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Body Image and Eating Disorders Among Lesbian, Gay, Bisexual, and Transgender Youth

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INTRODUCTION

Adolescence is a crucial period for emerging sexual orientation and gender identity, and body image disturbance and disordered eating. Eating disorders are serious mental illnesses with the potential for life-threatening medical complications and death.^{1–3} Although previously body image distortion and disordered eating were considered to affect only a small subset of society, largely affluent females, they are now recognized to impact millions, including all individuals along the sexual orientation and gender identity spectrum.^{3,4} However, most research on eating disorders and body image has focused on heterosexual, cisgender individuals.⁵ The limited amount of research on sexual minority adolescents and gender variant youth suggests associations between sexual orientation and gender identity and eating-related pathology.⁶ Eating disorders in youth have recently been shown to be highly associated with the future development of serious psychiatric conditions, such as anxiety disorders, depression, drug use, and self-harm behaviors in young adulthood.⁷ It is of paramount importance that health care providers recognize the importance of eating and body image issues and that these may affect the lesbian, gay, bisexual, transgender (LGBT) population in unique ways, and may confer future risk toward adverse health outcomes. An American Academy of Pediatrics' statement in the office-based care for LGBT youth has called for additional research in this area, highlighting eating disorders as an underresearched, critical, and emerging issue for LGBT youth.

OVERVIEW OF EATING DISORDERS AND BODY IMAGE

Eating disorders are common and potentially deadly conditions. They affect millions of males and females in the United States, with some estimates up to 30 million Americans, with increasing incidence and prevalence, and with adolescents diagnosed with increasing frequency.^{8,9} The precise cause of these disorders is not known. It is most likely that they are multifactorial in origin, with evidence for neurobiologic predispositions and gene-

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environment interactions.^{10,11} Among the wide spectrum of mental illness, eating disorders have the highest rate of mortality, making them a considerable public health concern.^{12–14} These facts are particularly important for LGBT adolescents who are at elevated risk for certain other psychiatric comorbidities. Therefore, it is of critical importance that providers are aware of how to detect these disorders in LGBT youth.

Previously, eating disorders were divided into three major subgroups: (1) anorexia nervosa (AN), (2) bulimia nervosa (BN), and (3) eating disorder not otherwise specified. However, the *Diagnostic and Statistical Manual of Mental Disorders, 5th Edition* (DSM-5) has broadened the diagnostic criteria in a more inclusive manner to reduce the need for eating disorder not otherwise specified.¹⁵ Other diagnoses described in the DSM-5 include: pica, rumination disorder, avoidant/restrictive food intake disorder (ARFID), binge-eating disorder, other specified feeding or eating disorder, and unspecified feeding or eating disorder.¹⁶ Estimates show that AN affects up to 1% of adolescents and young adults, whereas BN has a prevalence of 3%.^{14,17,18} Although some individuals may not meet the full criteria for an eating disorder diagnosis, many adolescents engage in eating disordered behaviors, with up to 25% of high school aged girls and 11% of high school aged boys reporting disordered eating severe enough to need evaluation, and 9% of high school girls and 4% of boys reporting daily vomiting to control their weight.

In contrast to eating disorders, body image is less strictly defined and less extensively studied. Body image can loosely be defined as how individuals perceive themselves when they picture themselves in their minds or see themselves in the mirror. Body image includes how one feels about not only their body, but also their height, weight, and shape. This article looks at disturbances or distortions in body image, often described as body dissatisfaction.

It is important to notice that the DSM-5 allows not only distortions in how body weight or shape are experienced as a feature defining eating disorders diagnostically, but also allows behaviors that sabotage weight gain as a criterion. This is important, because many pediatric and adolescent patients do not report body image disturbances as part of their eating disorder, and are less able to identify cognitive changes brought on by their disease.

Finally, it is critical to note that for the most part, most sexual minority youth have positive body image and lack eating concerns. This article discusses associations found in the literature between sexual minority youth and eating disorders or body image disturbances.

CLINICAL PRESENTATION, SCREENING, AND TREATMENT

A patient with weight loss, inability to gain weight, restrictive thoughts about weight or shape, unexplained vomiting, or abnormal behaviors around eating warrants a consideration of the diagnosis of an eating disorder. AN typically presents with a refusal to maintain a minimally normal body weight, or behaviors that consistently sabotage weight gain even in the absence of overt cognitions surrounding weight and/or shape. Pediatric patients may present with failure to gain weight over time as normally expected, and sometimes with linear growth stunting, rather than weight loss. BN typically presents as recurrent episodes of binge eating followed by compensatory behaviors to avoid weight gain, such as laxative

use, induced vomiting, fasting, or purging with exercise.¹⁹ Finally, ARFID is another common disorder that presents with nonorganic, often anxiety-mediated causes of poor growth and feeding resulting in impairments in physical health, growth, and/or psychosocial functioning. Patients with ARFID do not have concerns about their weight or shape that can be identified, but nonetheless have difficulty eating adequately.

