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Sexual Orientation Disparities in Eating Disorder Symptoms among Adolescent Boys and Girls in the United Kingdom

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Abstract

Background—Much of the research on sexual orientation disparities in eating disorder behaviors has been conducted in the United States, Canada, and Australia. Data on the associations of sexual orientation and eating disorder symptoms among adolescents in the United Kingdom (UK) are lacking.

Method—Participants were children from the Avon Longitudinal Study of Parents and Children, a youth cohort born 1991–1992 (n=5,048; 53% female; 12% sexual minority). Sexual orientation was assessed at 16 years. Eating disorder symptoms were assessed at 14 and 16 years. Multivariable regression models (adjusting for BMI, ethnicity, socioeconomic status) examined associations between sexual orientation and (1) odds of past-year purging and binge eating, and (2) mean differences in body dissatisfaction, pressure to increase muscularity (boys only), and Dutch Eating Behavior Questionnaire subscales.

Results—At age 14, gay and bisexual boys and mostly heterosexual girls reported greater body dissatisfaction than their same-gender heterosexual peers. All sexual minority boys and mostly heterosexual girls reported greater mean dysfunctional eating behaviors than their same-gender heterosexual peers. At age 16, gay and bisexual boys had 12.5 times the odds of heterosexual boys of binge eating; mostly heterosexual boys had over three times the odds of reporting binge eating. Sexual minority girls had over twice the odds of heterosexual girls of purging and binge eating.

Conclusions—By mid-adolescence, sexual minority youth in the UK had elevated risk for eating disorder symptoms, suggesting the need for early prevention efforts.

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Keywords/Phrases

Eating Disorders; Body Image; Adolescence; Gay; Lesbian; Bisexual; Sexual Orientation; ALSPAC

Eating disorders, such as anorexia nervosa, bulimia nervosa, and binge eating disorder, are debilitating conditions that frequently recur and may be life-threatening [1, 2]. The presentation of disordered eating symptoms, such as body dissatisfaction, binge eating, purging (i.e., vomiting and/or laxative use), and restrictive dieting, similarly pose a tremendous public health burden as they are frequently associated with a number of physical and mental health comorbidities (e.g., obesity, depression, substance use) [3–5]. Early studies suggested that sexual orientation may modify risk for eating disorders among males and females [6, 7]. However, emerging research indicates that the magnitude and directionality of health disparities between heterosexual and sexual minority subgroups (i.e., lesbians, bisexuals, mostly heterosexuals, gay males) are complex and merit more research. For example, heterosexual males may be more likely to engage in attempts to gain weight (a risk factor for obesity) than sexual minority males [8], and bisexual and mostly heterosexual females may be at greater risk for purging behaviors than heterosexual females [9, 10]. Sexual orientation group variations in risk for different disordered eating behaviors may be due to sexual orientation subgroup differences in exposure to minority stress (i.e., stress related to prejudice, discrimination, and social stigma) [11–13], as well as the internalization of different sociocultural norms regarding idealized appearance (e.g., gay and lesbian community norms about physical attractiveness) [14–17]. Thus far, research on gender and sexual orientation disparities in body image and eating disorder behaviors has largely been conducted in the United States, Canada, and Australia [9, 10, 16, 18]. Less is known about trends in the United Kingdom (UK) due to the dearth of epidemiologic studies that simultaneously include assessments of gender, sexual orientation, body image, and eating disorder symptoms.

The Avon Longitudinal Study of Parents and Children (ALSPAC) birth cohort provides the unique opportunity to examine whether and to what degree sexual orientation disparities in adolescent body dissatisfaction and eating disorder behaviors exist in the UK. Consistent with prior research indicating that heterosexual males are more likely than sexual minority males to attempt to gain weight [8], it was hypothesized that heterosexual boys would be more likely than gay and bisexual boys to perceive pressure to increase muscularity. Given prior studies indicating heightened risk among sexual minority males for leanness concerns and weight restriction behaviors [19–21], sexual minority males were expected to be more likely than heterosexual males to engage in eating disorder behaviors aimed at weight loss/maintenance. By contrast, heterosexual females were expected to be more likely than lesbian and bisexual females to exhibit body dissatisfaction. However, consistent with prior research [9], we expected that sexual orientation differences among females in eating disorder behaviors may depend on sexual orientation identity, with bisexual and mostly heterosexual females potentially being more likely than completely heterosexual females to purge.

