14 Eating Disorders

Margarita Sáenz-Herrero, Sara Fuertes-Soriano, and Mayte López-Atanes

> *Chewing on something that felt so real, but couldn't have been, it couldn't. My face, the look in my eyes… my face, undoubtedly, but never seen before. Or no, not mine, but so familiar… nothing makes sense. Familiar and yet not… that vivid, strange, horribly uncanny feeling.*
>
> Han Kang, The Vegetarian

Abstract

Eating disorders are highly important and affect women more frequently. This is because of their clinical severity, comorbidities and increasing prevalence as well as their social repercussions. It is impossible to deny that eating disorders are multidetermined conditions. Most of those who treat or research them are reconciled to the need to approach them broadly and flexibly. Implicating genetic factors in a disorder like anorexia or bulimia nervosa is sensitive, and the potential for misunderstanding and misuse of gender theoretical concepts is very real. Psychiatry has a long, unfortunate history of misconstructing and pathologising female behaviour. Only recently there has been broader theoretical appreciation of the power of gender differences in self-development and the adverse effects of stereotyping children too rigidly by sex or gender. The objective is to highlight a multidimensional model for the explanation of eating disorders. However, this tends to omit the crucial dimension of culture, which includes the gender perspective.

M. Sáenz-Herrero (✉)
University of the Basque Country, UPV/EHU, Leioa, Spain

Cruces University Hospital, Barakaldo, Spain
e-mail: margarita.saenzherrero@osakidetza.eus

S. Fuertes-Soriano · M. López-Atanes
Cruces University Hospital, Barakaldo, Spain
e-mail: sara.fuertessoriano@osakidetza.eus; mayte.lopezatanes@osakidetza.eus

© Springer Nature Switzerland AG 2019
M. Sáenz-Herrero (ed.), *Psychopathology in Women*,
https://doi.org/10.1007/978-3-030-15179-9_14

14.1 Introduction

Hunger and appetite are bound together in the history of the world. Eating behaviour communicates socially through the symbolic meaning that transcends the act of ingesting. From birth, we are prone to seeking relationships with others while simultaneously satisfying our hunger instinct. The body is the means of experiencing the world and it forms part of all our learning. Through our eating, we relate to the world. We see the world from our body, and so the psychopathology of our eating behaviour is closely linked to the psychopathology of our body image. Neuroscience has reached the same conclusions through its different methodology toward phenomenology, psychiatric anthropology and philosophy. Mind, body and world interact in the way the individual adapts and survives. Identity is constituted around the physical body and the way we develop a feeling for what our body is like, as sensed by ourselves and as visible to others. This is very different for women and men. We require a relationship between body and culture with a gender perspective. Anorexia nervosa as a psychopathological condition that accords with our current criteria was first described in the nineteenth century, although Richard Morton noted it two centuries earlier. Bulimia nervosa as a clinical condition is much more recent, Gerald Russell having first described it in 1970s. Both pathologies are characterised by abnormalities in eating behaviour and the need to control weight. This causes physical consequences and/or alteration of the individual's psychosocial functioning. The psychopathology that is most frequent in a clinical setting is anorexia nervosa (the restriction of food with considerable weight loss as well as body distortion and extreme fear of fatness) and bulimia nervosa (bingeing episodes and compensatory behaviours such as vomiting as well as fear of gaining weight). Pica, rumination and sitiophobia are rarer. The incidence of binge eating disorder and obesity is increasing to pandemic proportions. There appears to be a connection with the cult of the body in Western society and the number of people on a diet, especially females. Both are diagnosed in the *Diagnostic and Statistical Manual of Mental Disorders*, DSM-5.

14.2 Conceptual Aspects: Hunger and Appetite

Feeding constitutes a means of communication with the rest. Roland Barthes stated this in *Pour une psycho-sociologie contemporaine,* where he demonstrated the individual symbolic relationship maintained with everything involved in the de facto of nutrition [1].

Feeding has conditioned the evolutionary course of history. *Der Mensch ist, was er isst* (man is what he eats). Human feeding is one of the basics of culture. However, feeding is not only eating. Food and the act of eating not only involve nutrition; they are also associated with multiple and various existential circumstances. "You are what you eat" cannot be distinguished from "you eat what you are".

The primitive relationship between women and men with food is related to the physiological sensation of hunger. Hunger, rather than appetite, is a biological need. It can

cause an individual to die. In today's world, over 10%—or 800 million—of the world's population are starving. Hunger is a danger; it limits our existence biologically [2].

