

Eating disorders in males: A review

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Abstract

Eating disorders are stereotypically believed to be a white, female, middle class malady. There is not currently a widely-held awareness among health professionals that these conditions exist in males, although past research has estimated that between 5-10% of individuals presenting with eating disorders are male. Despite increased records of the incidence of both Anorexia Nervosa and Bulimia Nervosa in females over the last 50 years, the awareness of these disorders in males remains low. This has been attributed to bias and inaccuracy in diagnosis, stigma, and reluctance among males to seek treatment. This paper reviews the existing literature on males with eating disorders in an attempt to properly outline typical features that males may present with. These features are assessed within the context of generally accepted diagnostic criteria, and further the understanding of this phenomenon in males.

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Introduction

Eating disorders, specifically anorexia nervosa, bulimia nervosa and eating disorder not otherwise specified (according to the diagnostic and statistical manual of mental disorders)¹ (DSM-IV-TR), are syndromes in which a thin body size is pursued and weight gain is abhorred.²

It is stereotypically believed that these conditions are confined to white, middle class, westernised, females. Indeed, the existence of these conditions in males was doubted into the middle of the 20th Century. Despite a marked increase in the incidence of both anorexia nervosa and bulimia nervosa in females in the last 50 years, the awareness of these conditions in males remains low.^{2,3} It is presently however estimated that between 5 – 10% of individuals presenting with eating disorders are male.⁴

Such estimates are difficult to validate due to the existing bias in diagnosis. Physicians do not seem to be aware of gender specific differences, thus prevalence rates of eating disorders in males may be spuriously diminished.⁵ For example, it has been suggested that there is no similar requirement for males regarding the abnormality of reproductive hormone function (i.e. the loss of menses) that occurs in women with eating disorders. Furthermore, it is stereotypically believed that in order to receive an eating disorder diagnosis (whether this is anorexia nervosa or bulimia nervosa); the individual “should” either be female or a homosexual male.⁵ As a result of such stigma,

males with eating disorders may be extremely reluctant to seek treatment, which further decreases the recorded prevalence rate of the disorder in males. Indeed, it has been found that only 16% of males with eating disorders actually seek treatment.⁶ Lack of knowledge and awareness may result in inaccurate diagnosis with subsequent reluctance to seek, and inappropriate, treatment of eating disorders in males.

Eating disorders: a description

The first recorded medical account of an eating disorder may be traced back to 1689, when Dr. Richard Morton described a medical condition that he referred to as “nervous consumption” which he believed was caused by “sadness, and anxious cares”. Interestingly, yet in contrast to currently widely-held views that eating disorders are predominantly the domain of females, Dr Morton noted the disorder being present in both an 18 year old girl and a 16 year old boy.

Nearly two centuries later, in 1874, further cases of eating disorders were recorded by Dr Gull in England, who described a syndrome occurring in young women of “great emaciation, amenorrhoea, constipation, anorexia, alternating occasionally with voracious appetite, restlessness and a feeling of jealousy, together with the absence of an organic cause”.³ It was Dr Gull who gave name to what is today a widely recognized and socially publicised illness: the term “anorexia nervosa”, which was used at the time to differentiate the symptoms from those of tuberculosis. “Anorexia” is of Greek origin and means “lack of appetite or avoidance and loathing of food”. Lasegue, a contemporary of Gull’s, described a similar phenomenon occurring in France and subsequently documented eight cases of patients experiencing this “phenomenon”.⁷ Bulimia was similarly recorded in the 1800’s which was characterised by an intense preoccupation with food and overeating resulting in purg-

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ing behaviour, but was not officially recognised until 1979 through the work of Gerald Russell.⁷ The term "bulimia" is derived from the Roman word "boulimus" which refers to a great hunger.

