

Well-Being Among Same-Sex- and Opposite-Sex- Attracted Youth at School

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Abstract. In this study, 53 students who reported being solely or primarily attracted to members of the same sex were matched with 53 peers who reported being attracted solely to members of the opposite sex on various demographic factors as well as exposure to bullying at school. Data relating to tobacco and alcohol use, drug use, health risk behaviors, concerns and sources of social support, interpersonal sensitivity, depression, anxiety, hostility, suicide ideation, loneliness, and concentration were analyzed. Results indicated that same-sex-attracted students reported drinking alcohol alone more than opposite-sex-attracted peers; however, they were no more likely to engage in health-risk behaviors, or use Class 1 and 2 drugs. They were more likely to report being worried about being lesbian or gay, and were more likely to seek support from a member of school staff than opposite-sex-attracted peers. In terms of psychological well-being, same-sex-attracted students scored significantly higher on a hostility subscale when compared to opposite-sex-attracted peers and were more likely to report feeling lonely. These results suggest that the management of reactive aggression or hostility toward others may be a key determinant of healthy gay, lesbian, and bisexual development.

In his text, *The New Gay Teenager*, Savin-Williams (2005) argues that gay, lesbian, and bisexual (GLB) youth's greatest asset may be their "banality" or ordinariness when compared to other teenagers. He argues that GLB youth can "pursue diverse personal and political goals whether they be a desire to blend into mainstream society or a fight to radically restructure modern discourse about sexuality" (p. 222). Such a view suggests that, at least within Western cultures, the challenges laid down by D'Augelli (1995) to allow

GLB youth to develop without fear of overt discrimination, are now being met. We should no longer view GLB youth as damaged or vulnerable, but as self-actualized individuals with the ability to forge their own destinies.

In the United Kingdom, the repeal of Section 28 of the 1998 Local Government Act in 2003 (2000 in Scotland), which prohibited the "promotion" of homosexuality as "a pretended family relationship" and the introduction of national guidance in England on combating homophobic bullying (Jennett, Rivers,

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Jowett, Power, & Caught, 2004) means that, in effect, perceptible changes in the experiences of GLB youth at school should now be evident. However, as Savin-Williams (2005) points out, if we continue to focus on negative outcomes we might actually “increase self-destructive behavior rather than wellness” and promote those behaviors researchers have sought to stop (p. 193). Although Savin-Williams’ observation may be true for some studies using particularly vulnerable GLB samples, it can also be argued that evidence drawn from representative national surveys, or studies in which sexual orientation is included for reasons of demography, do not set out to pathologize GLB individuals. They are no more likely to identify negative outcomes for GLB individuals than for heterosexuals.

GLB Youth in Schools: Findings From U.S. and U.K. Research

In an online survey conducted in California (The California Healthy Kids Survey) with students in Grades 7–11 ($n = 237,544$), 7.5% of those who participated reported having been bullied because of their actual or perceived sexual orientation, with two out of every three students who identified as GLB or transgendered reporting having been victimized (California Safe Schools Coalition & 4-H Center for Youth Development, University of California, Davis, 2004). The authors defined bullying as “being repeatedly shoved, hit, threatened, called mean names, teased in a way you didn’t like, or had other things done to you” (p. 6). The data showed that students who were bullied because of their actual or perceived sexual orientation were more likely to report a C-grade average or lower when compared to nonbullied students (24% vs. 17%). They were more likely to report missing school over the last 30 days because they felt unsafe (27% vs. 7%). In addition, the researchers found that, on average, students who were harassed because of their actual or perceived sexual orientation were almost twice as likely to report engaging in health risk behaviors (e.g., substance abuse, driving under the influence of alcohol, or be-

ing a passenger in a car in which the driver had consumed alcohol). They were also nearly six times more likely to report being threatened or hurt by someone wielding a weapon (28% vs. 5%), and nearly four times more likely to carry a weapon to school (19% vs. 5%).