Hunger is described as the need for food as a physiological alarm. It is the urge to eat an amount of food to survive. Appetite is understood in a different way. It implies the preference or qualitative selection of what we are going to eat [3]. The difference is obvious: while hunger implies the urge, appetite is linked to the culture, society and customs in which it is immersed [4].

From birth, eating is a social act. When the mother breastfeeds the baby, she also speaks, looks at her/him and smiles at her/him. Breastfeeding serves as a bond and communication between them. The baby is designed to seek the relationship. There is a predisposition toward the relationship from birth. The neurologist Damasio saw this as a corporal disposition. Children up to 6 or 7 years old are asked what a mother is: for feeding us. In French, *mam-mam* means at the same time "eating" and "mother" [5].

This is hunger as a vital feeling. In *The Life of Hunger*, Amélie Nothomb stated: "hunger is me".

"By hunger, I mean the terrible lack within the whole being, the gnawing void, the aspiration not so much to utopian plenitude as to simple reality: where there is nothing I beg for there to be something".

In the same way, food might be sad, exquisite nourishment that can be refused and even vomited in a conflicting or lived situation that threatens the individual. In a social psychology experiment, university students on campus were fed minced meat steak and then told that it had gone off and that the infirmary would be open all night long. A significant percentage visited the infirmary showing typical symptoms of food poisoning.

The same happens with religious taboos. Mohamed, a 9-year-old boy who had recently arrived from Iran, was given pork by mistake at a Parisian school. Instantaneously, he ate it with pleasure. However, when informed of the mistake made by the canteen, with Islam prohibiting pork, the boy vomited the whole afternoon and needed to be taken home [6]. What was said had activated an area in the brain, and when this reacted, it activated digestive motricity. This experiment was performed using students on a university campus, adding caffeine to their milk and offering them caffeine-free coffee, which significantly altered the hours slept by the group who took the coffee without caffeine [5].

We should not forget that there is nothing more threatening and intimidating than introducing something alien into the body. This happens every time we eat, when we use the mouth for nutrients to transact [7, 8]. By contrast, nourishment can be exquisite in satisfying situations.

The same happens in a religious sense. In Hebrew to eat is *A'hol*, which literally means unity-total. "Assimilate nutrients", do the same to yourself. Eating for Hebrews is to make a piece of the world a piece of oneself, a piece of God. In the case of Christians, it is the opposite. It is the piece of the world, a piece of God that will become a piece of myself. "Take this, all of you and eat of it: for this is my body" [5].

Eating means coming into this world with your hands. Eating means knowing in which world you are living. When you make yourself the nourishment, in a way,

you organise the world; you make it coherent. The one who eats calms the anger against the world and her/himself while digesting the world of which she/he is part.

The nourishment role is very diverse in different cultures and so is the social meaning linked to feeding and the ingestion of food. To Western societies like ours, food is basically what we find on our plates. Nowadays, we consume food that has been packaged in plastic and is decontextualized. There is no story behind it, where it comes from, who has made it, its symbolic value and its meaning.

In Papua New Guinea, food is considered to have a "vital essence" known as *un*. This is fundamental for the development and health of the members of that society. Moreover, vital essence is not only within one's body; it is also in the objects with which one makes any kind of contact, including food. One can acquire the properties of the person consuming the dishes that another person prepares ("you are what you eat"). Based on this principle, cannibalism is a common practice in these tribes. They eat their parents once they pass away, incorporating their virtues and abilities.

In the Hindi religion in India, food is shared in an intimate act of class-conscious solidarity. If someone belongs to a lower caste, she or he is rejected.

In a study, Baas et al. numbered the varied uses of food within societies and hence the different meanings that may be attributed to it [9, 10] (Table 14.1).

Food and sexuality are widely related in colloquial language and slang, as in words and phrases like "juicy", "melons" and "forbidden fruit", together with the cherry and its associations related to virginity. "Getting your greens" refers not only to adequate consumption of vegetables but also a regular supply of sexual intercourse.