Some presentations of eating disorders, however, are less obvious, and include chronic abdominal pain, syncope, orthostatic hypotension, chest pain, menstrual irregularities or other symptoms of hypogonadism, and constipation. Eating disorders are not always clear on initial presentation and a high index of suspicion is warranted if these signs are present. In fact, patients with dangerous eating disorders may be overweight or obese, and may therefore not be recognized. Similarly, eating disorders are often missed in adolescent and young adult males at first presentation, and it is important to consider these diseases when males present with symptoms that may reflect an eating disorder.

When assessing a patient with a suspected eating disorder, the provider must first determine the patient's current weight, examine a weight and growth history, and compare the current weight with an expected body weight or body mass index (BMI). A comprehensive history and physical examination should be completed. Caregivers and patients should be interviewed, because some adolescents and young adults with eating disorders can significantly underreport their symptoms. In addition to common history questions, questions about diet, body image, weight-control measures, and psychiatric conditions should be assessed. Suggested screening questions are listed in Box 1.²⁰

Box 1

Some suggested screening questions for an eating disorder

Have you done anything in the past 6 months to change your weight?

What do you think you ought to weigh?

How much do you exercise?

How do you feel if you miss a workout?

What is your self-image (thin or fat)?

Are there any particular areas of your body that bother you?

The diagnosis of an eating disorder is a clinical diagnosis and there is not confirmatory laboratory testing. However, some laboratory and ancillary testing may be helpful in the evaluation of a patient with an eating disorder (Box 2). The purpose of such testing is to exclude other organic etiologies, detect complications of malnutrition or vomiting, and initially assess the effects of nutritional rehabilitation.

Box 2

Laboratory screening when considering an eating disorder

Complete blood count

Erythrocyte sedimentation rate or C-reactive protein
Comprehensive metabolic panel, phosphorus, magnesium
Thyroid studies
Celiac panel
25-OH Vitamin D
Ferritin, iron studies
Thiamine, B₁₂ levels
Estradiol or testosterone
Follicle-stimulating hormone and luteinizing hormone
Prolactin
Pregnancy testing
If liver function elevated, consider Wilson disease, porphyria

Once an eating disorder has been suspected or diagnosed by a provider, depending on their comfort level, they may want to refer patients for further evaluation and management. Eating disorders are complex and are ideally treated by an experienced multidisciplinary team of medical, nutrition, and mental health professionals. Many inpatient facilities that treat patients with eating disorders use specific protocols. Inpatient treatment is appropriate for patients who are medically unstable (eg, because of bradycardia, hypotension, hypothermia, electrolyte abnormalities, arrhythmias) or psychiatrically unstable (concurrent suicidality, severe self-injury, or other dangerousness to self or others), or for patients who cannot otherwise be treated in a home setting.^{3,20,21}

Although family acceptance is a special issue for LGBT youth (See Sabra Katz-Wise and colleagues article, “LGBT Youth and Family Acceptance,” in this issue), when feasible, treatment paradigms have shifted away from individualized therapy for most adolescents and young adults, to family-based therapy. Family-based therapy is an outpatient intervention with a multidisciplinary team that places parental involvement at the center of care and is critical to the therapeutic success of the adolescent. When feasible, family-based therapy is currently the gold standard and is the most effective treatment of AN and BN.²² Individual treatment paradigms on general populations are less successful in randomized trials. If family members cannot be leveraged to help support the adolescent, thought should be given to involving other caretakers or adults in treatment, because it seems that full recovery is much more challenging when done without a strong support system.

PRACTICAL TIPS IN MANAGING EATING DISORDERS

Treatment paradigms have shifted dramatically. This is caused by improved understanding that eating disorders can be conceptualized as brain disorders that respond best to weight restoration and normalization of eating behaviors. These disorders are now widely accepted to have strong genetic links in families, and occur in young people with genetic and

neurobiologic vulnerability. Family members are critical to supporting a patient in recovery.
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It is helpful when treating a patient with an eating disorder to focus on reversing maladaptive eating behaviors that have developed and restoring weight, rather than diverting time and effort to speculation about causation that cannot be substantiated. Although a risk factor, sexual orientation or gender identity concerns are clearly neither necessary nor sufficient to cause eating disorder, because most sexual minority or transgender youth never develop an eating disorder. If they do, this is likely influenced by the same genetic and neurobiologic vulnerabilities as in nonsexual and gender minority peers.