In one of the largest U.K. surveys to be conducted with GLB youth in secondary and further education ($n = 1,145$), Hunt and Jensen (2007) found that 65% of students said they had been bullied within the public school system, with the figure rising to 75% among students attending faith-oriented schools. The research also showed that, across England and Wales, only one quarter of schools had behavior policies explicitly stating that homophobic bullying was wrong, and that in 30% of cases the bullying was perpetrated by adults rather than other students. Concomitantly, in their replication of the very first survey of homophobia in U.K. schools conducted by Warren (1984), Ellis and High (2004) found significant increases in rates of bullying among their sample of 384 GLB youth when compared to data collected two decades earlier. Their data revealed that the GLB youth they surveyed in 2001 were nearly four times more likely to feel isolated at school than those surveyed by Warren. They were also nearly five times more likely to be victims of verbal abuse, seven times more likely to be teased, three times more likely to be physically assaulted, five times more likely to be ostracized by peers, and nearly nine times more likely to feel pressured to conform. These data, together with Hunt and Jensen’s (2007) survey, suggest that homophobic bullying is not a thing of the past, but has almost doubled since Rivers and Duncan (2002) conducted their review of existing literature, which suggested a prevalence rate of 37% among GLB youth at school.

Psychological Well-Being, Bullying, and Homophobia at School

In the United States, in a random national telephone survey of 760 adolescents conducted on behalf of the National Mental Health Association, 98% of participants reported that they had heard words such as *fag*,

homo, *dyke*, *queer*, and *gay* at school, with 51% reporting that they heard such epithets every day (International Communications Research, 2002). Similar data are reported by Poteat and Espelage (2005), who found that 60% of their sample of 191 middle school students reported being called names that were homophobic or heterosexist at least once in the week preceding the survey. The consequences of not challenging homophobia when it appears at school or indeed in any community have been well documented. For example, Hershberger and D'Augelli (1995) found that, among their sample of American GLB youth, 42% reported attempting suicide on at least one occasion—a figure mirrored in the California study with 45% of respondents bullied because of their actual or perceived sexual orientation reporting seriously contemplating suicide in the past 12 months and 35% making a suicide plan (figures for nonbullied students were 14% and 9%, respectively; California Safe Schools Coalition & 4-H Center for Youth Development, University of California, Davis, 2004). In a U.K. retrospective study of homophobic bullying, Rivers (2001a) found that 53% of former victims recalled contemplating self-harm or suicide as a direct consequence of one or more episodes of bullying. Forty percent made at least one attempt, and three quarters of those (30%) attempted more than once ($M = 4$).

Hershberger and D'Augelli (1995) noted in their study that some participants reported symptoms indicative of depression and anxiety even when they had left school. In the California Healthy Kids Survey, 55% of those who reported being bullied at school because of their actual or perceived sexual orientation also reported symptoms of depression. However, rates of self-reported depression were similar for other minority groups (e.g., physical and mental disability, 55%; sex, 53%; religion, 48%; Race–ethnicity or national origin, 48%), and were lowest (but not absent) among those who had not been bullied (23%; California Safe Schools Coalition & 4-H Center for Youth Development, University of California, Davis, 2004). In the United Kingdom, in a study of 116 former victims of

homophobic bullying (which included comparisons to three reference groups: heterosexual bullied at school; heterosexual not bullied; and gay, lesbian, and bisexual not bullied), Rivers (2006) also found higher rates of depression, anxiety, and hostility among former victims but only when compared to heterosexual nonvictims. All other comparisons were not significant. Overall, these studies demonstrate that bullying, regardless of motive, can have an effect on psychological well-being, and even when bullying is not present, students may experience depression for other reasons that may not be discernable.

Social Support and Social Exclusion for GLB Youth

According to Willoughby, Malik, and Lindahl (2006), GLB youth are more likely to successfully navigate “coming out” when they are assured of supportive family members who are themselves supported. Indeed, where there is little or no support from family members, various researchers have argued that there is an increased risk of emotional disturbance (e.g., internalized homophobia and low self-esteem) and sexual health risk behaviors (Rosario, Hunter, Maguen, Gwadz, & Smith, 2001; Savin-Williams, 1989; Vincke, Bolton, Mak, & Blank, 1993). Similarly, D'Augelli and Hershberger (1993) found that, among young gay men who self-labeled early, issues such as the loss of friendship networks coupled with low self-esteem, hostility, and gender-atypical behavior predicted suicide attempts. Among young women, predictors included the loss of friendship networks together with a propensity to frequent gay bars. If GLB youth are the passive recipients of others' contempt, these results are not surprising. However, as the researchers in the California Healthy Kids Survey found, in the absence of support from the public school system, 19% of GLB youth carry a weapon to school (ostensibly for protection), and therefore responses to incidents of homophobia by GLB youth may require further interrogation.