Table 14.1 The varied uses of food within societies and hence the different meanings

1. To satisfy hunger and nourish the body
2. To start and maintain personal and business relationships
3. To prove the extension and nature of social relationships
4. To give chances for developing community activities
5. To express love and affection
6. To express individuality
7. To announce the difference in the group
8. To prove group belonging
9. To face psychological and emotional stress
10. To indicate social status
11. For rewards and punishments
12. To reinforce self-esteem and merit social recognition
13. To practise political and economic force
14. To prevent, diagnose and treat physical illnesses
15. To prevent, diagnose and treat mental disorders
16. To symbolise emotional experiences
17. To manifest piety and devotion
18. To display confidence
19. To express moral feelings
20. To indicate wealth

If eating can, and usually does, take on multiple meanings beyond merely nutritional aspects, the same may be said about a failure to eat or, more accurately, to eat "nothing". As with the first suffragettes whose hunger strikes had a political component, they refused the world they had found themselves living in. With regard to hunger as an ideology, Susan Bordo analysed the differences displayed by men and women when they were represented eating. A woman's appetite requires continence and control, while a man's appetite is legitimate and stimulated. "The man-eater" is seen as a dangerous image of female desire, "the temptress". These provocative bodies, "bodies that can talk", have enabled them to be viewed culturally as being responsible for the aggressive and sexual bodily responses of men. In industrialised societies, discipline, control and the creation of "docile bodies" are a reality for women who receive greater gratification in nourishing and feeding others than themselves. This underlines the gender divide of power: male public space and private female space.

In practice, there are no social or cultural groups without collective prohibitions with regard to the intake of certain foods. These are solidly established food taboos [11]. In fact, the principal taboos of our culture refer to food and sexuality: cannibalism and incest.

Anthropophagy or cannibalism was the most important consequence when the *Australopithecus* changed to a carnivorous diet. Both then and at any other time in history, cannibalism has appeared in its different forms [12].

Many people became cannibals because they lacked the proteins in meat and had no other way of finding them. Thus, the aborigines of Polynesia and Australia were habitual practitioners of anthropophagy until Captain James Cook introduced the pig into these lands. Cook himself fell victim to these practices when he was murdered and devoured by his enemies, who believed they would acquire the manna or extraordinary powers they attributed to the explorer.

In the sixteenth century, Sawney Bean, a highwayman in Angus (Scotland), held up travellers, killed them and ate them in his cave. Years later, his own daughter was burned alive on a bonfire when it was discovered that she had adopted the same practice. Both, the search for new food and hunger, have been highly important in the development and dissemination of cannibalism. One example comes from Germany during the Thirty Years' War (1618–1648), and a recent one is the tragedy experienced by the survivors of a plane crash in the Andes in the 1960s.

Art has never been far removed from this type of practice either. We only need to take a look at the Goya's Black Paintings. The artist's inimitable style leads us to anthropophagy in his oil painting *Saturn Devouring His Son*.

14.3 Historical and Social Perspective of Eating Behaviour

Historically, food has been closely linked to status and social prestige. The way we eat is a means of affirming and acquiring prestige with regard to others. The desire for social advancement has been a powerful driving force in the transformation of eating [10]. This manifests itself basically through the adoption of foods, dishes and

table manners inspired by those of a social stratum considered to be superior and for whom the aim was to equal or imitate. “I eat, therefore I am”, Miguel de Unamuno said in an interesting prologue to the work by the biologist and philosopher, Ramón Turró, *Origins of Knowledge: Hunger* (1945).

14.3.1 Primitive Societies

The first references to body image date back to the Palaeolithic era, 30,000–20,000 BC. This was demonstrated by the discovery of the Venus of Willendorf, a statuette of a woman symbolising fertility in a village on the banks of the Danube. Currently on show at the Vienna natural history museum, it is the image of a prehistoric woman.

Over all the cultures, the representation of the female body has been significantly larger in size than its male counterpart. In Palaeolithic representations, female characteristics are unmistakeable: adiposity of the torso, large buttocks and huge breasts, all of which underline the role of fertility and nutrition as a symbol of elevated social status.

It is unknown, however, whether the archaeological Venuses are faithful representations tailored to the reality of what was observed or are an artistic and idealised vision that symbolises the desire for abundance and fertility, particularly in a period of the history of humankind when hunger was a threat to human life.

Ford and Beach [13] studied 190 tribal societies and, as was observed in the Palaeolithic figures, found in virtually all of them that obese women were considered more beautiful than thin ones due to their greater procreative and feeding capacity. On the other hand, men’s attractiveness lay more in their skills and social standing.

Prehistoric sculpture representing the female prototype usually symbolises female fecundity together with birth-giving and breastfeeding capacity. This was also contained in myths like Hera’s drop of milk that gave rise to the Milky Way while she was suckling Hercules.