Method

Participants

Participants were children of mothers recruited in ALSPAC, a population-based prospective study of women and their children. All pregnant women who lived in the geographic region of Avon, UK, who were expecting to deliver their baby between April 1, 1991, and December 31, 1992, were invited into the study. Children from 14,541 pregnancies were enrolled, with 13,988 children alive at year 1. An additional 713 children were enrolled later in childhood. At age 14 years, 10,137 children still enrolled in the study since birth and 444 enrolled since childhood were sent questionnaires. At age 16 years questionnaires were sent out to 9,516 (68%) of youth, still enrolled. Among the youth with available data 72 were twin-pairs, one twin per pair was randomly excluded from the available sample. The sample has been shown to be representative of the UK population. The study website contains details of all the available data through a fully searchable data dictionary (http://www.bris.ac.uk/alspac/researchers/data-access/data-dictionary/). Ethical approval for the study was obtained from the ALSPAC ethics and law committee and the local research ethics committees. Data for the current study were collected via a combination of maternal questionnaires, participant questionnaires, and face-to-face clinical and computer-based assessments.

Measures

Sexual orientation—Sexual orientation identity was assessed via computer-based questionnaire at the age 16 years face-to-face assessment based on response to the prompt: “Please choose the description that best fits how you think about yourself.” Response options were: i) 100% heterosexual; ii) mostly heterosexual, but also attracted to own sex; iii) bisexual; iv) mostly homosexual, but also attracted to opposite sex; v) 100% homosexual; vi) not sexually attracted to either sex; vii) not sure. Responses of “Not Sure” (36 boys and 57 girls) and “Not Attracted to Either Sex” (8 boys and 9 girls) were coded as missing. Sexual orientation at age 16 years (the earliest age in which it was assessed in ALSPAC) was back assigned to age 14 years for analysis of age 14 disordered eating symptoms.

Eating disorder behaviors—Assessment of any past-year purging, overeating, binge eating, and dieting were assessed via participant questionnaires using items adapted from the US Youth Risk Behavior Surveillance System [22]. *Purging* was measured at ages 14 and 16 years based on whether participants made themselves vomit or use laxatives to lose or avoid gaining weight. *Overeating without loss of control* and *binge eating* were measured at ages 14 and 16 years with a two-part question. Participants first indicated whether in the past year they had eaten a very large amount of food; those who responded “yes” were asked the follow-up question whether they experienced a loss of control and could not stop eating even if they wanted to. Participants who responded “yes” only to the first question were coded as engaging in overeating without loss of control; those who responded “yes” to both questions were coded as engaging in binge eating. Participants were recorded as having engaged in *dieting* at age 14 years if they indicated going on a diet to lose weight or keep from gaining weight.

At age 14 years, participants also completed the Dutch Eating Behavior Questionnaire (DEBQ), which assesses three types of dysfunctional eating patterns: *emotional eating* (e.g., eating in response to negative emotions), *external eating* (e.g., eating in response to external cues for food, such as sights and smells) and *restrained eating* (e.g., controlling eating to avoid weight gain) [23]. The DEBQ was slightly modified due to space constraints; 2 questions were retained for the restrained eating subscale; 14 for the emotional eating subscale; and 7 for external eating. Cronbach α's were, respectively: emotional eating (0.91), external eating (0.76), restrained eating (0.63).

