

Anorexia Nervosa in Adolescent Girls: A Culture-Bound Disorder of Western Society?

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Abstract

Drawing upon the present body of epidemiological and etiological research on anorexia nervosa (AN) this review paper investigates the role of modern Western society, and in particular the influence of the media, as a precursor to the underlying body image disturbances central to the current diagnostic definition of the disorder. Although cases of self-starvation have been documented throughout history, in contemporary psychiatry poor self-image (specifically body image disturbance) is conceptualized as a central feature of the pathology underlying the illness. In the lead up to the publication of the DSM-V an ongoing debate has emerged as to the true origins of anorexia nervosa, either as a uniquely modern culture-bound disease of Western society or as an historically continuous phenomenon spanning many centuries. From the former perspective, epidemiological studies indicate an 'anorexia epidemic' confined to young women in Western society, and the portrayal of the female body in the media presents as the popular culprit responsible for the alarming proportion of adolescent girls with body image concerns. From the latter viewpoint, however, epidemiological studies should be viewed with caution, and while the influence of the media in body image dissatisfaction has received some support, its role in the onset of AN remains tenuous, with many young women presenting with self-starvation in the absence of any obvious body image pathology. The current debate, although clearly unresolved, identifies areas for future research and challenges the present conceptualization of the illness, posing potential implications for its diagnosis and treatment.

Keywords: anorexia nervosa, adolescent girls, body image, media, advertizing.

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Anorexia nervosa (AN) is a serious eating disorder predominantly affecting adolescent girls (Hoek & van Hoeken, 2003). The incidence among young women aged 15-19 has been recorded as high as 135.7 per 100,000 per year, and the rate of incidence among adolescent girls living in Western societies appears to have been rising steadily throughout the latter half of the previous century (Lucas, Crowson, O'Fallon, & Melton, 1999). Furthermore, research undertaken at the turn of this century suggests that the disorder is sub-clinical in up to 10% of young women aged 16-25 (Walsh, Wheat, & Freund, 2000).

AN is associated with an array of life-threatening health complications, such as heart arrhythmias, hypotension, and hypoglycemia (Attia, 2010; Robinson, 2000; Rome et al., 2003). Adolescence is a time in which the body is particularly vulnerable to the effects of malnutrition and starvation, with even a short episode of AN potentially resulting in a permanent stunting of growth, infertility, and reduced bone calcification, increasing the susceptibility for osteoporosis in later life (Golden et al., 2003; Misra et al., 2004). Of those who are diagnosed with the disorder less than half fully recover within 10 years and in a quarter of cases the disorder follows a chronic course (Walsh et al., 2000). Moreover, with a mortality rate of 5% per year AN is considered the most deadly of any psychiatric illness (Harris & Barraclough, 1998; Sullivan, 1995).

While accounts of self-starvation date back to the Hellenistic era, the first medical description of AN was not published until the mid-19th century, and it has been argued that the diagnostic classifications in use today (DSM-IV and ICD-10) represent a modern reconceptualization of the pathology underlying the disorder (Habermas, 2005; Pearce, 2004, 2006). Specifically, contemporary classifications of AN can be distinguished from earlier medical definitions by their inclusion of poor self-image (and in particular body image disturbance) as a central feature required for diagnosis, and as underlying the primary motivation to restrict calorific intake (Habermas, 1996). This distinction has sparked a debate as to whether modern-day AN should be regarded as historically continuous with previous accounts of the disorder or rather as a uniquely modern culture-bound phenomenon. Further considerations are the status of body image disturbance as a central feature underlying the illness, and the etiological relevance of socio-cultural trends in modern Western society, such as the role of the media in promoting an unrealistic aesthetic ideology marked by weight consciousness and dieting, particularly among young women (Derenne & Beresin, 2006; Habermas, 1996).

These issues are paramount not only in producing an effective diagnostic classification but also in developing more effective strategies in the treatment of a highly intractable disorder.

Origins of the disorder

Holy anorexia

The earliest accounts of self-starvation date back to the Hellenistic period, and were generally associated with devout adherence to asceticism and mind-body dualism. By relinquishing food, anorexic ascetics renounced the needs and desires of their bodies in pursuit of the purity and perfection of the soul (Pearce, 2004). While such cases declined at the fall of the Roman Empire, accounts of what has now been termed 'holy anorexia' re-emerged during the Renaissance in association with the Catholic Church and its promotion of dualist ideals (Griffin & Berry, 2003; Pearce, 2004). Between the 12th and 17th centuries hundreds of holy women were recognized as saints by the Catholic Church, many of whom engaging in extreme fasting and purging (Bell, 1985). It has been suggested that the emergence of devout asceticism among young women in the Middle Ages reflects the church's doctrine of the fall of humankind and the inheritance of the Original Sin. Redemption, salvation and the path to spiritual perfection could be sought through self-renunciation and in particular self-starvation (Griffin & Berry, 2003).