Weight restoration to a goal that is consistent with the patient's prior, premorbid growth trajectories earlier in childhood is important. Obviously, not all patients are meant to live at the fiftieth percentile for BMI. Some may need to be higher or lower, consistent with their premorbid BMI.

Because eating disorders can be chronic and are associated with significant morbidity and mortality, providers should discuss their concerns with patients and families early and refer to experienced teams for treatment. Evidence-based treatment that involves families should be prioritized if available and feasible. These illnesses should be recognized as treatable, and full recovery should be the goal, because they do not need to be chronic.^{3,20,21} Box 3 provides treatment recommendations.

Box 3

Practical treatment tips for youth with eating disorders

1. Have a high index of suspicion. These are common illnesses in adolescence.
2. Make the diagnosis and have the discussion with your patient and his/her family. Do not be afraid of upsetting the family, and do not wait for a large medical work-up to be complete before discussing openly that an eating disorder is a likely cause of your patient's symptoms. This conversation can be initiated while completing the necessary medical work-up, rather than after. This will help your patient feel more supported early on.
3. Instill hope. These disorders can be fully treated, and full recovery should be the goal.
4. Impress an appropriate sense of medical urgency. Treatment should not be delayed, and will not get easier in time. These are life-threatening illnesses if they go untreated.
5. Target behaviors. If weight gain needs to occur, that should be the initial focus. If other behaviors are more important, such as purging, work with a team of professionals to target those.
6. Set accurate weight goals that align with your patient's prior growth history. Not everyone is meant to weigh less than the fiftieth percentile.

7. Refer to qualified providers with demonstrated track records of success for treatment. This is more important than providers who are close to home or have convenient schedules. Just as with any other serious illness, the quality and background of the treating specialist is important to reach success.
8. Support the family. Patients should not be treated in isolation. Embrace the involvement of family members or friends if they are able to be structured and supportive in targeting the treatment goals. These illnesses are best fought with caregivers who can help.

SEXUAL ORIENTATION AND EATING DISORDERS AND BODY IMAGE

Eating disorders or disordered eating behaviors peak during the psychosocial developmental period of adolescence.¹³ Adolescence is also a critical developmental period for sexual orientation. Given the proximity of emergence of eating disorders and sexual orientation during this critical developmental stage, it is not surprising that eating disorders may disproportionately affect vulnerable youth, particularly sexual minority youth.²³

For many years, the literature has described relationships between disordered eating, body image dissatisfaction, and sexual orientation in adults. Early studies showed that up to 42% of men diagnosed with an eating disorder have identified as homosexual or bisexual.^{24–26} Community-based studies have shown that homosexual men may be more vulnerable to eating disorders and have greater body dissatisfaction and increased bulimic and anorexic symptoms compared with heterosexual men.^{24,27,28} Additionally, early studies that surveyed men who identify as homosexual have demonstrated that they have increased body shape and weight dissatisfaction than heterosexual men.^{29–31} These same studies also showed that homosexual men consider physical appearance to be critical to their sense of self.

Only a few studies have explored associations between sexual orientation and eating disorders in adolescents. Early school-based studies have shown that gay boys and boys with same-sex partners had more disordered eating behaviors and more body dissatisfaction when responding to a health behavior survey.^{32,33} In a large longitudinal sample of Norwegian high school students, girls and boys with same-sex sexual experience at entry were three and seven times more likely to report bulimic behaviors 5 years later. Same-sex attraction in boys at entry had higher odds for bulimic symptoms compared with heterosexual boys, even when adjusting for other posited risk factors for bulimia.³⁴

A longitudinal cohort study of adolescent boys and girls living in the United States examined eating behaviors across the sexual orientation spectrum. In this community-based study, they constructed a sexual orientation scale that was based on the participants' described feelings of sexual attraction. The scale varied from completely heterosexual to completely homosexual. Other categories of sexual orientation included mostly heterosexual, bisexual, mostly homosexual, and unsure. "Mostly heterosexual" adolescents, who are distinct from "completely heterosexual" adolescents, comprised a significant portion of the cohort. Boys and girls in this group indicated more weight and appearance concerns than their same-gender heterosexual counterparts. Additionally, "mostly

heterosexual” girls had higher rates of dieting and eating-disordered behaviors than their heterosexual counterparts.³⁵ In contrast, the same study found that lesbian and bisexual girls were happier with their bodies, put less effort to look like those in the media, and did less dieting than their heterosexual counterparts. Alternatively, gay and bisexual boys put more effort to look like those in the media and had increase bingeing compared with their heterosexual counterparts.