Body Image—Participants' *body dissatisfaction* was assessed using the Body Dissatisfaction Scale [24], which asks individuals to rate satisfaction with nine body parts on a Likert scale, from "extremely satisfied" to "extremely dissatisfied." Questions were adapted to be gender specific based on feedback from the ALSPAC teen advisory panel (e.g., using "body build" in the boys' questionnaire and "breasts" in the girls' questionnaire; Cronbach α=0.85). Thin ideal internalization was assessed using the Ideal-Body Stereotype Scale-Revised [25]. Questions were scored on a Likert scale from "strongly agree to "strongly disagree." Questions were gender-specific, girls were asked 5 questions and boys 6 questions. Items were summed to obtain a total score (Cronbach α=0.56 for the female version; Cronbach α=0.71 for the male version). Boys responded to four items to assess *perceived pressure to increase muscularity*, which were adapted from the Perceived Sociocultural Pressure Scale [26]. Participants rated the statements: "I have felt pressure to increase the size of my muscles from: a) family, b) friends, c) boys/girls I have gone out with, and d) media" on a four-point scale (0=not at all to 3=a lot). Items were summed to obtain a total score (Cronbach α=0.78).

Confounders—Analyses adjusted for the potential confounders of weight status, race/ethnicity, and lower socioeconomic position. Weight status was derived from data collected at age 14 years on face-to-face assessments of height and weight. Height and weight data were used to calculate body mass index (kg/m^2), which was then converted to age- and sex-specific BMI z-scores and categories of underweight, overweight, and obese using UK references [27]. Race/ethnicity was coded as white (referent) and nonwhite based on maternal data. Lower socioeconomic position was defined as maternal report of financial problems using the Office of Population Censuses & Surveys classification [28], which were collected at regular intervals throughout each participant's childhood via questionnaires.

Analysis

Analyses were restricted to participants with available data on sexual orientation identity. After excluding participants without sexual orientation data, analyses to examine sexual orientation disparities in eating disorder symptoms were conducted on 2,367 boys and 2,681 girls (47.2% of those participating in the 16-year-old clinical assessment). Multivariable regression models (adjusting for weight status, race/ethnicity, lower socioeconomic status) examined associations between sexual orientation and (1) odds of past-year purging, overeating, binge eating, and dieting (age 14 years only) at ages 14 and 16, and (2) mean body dissatisfaction, perceived pressure to increase muscularity (boys only), and Dutch Eating Behavior Questionnaire subscales at age 14 years.

Results

At age 16 years, 91.3% of boys self-identified as completely heterosexual, 6.2% as mostly heterosexual, 1.3% as bisexual, and 1.3% as gay. Among girls, 86.3% self-identified as completely heterosexual, 11.0% as mostly heterosexual, 2.1% as bisexual, and 0.6% as lesbian. Due to small sample sizes in the bisexual, gay, and lesbian identity categories, participants who responded bisexual or gay/lesbian were grouped into a “gay and bisexual” and “lesbian and bisexual” subgroup within gender. Table 1 displays the prevalence of eating disorder behaviors at ages 14 and 16 years and covariates by gender and sexual orientation subgroup; and Table 2 displays the means of body image concerns and restrained, emotional, and external eating at age 14 years by gender and sexual orientation subgroup.

At age 14 years, mostly heterosexual males had nearly twice the odds of completely heterosexual males of dieting (odds ratio [OR]= 1.93, 95% confidence interval [CI]= 1.05, 3.56) or engaging in overeating without loss of control (OR= 1.97. 95% CI= 1.07, 3.61), and more than double the odds of engaging in binge eating (OR= 2.52, 95% CI= 1.02, 6.27) (Table 3). In addition, gay and bisexual males had 2.67 times the odds of completely heterosexual males of engaging in dieting to lose weight (95% CI= 1.03, 6.92). Among females, mostly heterosexual females had 1.68 times the odds of overeating without loss of control (95% CI= 1.07, 2.64), 3.21 times the odds of binge eating (95% CI= 1.90, 5.41), and 1.53 times the odds of dieting to lose weight (95% CI= 1.10, 2.13) compared to completely heterosexual females. Lesbian and bisexual females had over four times the odds of heterosexual females of engaging in past year binge eating (OR= 4.43, 95% CI= 1.89, 10.35). With regards to body image concerns, gay and bisexual males and mostly heterosexual females reported greater mean body dissatisfaction than their same-gender completely heterosexual peers (Table 2). In contrast to hypotheses, gay and bisexual males also reported higher mean levels of perceived pressure to increase muscularity than their heterosexual peers (Table 2). Sexual orientation comparisons on dysregulated dietary patterns at age 14 years (Table 4) indicated than mostly heterosexual males reported higher mean emotional eating and external eating DEBQ scores than completely heterosexual males, and that gay and bisexual males reported higher mean external eating scores. Among girls, mostly heterosexual females reported higher mean restrained eating, emotional eating, and external eating DEBQ scores than completely heterosexual females.