First medical account

The first medical account of AN dates back to 1689, when physician, Dr. Richard Morton, described the case of an emaciated 18-year-old woman who, despite obvious starvation, lacked the desire to eat (Pearce, 2004). It was not until 1868 that the term *anorexia nervosa* and the first comprehensive medical

description of the illness were established (Pearce, 2006). In his seminal paper, Sir William Gull described a nervous disease that led to starvation, and which predominantly afflicted young women (Pearce, 2004). Notably, however, his description made no mention of body image disturbance as a motivating principle for continuous fasting. In fact, the concept of 'weight phobia' as the core psychological motive underlying AN did not emerge until the mid-1960s, and only in 1980 was the criterion of body image disturbance formally included in the DSM-III (American Psychiatric Association, 1980; Habermas, 1994).

Current diagnostic classification

In the most recent version of the DSM (DSM-IV-TR), AN is classified under *Eating disorders* and is given the following diagnostic criteria: The patient "refuses to maintain body weight at or above 85% of normal weight for age and height". This is either the result of "weight loss" or "failure to achieve expected weight gain". The patient has an "intense fear of gaining weight or becoming fat, despite being underweight", and there is evident "disturbance in the way in which body weight or shape is experienced". In female (post-menarcheal) patients, amenorrhea is reported for "at least 3 consecutive menstrual cycles". The disorder is further classified into two subtypes: Restricting type and binge-eating/purging type (refer to table 1) (American Psychiatric Association, 2000).

Table 1
Diagnostic Criteria for Anorexia Nervosa (DSM-IV-TR)

Diagnosis	Criteria
Anorexia nervosa	(a) Refusal to maintain body weight at or above 85% of normal weight for age and height. (b) Intense fear of gaining weight or becoming fat, despite being underweight. (c) Disturbances in the way in which body weight or shape is experienced, undue influence of body shape or weight on self-evaluation, or denial of the seriousness of current low body weight. (d) Amenorrhea in post-menarcheal girls and women (missing at least 3 consecutive menstrual cycles or having periods only after administration of a hormone such as estrogen).
Restricting subtype	During the episode of anorexia nervosa, patient does not regularly engage in binge-eating or purging behavior (i.e., self-induced vomiting or misuse of laxatives, diuretics or enemas).
Binge-eating/purging subtype	During the episode of anorexia nervosa, patient regularly engages in binge-eating or purging behavior.

Continuity and change in the documentation of anorexia

A key distinction exists between the motives *ascribed* to individuals engaging in voluntary self-starvation and the psychological motives that in fact underlie the onset and continuation of their behaviors. While up until the end of the Middle Ages anorexia was generally documented within the context of religious piety, the writings of Gull did not attempt to ascribe any form of psychological motive for the extreme fasting observed in his patients. While this could be taken to suggest that no clear psychological motive featured in these cases, it might rather reflect the manner in which diseases were documented by the medical community in the mid-18th century. For example, the tendency to presume a somatic etiology as underlying presentations of self-starvation as opposed to psychological motives (Habermas, 1994).

Notably, historical records indicate the emergence of weight concern in the mid-18th century, with the upper class seeking 'fasting cures' at private clinics, and the medical profession labeling even moderate states of overweight as pathological (Kisch, 1888; Worthington, 1875). Up until the end of the 19th century women wore corsets to achieve a given feminine appearance. This technique was supplemented and superseded by different forms of fasting and body weight control (Habermas, 2005). For example, French schoolgirls in the 1880s took to the habit of drinking vinegar and restricting their food intake in a competition to achieve the smallest body size (Wallet, 1892). There is plentiful evidence dating back to the 19th century of a growing culture of dieting and weight concern, and in this sense it is plausible that some of the same pressures on young women today may have existed two centuries ago (Habermas, 2005).