More recently, eating disorders and in particular Anorexia Nervosa, have been depicted as a syndrome in which a thin body size is relentlessly pursued. Weight gain is feared, often at the expense of physical and psychological well-being.² It has also been suggested that the characteristic pursuit of thinness is often a means of obtaining a sense of mastery and control over the body.² This is accompanied by feelings of ineffectiveness as the struggle for control and perfectionism is rigidly and persistently sought after. In addition to this, anorexia nervosa is characterised by progressive weight loss, amenorrhoea, and a significant body image distortion. Throughout the various descriptions of eating disorders, the inherent common feature appears to agree with the proposition that eating disorders are characterized by the pursuit of a thin body size in an attempt to gain, to some degree, a sense of mastery and control over the body.² This element appears to be the single most important identifying feature in eating disorders.

Today, the term "eating disorders" refers broadly to two conditions, being anorexia nervosa and bulimia nervosa. Anorexia Nervosa is described as "a person's refusal to eat anything except minimal amounts of food, with the result that body weight sometimes drops to dangerously low levels". Bulimia nervosa refers to "attempts to restrict food intake result(ing) in out-of-control eating episodes, or binges, often followed by ... other attempts to purge the food just eaten."⁸

To the lay person, anorexia nervosa implies a lack of appetite. However, this is rarely a symptom of the disorder, and only occurs later in the starvation process. Food refusal seems to be the more pertinent issue that is related to the intense fear of weight gain. It has been suggested that on the one hand, anorexia nervosa could be interpreted as a denial of hunger, thinness, and fatigue.² On the other hand, it has been described as a weight phobia, which leads to severe restriction in the type of food intake.

Bulimia nervosa refers to regular but uncontrollable episodes of consuming an excessive amount of food, followed by various purging behaviours – including vomiting, fasting, over exercising and laxative or diuretic abuse. The bulimic may not necessarily be underweight, although weight fears are present.⁹ Bulimia nervosa could be interpreted as recurrent overeating leading to compensatory behaviours to avoid weight gain.⁹

The descriptions used above are helpful in determining the nature of the concept referred to, i.e. eating disorders. It is also useful when attempting to differentiate between anorexia nervosa and bulimia nervosa. While it is acknowledged that the term "eating disorders" refers to anorexia nervosa, bulimia nervosa and eating disorder not otherwise specified, it has been used throughout the paper for ease of reference. This is useful for classification purposes but also recognises that it does not refer to a homogenous group. In certain cases, the literature does make a distinction between eating disorder types and this has been noted.

The DSM-IV-TR is a useful tool to use insofar as clinicians around the world are able to use standard terms and criteria in their application of a diagnosis.¹ However, by their very nature the standardisation of the terms and criteria may result in overly generic descriptors of the symptoms. It is asserted that

the utilisation of the DSM-IV-TR identifying criteria could be enriched by using various characteristics that may not necessarily be included in the current DSM-IV-TR criteria. This is especially true with regard to the presentation of the disorder in males, which is a relatively little documented and poorly understood phenomenon.

Eating disorders in males

While the widely-held belief is that eating disorders are exclusively a female malady, the facts do not support this. Recent research that has been undertaken has estimated that up to 10% of all patients presenting with eating disorders, including both anorexia nervosa and bulimia nervosa, at American hospitals are male.⁵

Typical signs and symptoms

Age of onset and presentation

The DSM-IV-TR indicates that the onset of anorexia nervosa is typically in "mid- to late adolescence (14-18 years)";¹ and bulimia nervosa seems to be in "late adolescence to adult life".¹ Rapid weight gain and physical changes characterise these times and it has been suggested that these are critical ages in an adolescent's life as it is a period when body image becomes increasingly important.² In particular, it has been indicated that there are bimodal risk ages at 14 and 18 years.²

Weiner (cited in Garfinkel and Garner)² suggests that onset occurs when there is a failure in the individual's ability to meet both internal and external demands. Indeed a maturing adolescent may present with eating disorder symptoms in an attempt to avoid increasing responsibilities, i.e. it is a tendency towards regression.² Bruch (cited in Garfinkel and Garner)² provides a useful explanation of this process. She suggests that these individuals have a very poor sense of control over their behaviour, needs and impulses. External forces are believed to exert complete influence over their bodies, leading to a feeling of ineffectiveness and a lack of personal identity. These feelings are exacerbated at critical stages during adolescence, which seems to concur with the age of onset of an eating disorder. Both Weiner and Bruch seem to refer exclusively to anorexia nervosa.