A large woman’s body symbolised prosperity and luxury. It even suggested an abundant harvest. Both of these were necessary for group survival. Thinness signified sterility and penury. At a time of frequent famines, thinness was considered as a messenger of death [14]. This evaluation of the physical attributes of females has never occurred in the animal kingdom, where the males possessing greater size and brighter colours (as well as other characteristics) are the ones to conduct courtship.

14.3.2 From the Classical World to the Eighteenth Century

In Classical Greece, the attractiveness of the male body took precedence over that of the female. The cult of the male form, including being in good physical condition within the broader context of understanding the body-mind duality in this culture, represents a very different viewpoint from the subsequent concepts defended by Christianity [8].

In Ancient Greek, the word *limos* means "hunger". On adding the word *bou*, which means "a large amount", or *boul*, which means "ox", the resulting term may be translated as "voracious hunger" or "ravenous hunger".

In 970 BC, Xenophon, in the *Anabasis*, described for the first time in Western culture what we now see as bulimic practices. This referred to the eating habits of some Greek soldiers who withdrew to the mountains of Asia Minor after mounting a campaign against Artaxerxes. It is interesting to note that these soldiers received only scant food rations [15]. Hippocrates distinguished *boulimos*, unhealthy hunger, from ordinary hunger. Aristophanes also used the same term in its meaning of "ravenous hunger".

For the Greeks, the measurement of beauty was the aureal proportion, a practical application of their cult of balance. Hippocrates defines in his work the functioning of the body according to physical elements and bodily humours. Health was synonymous with a state where there is proper balance between the humours, while illness appeared as an imbalance in the interaction between them. The female body is considered weaker and more prone to illness.

In the history of psychiatry, the pathological condition of the female body is a constant. For Greeks, hysteria is a word that means "uterus". Plato in his text *Timaeus* (which has entered Western medical tradition through Galen and the Hippocratic writers) asserted that:

> …. the matrix or womb in women, which is a living creature within them which longs to bear children. And if it is left unfertilized long beyond the normal time, it causes extreme unrest, strays about the body, blocks the channels of the breath and causes in consequences acute distress and disorders of all kinds. If it is not "appeased by passion and love" the womb moved from its natural position within the body and, attaching itself to soft internal tissues, gave rise to a wide variety of symptomatic disturbances. (Plato 1955, p. 123)

Hippocrates identified the relevance for health of such factors as dietary restraint, an increase in exercise and a reduction in sleep. Hippocrates was the first to indicate the risk to health of obesity, which he associated with the existence of menstrual changes and infertility in women. He explained infertility as a consequence of the fat accumulated in obese people, hindering intercourse and closing the mouth of the womb. Hippocrates saw the therapeutic rules for combating obesity as having a tough job, sleeping in a hard bed, eating only once a day and preferably food with a high fat content (in order to be satiated quickly) and walking naked as much as possible. More specifically, food needed to be taken soon after a hard day's work when the body was still tired and one had difficulty breathing.

Ancient Rome disagreed with Classical Greece in most of its body aesthetic criteria. The Romans were more interested in the peculiarities of faces and people [8]. However, they produced a culture that valued thinness or at least tended to avoid excess of weight. As they enjoyed copious banquets, they used vomit as a means of regulating weight. Both bingeing and vomiting were socially accepted and therefore were integrated into their culture, especially in the middle and upper classes. Roman banquets could include over 20 courses. Whenever the stomach of the diners was full, they went to an adjoining room, the *vomitorium*, where vomiting enabled them

to recommence their blowout. In his treatise on morality, *Dialogi*, Seneca writes in *De Consolatione ad Helviam* about Roman practices: "Vomunt ut edant, edunt ut vomant" (they vomit to eat and they eat to vomit).

Moreover, a woman was appreciated fundamentally for her role as mother in which she was obliged to present many children to a state which needed them to ensure its survival against the continuous threat of the intrigues of its enemies [16]. In return, this led some women to rebel against their fate, as was denounced in the writings of the philosopher Favorinus: "not only do they refuse to breastfeed their children but they resort to a thousand tricks to avoid becoming mothers". Metrodora, a female physician of Greek origin who practised in the Rome of the first century, wrote a treatise on female illnesses. In her chapter devoted to young women, she described *sitergia*, a Greek term literally means rejection of food.