Body Image Disturbance as a Diagnostic Criterion

Self-image and body image

The relationship between how an individual evaluates himself (self-image) and his body (body image) can at best be defined within loose terms. While body image can be considered a component of a person's self-image, the degree to which one's self-image is shaped by body image as opposed to other aspects of the self (such as perceived social, emotional and intellectual competence) might best be regarded as spanning a spectrum of individual differences.

The DSM-IV classification of anorexia nervosa highlights several specific features of body image, namely the level of satisfaction or contentment an individual holds towards his or her current body proportions (body image dissatisfaction) and distress at a perceived change in body proportions (weight phobia), discrepancies between actual and perceived

body size (body image disturbance), and the degree to which body image shapes self-image (APA, 2000). According to this classification, a person presenting with AN would be expected to exhibit pronounced body image dissatisfaction, a strong desire to further reduce body mass, considerable distress or fear at gaining weight, a distorted perception of actual body weight and size, and an overbearing influence of body image on the individual's wider self-concept. Watson, Raykos, Street, Fursland, and Nathan (2010), suggest that while healthy individuals base self-evaluation on performance in multiple domains, those with eating disorders focus their self-evaluation almost exclusively on perceived weight and shape.

Diagnostic limitations

A criticism of the DSM-IV classification, however, is the finding that many individuals exhibiting the symptomatology of AN fail to meet full diagnostic criteria and instead receive the diagnosis of *Eating Disorder Not Otherwise Specified* (ED-NOS) (Walsh & Sysko, 2009). Up to 60% of individuals with an eating disorder diagnosis fall into the ED-NOS category (Peebles, Wilson, & Lock, 2006). Notably, the ICD-10 further distinguishes an *atypical* presentation of anorexia nervosa, whereby individuals meet some but not all the criteria required for full diagnosis (World Health Organization, 1992).

Developmental cognitive variability has been identified as a potential barrier to diagnosing AN in adolescents (Bravender et al., 2007). Identifying the cognitive processes required for diagnosis of AN may be limited by the degree of neurocognitive maturation in adolescent patients, and as a result it has been recommended that behavioral indicators be considered, where necessary, in place of cognitive criteria when making diagnoses in young people (Bravender et al., 2010; Rosso, Yough, Femia, & Yurgelun-Todd, 2004). Specifically, the individual requires the capacity for complex abstract reasoning in order to assess the extent to which body image determines self-evaluation, and more broadly to evaluate and articulate internal experience and cognitive processes (Bravender et al., 2010).

The clinical evaluation of psychological symptomatology in young people presenting with AN is further hampered by a tendency for these individuals to deny or minimize their symptoms (Couturier & Lock, 2006; Viglione, Muratori, Maestro, Brunori, & Picchi, 2006). House, Eisler, and Micali (2008) found that the effectiveness of the eating disorder inventory most commonly employed to assess AN symptomatology in clinical and research settings produced a false-negative result 35% of adolescent anorexia patients.

Diagnostic and conceptual implications

While the above-described diagnostic limitations present a practical challenge to practitioners responsible for managing the care of anorexic patients, the implications of these findings could challenge the current classification of the disorder itself. The fact that a considerable proportion of those receiving an eating disorder diagnosis fall into the 'catch-all' category of ED-NOS may suggest that the current diagnostic criteria for AN are simply too stringent. In cases in which all but one of the criteria for anorexia are met, it would be interesting to establish which remaining criterion most commonly is absent, and specifically whether a sizeable group of individuals emerges presenting with AN in the absence of body image psychopathology. It should be noted, however, that similar criticisms have been lodged at the other diagnostic criteria. Namely, that individual differences in the rate and timing of the pubertal growth spurt and the onset of menarche in girls also pose a challenge when distinguishing between normal and pathological trends in development (Berkey, Gardner, Frazier, & Colditz, 2000). Essentially, there are multiple factors that might lead to the diagnosis of ED-NOS in place of AN.

While the apparent absence of body image psychopathology in some adolescent anorexics could be a consequence of neurocognitive underdevelopment, the question remains as to whether differential rates of neurocognitive maturation solely affect the ability to assess and articulate underlying cognitive processes or rather render such psychological processes impossible per se. Furthermore, it is also plausible that body image psychopathology, independent of neurocognitive development, is simply absent in a proportion of cases, and that disturbance in body image should not be deemed as the core underlying motive necessary for AN.