One of the earliest studies conducted on anorexia nervosa in South Africa revealed that the age of onset for anorexic girls was between the ages of 13-18 years.⁹ In a subsequent study at this institution it was indicated that the mean age at presentation was 22.27 years, which is based upon data gathered from 14 females and 1 male.¹⁰

The focus of a number of research studies in the past has been to determine whether the age at onset of eating disorders in males matches that of females. It is difficult to draw a definite conclusion from these studies. For example, one study found that although not statistically significant, males seem to develop eating disorders at a later age (about one year later) than females.⁴ Mean age at onset in this study was 18,6 years. Another study indicated that the age at onset in males is generally consistent with that of females, describing a mean age at onset of 19,3 years.³ In contrast, a further study reported a much earlier age of onset among males, of 14,7 years.⁶ These studies therefore do not provide a definitive onset age, if indeed one exists.

While an uncertainty regarding the existence of a disparity of the age of onset exists, various research studies show that

the age at presentation for treatment disparate between males and females appears disparate. It has been shown that male anorexics actually present for treatment far earlier than their female counterparts.³ This has been attributed to the fact that anorexic males attract attention from family members because of their low weight far earlier than females do. Bulimic men, however, seem to present at a later stage than anorexic males due to a feeling of being ashamed at having this disorder.³

One study suggests that, assuming males are generally older at the age at onset, in this study males are assumed to be more willing to seek help at an earlier stage of the illness.⁴ The mean age at presentation for treatment, in this particular study was indicated to be 20,2 years.⁴ It was further indicated that the duration of the disorder was 1,6 years with a range between 0,3-7,0 years.⁴ The relatively short duration of the disorder was explained as a consequence of increased awareness and a greater willingness to seek help. In contrast, a different study reported the age at presentation to be 25,9 years with the duration of the disorder at 6,7 years.³ Consequently, the research regarding age at presentation and the duration of the disorder provides somewhat inconsistent results.

While there exists a disparity among the actual values presented, the research outlined above does however provide some consistency in the results. The research does, overall, suggest that the disorder seems to occur during late adolescence to early adulthood. Further, the very fact that such disparity exists among the results implies that there is a further need for research in this area. The age at onset and the age at presentation are typically at a time of many physical and emotional changes, which can lead to intense feelings of body dissatisfaction.

Body dissatisfaction

The term "body dissatisfaction" necessitates an understanding of body image. This is a complex construct that generally refers to the mental image of, and the feelings towards, one's body.² In other words, it is an internalised concept of the body that has certain subjective perceptions associated with it. This construct is clinically significant in eating disorders as it refers to an inability to recognise appearance as abnormal, i.e. assessment of size is inaccurate and/or perceptions of the body are disparaging.²

Research suggests that both males and females are prone to dissatisfaction with parts of the body.⁵ It has been shown that females are typically concerned with their bodies below the waist, whereas males are usually more concerned with their upper bodies.⁵ Furthermore, research shows that females pursue a low body weight regardless of body shape; whereas males seem to accept a normal body weight if body shape is characteristic of the norm.⁵ Common to both males and females is a fear of weight gain and a desire for a body weight that is 75% below an ideal body weight.³

Males and females seem to begin developing different perceptions of body norms at grade school.⁵ This is believed to be a critical time for adolescents, as an eating disorder could potentially mitigate biological maturity, especially in the light of the increasing demands required of adulthood. Body image concerns have further been found to have a negative effect on self esteem and on social adjustment.