Medieval cooking stems from a reaction to the banquets and abuse of wine that characterised the final days of the Roman Empire. Just like the Egyptian hermits and anchorites who barely ate enough to stay alive, the early Christians and some mystics interpreted food restraint from the religious viewpoint and practised fasting as a penance (intensification of prayer, rejection of the world) and as a means of reaching the highest, purest spiritual state. "An emaciated body will pass more easily through the narrow gate of paradise; a light body will resurrect more quickly and a consumed body will be better preserved in the tomb" (Tertullian). Religious asceticism constituted a means of being above bodily needs and reaching a "pure" spiritual state.

In the Middle Ages, the reproductive woman and her figure were the predominant value on the aesthetic scale. The female body had to denote corpulence, with a rounded belly as the symbol of fertility. It is significant that the ruling aristocracy then was generically called *popolo grasso* (plump people), while the working classes are recognised as *popolo magro* (thin people) [10].

The appreciation of fatness implied the rejection of thinness, that is, a flight from hunger, illness and poverty. The body and its functions were not hidden; everything was natural. It was possible even to defecate or have sexual intercourse in public without creating a scandal or a commotion [17].

For its part, Christian doctrine viewed the body as weak and sinful, requiring of strict control and regulation by the mind. Ascesis was the path that led to perfection. Flesh needed to be overcome; the spirit had to triumph. Fasting was the ideal way to achieve this. Religious demands existed so that women would detest their bodies. The less their flesh was consented to, the holier they were. In this way, many women from comfortable classes left their homes and families for religious life rather than marriage, the only way out for a woman; the convent also offered them the chance to receive an education which otherwise would have been impossible. We should remember that these were patriarchal societies where women were second-class citizens. At the Council of Trent in 1563, the Inquisition established guidelines to be followed by women whose bodies did not belong to them. If they were virgins, they belonged to God who could call on them, and, if not, they belonged to their husbands. If they were possessed, they belonged to the devil and were persecuted and tortured; at prior councils such as Nicea, it was discussed whether women had souls.

Indeed, fasting was a symbol of medieval ascesis. But while monks fasted to purify their bodies and strengthen themselves before the temptations of the

outside world, women sought the liberation of their own bodies, which were considered in Christian thought as the true origin of sin. We should not forget that Christianity blamed original sin on Eve; she was the one to offer the apple to Adam, whose weakness was to accept it. Eve's original sin was in herself, while for Adam sin was positioned in the outside world. It was in this context where "holy anorexia" (anorexia suffered by following God), appears, as noted by Rudolph Bell, a history professor at the University of Rutgers [18]. Bell reviewed the biographies of over 261 Italian nuns from the thirteenth century to the present day and found that many may have suffered anorexia nervosa. One was St. Liberata (St. Wilgefortis, a name that comes from Latin and means "strong virgin"). She challenged her father, the King of Portugal, by refusing to eat when he arranged her marriage. Asking God to take away her beauty, her body became hairy (lanugo, due to malnutrition) and she even grew a beard. Her father decided to have her crucified rather than allowing her to enter a convent. Another example was St. Catherine of Siena. When she was 26, her idea of devoting her life to God clashed with her father's plan to marry her off. This situation led her to lock herself in her bedroom and refuse to eat. In the end, she entered the Dominicans' order, although she had lost half her body weight. Her head may be found in the church of Saint Domingo in Siena as a relic exhibited behind a glass urn; the rest of her body is buried in Rome; and one of her feet is in Venice, as an example of holiness. She said in her final writings that she believed she was ill.

In the Renaissance, and principally in the various European courts, the body and overall appearance were granted a significance that was unknown in Medieval Europe. In the court, food was usually guaranteed and habituation to it enabled it to be savoured. Physical strength and the battle gave way to personal intrigues. The maintaining or improving of social status did not depend as much on fertility or body frame as on the social importance attributed to an individual, this being down to bearing, speech, manners and appearance [19]. The body became socialised.

From the fourteenth and fifteenth centuries, anorexia began to spread from the convents and the abbeys like an epidemic. This phase, called "secularisation of anorexia", continued into the sixteenth and seventeenth centuries. The miraculous maidens appeared, most of them youngsters of humble origins who, by refusing food, attempted to attain the sublime, perfection and purity and, in the process, improve their social and economic standing.

