc, E. M., Konishi, C., Rose, H. A., & Homma, Y. (2014). School-based strategies to reduce suicidal ideation, suicide attempts, and discrimination among sexual minority and heterosexual adolescents in Western Canada. *International Journal of Child, Youth & Family Studies: IJCYFS, 5,* 89–112. http://dx.doi.org/10.18357/ijcyfs.saewyce.512014

Saewyc, E. M., Poon, C. S., Homma, Y., & Skay, C. L. (2008). Stigma management? The links between enacted stigma and teen pregnancy trends among gay, lesbian, and bisexual students in British Columbia. *Canadian Journal of Human Sexuality, 17,* 123–139.

Saewyc, E. M., Skay, C. L., Hynds, P., Pettingell, S., Bearinger, L. H., Resnick, M. D., & Reis, E. (2007). Suicidal ideation and attempts in North American school-based surveys: Are bisexual youth at increasing risk? *Journal of LGBT Health Research, 3,* 25–36. http://dx.doi.org/10.1300/J463v03n02_04

Saewyc, E. M., Skay, C. L., Reis, E., Pettingell, S. E., Bearinger, L. H., & Combs, L. (2006). Hazards of stigma: The sexual and physical abuse of gay, lesbian, and bisexual adolescents in the U.S. and Canada. *Child Welfare, 58,* 196–213.

Saewyc, E. M., Stewart, D., & Green, R. (2013). *Methodology for the 2013 BC Adolescent Health Survey*. [Fact sheet]. Vancouver, BC: McCreary Centre Society. Retrieved from http://www.mcs.bc.ca/pdf/AHSV_methodology.pdf

Saewyc, E. M., Taylor, D., Homma, Y., & Ogilvie, G. (2008). Trends in sexual health and risk behaviours among adolescent students in British Columbia. *Canadian Journal of Human Sexuality, 17,* 1–13.

Smith, A., Saewyc, E., Albert, M., MacKay, L., Northcott, M. & the McCreary Centre Society. (2007). *Against the odds: A profile of marginalized and street-involved youth in BC*. Vancouver, BC: McCreary Centre Society.

Statistics Canada. (Last updated 2012). *Suicides and suicide rate, by sex and by age group*. Retrieved from http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/hlth66a-eng.htm

Troister, T., Links, P. S., & Cutcliffe, J. (2008). Review of predictors of suicide within 1 year of discharge from a psychiatric hospital. *Current Psychiatry Reports, 10,* 60–65. http://dx.doi.org/10.1007/s11920-008-0011-8

Värnik, A., Kõlves, K., Allik, J., Arensman, E., Aromaa, E., van Audenhove, C., . . . Hegerl, U. (2009). Gender issues in suicide rates, trends and methods among youths aged 15–24 in 15 European countries. *Journal of Affective Disorders, 113,* 216–226. http://dx.doi.org/10.1016/j.jad.2008.06.004

World Health Organization. (2014). *Preventing suicide: A global imperative* (Executive Summary). Retrieved from http://www.who.int/mental_health/suicide-prevention/exe_summary_english.pdf?ua=1

Received June 23, 2016
Revision received October 17, 2016
Accepted October 17, 2016 ■