Body dissatisfaction can materialise in a pursuit for thinness and a fear of weight gain because of a conviction that the body is too "large".² This drive is ego-syntonic and the individual is

rarely aware of the emaciated state of the body, so much so in fact, that this perception almost reaches delusional proportions.² Just as the perception of the body reaches delusional proportions, so does the perception of interoceptive stimuli. In other words, an awareness of intrabody processes is similarly compromised.²

For example, responding to fatigue, cold, satiety and emotional states, etc., is disturbed.² This is believed to develop in infancy when perceived internal experiences are inappropriately responded to by the caregiver - for example, being fed when not hungry.² The child becomes increasingly unable to identify internal states from external events.² This is often associated with interpersonal mistrust regarding excessive concern about who is controlling one's physical and psychological life.⁷ Research shows that eating disordered behaviour in adolescent males is strongly related to poor interoceptive awareness.

Males also generally present with a higher body mass index than females.⁴ Body mass index (BMI) is the percentage of body weight relative to height. A BMI between 20-25 is considered normal. It is suggested that this is because males have less fat to lose in the first place and because premorbid weight is generally higher than in females.⁴ Later studies have similarly shown that males are likely to report being overweight at some stage prior to onset.^{4,11}

Increasing BMI is also a goal for treatment, especially during hospitalisation. The duration of the stay is usually dependent upon this, but research on the optimal length of hospitalisation is sparse. It has been reported that completing an inpatient programme indicates a better prognosis.¹² Szabo and Terre Blanche indicate an average duration of admission of 146 days, which was sufficient time to increase the BMI adequately (mean admission BMI was noted at 13,62 and mean discharge BMI was 17,85 in this study).¹⁰

Body dissatisfaction then, refers to both internal and external experiences. It appears that the perception and interpretation of the body is distorted in eating disordered populations. While the focus of body dissatisfaction may differ in males (upper body focus) and females (lower body focus), both males and females with eating disorders appear to desire a body weight that is 75% below the ideal. The external perception of the body and interoceptive awareness is similarly distorted across the male and female eating disordered population, but premorbid weight appears to be higher in males than in females (possibly due to a higher BMI).

Associated with this distortion body image, is the propensity to engage in weight restricting activities, in order to achieve the desired weight and/or body shape.

Methods of weight control

Methods of weight control refer to food intake, dietary behaviour and physical activity. Initially, individuals may begin to diet in an attempt to lose weight and it usually constitutes a more healthy way of eating.

In a nutrition-conscious society, this is often admired and encouraged.² Indeed, being thin is culturally endorsed.⁵ It has been suggested that males seem to begin dieting for a number of reasons, including an attempt to avoid being teased due to being overweight; to improve athletic performance; to avoid medical illness associated with obesity; and to improve a same-sex partner relationship.⁵

Research on males with eating disorders has found that

bulimic behaviour (i.e. bingeing, self-induced vomiting, laxative abuse, and over exercising) occurs at a similar rate as compared to females.⁶ Specifically, one study discovered that 59% of their sample engaged in self-induced vomiting, 47% abused laxatives; 53% restricted; and 53% exercised excessively.⁶

Bingeing and over exercising in particular, have been found to be a more prominent means of weight control, and laxative abuse has been found to be less common amongst male samples.⁴ This may be because these behaviours (bingeing and over activity) are more socioculturally acceptable as a means of dieting, especially in the male population.⁴

An additional risk factor, believed to be strongly associated with the development of an eating disorder, is occupations which encourage excessive over exercising. Over exercising seems to provide an additional source of self-mastery through severe body discipline, which is in accordance with the anorexic's and bulimic's striving.⁸ Male athletes (for example, gymnasts, runners, body builders, jockeys, dancers and swimmers) are encouraged to maintain low body weights. As a result, these populations are at risk for developing disordered eating patterns.¹³ Over activity may indeed be another manifestation of eating disorders that has not been provided with adequate recognition in the diagnostic criteria.