Sexual orientation disparities in eating disorder behaviors persisted at age 16 years, with large differences (Table 5). Among boys, mostly heterosexual males had nearly twice the odds of completely heterosexual males of overeating without loss of control (OR= 1.88, 95% CI= 1.01, 3.49), and more than three times the odds of engaging in binge eating (OR= 3.13, 95% CI= 1.12, 8.79). Gay and bisexual males had 12.53 times the odds of completely heterosexual males of engaging in past-year binge eating (95% CI= 3.94, 39.85). As displayed in Table 5, among females, mostly heterosexual females had two- to threefold greater odds than completely heterosexual females of engaging in past year purging, overeating without loss of control, and binge eating. Lesbian and bisexual females had approximately three times the odds of completely heterosexual females of engaging in past year purging (OR= 3.06, 95% CI= 1.27, 7.39) and binge eating (OR= 2.94, 95% CI= 1.31, 6.58).

Discussion

Understanding risk factors for the development of eating disorder symptoms is critical for informing prevention efforts. This study is among the largest to date to examine differences in eating disorder symptoms by sexual orientation in adolescent males and females, and the first of its kind in the UK. Results indicated notable sexual orientation disparities in body dissatisfaction and disordered eating symptoms among both males and females at ages 14 and 16 years, highlighting the need for early prevention. By age 16 years, gay and bisexual males had over twelve times the odds of completely heterosexual males of reporting any past year binge eating, and lesbian and bisexual females had nearly three times the odds of completely heterosexual females of reporting any past year purging or binge eating. In addition, the results highlighted the prevalence of body dissatisfaction and disordered eating behaviors among youth who identify as mostly heterosexual. Mostly heterosexuals often comprise the largest sexual minority subgroup in sexual orientation health disparity survey research [29, 30], as was the case in the current study (6.2% of males and 11% of females). In the current study, mostly heterosexual males and females had elevated odds of overeating, binge eating, and dieting and were more vulnerable than completely heterosexual youth to exhibiting dysregulated eating patterns.

The results from the current study were largely consistent with other large scale community and national survey studies examining sexual orientation disparities in eating disorder symptoms among adolescent males and females in similar Western sociocultural contexts [9, 10, 16, 18]. In line with the Growing Up Today Study and Youth Risk Behavior Survey in the United States [19, 31, 32], sexual minority adolescent males were found to be at elevated risk compared to their heterosexual peers for disordered eating behaviors. Previous studies have found that lesbians report lower levels of body dissatisfaction than heterosexual females [16], and that sexual minority women may report lower levels of self-objectification or internalization of thin ideals [16, 33, 34]; these factors may contribute to the misperception that sexual minority females are less vulnerable to disordered eating behaviors. However, consistent with more recent research [10, 31], lesbian, bisexual, and mostly heterosexual females in the current study were found to be more vulnerable than their heterosexual peers to body dissatisfaction and disordered eating behaviors.