Epidemiological trends

In an extensive meta-analysis of previous epidemiological research, Lucas and colleagues (1999) found that the incidence rate of AN among adolescent girls appears to have been rising steadily in the Western world throughout the second half of the previous century. Furthermore, studies of the incidence of anorexia nervosa beyond the Western world have reported a dearth of cases (Abou-Saleh, Younis, & Karim, 1998). While there is a temptation to adopt these findings as compelling evidence for a culture-bound 'anorexia epidemic' among adolescent girls in modern Western society, the comparative analysis of incidence studies of AN both across history and geographical location pose numerous

logistical challenges, and due caution is needed when interpreting such research.

Firstly, given that incidence rate estimates are primarily based on the number of cases registered in inpatient (and occasionally outpatient) care, factors such as increased accessibility to health care, inpatient versus outpatient treatment strategies, and an improved recognition of the illness by clinicians, as well as more extensive record-keeping and documentation of the illness could all potentially contribute to an increase in the recorded rate of incidence over time and between geographical locations (Hoek & van Hoeken, 2003). A further challenge is presented by the discrepancies in diagnostic classifications over time and throughout the world. Research that excludes cases of AN that do not explicitly meet the current diagnostic criteria established in the DSM-IV may well observe increases in the rate of incidence but this could simply be a feature of their chosen methodological strategy rather than a reflection of any actual changes in incidence rates (Habermas, 2005). Even today, for example, two similar but different classifications are employed in the diagnosis of AN in different world regions. An individual who fails to meet the more stringent criteria set forth by the DSM-IV may still receive a diagnosis of *atypical* AN by the ICD-10 (APA, 2000; WHO, 1992).

While the aforementioned epidemiological research seem to support the phenomenon of AN as a distinctly modern disorder concentrated in Western society, these findings are by no means unanimous. Notably, Keel and Klump (2003, p. 749) report that "incidence rates differ more across studies than across time", and while AN is largely associated with Westernized civilizations, individual case studies from non-Western countries do exist (Quadan, 2009) and some cross-cultural research even suggests that the disorder exists in non-Western nations with an incidence rate comparable to that of the West (Hoek, van Harten, van Hoeken, & Susser, 1998). The picture is therefore far from clear with no obvious solution to what might best be described as an epidemiological conundrum; essentially, the introduction of body image disturbance as a criterion for modern-day AN could in turn have lead to the exclusion of cases in historical and geographical comparisons of the incidence rate of the disorder resulting in the misconception that some aspect of modern Western society has contributed to a growing tendency for young women to self-starve. Alternatively, it is just as possible that those suffering from AN today in Western society do indeed present with a disorder distinct from the cases reported in the 19th century and in non-Western regions. Unfortunately, it would appear that epidemiological

research is necessarily limited in shedding light on this paradox.

Role of the media in the etiology of the disorder

The secularist conceptualization of AN points to trends in modern Western society as being responsible for motivating extreme dieting and weight-concern. In particular, the media has been popularly cited as promoting an unrealistic aesthetic ideal of the young female body, resulting in an unhealthy preoccupation with body size (Derenne & Beresin, 2006). At its essence is the perception of being too large when at normal body weight, and it is this, which has been popularized as underlying the primary motivation for self-starvation (Habermas, 1996). Numerous studies reveal a shift in the media imagery used in magazines, films and television from the idealization of a voluptuous female figure in the 1960s to a progressively thinner ideal throughout the 70s, 80s and beyond (Garner, Garfinkel, Schwartz, & Thompson, 1980; Hesse-Biber, 1991; Wiseman, Gray, Mosimann, & Ahrens, 1992). In modern Western society individuals with a larger body size are ascribed negative personality attributes such as lack of self-control and laziness, and are found unattractive and sexually unappealing (Wiese, Wilson, Jones, & Neises, 1992; Spillman & Everington, 1989). Weight prejudice is already evident in early childhood and continues into adult life. By contrast, people who are thin are upheld as good, attractive, virtuous and self-disciplined (Harris & Smith, 1983).

Consensus that young women experience the most pressure to adhere to thin-ideals in Western culture, and the supposition that such body standards lead to disordered eating behaviors could explain why the disorder is particularly prevalent among adolescent girls, with female gender being the most prominent risk factor for AN (Lindberg & Hjern, 2003). However, research into the role of Western culture and the media in the etiology of AN has produced mixed findings. Firstly, if an ethnocentric conceptualization of the disorder holds true, it would be expected that incidence rates in non-Western societies be near non-existent. Although this has been supported in some cases (Abou-Saleh, Younis, & Karim, 1998; Soh, Touyz, & Surgenor, 2006), Hoeken and colleagues (1998) epidemiological study of Curaçao in the late 1980s, shows that even in a society where plumpness is socially valued, incidence rates remain comparable to those of Western epidemiological studies (Alberts et al., 1996). Given the aforementioned methodological weaknesses in obtaining incidence rates, apparent absence of AN cases in non-Western societies may be more indicative of limited availability of mental health care

and failure of physicians to recognize the disorder (Gordon, Perez, & Joiner, 2002).

