# Cultural trends and eating disorders

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**Purpose of review**
Culture has long been recognized as significant to the cause and expression of eating disorders. We reviewed the recent literature about recent trends in the occurrence of eating disorders in different cultures.

**Recent findings**
While historically, eating disorders were conceptualized as primarily afflicting Caucasian adolescent or young adult women within high-income, industrialized Western Europe and North America, eating disorders are increasingly documented in diverse countries and cultures worldwide. This study highlights recent trends that reflect the changing landscape of culture and eating disorders: stabilization of the incidence of anorexia nervosa and possibly lower incidence rates of bulimia nervosa in Caucasian North American and Northern European groups; increasing rates of eating disorders in Asia; increasing rates of eating disorders in the Arab region; and increasing rates of binge eating and bulimia nervosa in Hispanic and Black American minority groups in North America.

**Summary**
The changing face of eating disorders calls for a new conceptualization of culture in both the emergence and spread of eating disorders across the globe.

**Keywords**
anorexia nervosa, Asia, binge eating disorder, bulimia nervosa, culture, eating disorders, ethnicity, Middle East, sociocultural transition

## INTRODUCTION

Culture has consistently been recognized as an essential and significant factor in the cause, course and outcome of eating disorders. Indeed, eating disorders were initially envisaged as idioms of distress shaped by the unique cultural milieu in which they emerged [1]. When eating disorders were first described in Western Europe and North America, they were thought to be 'culture-bound syndromes' that were the result of particular features of these specific cultures. The emergence of eating disorders within the context of Western Europe and North America, and their presumed absence in non-Western cultures, contributed to the formulation that certain facets and characteristics of the 'Western' culture must be uniquely responsible for the development and rise of these psychopathologies. Accordingly then, when eating disorders began to emerge in certain non-Western countries, their appearance was taken as evidence of this new society's adoption and endorsement of Western values, practices, and ideals that were thought to be associated with eating disorder onset. In short, the 'Westernization' thesis was grounded in the assumption that increasing exposure to and interaction with the West – and thus, 'Western culture' – resulted in the transmission of eating disorders to non-Western populations.

In this study, we highlight trends that have been documented within the past few years regarding eating disorders across cultures. First, we review recent epidemiological findings on anorexia nervosa and bulimia nervosa in Western Europe and North America. Then we highlight a growing body of data on the emergence and increase in eating disorders among certain other cultures globally. The emerging data highlight cultural trends related to eating disorders in Asia and the Arab region, as well as among Latina and Black American groups within North America – groups in which eating disorders

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## KEY POINTS

- In Western Europe and North America, the overall incidence of anorexia nervosa seems to be relatively stable over the past decade, whereas there are some indications that bulimia nervosa may be decreasing among non-Latino, Caucasian women.
- Eating disorders appear to be increasing in Asian countries in concert with increasing industrialization, urbanization, and globalization.
- Eating disorders appear to be increasing in the Arab region also in concert with increasing industrialization, urbanization, and globalization.
- Eating disorders are increasing among ethnic minority groups in North America.

were previously thought to be absent or extremely limited. Collectively, these trends challenge prior assumptions and provide direction in terms of updating our framework for understanding sociocultural factors and the development of eating disorders.

### Western Europe and North America

Recent evidence suggests that rates of anorexia nervosa have remained relatively stable over the past decade in Western countries on the whole. In summarizing extant data [2–4], a 2012 meta-analysis concluded that the incidence of anorexia nervosa among northern European countries was on the rise until the 1970s, after which time the incidence of anorexia nervosa appears to have plateaued [4,5▪]. Running counter to this overall trend, however, incidence rates of anorexia nervosa among girls aged 15–19 have increased in the recent years. Young women in this age range represent a segment of the population that is particularly vulnerable to developing eating disorders, as is made evident by the fact that approximately 40% of all cases of anorexia nervosa are first identified in individuals between 15 and 19 years of age [2]. Significantly, Smink *et al.* [4] were careful to note in their meta-analysis that it is unclear whether this increase is attributable to growing awareness about eating disorders on the part of parents, schools, physicians, and coaches, which in turn would result in earlier detection of anorexia nervosa cases, or conversely, if this rise reflects an earlier age of onset for eating disorders among young women in Western countries. Additional studies tend to support the latter theory; however, the data are limited [6–9].