The findings indicate that sexual orientation disparities in eating disorder symptoms were already stark by mid-adolescence, thus suggesting the need for more research on the specific mechanisms that underlie early risk. Prior research suggests that minority stress and sociocultural appearance norms that differentially affect sexual minority males and females may contribute to overall disparities in body image and disordered eating behaviors [11, 13, 35]. No formal mechanisms were tested in the current study. However, given the similar pattern of results across gender groups, it is possible that minority stress related to emerging sexual minority identities in adolescence may partially explain the elevated eating disorder symptoms observed among the sexual minority youth. Victimization and internalized homophobia may exacerbate disordered eating risk by negatively impacting self-esteem, increasing body shame, and increasing comorbid psychiatric conditions, such as depressive distress [17, 36]. Prior research has found that sexual minority stressors that accompany early sexual orientation identity development can elevate the risk for engaging in disordered

eating behavior [13], thus indicating the need to protect sexual minority youth of all genders from social rejection and homophobic victimization. Future research can further delineate how emerging sexual minority identity, minority stress, and body image contribute to disordered eating behavior risk in adolescence. In addition, future research is required to address the limitations in the current study. First, sexual orientation was assessed at age 16 years old and back assigned to age 14 years old, thus limiting analysis to cross-sectional comparisons for disordered eating behaviors reported at ages 14 and 16 years old. Second, due to the sample size of some of the sexual minority subgroups, the data did not permit the analysis of bisexual youth as a separate subgroup. Prior research indicates elevated risk for disordered eating behaviors among bisexual youth in particular [9–12, 20, 37]. Collecting more waves of data, given that more youth are likely to identify as sexual minorities as they age [30, 38], may enable for specific subgroup analyses. However, the pattern of findings detected in the current study is consistent with prior research on sexual orientation disparities in disordered eating behaviors in which sexual minority subgroups have been combined [8, 9]. Third, although the study included a broad range of body image concerns and disordered eating behaviors, including concerns about muscularity, the range of symptoms assessed may not be inclusive of the breadth of concerns and behaviors that youth of diverse genders and sexual orientations may exhibit (e.g., use of muscle-building drugs and supplements) [39, 40].

Sexual minority youth often face adversity due to their stigmatized identities; as a result, they are often disproportionately vulnerable to an array of physical and mental health conditions [41]. The current study indicates that by mid-adolescence, youth in the UK who identify as sexual minorities are already at much elevated odds of exhibiting a range of disordered eating symptoms relative to their heterosexual peers. The results highlight the urgency for research, clinical, and public health responses to avert such stark disparities. Increasing surveillance of eating disorder behaviors and risk factors among sexual minorities through routine data collection and screening can enable analyses into mechanisms that can be targeted for preventive interventions for youth of all sexual orientations.

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Table 1

Prevalence of Eating Disorder Behaviors and Covariates by Sexual Orientation Subgroup (Assessed at Age 16 Years) and Gender in the Avon Longitudinal Study of Parents and Children (ALSPAC) (n=5,048)

	Boys			Girls		
	n (%) within Sexual Orientation			n (%) within Sexual Orientation		
	Completely Heterosexual n= 2161	**Mostly Heterosexual n= 146**	**Gay or Bisexual n= 60**	**Completely Heterosexual n= 2313**	**Mostly Heterosexual n= 295**	**Lesbian or Bisexual n= 73**
Eating Disorder Behaviors						
Any Purging, Age 14 Years	7 (0.4%)	1 (0.8%%)	1 (2.5%)	32 (1.7%)	11 (4.5%)	2 (3.7%)
Any Over- and Binge Eating, Age 14						
Overeating without Loss of Control	137 (8.6%)	19 (13.3%)	5 (12.5%)	189 (10.1%)	39 (15.9%)	7 (13.0%)
Binge Eating	45 (2.8%)	7 (5.8%)	3 (7.5%)	110 (5.9%)	32 (13.1%)	9 (16.7%)
Any Dieting, Age 14 Years	170 (10.7%)	25 (20.8%)	9 (22.5%)	667 (35.5%)	120 (48.6%)	22 (40.7%)
Any Purging, Age 16 Years	15 (1.1%)	0 (0.0%)	1 (3.0%)	154 (8.8%)	44 (18.6%)	9 (19.1%)
Any Over- and Binge Eating, Age 16 Years						
Overeating without Loss of Control	170 (12.7%)	19 (19.8%)	3 (9.1%)	225 (12.9%)	46 (19.5%)	9 (19.1%)
Binge Eating	41 (3.1%)	7 (7.3%)	7 (21.2%)	245 (14.0%)	57 (24.2%)	12 (25.5%)
Covariates						
Weight Status, Age 14 Years						
Underweight	29 (1.3%)	1 (0.7%)	1 (1.7%)	34 (1.5%)	4 (1.4%)	1 (1.4%)
Overweight	279 (12.9%)	21 (14.4%)	5 (8.3%)	318 (13.7%)	49 (16.6%)	15 (20.5%)
Obese	109 (5.0%)	11 (7.5%)	6 (10.0%)	113 (4.9%)	17 (5.8%)	10 (13.7%)
Racial/Ethnic Minority	33 (1.5%)	3 (2.1%)	1 (1.7%)	39 (1.7%)	6 (2.0%)	1 (1.4%)
Lower Socioeconomic Position	173 (8.0%)	13 (8.9%)	3 (5.0%)	230 (9.9%)	35 (11.9%)	14 (19.2%)