Interestingly, however, diminished food intake has been directly associated to heightened activity, suggesting that this is a characteristic psychobiological response to food restriction.⁸ Excessive exercising then, may simply be the result of, rather than a risk factor for, the development of an eating disorder.

Overall, males presenting with eating disorders do seem to exhibit typical methods (as indicated by females with eating disorders), of weight control through restriction and various bulimic behaviours. The preferred means of weight control indicated in the literature among males with eating disorders, is over-exercising. Specific sectors of the male population may be particularly at risk, especially those involved in athletic occupations. Demographic profiles of males with eating disorders appear to be a useful means of identifying further potential predisposing risk factors.

Demographic features

Demographic information aids in developing a complete picture of the population under study. It includes factors such as social class status, ethnicity, language spoken and the highest level of education achieved. The latter two are simply descriptive characteristics of the population, while the former two require further explanation.

The upper social class predominance of eating disorders is well documented. Generally, eating disorders have been confined to westernised, white, upper class populations. It has been proposed that membership in "upper to middle social classes" results in exposure to conflicting value systems.¹⁴ One such conflict is that between achievement and conformity versus independence and autonomy.⁸ This argument has been presented for the particularly high occurrence of eating disorders on college campuses as well as within the population of highly qualified females.⁸

Studies in third world countries show that an increase in body weight is associated with an increase in the standard of living. This association is reversed in first world, westernised countries where an increase in body weight is linked to lower

socio-economic status. This argument has gone so far as to propose that obesity constitutes a social stigma. Indeed, obese individuals are viewed as weak and lazy as well as responsible for their physical condition.¹⁵ Correspondingly, thin individuals are favoured within this kind of value system, and are associated with a higher social class status.

It has, however, been suggested that as the disorder becomes more common, so more cases will be detected in the lower social classes.² Indeed, it was discovered that this suggested increase has in fact already occurred.²

Research on males with eating disorders has shown an upper social class predominance.⁴ It is possible that this may be attributed to a lack of awareness as well as poor access to resources facilitating the diagnosis of an eating disorder in males among the "lower social classes".

As a result, ethnicity and social class status may or may not be an important demographic feature in the presentation of males with eating disorders. It is likely that just as ethnicity and social class are no longer risk factors for the development of an eating disorder among the female population, so males with eating disorders may similarly be observed in various ethnic and social class settings.

Sexual orientation

Of particular focus in more recent research is the assumption and stereotype that eating disorders in males are associated with homosexuality. Various studies have found a higher prevalence of homosexuality in this eating disorder population – approximately 20% - which suggests that this is a risk factor.⁵ In support of this argument, data on sexual orientation in the general population indicates that approximately 1 – 6% of males and about 2% of females are homosexual.³ Because the occurrence is much higher in eating disorder populations, it has been confidently concluded that homosexuality is a risk factor.

A number of explanations have been offered. It is believed that homosexual males are more dissatisfied than heterosexual males with body weight and shape.³ Thinness is also, allegedly, more highly valued in the homosexual community.⁵ This is believed to be a function of males being particularly concerned with the physical attractiveness of potential partners (in both homosexual and heterosexual relationships). A heightened concern for physical attractiveness may be related to the sexual objectification of partners.¹⁶ Thus, homosexual males desiring attention from other males may become overly concerned with appearance in order to please and attract a potential partner. Interestingly, lesbians and heterosexual males do not succumb to this pressure.¹⁶ Homosexuality may however, simply aggravate the course of an eating disorder, leading to over-representation in treatment centres and may therefore misrepresent the sexual orientation of males with eating disorders.³ It has been hypothesized that homosexual men may also be more willing to seek treatment than heterosexual men.⁶ Furthermore, one study has found that homosexual men have also been reported to display higher levels of depression, low self-esteem and discomfort with their sexual orientation, which suggests a greater propensity for this population to be exposed to mental health support structures.¹⁷