With regards to bulimia nervosa, the same 2012 meta-analysis indicates that bulimia nervosa may have become less common over the recent decade [4]. However, we should highlight two cautions in this regard. First, much of the data supporting this declining trend in the incidence of bulimia nervosa is limited to studies involving US female student populations [10–12], and therefore, we need to consider that other trends may be occurring in other segments of the population. For example, a 2011 study that assessed bulimia nervosa prevalence among different ethnic groups within the United States determined that bulimia nervosa was more common among African-Americans and Latinos as compared to their non-Latino Caucasian counterparts, with lifetime prevalence rates ranging from a reported 0.51% among non-Latino Caucasians to 2.0% among Latinos [13].

An additional consideration regarding incidence and prevalence estimates for anorexia nervosa and bulimia nervosa is the fact that Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5) diagnostic criteria have been modified in ways that expand clinical case status for both anorexia nervosa and bulimia nervosa [14▪,15▪]. Specifically, the removal of the diagnostic criterion of amenorrhea in anorexia nervosa and the lowered threshold for binge and purge frequency to an average of once per week for bulimia nervosa will result in increased rates of eating disorders [5▪,16–19].

### Eating disorders in Asia

Although one can speak of the 'rise of eating disorders in Asia' broadly, a closer look quickly reveals that the story of eating disorders in Asia is not a singular narrative, but rather, a compilation of many smaller, distinctive stories [20]. Early reports of eating disorders in Asian countries generally emerged around the time that a country's growth and pace of development kicked into high gear, effectively accelerating the processes of industrialization, urbanization, and modernization. Thus, from an overarching perspective, the Asian experience helps to solidify the paradigmatic link between a 'culture in transition' in terms of economic development and industrialization and the emergence of eating disorders [21,22].

Eating disorders first appeared in Japan in the 1970s [23], and a short time thereafter, were documented in other rapidly industrializing Asian countries such as Hong Kong [24], Malaysia [25,26], and South Korea [27,28]. Meanwhile, less economically developed Asian countries, including China, Taiwan, Thailand, and other areas of Southeast Asia, did not report cases of eating disorders until the late 1990s and the first decade of the 21st Century, as their societies too began to industrialize and globalize [29,30].

In the case of Japan, rates of eating disorders rose consistently throughout the 1980s and 1990s until they were at par with estimates from the Western countries. Data from the past few years, however, suggest that the incidence and prevalence of eating disorders in Japan has since leveled off, much like it has in many Western countries [23]. As data emerge from other Asian countries, it appears that eating disorders are becoming more widespread; however, available epidemiological data for most Asian countries still yield lower prevalence estimates as compared to the West [28,31–38]. One exception to the generally lower rates of eating disorders in Asia is China. A recent large study of female university students in China reported prevalence rates at a par with those reported in age-matched Western samples [39▪▪]. Moreover, a 2013 analysis of trends in BMI by sex among adolescents aged 17–18 years found that between 2004 and 2011, there was a substantial increase in the prevalence of underweight among girls born after 1991 in China. This increase was positively associated with socioeconomic status and is in contrast to overall rising population weight, suggesting possible increases in body image and weight concerns among this group, which in turn, increase risk for eating disorders [40▪].

Across Asia, recent studies indicate that factors associated with increased risk for eating disorders, such as body dissatisfaction and dieting, as well as negative weight perception, have continued to grow more widespread [30,41–48]. In fact, there is some evidence to suggest that levels of body dissatisfaction and disturbed eating behaviors in certain Asian groups, such as Singaporean and South Korean women, may not only rival levels reported in the West, but exceed them [42,49–51]. A growing body of evidence also suggests that eating disorders and antecedent risk factors continue to rise among Asian men, and that Asian men may be more vulnerable to eating and weight disturbances relative to men in the West [25,47,52–55]. Nonetheless, as is the case in the West, eating disorders and their antecedent factors remain less common among men in Asia than in women [56,57].

## Eating disorders in the Arab region

Consistent with the 'culture-in-transition' model of eating disorders, recent data from the Arab region indicate that eating disorders are on the rise. As with most mental health research from this region of the world, data are relatively limited and unevenly distributed among the numerous countries that comprise the Arab region. Furthermore, existing research on eating disorders until recently consisted primarily of case reports and studies of antecedent causes of eating disorders such as body dissatisfaction and dieting behaviors, as opposed to larger population-based surveys or epidemiological data. Recent publications indicate that interest and research on the topic is rapidly increasing [58].

Eating disorders were first reported in Egypt as far back as the 1980s [59–62]. Geographically at the interface of the Middle East and South Asia, Pakistan joined Egypt as one of the first countries in the region to report data on eating disorders. In Pakistan, cases began being documented in the mid-1980s [63] with several studies conducted primarily with schoolgirls in Lahore and Mirpur. Perhaps unsurprisingly, both these countries are also countries that have historically had closer ties to the West and have had policies that are conducive to academic scholarship and research.