Berkowitz (1993) has argued that the pain associated with social exclusion can trig-

ger defensive behaviors that are both “quick and highly reactive” (MacDonald & Leary, 2005, p. 202). Research conducted by Twenge, Baumeister, Tice, and Stuck (2001) has shown that the greater the social exclusion the greater the aggressive reaction, and that a reaction may extend beyond the stimulus or source. Indeed, indices of hostility were found by Rivers (2001a) in the first study to explicitly look at the long-term effects of homophobic bullying on GLB youth.

Youth who are exposed to homophobia, whether or not they identify as gay, lesbian, or bisexual, are extremely vulnerable. However, as noted earlier, in one of the few studies to use reference groups, it was noted that although gay, lesbian, and bisexual former victims of homophobic bullying scored significantly higher in terms of depression, anxiety, and hostility when compared to a sample of heterosexuals who were not bullied at school, they did not differ significantly from heterosexual former victims of bullying (Rivers, 2006). Thus, comparable with the data from the California Healthy Kids Survey, many of the negative effects reported in previous studies of GLB youth bullied at school are likely to be found among all victims regardless of the reason behind their victimization (Besag, 1989; Olweus, 1993; Rubin, Bukowski, & Parker, 1988).

So, is it possible to reconcile Savin-Williams’ (2005) view of GLB youth with evidence that continues to show them as being particularly vulnerable to homophobic bullying? In this study, we compare a sample of youth who reported being attracted to members of the same sex with a reference sample of youth who are attracted to members of the opposite sex, matched as closely as possible on a range of demographic variables. We focus on four key questions:

1. Are students who report same-sex attraction any more likely to engage in health risk behaviors (drug and alcohol use and/or abuse, exposure to other dangers) when compared to opposite-sex-attracted youth?
2. Do same-sex-attracted students differ

from the opposite-sex-attracted peers in terms of their worries and concerns?

3. Do same-sex-attracted youth have similar levels of support from family, friends, and school as opposite-sex-attracted youth?
4. Do same-sex-attracted youth have poorer mental health and well-being than opposite-sex-attracted youth, and if so why?

Method

Participants

Data were collected as part of a large-scale investigation of adolescent health and well-being in the United Kingdom in 2003. Students participating in this study reflected a random sample drawn from 14 schools enrolled in classes equivalent to Grades 7–9 ($n = 2,002$) in the north of England. For the purposes of this study, students (36 males, 17 females; age: $M = 13.85$ years, $SD = 1.36$) who reported being attracted solely or primarily to members of the same sex on a measure of current sexual attraction were compared to a reference group of 53 students (36 males and 17 females; age: $M = 13.81$, $SD = 1.24$) who reported a sole attraction to members of the opposite sex on the same measure, and who were matched as closely as possible on six additional criteria (see demographic variables below).

We used GPOWER (Faul & Erfelder, 1992) to determine the power of the proposed investigation. To observe medium effect sizes at $\alpha = .05$ (see Cohen, 1988), a priori power analyses indicated that a total sample of 106 was adequate for two-tailed analyses using χ^2 (power = .87), t tests, and one-way analyses of variance (power = .72).

Measures

Demographic variables. Students were asked to indicate their age, race, sex, school year (grade), allowance, family members with whom they lived, and their attraction to members of the same and opposite sex. The attraction item used for this study provided

students with eight options representing current sexual attraction (boys only, girls only, both boys and girls, boys more than girls, girls more than boys, not attracted to anyone at the moment, haven't thought about this, and unsure whom I am attracted to). Response options for the item assessing with whom students' lived included mother, mother plus stepfather or male partner, mother plus same-sex partner or girlfriend, father, father plus stepmother or female partner, father plus same-sex partner or boyfriend, sisters and/or brothers, grandmother, grandfather, cousins, and other.

Antibullying questionnaire. The 15-item antibullying inventory adapted from the English version of the Olweus Bullying Questionnaire (see Smith & Sharp 1994) assessed various forms of victimization. Response options (1 = *yes*, 0 = *no*) allow participants to indicate whether they have experienced one or more specific forms of victimization (e.g., hit, called names, threatened, things stolen) over the current semester. Test-retest reliability for this version of the inventory indicates general stability of recall in retrospective studies over periods of up to 12–14 months for GLB samples (Rivers, 2001b), with various youth studies reporting reliability coefficients and concordance rates with peer nominations for composite scores ranging from .40 to .60 (Perry, Kusel, & Perry, 1988; Olweus, 1994), and coefficient alphas of between .78 and .90 for behavioral subscales (Perren & Alsaker, 2006). Whereas previous studies of bullying at school using Olweus' and similar ordinal scales have intimated severity of exposure to bullying primarily through a single measure of frequency across a school semester or term (Olweus, 1993; Smith & Sharp, 1994), in this study, a measure of the severity of bullying was derived by summing the different types of bullying experienced by students currently ($n = 16$) and multiplying the total by frequency per week (0 = *I haven't been bullied this term*, 1 = *Occasionally*, 2 = *Sometimes*, 3 = *Once a week*, 4 = *Several times a week*), and the number of locations where bullying was reported ($n = 10$). The calculated alpha