Note: n(%) varies by outcome due to missing observations and number of respondents at the wave in which the variable was assessed.

Table 2

Mean Body Image and Eating Disorder Behaviors at Age 14 Years by Sexual Orientation Subgroup (Assessed at Age 16 Years) and Gender in the Avon Longitudinal Study of Parents and Children (ALSPAC) (n=5,048)

	Boys			Girls		
	M(SD)			M(SD)		
	Completely Heterosexual n= 2161	Mostly Heterosexual n= 146	Gay or Bisexual n= 60	Completely Heterosexual n= 2313	Mostly Heterosexual n= 295	Lesbian or Bisexual n= 73
Body Dissatisfaction	19.52 (6.82)	20.68 (7.37)	21.74 (8.32)	23.36 (7.73)	25.57 (8.11)	24.61 (7.93)
Pressure to Increase Muscularity	1.07 (1.77)	1.56 (2.12)	1.56 (2.39)	--	--	--
DEBQ- Restraint Sum	0.35 (0.84)	0.53 (0.96)	0.54 (1.19)	0.86 (1.22)	1.15 (1.29)	1.13 (1.32)
DEBQ- Emotional Eating Sum	3.15 (4.28)	4.33 (5.35)	5.00 (4.93)	6.27 (5.55)	8.06 (6.43)	7.15 (5.54)
DEBQ- External Eating Sum	8.42 (3.43)	9.56 (3.51)	9.34 (2.56)	8.31 (3.15)	9.18 (3.26)	8.68 (3.16)

Note: DEBQ= Dutch Eating Behavior Questionnaire, Van Strien et al. (1986)

Pressure to Increase Muscularity was not assessed among girls

Table 3

Results from General Linear Models Examining Sexual Orientation Differences in Odds of Displaying Disordered Eating Behaviors at **Age 14 Years** in Boys and Girls from the Avon Longitudinal Study of Parents and Children (ALSPAC) (n=5,048)

	Any Purging			Any Overeating without Loss of Control			Any Binge Eating			Any Dieting		
	OR	**95% CI**	***p***	**OR**	**95% CI**	***p***	**OR**	**95% CI**	***p***	**OR**	**95% CI**	***p***
Boys												
Gay or Bisexual	--	--		1.23	0.36, 4.20		1.85	0.40, 8.54		**2.67**	**1.03, 6.92**	**0.044**
M. Heterosexual	--	--		**1.97**	**1.07, 3.61**	**0.029**	**2.52**	**1.02, 6.27**	**0.046**	**1.93**	**1.05, 3.56**	**0.035**
C. Heterosexual (Ref.)												
Girls												
Lesbian or Bisexual	2.21	0.48, 10.15		1.65	0.70, 3.90		**4.43**	**1.89, 10.35**	0.001	1.15	0.60, 2.22	
M. Heterosexual	1.33	0.45, 3.89		**1.68**	**1.07, 2.64**	**0.024**	**3.21**	**1.90, 5.41**	**0.000**	**1.53**	**1.10, 2.13**	**0.011**
C. Heterosexual (Ref.)												

Note: Analyses of purging in boys were not conducted due to insufficient cases.

Models adjust for weight status (at age 14), race/ethnicity, and socioeconomic position.