That said, a recent study into the impact of the introduction of television in Fiji on disordered eating in adolescent girls does suggest that there is a link between exposure to Western ideals concerning physical appearance and weight dissatisfaction (Becker, Burwell, Gilman, Herzog, & Hamburg, 2002). Soh and colleagues, (2006) suggest that acculturation processes should be considered when interpreting cross-cultural incidence rates. It is plausible, for example, that acculturation processes arising from the close ties between Curaçao and the West (the Netherlands) underlie the findings in the aforementioned study by Hoeken and colleagues (1998).

Numerous experimental and correlational studies have been undertaken into the relationship between media exposure and eating disorders in adolescent girls in Western society. While almost all correlational research has been unanimous in establishing a positive association between media exposure and body dissatisfaction, experimental designs have been mixed in their findings (Grabe, Hyde, & Ward, 2008). Although it is plausible that exposure to media images idealizing specific body proportions could lead to weight concern, Posavac, Posavac, & Posavac (1998) found that the tendency to obsess about weight itself moderates sensitivity to thin-ideals and the degree to which one reacts following exposure to these ideals. Furthermore, with body dissatisfaction taking on normative proportions among adolescent girls in Western society, it is yet to be explained why only some girls go on to develop AN (Bearman, Presnell, Martinez, & Stice, 2006).

It would appear that rather than developing a preoccupation with body image as a result of media exposure to thin-ideals, young anorexic women seek out such images in order to feed a pre-existing tendency toward critical self-evaluation or perfectionism. Research into the relationship between perfectionism and eating disorder psychopathology has found that both the setting of high personal-standards and perceiving high expectations from others are associated with disturbed eating behaviors (Bardone-Cone, 2007). Furthermore, perfectionist traits among clinical patients with anorexia nervosa are found to be significantly more pronounced than in clinical controls (Cockell et al., 2002). The overvaluation of ideas, such as beliefs concerning weight and shape, has been identified as a potential mediator between perfectionism and clinically disordered eating in adolescent girls (Wade & Lowes, 2002).

Although at first impressions holy anorexia and secular anorexia represent distinct disorders

driven by dichotomous sociocultural etiologies, under closer examination ideological parallels seem to emerge as to the psychological motivation underlying each form of self-starvation. In each case the individual strives for what could be described as a socially constructed perception of perfection and purity, either in the form of spiritual or physical perfection. Rather than narrow-mindedly concentrating on body image disturbance as the core organizing factor motivating modern-day anorexia, a tendency toward perfectionistic self-evaluation could be the missing link in the continuity of a phenomenon that has spanned many centuries.

Conclusion

The question of how AN should best be conceptualized in modern-day society is clearly far from resolved. This review reveals a pattern of conflicting arguments representing both sides of the debate. While historical and epidemiological findings are arguably unsuccessful in providing a strong case for the conceptualization of AN as a culture-bound disorder of modern Western society, the pervasive influence of the media on body ideals and the associations found with body image dissatisfaction among adolescent girls make it difficult to dispel the notion that the modern-day anorexic stands apart from her medieval predecessors. While the psychological motives underlying the onset and maintenance of self-starvation should not be neglected, the practical difficulties in assessing such motives in the face of symptom-denial and individual differences in neurocognitive development should be borne in mind so that adolescents presenting with AN can be assessed and diagnosed effectively. One possible avenue for future investigation is the notion that numerous psychological motivations could underlie AN, and that different motivations might represent different manifestations of the disorder and in turn different sub-groups of patients. One potentially exciting development is the identification of perfectionism as a potentially 'universal' trait underlying the tendency toward the extreme self-discipline evident in both modern-day AN and medieval holy anorexia. Obviously, the way in which AN is construed and defined has significant implications not only at the point of diagnosis but also in its effective intervention. At this stage treatment is a difficult and ongoing process and sadly in a sizeable proportion of cases ultimately unsuccessful. It is therefore pertinent that efforts continue to further understanding into the socio-cultural and psychological etiologies at play in this serious and intractable eating disorder.

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