for this composite measure was .80. Comparable scores for self-reports of bullying others ($\alpha = .72$) and witnessing bullying ($\alpha = .74$) were also computed.

Psychological well-being. Psychological well-being was measured using four subscales drawn from the 53-item Brief Symptom Inventory (BSI; Derogatis, 1994): interpersonal sensitivity (four items; $\alpha = .83$), depression (6 items; $\alpha = .86$), anxiety (6 items; $\alpha = .80$), and hostility (5 items; $\alpha = .84$). Response options for each item range from 1 (*not at all*) through 5 (*extremely*), with the higher scores on each subscale reflecting higher levels of distress. These four subscales offer a quick and effective measure of psychiatric symptoms reported in many other studies of GLB youth conducted in the United States and United Kingdom. In addition to the four subscales, 4 discrete items were included in the study addressing issues most often cited as being correlates of psychological distress in GLB youth (suicide ideation, loneliness, poor concentration, and frustration).

Exposure to drugs and alcohol. Items relating to exposure to alcohol and drugs were adapted from questions drawn from 1999 Youth Risk Behavior Survey (Centers for Disease Control & Prevention, n.d.). Students were asked to indicate whether they had ever tried (scored 1 = *yes*, 0 = *no*), or used (0 = *I don't know what this is*, 1 = *Never*, 2 = *Only once or twice*, 3 = *Sometimes*, 4 = *About once a week*, 5 = *Two or more times a week*, and 6 = *Everyday*) cigarettes, alcohol, cocaine, cannabis/marijuana, glue/sprays/aerosols/paint, nail polish, heroin, speed/amphetamines, ecstasy, or any other drug (e.g., magic mushrooms, poppers [amyl nitrate], lysergic acid diethylamide [LSD], or gamma hydroxybutyrate [GHB; $\alpha = .67$]). Students were asked to estimate the number of alcoholic drinks they had consumed in the last 7 days (glass of wine; shot of spirits; pint, bottle, or can of beer). This information was then transformed into units of alcohol (1 unit = 8 g of ethanol per one half pint of beer at 3–4%, 25

ml of spirits at 40%, and 80 ml of wine at 12%).

Health risk behaviors. Items relating to exposure to various health risk behaviors were also included in the study. Questions focused on whether students had recently been a passenger in a car in which the driver had been smoking a cigarette, had consumed alcohol in the last 3 hr, was probably over the legal drink-drive limit, or had used a recreational drug such as cannabis/marijuana in the last 5 hr (1 = *yes*, 0 = *no*; Kuder-Richardson Formula 20 [KR-20] = .95).

Current concerns or worries. Students' individual concerns and worries were assessed using 17 items of interest to the researchers and local education authority (e.g., schoolwork, physical appearances, sex, friendship networks). Students were asked to place a check mark next to those items about which they were currently concerned (e.g., examinations, looks and/or dress, sex, being lesbian or gay, health, pregnancy, drugs, alcohol, smoking, being alone at home, weight, size, or body shape, parents and/or family issues, friendships, teacher bullying, bullying by other students, and problems at home; KR-20 = .71).

Sources of social support. Students were provided with a list of 18 individuals who represented family members (e.g., parent or primary caregiver, grandparent, sibling, aunt, uncle, or cousin), peers (e.g., friend, peer mentor or buddy, boyfriend or girlfriend, older student, or prefect), and school faculty members or staff (e.g., teacher; personal, social, and health education coordinator [a teacher who oversees and provides sex and relationships education]; school nurse; counselor; teaching or classroom assistant; youth worker; Connections [national initiative that supports young people aged 13–19 with learning, careers, work, housing, health, relationships, and travel] or nonteaching staff member), and were asked the question, "If you were in trouble or concerned about something personal, whom would you confide in?" Students were

asked to place a check mark next to any of the individuals to whom they believed they could go for support (KR-20 = .50).