In the case of Pakistan, it is noteworthy that studies indicate that the thin ideal is relatively widespread and that rates of body dissatisfaction, weight misperception, and dieting practices have increased, as have subclinical and clinical cases of eating disorders [64–66]. A study conducted among secondary school girls in Egypt also found increasing evidence for rising rates of disordered eating attitudes and behaviors [67,68].

In general, studies from a range of Arab Middle Eastern countries are consistent with those from both Pakistan and Egypt, similarly demonstrating widespread 'thin ideal' internalization and increasing rates of body dissatisfaction and dieting practices [69,70,71▪▪,72]. In the United Arab Emirates [73], Oman [74], Lebanon [75,76], Kuwait [77] and Iran [78], recent studies reveal increases in both subthreshold and clinical eating disorders. Evidence suggests that eating disorders are also on the rise in Jordan among adolescent girls; for instance, Mousa *et al.* [79] studied girls between the age of 10 and 16 years old and reported that one-third of the participants had significant eating abnormality, with prevalence estimates of 0.6% for bulimia nervosa, 1.8% for binge eating disorder (BED), and 31% for eating disorder not otherwise specified (EDNOS). It is notable that the study did not find any cases of anorexia nervosa. Meanwhile, research from Oman indicates growing levels of fat phobia and inclinations towards excessive dieting among Omani adolescents [74].

Similar to Asia, it appears that in the Arab region, a greater number of men appear to report eating and weight concerns compared to the Western men. For example, studies from the UAE suggest that body dissatisfaction is not uncommon among male adolescents [73]. In 2012, Najam and Ashfaq [70] investigated physical fitness participation, body shape satisfaction and body figure preferences among men and women, with results running

counter to their expected hypothesis that sex differences would be found on all measures. Instead, only modest sex differences were found in relation to body shape concerns, with women displaying higher discrepancies between ideal and actual weight and thus, more weight dissatisfaction. Interestingly enough, the first case of anorexia nervosa documented in Iraq was diagnosed in a 14-year-old adolescent male, who was highly restrictive and displayed a clinical presentation similar to that seen in the West [80].

In summary, the tendencies that predispose both males and females to developing an eating disorder, namely unhealthy dieting practices, restrictive eating, body preferences rooted in the 'thin ideal', body weight and body shape dissatisfaction, and weight misperception, are increasing in many parts of the Arab region. Furthermore, evidence from some countries is also indicative of an increase in subclinical and clinical eating disorders, though larger studies with diverse populations are still needed. Consistent with patterns seen in the West, adolescent and young females in Asia and Arab countries are at greatest risk for eating disorders, particularly as the 'thin ideal' becomes more pervasive within a culture and body ideals shift to reflect this trend. Preliminary data suggest a potentially greater susceptibility to eating disorders among adolescent and young males in these regions, relative to their Western male counterparts, but more research is needed.

## A more diverse picture of eating disorders is emerging in North America

The demographics of individuals presenting with eating disorders in recent years has not only shifted to new parts of the globe, but is also changing within Western, high-income countries where eating disorders were first described. In the United States, evidence from recent years suggests that ethnic and racial minority groups are increasingly at risk of developing eating disorders and the rate of clinical eating disorders within these segments of the population is rising.

A 2011 study, which was the first to directly compare 12-month and lifetime prevalence of eating disorders across ethnic and racial minority groups within the United States, found comparable rates of eating disorders among Latino, Black American, and non-Latino Caucasian groups [13]. What is more, this study also indicated that rates of bulimia nervosa – especially among men – may in fact be significantly higher among both Latinos and African Americans as compared to their Caucasian counterparts. In addition to elevated rates of bulimia nervosa, a 2012 study analyzed 11 completed randomized controlled BED trials and determined that African American participants had higher mean BMIs than did Caucasian participants; meanwhile, Hispanic participants had significantly higher eating disorder examination (EDE) shape, weight and eating concerns than Caucasian participants. Interestingly, however, none of the groups differed significantly in terms of the frequency of binge-eating episodes [81].

In general, much of the literature on eating disorders among both African American and Hispanic American populations focuses on binge-eating and consequently, bulimia nervosa and BED, as opposed to anorexia nervosa, which is thought to remain relatively rare among both demographics [82,83▪]. Given that the Hispanic population is the fastest growing ethnic minority group in the United States, it is particularly important to examine what contributes to the changing risk. To the extent that Latina, and African American women, trade traditional beauty ideals characterized by a more curvaceous figure with the 'thin ideal' popularized by mainstream Caucasian society, it is likely that risk for eating disorders will continue to increase accordingly. A 2013 review of eating disorders among the Latina population in the United States suggests that whereas Latinas are similar to white European American women in several areas, including risk factors, clinical presentation, symptomatology and psychopathology, as well as prevalence of eating disorders, there is a marked difference in the patterns of reporting disturbed eating and dieting practices among Latina women [83▪]. Specifically, Latinas less frequently report dieting and dietary restriction and are less likely to seek treatment for an eating disorder. At the same time, Latina women face a greater chance of being obese than their Caucasian counterparts [83▪].

