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Review

The enigma of male eating disorders: A critical review and synthesis

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HIGHLIGHTS

- Male EDs are systematically overlooked in ED research.
- Male ED presentations differ significantly from female ED presentations.
- Muscularity-oriented disordered eating has emerged as an ED phenotype in males.
- Current ED classification schemes do not accommodate muscularity-oriented disordered eating.
- The marginalization of male ED patients remains an ongoing concern.

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ABSTRACT

Historically, male presentations of eating disorders (EDs) have been perceived as rare and atypical – a perception that has resulted in the systematic underrepresentation of males in ED research. This underrepresentation has profoundly impacted clinical practice with male patients, in which i) stigmatization and treatment non-engagement are more likely, ii) a distinct array of medical complexities are faced, and iii) symptom presentations differ markedly from female presentations. Further, the marginalization of males from ED research has hindered the assessment and clinical management of these presentations. This critical review provides an overview of the history of male EDs and synthesizes current evidence relating to the unique characteristics of male presentations across the diagnostic spectrum of disordered eating. Further, the emerging body of evidence relating to muscularity-oriented eating is synthesized in relation to the existing nosological framework of EDs. The impact of marginalizing male ED patients is discussed, in light of findings from epidemiological studies suggesting that clinicians will be increasingly likely to see males with ED in their practices. It is suggested that changes to current conceptualizations of ED pathology that better accommodation male ED presentations are needed.

1. Introduction

Eating disorders (EDs) are among the most pernicious of psychiatric disorders, featuring high rates of mortality, multi-systemic medical comorbidities, and an often chronic and relapsing illness course (Berkman, Lohr, & Bulik, 2007; Mitchell & Crow, 2006; Smink, van Hoeken, & Hoek, 2012). Moreover, EDs are thought to be among the most gendered of psychiatric disorders, demonstrating a striking sexual dimorphism. Yet, while the term 'eating disorder' may evoke stereotypes of affluent, middle class, young Caucasian females, a surprising fact to many relates to the notion that EDs have been reported in male patients for as long as they have been reported in females. Morton's seminal report of the cluster of symptoms that would later be termed anorexia nervosa included explicit reference to an adolescent male

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patient (Morton, 1694). Similarly, the seminal works of Gull (1874) and Lasegue (1873) in identifying the phenotype they would come to term anorexia nervosa both noted and commented on the family dynamics of male patients (Wooldridge, 2016). Even the term anorexia *nervosa* itself was coined, in part, to reflect the presence of male patients with this syndrome, and the alternative descriptor at the time, anorexia *hysterica*, was ruled out due to the commonly held belief at the time that males could not be hysterical (Wooldridge, 2016).

It is true, however, that beyond these seminal works, the history of EDs is characterized by a conspicuous absence of male patients. Indeed, it was not until almost 100 years after the works of Gull (1874) and Lasegue (1873) that the notion of EDs afflicting males was broached by authorities in the field (Beumont, Beardwood, & Russell, 1972; Bruch, 1971). Prior to this, it was widely assumed that EDs did not afflict males, as evidenced by the absence of a direct endocrine equivalent of the amenorrhea criterion of anorexia nervosa (AN), a key diagnostic feature of this disorder from its initial description (Andersen, 1990). Indeed, whilst weight loss was occasionally documented in clinical reports of males with EDs, it was thought that any dietary restriction or disordered eating was not a primary concern, and was secondary to a more general psychiatric illness (Dally, 1969; Selvini-Palazzoli, 1965).

This premise that EDs did not afflict males was sustained throughout a period of rapid evolution in the field, during which time the first (i) diagnostic framework, (ii) treatment modalities, and (iii) measures of symptom severity were developed. As such, these important developments were predicated on clinical trials consisting exclusively of female – and typically young – patients. Indeed, many treatment studies actively excluded male patients on the basis of their proposed atypicality (Dally & Sargant, 1966; Goldberg, Halmi, Eckert, Casper, & Davis, 1979). This marginalization of male ED patients remains apparent today, for instance with less than 1% of contemporary peer-reviewed scientific manuscripts relating specifically to male presentations of AN (Murray, Griffiths, & Mond, 2016b). However, as this field advances and develops, a comprehensive synthesis of existing evidence relating to male presentations of disordered eating is warranted. In this review, we provide a synthesis of relevant research relating to a multitude of dimensions of disordered eating in males, based on an exhaustive search of PubMed, PsychINFO and ScienceDirect using a combination of key search terms ‘male eating disorders’, ‘eating disorder’, ‘boys’, ‘men’ and ‘males’ with Boolean operators, in addition to a manual search of relevant journals. Drawing upon these findings, we synthesize the evidence into a narrative review of this broad subject domain, discuss clinical and theoretical implications, and outline crucial endeavors for future research.