Matching Criteria

To ensure that members of the reference group were matched as closely as possible to students who reported being attracted solely or primarily to members of the same sex, in addition to age and sex, we also matched participants according to ethnicity, school or geographical location, income or allowance (a proxy for socioeconomic status), family and home life, the presence or absence of a boy- or girlfriend, and exposure to bullying at school (victimization, perpetration, and bystander observation). Because scores for all three measures of exposure to bullying at school were not normally distributed, a logarithmic transformation was applied to the data (Tabachnik & Fidell, 2007). Chi-squared analyses and, where appropriate, independent *t* tests indicated that there were no significant differences between the groups on these variables (see Table 1).

Procedure

Fourteen schools in the north of England were contacted and invited to participate in the study by members of the Curriculum and Advisory Management Service of a local education authority over a 3-month period in 2003. The region has a general population of 1,045,000 (98% Caucasian) with 82% of its inhabitants in employment. The region is characterized as semirural with 11 administrative districts. Major employers include the service sector, light industry, and farming. It has one large city, and a number of smaller towns and urban areas. The schools were representative of this particular region in terms of students' social-economic background, gender, and ethnicity, and were chosen by the Curriculum and Advisory Management Service team, who ensured that the appropriate mix of urban and rural, coeducational and single-sex schools was obtained. Prior to data collection, all parents and guardians received consent letters

Table 1
Demographic Characteristics of Same-Sex and Opposite-Sex Attracted Youth

Demographic Factor	Same-Sex-Attracted Youth	Opposite-Sex-Attracted Youth
Age	$M = 13.85, SD = 1.36$	$M = 13.81, SD = 1.24$
Sex		
Boys	36 (68%)	36 (68%)
Girls	17 (32%)	17 (32%)
Racial identity		
White	48 (94%)	47 (90%)
Chinese	2 (4%)	1 (2%)
Black or British Black	0	2 (4%)
Asian or British Asian	0	1 (2%)
Mixed or dual background	1 (2%)	0
Allowance	$M = £3.40, SD = 1.38$	$M = £3.90, SD = 3.09$
Family and home life		
Living with two adults	30 (57%)	33 (62%)
Living with one adult	18 (34%)	18 (34%)
Other	5 (9%)	2 (4%)
Boy- or girlfriend		
Yes	17	14
No	26	29
No answer	10	10
Exposure to bullying		
Victimization _(Log)	$M = 0.97, SD = 0.52$	$M = 0.92, SD = 0.38$
Perpetration _(Log)	$M = 0.32, SD = 0.60$	$M = 0.20, SD = 0.47$
Observation _(Log)	$M = 1.23, SD = 0.64$	$M = 1.06, SD = 0.59$

Note. $N = 53$ for both same-sex and opposite-sex groups.

from the head teachers (principals) of each of the participant schools. In line with the local education authority protocols, students were not surveyed if parents and guardians confirmed orally or in writing that they did not wish their children to participate. Before data collection, researchers were introduced to the students by teachers who discussed how the data would be collected and the types of questions students would answer. It was stressed that students could omit items they felt were too personal or made them feel uncomfortable. Throughout the process, student confidentiality was stressed, and they were informed that neither teachers nor parents would see individual responses to the questionnaire. Questionnaires were completed independently in class over a period of 40–60 min. Each class was supervised by a member of the research team

supported by a teacher. Questionnaires were placed in envelopes in front of students, which were then sealed. For students with special needs, researchers discussed with class teachers the specific needs of each student and adapted the data collection process accordingly. In some cases, students required a researcher to read out each question in turn and provide the range of answers available. When this occurred, each researcher recorded students' answers on the questionnaire and then checked for accuracy before moving on. Overall, 82 students in the total sample of 2,002 (4%) were given additional support or extra time to complete the questionnaire, and are not included in this study. Following data analysis, each school received individualized guidance to assist them in the further development of antibullying and/or social support interventions.

