Emerging trends in eating disorders among adolescent boys: muscles, macronutrients, and biohacking

Eating disorders have traditionally been considered female-centric disorders, and remain under-researched and under-diagnosed in male populations. For decades, it has been assumed that adolescent boys are less vulnerable to the development of eating disorders, although emerging evidence now suggests that disordered eating might be qualitatively different, rather than markedly less prevalent, in adolescent boys. A core tenet of eating disorder psychopathology rests on the overvaluation of internalised body shape and bodyweight ideals, which in pathological extremes gives rise to an array of disordered behaviours intended to modify body shape and bodyweight. However, it is now well established that the sociocultural body ideals portrayed to adolescent boys and girls differ markedly, which in turn can promote a different constellation of disordered eating behaviours oriented towards these distinct body ideals.

For instance, disordered eating associated with pursuit of the thin ideal that is commonly ascribed to adolescent girls often includes behaviours focused on weight loss or preventing weight gain (eg, caloric restriction and purging). By contrast, the idealised masculine body ideal is typically characterised by a lean and muscular physique, which can motivate other pathological eating behaviours to achieve this ideal. Such masculinity-oriented disordered eating behaviours might include protein overconsumption through dietary sources or supplementation, or a combination of both, rigid restriction of fat and carbohydrate intake, bulking and cutting phases (ie, cycling between muscle-building periods often involving caloric overconsumption and body fat loss periods often involving more restrictive dietary intake), and use of appearance and performance enhancing drugs (APEDs) such as androgenic anabolic steroids. Furthermore, biohacking or the process of optimising one’s physiology through practices including intermittent fasting, elimination diets, targeted supplementation, and multiple cycles of androgenic anabolic steroids is a phenomenon that has recently emerged particularly in adolescent boys and young men. Although there are validated measures to assess thinness-oriented disordered eating behaviours, there is currently little guidance for screening or assessing masculinity-oriented disordered eating behaviours, and some of the behaviours are not necessarily disordered in all contexts. However, if these behaviours are compulsively driven or cause distress or functional impairment, or both, they can be considered pathological. Another challenge that health-care providers might face in working with individuals with eating disorders is that most APEDs and supplements are unregulated (eg, no regulation by the US Food and Drug Administration in the USA) and research about the long-term health effects of these substances is scarce.

A related consideration is the role of exercise in eating disorders among adolescent boys and young men. Pathological exercise behaviours, traditionally viewed as a form of non-purging compensatory behaviour, have been relatively understudied compared with other disordered eating symptoms such as binge eating and purging. Adolescent boys with eating disorders might be more likely to engage in compulsive or driven exercise than their female counterparts. Boys who over-exercise can produce energy deficits and become malnourished even without restricting their food intake. Furthermore, exercise is associated with bradycardia, an important indicator of medical instability. However, current guidelines for medical management of eating disorders do not address how exercise should be handled. Finally, different disordered eating behaviours might become more normalised within certain subcultures or contexts, such as participation in team sports—either masculinity-oriented behaviours for sports in which strength and masculinity are advantageous or weight loss behaviours for sports with strict weight cutoffs such as wrestling or rowing.

It is important to note that some adolescent boys with eating disorders present with thinness-oriented goals and symptom profiles consistent with traditionally defined eating disorders, and some adolescent girls with eating disorders might present with masculinity-oriented goals and symptoms. Furthermore, other eating disorders that might present among adolescent boys either do not have a body image component at all, such as avoidant or restrictive food intake disorder, or they do not require the presence of body dissatisfaction, such as binge-eating disorder. Clinicians providing care for young or adolescent boys should consider screening for disordered eating, including those behaviours consistent with traditional eating...
disorders (eg, loss of control over eating, pathological exercise), as well as muscle-building goals and behaviours, particularly as muscle-building goals and behaviours are common in population-based studies. For healthcare providers interested in specific measures, Lavender, Brown, and Murray provide an overview of self-reported questionnaires validated in males for assessing traditional eating disorder symptoms, body image, pathological exercise, and muscularity-oriented disordered eating attitudes and behaviours. Furthermore, medical providers caring for boys with eating disorders should evaluate the presence of muscularity-oriented disordered eating attitudes and behaviours beyond standard forms of excessive and compulsive exercise, as these could be important contributors to the pathology and severity of eating disorders in this population and could exacerbate over time. Thus, the assessment of eating disorder psychopathology in adolescent boys is not complete if not addressing muscularity alongside thinness-driven symptomatology.

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We declare no competing interests.