2. Are eating disorders in males a rarity?

While the notion that EDs did not occur in males prevailed for close to a century, clinical data during the late 1970's and 1980's began to illustrate a limited number of male ED presentations in specialist ED clinics across several countries (Andersen & Mickalide, 1983; Crisp, Hsu, Chen, & Wheeler, 1982; Hall, Delahunt & Ellis, 1985; Margo, 1987; Vandereycken & Van den Broucke, 1984), forcing researchers to reconsider this premise. During the 1990's, more systematic research sought to examine the prevalence and correlates of male cases in specialist ED clinics, noting that males represented approximately 5–10% of cases (Andersen, 1990; Carlat, Camargo, & Herzog, 1997; Fairburn & Beglin, 1990; Sharp, Clark, Dunan, Blackwood, & Shapiro, 1994). This emerging evidence was sufficient to dispel the misnomer that EDs did not afflict males, and gave rise to a new rule of thumb, namely, that approximately 10% of EDs were accounted for by males (Andersen, 1990).

More recent evidence, however, suggests that this figure is likely to be an underestimate. For instance, evidence from specialist ED clinics illustrates that males represent more than one in four of preadolescent EDs in Australia (Madden, Morris, Zurynski, Kohn, & Elliot, 2009), and up to 33% in the UK (Nicholls, Lyn, & Viner, 2011). Further, certain preadolescent eating disorder diagnoses in non-ED settings (i.e., gastroenterology settings) may be more prevalent among males, with up to 67% of avoidant/restrictive food intake disorder (ARFID) diagnoses being accounted for by males (Eddy et al., 2014). Even in specialist ED settings, male presentations of ‘selective eating’ may account for up to 50% of all cases (Bryant-Waugh, 2013).

At the same time, epidemiological data have revealed shifting trends relating to the prevalence of the two most well known EDs, AN and bulimia nervosa (BN), in males. For instance, the US National Comorbidity Replication Survey found that males accounted for one in four cases of AN and BN (Hudson, Hiripi, Pope, & Kessler, 2007). Similarly, recent findings from epidemiological studies in Australia suggest that males may account for approximately one third of adults in the community reporting ED behaviors such as extreme dietary restraint and purging (Mitchison, Mond, Slewa-Younan, & Hay, 2013). Importantly, these data suggest that certain ED behaviors may be increasing more rapidly in males than females, and further, that the occurrence of these behaviors is associated with comparable levels of distress and disability in males and females (Bentley & Mond, 2015; Mitchison, Mond, Slewa-Younan, & Hay, 2013). In view of these findings, it no longer appears tenable to assume that EDs are relatively uncommon among males, nor that males account for only a negligible proportion of the public health burden of EDs and disordered eating (Mitchison & Mond, 2015).

3. Do eating disorders present differently in males and females?

A broader question surrounding male EDs relates to their putative atypicality. That is, are male EDs fundamentally different from female presentations? To this end, a recent surge of empirical research has sought to illuminate the nature of male EDs across the diagnostic spectrum. In interpreting the findings from this research, it is important to keep in mind that our understanding of potential sex differences in the presentation of ED behaviors is circumscribed by the fact that current nosological framework for EDs and, in turn, assessment instruments, have been informed almost entirely by research conducted in female samples (Mitchison & Mond, 2015). As a consequence, male sufferers, alongside their family, friends, and healthcare professionals may be less likely to recognize ED behavior as being symptomatic of a mental health problem (Darcy, 2011; Mond, 2014). Further, to the extent that current diagnostic criteria for different EDs are more or less “female-centric,” estimates of the prevalence of these disorders derived from research employing these criteria are likely to be underestimates (Mitchison & Mond, 2015).

In terms of the characteristics of males with EDs more broadly, cross-sectional data suggest that males with EDs are more likely to report a greater array of psychiatric comorbidities (e.g., substance use, psychotic symptoms; Carlat, Camargo, & Herzog, 1997; Striegel-Moore, Garvin, Dohm, & Rosenheck, 1999), a later age of onset (typically in later adolescence; Mitchison & Mond, 2015; Gueguen et al., 2012; Zerwas et al., 2015), a history of previous obesity or being overweight, and experience of being subjected to weight-related teasing (Carlat et al., 1997; Gueguen et al., 2012), than females with these disorders. Sex differences in the symptom presentation of the various specific ED diagnoses also warrant consideration, however, as outlined below.

3.1. Anorexia nervosa

According to the most recent, fifth revision of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association, 2013), individuals with AN must exhibit: (i) persistent restriction of energy intake, (ii) an intense fear of gaining weight or becoming fat, and (iii) a disturbance in how one's body is experienced or undue influence of shape and weight on self-evaluation. While not part of the diagnostic criteria within DSM-5, current criteria within the