Table 2
Alcohol Consumption by Group

Item	Same-Sex Attraction (%)	Opposite-Sex Attraction (%)
How often do you drink alcohol?		
Never	11 (21)	10 (19)
Occasionally during the month	7 (13)	4 (8)
At weekends	14 (26)	12 (23)
Occasionally during the week	11 (21)	1 (2)
Every day	1 (2)	3 (6)
On special occasions	9 (17)	23 (43)
How often have you had an alcoholic drink when you have been alone?		
Never	17 (33)	34 (65)
Once or twice	33 (64)	15 (29)
Usually drink alone	2 (4)	3 (6)

Results

Exposure to Drugs and Alcohol

Same-sex-attracted students reported consuming approximately 1.2 units of alcohol ($SD = 2.44$) over the preceding 7 days; opposite-sex-attracted youth consumed 2.5 units ($SD = 7.28$), $t(103) = -1.23$, ns, missing data for 1 student. Significant differences were found between the groups in terms of the frequency with which students consumed alcohol, $\chi^2(5, N = 106) = 16.48$, $p = .01$ (see Table 2). More students who said they were attracted to members of the opposite sex reported drinking alcohol everyday (3) and on special occasions (23) than students who were solely or primarily attracted to members of the same sex (1 and 9, respectively). In terms of drinking alcohol alone, overall students attracted to members of the opposite sex were less likely to drink alcohol alone, with 34 reporting that it never happened (as compared to only 17 among same-sex-attracted students). Significantly more students attracted to members of the same sex were found to drink alone once or twice when compared to the opposite-sex-attracted peers (33 and 15, respectively), $\chi^2(2, N = 104) = 12.61$, $p = .01$, missing data for 2 students.

Students were asked to estimate the number of cigarettes they had smoked in the

last 7 days. Overall no significant differences were found between the groups, with the majority reporting that they had never smoked a cigarette.

Finally, students were asked to indicate if they had recently been a passenger in a car in which the driver had been smoking a cigarette, had consumed alcohol in the last 3 hr, was probably over the legal drink-drive limit, or had used a recreational drug such as cannabis/marijuana in the last 5 hr. Overall, same-sex-attracted youth were found to be no more likely to associate with others engaged in health risk behaviors, such as smoking tobacco, driving having consumed alcohol, driving while over the legal limit of alcohol consumption, or using recreational drugs than opposite-sex-attracted youth.

In terms of using drugs, same-sex-attracted youth and opposite-sex-attracted youth did not differ significantly on self-reports of using cannabis/marijuana in the last month, (23% vs. 21%). When asked if they had ever smoked cannabis/marijuana on school property, both same- and opposite-sex-attracted youth reported similarly (5 students from each group reported having done so once or twice). In terms of exposure to cocaine, heroin, methamphetamines, or Ecstasy, no significant differences were found, with the majority of students reporting that they had never used these

Table 3
Psychological Well-Being: BSI Subscale Mean Scores and Significance Values by Group

Item	Same-Sex Attraction		Opposite Sex Attraction		<i>F</i>	η^2	95% CI
	Mean	<i>SD</i>	Mean	<i>SD</i>			
Interpersonal sensitivity	1.02	0.93	0.60	0.80	6.03	.48	0.08–0.77
Depression	1.29	1.25	0.60	0.81	10.88	.64	0.27–1.10
Anxiety	1.13	1.18	0.50	0.70	10.81	.65	0.25–1.01
Hostility	1.49	1.21	1.04	1.00	4.04*	.40	0.01–0.88

Note. BSI = Brief Symptom Inventory; CI = confidence interval.

* $p < .0125$.

substances. Similarly, no significant differences were found between the groups when students were asked whether they had inhaled glue, aerosols, paint, or nail polish to get high.

Current Concerns or Worries

To determine whether concerns such as being gay or lesbian were evident among the students in this study, responses to the 17 questionnaire items were analyzed. Sixteen of the 17 items were not found to be significantly different between the groups (i.e., concerns about examinations, looks and/or dress, sex, health, pregnancy, drugs, alcohol, smoking, being alone at home, weight, size, or body shape, parents and/or family issues, friendships, teacher bullying, bullying by other students, and problems at home). On only one item were same-sex-attracted students found to differ from opposite-sex-attracted students: concerns about being lesbian or gay (35% vs. 4%), $\chi^2(1, N = 106) = 16.19, p = .001$.

Sources of Social Support

For this study, sources of social support were clustered into three groups: family members, peers, and school staff/associates. Although no significant differences were found between the groups in terms of students seeking support from peers or family members, same-sex-attracted students were much more

likely to confide in the school nurse, $\chi^2(1, N = 106) = 5.95, p = .05$. Both groups rated parents, teachers, and siblings highly as people in whom they would confide.