One research study discovered that 41% of their sample was heterosexual, 27% homosexual or bisexual and 32% were asexual.³ In particular, it was discovered that bulimia nervosa

was more closely associated with homosexuality and bisexuality, whereas asexuality was likely to occur with diagnoses of anorexia nervosa and eating disorder not otherwise specified.³ It was suggested that this was due to a lowering of testosterone levels due to calorie malnutrition as well as an active repression of sexual desire.³

Other studies have found less significant results, including an absence of normal premorbid sexual interests, as well as indications that of the subjects seen, only 4% were homosexual and 8% were bisexual.^{4,6}

Data on the sexual orientation of males with eating disorders appears to be quite divergent. Although some research suggest sexual orientation as a potential risk factor for the development of an eating disorder, other research has indicated that the prevalence may be as a result of a sample biased by the current behavioural norms, rather than by the prevalence of the disorder.

A further issue to consider is comorbidity with other disorders, which may further complicate accurately identifying an eating disorder.

Comorbidity with other disorders

Much of the research and literature on eating disorders indicates the presence of comorbid disorders. Affective disorders such as depression appear to be the most commonly reported disorder.^{3, 4, 5, 6, 18} Studies have shown that 68% of those with eating disorders display major mood disorders at some stage in their life.¹⁸ Similarly, it has been indicated that there is an association with an affective disorder in 41% of restrictors, 82% of restricting bulimics, 64% of bulimics and 78% of bulimics with a history of restricting.

Obsessional and anxiety disorders also appear to occur concurrently with eating disorders.^{2, 4, 5} Research shows that anxiety disorders occur at an elevated rate in eating disorder subjects, although there does not seem to be definitive evidence linking the two. Several eating disorder features also appear to have an obsessive character, such as the fear of weight gain, dieting, exercising, etc. A comorbidity rate with obsessive compulsive disorder of 29,5% was found in one study.¹⁹ The history of the eating disorder also appeared more prolonged in these subjects and age at onset of the eating disorder was also younger than expected when an eating disorder was comorbid with an obsessive compulsive disorder.¹⁹ One research sample indicated a comorbid prevalence rate of obsessive compulsive disorders in 69% of restrictors and 44% of anorectics with purging behaviour. In another study (Braun cited in Halmi) , 20% of the sample displayed comorbid obsessive compulsive features.¹⁸

Less common, but still apparent, are comorbid substance abuse and personality disorders.^{3, 6, 5}

A cautionary note must be made as these comorbid disorders may be caused by the starvation syndrome, which is associated with symptoms of anxiety, irritability, low mood, poor concentration, social withdrawal, sleep disturbances and a loss of sexual interest.⁴

The starvation syndrome has been argued against as studies have found that depression and eating disorders may not necessarily be a reaction to the other and may rather be due to an underlying predisposition to develop both.⁶

Eating disorders, specifically anorexia nervosa, have also been shown to be secondary to other psychiatric illnesses, such

as schizophrenia, obsessive compulsive disorder, conversion disorders and affective disorders.⁷ As a primary diagnosis however, an eating disorder can be distinguished if it is motivated by the goal of achieving autonomy and effectiveness through corporeal control.⁷

Diagnoses of comorbid disorders then, should be made discerningly as true comorbidity can be difficult to distinguish from the starvation syndrome features. It is further unclear as to whether there is any distinction between males and females with respect to the presence of eating disorders and the presence of comorbid disorders. This indicates the necessity for an understanding of diagnostic tools as well as social and cultural expressions of body dissatisfaction.

Sociocultural pressures and bias in diagnosis

Eating disorders are not a universal phenomenon. It seems to occur in cultures or subcultures that value thinness, but provide access to surplus calories.⁵ The contemporary obsession regarding thinness and food control appears to have become particularly prominent in advanced industrial societies.⁸ This creates a dilemma if one considers that men and women have become heavier – at least 2-3 kilograms in the last 20 years – due to better health care and the increased abundance of food.²⁰ Indeed, there is no benefit for this in cultures where starvation is widespread and weight gain is not possible.⁵ Nor was it common in any society 100 years ago. Socio-cultural pressures must therefore be a factor in the rising occurrence of eating disorders not only in females, but also in males.