This study was expanded to look at sexual orientation–related differences in purging and binge eating and found that those adolescents who identified as lesbian, gay, and bisexual (LGB), showed higher past-year prevalence of binge eating and purging compared with heterosexuals.²³ Data from the Youth Risk Behavioral System Survey in 2005 and 2007 confirmed many of these associations longitudinally, showing that LGB high school boys and girls were significantly more likely to develop purging and diet pill use.³⁶

A population-based sample of high school students examining associations between health risk behaviors and sexual orientation found sexual minority youth participating in unhealthy weight control practices. Overall, they found a higher prevalence of students reporting same-sex sexual behaviors were more likely to engage in unhealthy weight control practices than those reporting opposite-sex sexual behaviors. Additionally, this study found that students reporting both-sex sexual behaviors were significantly more likely to engage in vomiting and using laxatives to lose weight or to keep from gaining weight in the preceding 30 days.³⁷

Finally, another large study of college students showed that lesbian and bisexual women were more likely than their heterosexual counterparts to engage in unhealthy weight control behaviors; these same associations were not shown in sexual minority college men.³⁸ In another study, LGB college men showed significantly higher odds of reporting both clinical eating disorders and disordered eating behaviors when compared with heterosexual men; both LGB men and women were significantly more likely to report dieting to lose weight compared with their heterosexual peers.³⁹

Similar associations have been noted in a prospective cohort study of youth that investigated issues including the development of body image concerns, the Growing Up Today Study. Although not a random sample of US adolescents, and with few youth of color, this study is key in addressing sexual orientation disparities in vulnerability to eating disorder symptoms. In this study, although heterosexual boys were also at risk of body image concerns, sexual minority boys had a higher likelihood of developing body image concerns and weight-control behaviors associated with wanting to be lean as they grew older.⁴⁰ Sexual minority youth were more likely to show disparities between their actual and perceived weight statuses, with gay and bisexual boys more likely to perceive themselves as overweight when they were in a normal weight category, and lesbian girls more likely to perceive themselves as normal weight when they were actually overweight or obese. Sexual minority youth of both genders were also significantly more likely to engage in dangerous weight control behaviors.⁴¹ Gay college men have also shown a higher incidence of drive for thinness, body dissatisfaction, and body image–related anxiety than their heterosexual counterparts. These relationships were also more likely to be mediated by media exposure in gay male college students than their heterosexual peers.⁴²

Moving beyond community-based studies and looking at clinical samples of adolescents diagnosed with an eating disorder, similar trends are found. It has been reported that nearly 5% to 7% of American adolescents identify as LGBT.^{43,44} A study looking at eating behaviors and health in adolescents diagnosed with an eating disorder found a higher prevalence of minority sexual orientation at 8.8%.⁴⁵ Furthermore, and in line with previous research in adults and community-based studies in adolescents, this study found that adolescent boys were more likely to endorse minority sexual orientation than adolescent girls. Although previous studies have demonstrated links between disordered eating behaviors and minority sexual orientation in adolescent boys, this study is the first study to examine these associations in adolescents with a clinical diagnosis of an eating disorder.

GENDER IDENTITY AND EATING DISORDERS AND BODY IMAGE

It is evident from the research presented that most studies on disordered eating and body image have centered on cisgender, as opposed to transgender, individuals. Primarily, the research on gender and eating disorders and body dissatisfaction examines the relationship between gender roles (ie, masculinity and femininity) and disordered eating.^{46–48} However, no larger studies have examined these associations in youth.

A recent review revealed 26 studies that examine gender identity and disordered eating and body dissatisfaction; however, only one study in the review explored why transgender individuals may be at risk for eating disorders. In general, this review posited that the risk of eating disorders may be secondary to the distress that transgender individuals experience as part of their body dissatisfaction.⁴⁹ The review also identified a study that found that male-to-female transgender individuals engage in disordered eating.⁵⁰ No literature to date have definitively determined the role of gender identity in the cause of these disorders in transgender or other populations; more research is clearly needed. Thus, it is best for clinicians to focus on effective treatment.