Psychological Well-Being

Data from the BSI were analyzed in four stages. First, independent *t* tests were used to determine whether there were any significant differences according to sex within each group on the subscales used. No significant differences were found for gender in either group. Second, comparisons were made between the groups in terms of interpersonal sensitivity, depression, anxiety, and hostility using one-way analysis of variance. For each of the four subscales, analyses were conducted using Bonferroni adjusted alpha levels of .0125 per subscale (.05/4). The results (Table 3) indicated that same-sex-attracted youth did not differ significantly when compared to their heterosexual peers in terms of interpersonal sensitivity, depression, and anxiety, but were found to score significantly higher in terms of hostility, $F(1, 102) = 4.04, p = .0121, \eta^2 = 0.40, 95\%$ confidence interval = 0.01 and 0.88, missing data for 3 participants.

The third series of analyses focused on particular items drawn from the BSI that provide indices of thoughts of ending life, loneliness, poor concentration, and frustration

Table 4
Psychological Well-Being: BSI Item Mean Scores and Significance Values
by Group

Item	Same-Sex Attraction		Opposite-Sex Attraction		<i>F</i>	η^2	95% CI
	Mean	<i>SD</i>	Mean	<i>SD</i>			
Thoughts of ending life	1.02	1.52	0.65	1.08	1.98	.28	−0.15–0.88
Feeling lonely	1.36	1.52	0.67	1.09	6.95*	.52	0.17–1.22
Trouble concentrating	1.54	1.52	0.96	1.33	4.22	.40	0.02–1.14
Urges to break or smash things	1.31	1.50	1.04	1.46	0.83	.18	−0.32–0.85

Note. BSI = Brief Symptom Inventory; CI = confidence interval.

* $p < .0125$.

(urges to break or smash things), and punishment for sins (see Table 4). For each of the 4 items, analyses were conducted using Bonferroni adjusted alpha levels of .0125 per item (.05/4). Results indicated that same-sex-attracted students scored significantly higher in terms of feeling lonely, $F(1, 99) = 6.61$, $p = .001$, $\eta^2 = .52$, 95% confidence interval = 0.17 and 1.22, when compared to opposite-sex-attracted peers (missing data for 5 students). All other comparisons were not significant.

The final stage in the analysis focused on those same-sex-attracted students who indicated a concern about being lesbian or gay (14 males and 4 females), who were then compared to the remaining members of the group in terms of their scores for interpersonal sensitivity, depression, anxiety, and hostility as well as feeling lonely, difficulties concentrating, and thoughts of death and dying. Bonferroni adjusted alpha levels ($p = .007$; .05/7) indicated that there were no significant differences between the subgroups.

Discussion

The results indicated that, when compared to students who reported a sole attraction to members of the opposite sex, students who were primarily or solely attracted to members of the same sex did not differ significantly on a range of measures: general alcohol consumption, cigarette smoking,

health risk behaviors, use of cannabis/marijuana, or the use of Class 1 and 2 drugs, inhalants, and aerosols. Same-sex-attracted students had many worries and concerns in common with their opposite-sex-attracted peers, and were just as likely to confide in family members or friends when they were troubled. However, same-sex-attracted peers were more likely to report concerns about their sexual orientation, and were more likely to report drinking alone once or twice. No significant differences were found between the groups in terms of scores for interpersonal sensitivity, depression, or anxiety; however, same-sex-attracted students scored significantly higher on the hostility subscale and reports of feeling lonely. Finally, within-groups analyses of same-sex-attracted students differentiated according to whether they reported concerns about being gay or lesbian did not reveal any significant differences for the BSI subscales or individual items.

In terms of risk behaviors, few of the differences identified in the California Healthy Kids Survey were found in this study. Matching for exposure to bullying seems to have significantly reduced the divergence in scores researchers have found in other studies in which either published norms have been used, or where victimization has been omitted as a covariate when comparing gay and lesbian youth with heterosexual youth. This does not

mean, however, that same-sex-attracted students who were victims of bullying were any less likely to engage in some of those risk behaviors; rather, those behaviors were also present in opposite-sex-attracted victims of bullying. By way of contrast, on some key measures within the California Healthy Kids Survey, those students who were harassed because of their actual or perceived sexual orientation were compared with all the remaining students who took part (which, by implication, would include other victims, perpetrators, bystanders and/or witnesses of this and other forms of harassment). In effect, the differences between groups may be more stark than originally reported if data from those who were harassed because of their actual or perceived sexual orientation can be matched retrospectively to comparable subgroups (harassed and nonharassed heterosexual students, for example). For the students in this study, two-thirds of those reporting same-sex attraction reported drinking in isolation, and this finding warrants further consideration. According to Windle (1992), drinking alone has been shown to correlate with loneliness, interpersonal stress, and depression, particularly in adolescent females (although it is also evident in adolescent males, but to a lesser degree). For the same-sex-attracted students in this study, feelings of loneliness and hostility toward others might provide an impetus to seek out the use of alcohol.