The meaning of the body seems to vary in different cultures and across time. Perceptions of the physical body are filtered through social and cultural experience. The notion of the 'body' then, exists on both a physical / biological level, as well as on a symbolic level. Identity is expressed as a metaphor through the body to articulate the relation of the individual to the group.²¹ As such the body becomes subject to being used, transformed and improved as it is objectified in society in the pursuit of asserting power. It has consequently been asserted that illness and disease become metaphors of crisis.

Being thin is endorsed by contemporary society because physical appearance is regarded as a measure of success and beauty.² Social acceptance in girls seems to rest upon appraisals from others, which furthers the formation of a self-concept.²⁰ Indeed, friendships become increasingly important during adolescence for both genders, and peer acceptance amongst boys is also central to the development of a self-concept. Furthermore, a relationship has been established between self-esteem, proneness to depression and body dissatisfaction.¹³ Research indicates that 42% of adolescent boys are dissatisfied with their weight, and 33% are dissatisfied with their body shape. It has also been reported that feeling good about one's appearance is more important for adolescent boys than scholastic and athletic competence.²²

Certain body shapes have further been glamorized and commercialised in certain cultures, through the media. Various studies have shown that in the last 100 years there have been shifts in the culturally ideal body shape.² Generally, the ideal encourages thinness, especially for woman, but also for males. Since the 1970's, when the Playgirl magazine debuted, the male form has been scrutinised by the media. Males are

now exposed to and encouraged to develop body shapes that promote leanness through dieting, in addition to being muscular.²²

The glamorization of the male body has occurred simultaneously with the changing role of men in society. As females have gained equal rights to males over the years, men have been left with their bodies as the sole source of masculinity and individual expression.²² It is postulated that because women can never match the male physical form, so the importance of the body has increased for men and has been used as a unique feature of masculinity.²²

The muscular body ideal is closely linked to a sex role that promulgates being powerful, strong and efficacious and seems to be an attempt to restore feelings of self-control and worth.²² This increase in the need for muscularity has been linked to a body image disorder that is particularly prevalent amongst males.²² A previous study termed this "Reverse Anorexia", defined as a "fear of being too small, and by perceiving oneself as small and weak, even when one is actually large and muscular". It is suggested that reverse anorexia in males may be an analogous disorder to anorexia nervosa in females.²³ It has been discovered that these body-related problems display a similar profile to eating disorders.¹³ In particular, perfectionism, feelings of ineffectiveness, low interoceptive awareness and low self esteem occur at a similar rate to those that characterise the eating disorder populations.¹³ This would account for lower prevalence rates of anorexia nervosa in males and may be an under diagnosed, certainly unnoticed, disorder. These same authors later coined the phrase "the Adonis Complex" to refer to this rising phenomenon.

Low prevalence rates may further be accounted for by gender bias in the diagnostic criteria. This is relevant if one considers that the DSM-IV-TR indicates the diagnostic specification for anorexia nervosa that post-menarcheal females present with amenorrhoea. As per this diagnostic indicator, males should be excluded from this disorder.⁵ In addition, significant weight loss in males does not manifest visibly when testosterone levels are lowered.⁵ According to the DSM-IV-TR a more accurate diagnosis of "eating disorder not otherwise specified" should be made as males with anorexia nervosa can only fulfil these criteria. Further factors influencing low prevalence rates may be related to the stereotype that eating disorders are a predominantly female disorder or that it only afflicts male homosexuals, which leads to much shame when an eating disorder develops.⁴

In summary, it can be argued that an ideal male body shape has become, to some degree, as popularised in the media as has the "ideal" female body shape. The sociocultural pressures on males may be experienced as particularly unsettling, especially in terms of changing social roles and expectations, which may predispose males to the development of an eating disorder. The result of this is that the body seems to become the medium for self assertion and expression – whether this is through bulimia nervosa, anorexia nervosa or so-called reverse anorexia (the fear of being too small or weak, also termed the adonis complex). Just as reverse anorexia may be under diagnosed, such is also true for bulimia nervosa and anorexia nervosa among males, especially when one considers the bias in diagnostic criteria. In addition to sociocultural pressures, particular family dynamics may predispose the development of an eating disorder.