Looking more closely at these studies, transgender adults qualitatively reported themes of disordered eating and drive for thinness as suppressing features of biologic gender and also for some, supporting aspects of desired gender. Some eating disorder behaviors were reported as relieved by gender reassignment.⁵¹ The few case reports available in adolescent and adult transgender patients reveal similar themes of body dissatisfaction and disordered eating, and the authors suggest considering desired gender in developing the treatment strategy for transgender youth patients with eating disorders.^{52–57} When looking at the gender identity spectrum, one study showed that individuals that had “conflicted gender identity” demonstrated more symptoms and concerns characteristic of eating disorders on a standardized selfreport measure.⁵⁸

A study examining data from the American College Health Association’s National College Health Assessment (consisting of 289,024 students from 223 US universities) looked at gender identity and eating disordered behaviors. They found that transgender individuals reported elevated rates of compensatory behaviors (eg, vomiting, laxative use, or diet pill use) in the past 30 days. Additionally, they found that transgender students and cisgender sexual minority male students had higher rates of past-year self-reported eating disorder

diagnosis compared with their cisgender heterosexual female counterparts.⁵ There is much research needed to better understand the relationships between gender identity, body image, and eating disorders.

WEIGHT REGULATION AND OBESITY

Obesity is not an eating disorder; it is simply a descriptive term indicating a weight status, similar to underweight. The Institute of Medicine notes that there are a few studies indicating that female sexual minority youth and bisexual youth of both genders may be more likely to be obese than their peers.^{36,59} Sexual minority males seem to be at reduced risk of BMI gains from year to year in adolescence.^{36,60}

Weight status becomes a medical concern if it risks adversely impacting growth, development, physical health, and or psychosocial functioning. It is important to evaluate weight status in the context of a youth's general health. If someone is underweight compared with other family members without medical reason, this is likely to impact their future growth and pubertal status, and should be worked up medically and addressed nutritionally. However, if another adolescent is also underweight, but so is his or her entire family, or he/she was a product of a premature delivery and has always been small proportionately, then this is likely less of an issue; simply being somewhat underweight may or may not be problematic for an individual adolescent. The same principle can be applied to overweight adolescents. If someone is overweight, but is able to exercise regularly, enjoys a healthy social life, eats a wide variety of nonprocessed foods, and has no metabolic disruptions, then his or her weight status is of less medical concern than if they have obstructive sleep apnea and type II diabetes, and are gaining weight yearly and doing fewer activities because they feel embarrassed, which likely deserves work-up and intervention.

Treatment of obesity commonly involves lifestyle interventions surrounding nutrition and exercise, and has a low success rate in reducing BMI; many therefore promote behavior change for improved quality of life and metabolic health rather than for reducing weight.⁶¹ Treatment should focus on common sense interventions that reduce stigma and target adolescents who are at risk of impairment in one or more health domains, rather than simply treating a number on a scale. More research is needed before any conclusions are drawn about screening or treatment of obesity specifically in sexual and gender minority groups.

SUMMARY

Eating disorders are conditions associated with significant morbidity and mortality that peak during the adolescence period. Eating disorders affect individuals along the sexual orientation and gender identity spectrum. The extant literature suggests that LGBT youth are particularly vulnerable to eating disorders and body dissatisfaction. Because of this, medical providers should screen for disordered eating in LGBT youth, and should know that effective treatments are available. In particular, sexual minority males have greater body dissatisfaction, and more frequently report unhealthy weight control practices, disordered eating behaviors, and classic eating disorders. Additionally, transgender individuals are at risk of eating disorders. Furthermore, disordered eating in LGBT and gender variant youth

may be associated with poorer quality of life and mental health outcomes. Obesity may occur more frequently in sexual minority females. More research is needed to determine whether there are specific interventions or targets for sexual minority youth that may be most effective; for now, treatment should focus on therapies that have empiric support in generalized youth populations. As providers, it is important to be aware that these illnesses occur more frequently in LGBT youth and can be fully treated. For these reasons, providers should carefully assess any eating or body image struggles their patients may be experiencing.

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KEY POINTS

- Current studies suggest that sexual minority males have increased body shape and weight dissatisfaction, anorexic and bulimic symptoms, and may consider physical appearance to be critical to their sense of self.
- Studies have shown that transgender youth and young adults report elevated rates of compensatory behaviors (eg, vomiting, laxative use, or diet pill use) and higher rates of past-year self-reported eating disorders.
- Transgender adults may be at increased risk for eating disorders, so screening and early recognition of disordered eating are critical in youth.
- Although further research is needed to examine the relationships among disordered eating, gender identity, and sexual orientation, current literature suggests that sexual minority youth of both genders may be more likely to engage in dangerous weight control behaviors.