That the students who were attracted to members of the same sex reported experiencing more intensely symptoms of hostility identifies this group as one with particular issues that are not directly related to experiences of bullying or harassment at school. Indeed, aggressive behavior in adolescence has been linked to both alcohol abuse and inadequate social functioning (see, for example, Scheier, Botvin, Diaz, & Griffin, 1999). Furthermore, being a witness to an incident of violence has been shown to invoke anxiety and fear about personal safety (Bowen & Bowen, 1999). At a personal level, the students in our study may be experiencing some confusion associated with their acknowledgment of same-sex attraction, and awareness of their difference rel-

ative to others (Cass, 1996). At an interpersonal level, D'Augelli (1994) has suggested that as young people come to terms with their sexual orientation they have to take into account sociocultural factors relating to homosexuality (customs, policy, and law) as well as the attitudes of significant others (parents, families, and peers). Consequently, where an emerging identity conflicts with the ideas and views of significant others, and challenges custom or law, isolation and hostility toward others may follow.

For the students in this study, we did not include a measure of parental attitudes toward homosexuality, and this is clearly one area for further investigation. However, the data suggested that students from both groups were equally likely to confide in parents and siblings if they had troubles or concerns. Interestingly, the results also showed that students who were attracted to members of the same sex were slightly more connected to staff in the school than their opposite-sex-attracted peers. As noted previously, both groups indicated that they would approach teachers for support, but same-sex-attracted students were also willing to confide in the school nurse. However, the role of the school nurse in the United Kingdom is one of a visitor to the school environment, and he or she is usually not a permanent member of staff, and thus may be seen as more approachable and someone independent of the school system.

Strengths and Limitations of the Study

There are several strengths in this study that should be acknowledged. First, we used multiple matching criteria to select students who reported being attracted to members of the opposite sex to ensure comparability with our target sample—students who were attracted to members of the same sex. Second, same-sex-attracted students were matched with opposite-sex-attracted peers drawn from a large school-based survey (Wainright & Patterson, 2006). Third, and linked to the previous point, the fact that students were drawn from several schools selected because of their representativeness suggests that our sample is

more inclusive and more likely to be indicative of secondary school students nationally. Finally, it should be acknowledged that the students who reported an attraction to members of the same sex had not “come out” at school, other than via the survey instrument. Their sexual orientation was not known to faculty or staff, and therefore the data provides a unique opportunity to study a group of young people whose selection is not determined by their attendance at GLB youth groups, nor by their exposure to homophobia or other forms of intolerance.

Notwithstanding, the limitations of this study should be noted. First and foremost, participants in this study were predominantly Caucasian, and there remains a lack of research focusing on same-sex-attracted youth from Black and minority ethnic communities in both the United States and United Kingdom, particularly in relation to the study of health risk behaviors (Windle, 1992). Second, the sample size was not sufficient to make generalizations about population trends, and future studies should seek larger and more representative samples to better understand the developmental trajectories of same-sex-attracted youth in comparison to their opposite-sex-attracted peers. In addition, although guarantees were provided to students relating to confidentiality and that teachers or parents would not have access to their completed surveys, the use of self-report measures requires that caution be exercised in the interpretation of findings, as some students may not have been wholly honest or accurate in their responses. Finally, it should be acknowledged that the internal reliability of the social support measure was not strong ($KR-20 = .50$). This is from, in part, the number of alternative sources of support offered by the survey instrument (18 in total), each of which was scored dichotomously rather than on a Likert rating scale. Caution should therefore be exercised in drawing conclusions from these data.

Conclusions

This study found little evidence of interpersonal sensitivity, depression, or anxiety

among students who reported a sole or primary attraction to a member of the same sex. Evidence of loneliness and hostility toward others was found, however, along with reports of occasional drinking alone. The use of matching criteria to equate groups, including exposure to bullying behavior, afforded an opportunity to better understand those issues that affect young people attracted to members of the same sex relative to peers with similar backgrounds and experiences who are attracted to members of the opposite sex. However, as the California Healthy Kids Survey and Hunt and Jensen (2007) have shown, bullying on the grounds of sexual orientation continues to go unabated in many of our schools.

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