Family dynamics

Since eating disorders have come under clinical scrutiny, it has been asserted that certain family dynamics may precipitate the onset. Literature and research indicate that males with eating disorders appear to have similar family dynamics to those of females with eating disorders.⁶ It has also been suggested that generally, males with eating disorders may over identify with their mothers and be more distant from their fathers.^{4,6} Chronic parental conflict and sometimes divorce prior to onset has been noted.⁴ In a study of the rise in female anorexia nervosa in South Africa, the occurrence of overprotective mothers, weak/absent father's and excessive closeness with one parent – usually the mother – was discovered.¹¹ The mother-child bond may be the consequence of the mother over-identifying with the child. It has also been postulated that this may be a compensatory measure due to a disappointment in the marital relationship.

In addition, relationships are generally described as enmeshed, i.e. with blurred generational boundaries. Enmeshment may be the result of an individual's feelings of helplessness in functioning separately from his/her parents.² This may arise when the infant's internal sensations are never validated and development proceeds without an understanding of inner signals which help develop a sense of self control.² As Bruch suggests, self mastery and autonomy is mistakenly and detrimentally pursued via control over one's body.¹⁰ Autonomy in any other form would be perceived as too threatening for either the adolescent or the parents to manage.² Autonomy and self-control are then sought by refusing to eat and gain weight.

A child presenting with an eating disorder may also become triangulated between parental conflicts.⁸ Threatened parental separations appear to place the adolescent under particular stress. The eating disorder illness is used as a means of communicating as well as distracting attention away from family and parental conflict.²⁰

It is also important to consider that strained or disturbed family relationships may be the result of the eating disorder, rather than the other way around.² Certainly, by the time a family presents for treatment the eating disorder would most likely be well-entrenched within the system and consequently, premorbid relationships may be obscured.²

Overall, the family dynamics of males with eating disorders appears to be very similar to the literature presented for females with eating disorders. In particular, enmeshed relationships are common, which consequently result with the presenting individual expressing a need for autonomy and self control through corporeal control.

Conclusion

In summary, an appropriate assessment of an eating disorder necessitates an understanding of what this constitutes. While a general definition, such as that presented in the DSM-IV-TR, is useful, specific criteria are imperative when making an appropriate diagnosis. Diagnostic indicators are further enriched when considering the various signs and symptoms of eating disorders. This becomes especially important for the diagnosis of this disorder in males, as it is an unexpected phenomenon and is subject to gender bias. It is also useful to utilise the wealth of literature on females with eating disorders as a comparative base for documenting literature regarding males with eating disorders.

In particular, this review has noted that studies are unclear

as to whether males tend to develop eating disorders at a later age than females or whether males present for treatment earlier than females. Various indications of body dissatisfaction are similar for both males and females, although premorbid BMI seems to be higher for males with eating disorders. Males with eating disorders appear to display similar methods of weight control to their female counterparts. Although ethnicity and social class currently appear as key factors in the population of those presenting with eating disorders, this is likely to become less significant as awareness and access to resources increases. Research regarding the sexual orientation of males with eating disorders is presently divergent in terms of results. Comorbidity with other disorders is difficult to determine due to the possible interference from the symptoms of the starvation syndrome. Finally, sociocultural pressures and family dynamics appear to be consistent for both males and females presenting with eating disorders.

In conclusion, the present review has highlighted areas of bias in the diagnosis of eating disorders among males and calls attention to the, sometimes subtle, nuances in presentation.

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