Black American women report higher body satisfaction compared to Caucasian American women [84], and women who report strong cultural identification with African American or Black Caribbean culture also report a preference for a larger body ideal [85,86]. Although the larger body ideal appears to be associated with higher body satisfaction and lower rates of anorexia nervosa than the non-Hispanic Caucasian population, the Black American population reports high rates of overweight/obesity, and elevated rates of BED [87▪]. These data are consistent with data from the Caribbean island of Curaçao (Netherlands Antilles), where no cases of anorexia nervosa were found among the majority (79%) Black population, but rates of anorexia nervosa and bulimia nervosa among the minority mixed and white population were similar to those in the Netherlands and in the United States [88].

### What these trends suggest for culture and eating disorders

As cultures progress along the economic development continuum, a familiar pattern appears whereby transitions in industrialization and urbanization unfold within the broader context of globalization [89]. As populations flock to growing city centers in pursuit of industrial, manufacturing, and service jobs, they adopt a more sedentary lifestyle and a striking nutrition transition occurs as food becomes more readily available and accessible. The shift in food supply results in a surge of packaged and processed foods that are highly palatable, but of lesser nutritive value [90]. With regards to diet, the effect of these processes unfolding concurrently is that Western foods, which are high in fat and sugar content, flood the food supply in these developing countries. Perhaps the most conspicuous manifestation of this transition is the arrival and spread of Western fast food chains throughout industrializing countries. The end result of this diet transformation is a spike in population BMIs and lifestyle-related diseases [91,92], and relatedly, an increase in eating pathology and eating disorders [93–95].

In addition to diet and lifestyle, other fundamental domains of life are upended and vastly altered by the processes of change unfolding in 'cultures in transition'. Some of the most significant changes involve shifting sex roles and the adoption of new beauty and body ideals among both men and women [96,97]. Again, the footprint of globalization is evident during this phase, as global fashion and beauty brands infiltrate developing countries' burgeoning consumer market, bringing with them Western images of beauty and the pervasive 'thin' ideal [97,98]. Yet, although it may be tempting, and perhaps understandable, to herald the arrival of McDonalds and designer brands across the developing world as evidence of 'westernization', it is in fact, a far more complex societal transformation stemming from the multifold processes of industrialization, urbanization, modernization, and globalization [89,98]. Given the consistent patterns globally, it is likely that many of the factors attributed to 'westernization' are more accurately attributable to the phenomena of industrialization, urbanization and modernization, which appear 'western' simply because these transitions occurred first in Western Europe and North America. Additionally, once western products and images are introduced to fast-developing societies, they do not subsume local culture, but rather are fused with it, producing a unique hybrid that cannot be adequately accounted for simply by 'westernization'. These processes of change, together with the amalgamation of global beauty images of 'thinness' and fast food culture, occur distinctly and unevenly across different cultures. This in turn uniquely influences the emergence and spread of eating disorders within different cultural contexts – an outcome evidenced by the variable prevalence rates of both clinical eating disorders and antecedent factors such as body dissatisfaction and dieting.

## CONCLUSION

Eating disorders are now documented on each major continent; however, prevalence data from large population-based studies remain limited, and in some countries, virtually nonexistent. Even where eating disorders are well established, population-based epidemiology studies are limited. Importantly, it must be emphasized that much of the research conducted in non-western countries – including prevalence studies – typically involves samples of young, urban females, and to a lesser extent, sex-mixed adolescent and university samples. Consequently, rates of eating disorders in more rural parts of the developing world and among less represented segments of the society (e.g. nonurban, lower levels of formal education) remain relatively unknown. Furthermore, within any one particular country, there exists variability in eating disorder prevalence rates and considerable heterogeneity across the landscape of eating disorders as well. Specifically, in North America and Western Europe, it appears that the prevalence of anorexia nervosa is relatively stable, whereas the prevalence of bulimia nervosa may be decreasing among Caucasian groups, but increasing among Black American and Latina groups in North America. In addition, it appears that eating disorders are increasing among individuals from an expanding range of cultural and ethnic/racial backgrounds across Asia and the Arab region [58,99].

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### Conflicts of interest

*There are no conflicts of interest.*

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