M. Heterosexual=Mostly Heterosexual; C. Heterosexual=Completely Heterosexual; OR=Odds Ratio; 95% CI= 95% Confidence Interval

Table 4

Results from General Linear Models Examining Mean Sexual Orientation Differences in Age 14 Years Body Dissatisfaction, Pressure to Increase Muscularity (Boys Only), and Dutch Eating Behavior Questionnaire Subscale Scores for Dysregulated Eating in Boys and Girls from the Avon Longitudinal Study of Parents and Children (ALSPAC) (n=5,048)

	Body Dissatisfaction			**Pressure to Increase Muscularity**			**Restrained Eating**			**Emotional Eating**			**External Eating**		
	β (SE)	**95% CI**	***p***	**β (SE)**	**95% CI**	***p***	**β (SE)**	**95% CI**	***p***	**β (SE)**	**95% CI**	***P***	**β (SE)**	**95% CI**	***p***
Boys															
Gay or Bisexual	**2.55 (1.22)**	**0.17, 4.93**	**0.036**	**0.66 (0.34)**	**−0.02, 1.33**	**0.056**	0.18 (0.15)	−0.12, 0.47		**1.61 (0.84)**	**−0.08, 3.23**	**0.061**	**1.39 (0.70)**	**0.02, 2.77**	**0.047**
M. Heterosexual	0.84 (0.70)	−0.54, 2.21		0.32 (0.20)	−0.75, 0.72		0.12 (0.09)	−0.05, 0.29		**1.13 (0.48)**	**0.19, 2.08**	**0.019**	**1.18 (0.39)**	**0.41, 1.96**	**0.003**
C. Heterosexual															
Girls															
Lesbian or Bisexual	−0.00 (1.14)	−2.24, 8.14		--	--		0.09 (0.18)	−0.27, 0.44		1.40 (0.93)	−0.43, 3.22		0.24 (0.51)	−0.75, 1.24	
M. Heterosexual	**1.69 (0.59)**	**0.53, 2.86**	**0.004**	--	--		**0.23 (0.09)**	**0.05, 0.42**	**0.011**	**2.33 (0.47)**	**1.41, 3.24**	**0.000**	**0.93 (0.26)**	**0.41, 1.45**	**0.019**
C. Heterosexual															

Note: Models adjust for weight status (at age 14), race/ethnicity, and socioeconomic position.

M. Heterosexual=Mostly Heterosexual; C. Heterosexual=Completely Heterosexual; SE=Standard Error; 95% CI= 95% Confidence Interval

Table 5

Results from General Linear Models Examining Sexual Orientation Differences in Odds of Displaying Disordered Eating Behaviors at **Age 16 Years** in Boys and Girls from the Avon Longitudinal Study of Parents and Children (ALSPAC) (n=5,048)

	Any Purging			Any Overeating without Loss of Control			Any Binge Eating		
	OR	**95% CI**	***p***	**OR**	**95% CI**	***p***	**OR**	**95% CI**	***p***
Boys									
Gay or Bisexual	--	--		1.33	0.38, 4.68		**12.53**	**3.94, 39.85**	0.000
M. Heterosexual	--	--		**1.88**	**1.01, 3.49**	**0.048**	**3.13**	**1.12, 8.79**	**0.030**
C. Heterosexual (Ref.)									
Girls									
Lesbian or Bisexual	**3.06**	**1.27, 7.39**	0.013	1.13	0.37, 3.45		**2.94**	**1.31, 6.58**	0.009
M. Heterosexual	**2.34**	**1.46, 3.75**	**0.000**	**2.17**	**1.35, 3.49**	**0.001**	**3.16**	**2.08, 4.79**	**0.000**
C. Heterosexual (Ref.)									

Note: Analyses of purging in boys were not conducted due to insufficient cases.

Models adjust for weight status (at age 14), race/ethnicity, and socioeconomic position.

M. Heterosexual=Mostly Heterosexual; C. Heterosexual=Completely Heterosexual; OR=Odds Ratio; 95% CI= 95% Confidence Interval