Anorexia was progressively stripped of its religious background and moved to a more vulgar circle, with the appearance of the so-called artists of hunger, who would exhibit at fairs and could even be seen in some cafés. Kafka described one of them in his story *An artist of hunger*. As Paul Auster asserted in his essay *The Art of Hunger* [20], these new secularised anorexics did not fast in the same way nor for the same reasons as the mystic of the past. Their rejection of food was not an attempt to reject earthly life in order to gain one in heaven. It was simply a refusal to live of the life into which they had been born. The more prolonged their fasting is, the greater the space that death occupied in their lives. Their fasting was a contradiction: to go on with it meant death but death also ended fasting. Therefore, they needed to stay alive, but only to remain on the edge of the abyss, as reflected in the novel *Hunger* by the Nobel Prize winner, Knut Hamsum.

From the fifteenth to the eighteenth centuries, the large woman remained the model, however. This woman, even when obese, was considered to be attractive and elegant [8], like the fleshy women portrayed by the Italian Renaissance painter, Titian.

The history of the Western world, and that of Europe in particular, is littered with characters, eras and social groups in which bingeing and then vomiting were practised assiduously. These vomiting individuals included England's Henry VIII and his closest subjects, Pope Alexander Borgia and his courtiers, Bruegel's playful Flemish peasants and Bosch's lacerating throngs and, much more recently, Britain's King Edward or US President William Taft (all of them being men, by the way) [21].

According to the Encyclopaedia Britannica of 1797, bulimia is defined as a disease in which the person is affected by a desire to eat insatiably and perpetually, and unless this is satisfied, it leads to fainting. Motherby, in 1785, had already described three types of bulimia: that characteristic of pure hunger, that where hunger ends in vomiting and that associated with fainting.

We find the most complete reference to this disorder in James, who in 1743 devoted two pages to describing *boulimos* [6]. He noticed that while some patients experience the complication of vomiting after ingesting large amounts of food, others do not. He distinguished in this way between *boulimos* and *caninus apetitus*. Basing his approaches on Galen, he remarked that *boulimos* was caused by an acidic humour contained in the stomach, which produced intense but misleading indications of hunger.

At around the same time, the word "anorexia" was used in medical literature as a synonym for lack of appetite. The first medical approximation to the disorder came in 1689 from Richard Morton, the court physician of William II. In his work *Phthisiologia, seu Exercitationes de phthisi*, which is translated into English and subtitled *A Treatise of Consumptions*, he described a condition of anorexia nervosa with great accuracy. He related the condition of an adolescent boy of 16 and that of a young man of 18, of which he said: "I cannot recall in all my life anyone who was so involved with living and so consumed" [22].

Subsequently, in 1764, Whytt described "nervous atrophy", based on the case of a boy of 14 who, after a period of loss of appetite and weight loss, went through a phase of impulsive ingestion, without the symptoms being attributable to any known pathology. In describing the case, Whytt referred for the first time to bradycardia as a symptom associated with cachexia.

In 1798 in France, Pinel published his *Nosographie Philosophique* [23] where he included anorexia, bulimia and pica in the chapter on digestive neuroses. The writer considered anorexia to be a frequently presented gastric neurosis.

14.3.3 The Nineteenth Century: The Victorian Model

Many of our sociocultural values appeared to develop and become consolidated in this period, including the origin of slimming culture. Among them were the existence of a growing bourgeoisie, the development of urban centres, the industrial revolution and, subsequently, the development of the media [11].

In 1840, Imbert's *Traité théorique et pratiqué des maladies de femmes* was published. He included anorexia, bulimia and pica as stomach neuroses and distinguished gastric anorexia from anorexia nervosa, attributing the former to a digestive disorder of gastric origin and the latter to brain alterations. He also remarked on how patients with anorexia nervosa showed a loss of appetite and a great variety of neurotic signs, becoming melancholy, choleric and fearful.

Two decades later, Marcé (1860), a physician from the University of Paris, described a form of hypochondriacal delirium that was consecutive to dyspepsia and was characterised by rejection of food. Patients, either due to loss of appetite or discomfort caused by digestion, reach the crazed conclusion that they could not or must not eat.

It was in the midst of the Victorian age when the contributions by William Gull and Ernest-Charles Lasègue appeared. These two authors began the scientific study of anorexia nervosa. Gull, Queen Victoria's physician, described "hysterical apepsia" in London in 1868. He said this was a typical condition of young women which led to emaciation and which was initially felt to be of organic origin [24, 25].

Soon afterward in Paris, in 1873, Lasègue published the manuscript *De la Anorèxie Hysterique* where he described the cases of various patients of between 18 and 22. He emphasised the emotional aetiology of the disease, presenting it as a perversion or intellectual anomaly and indicating at its heart perturbed interpersonal relationships and, on occasions, unconscious desires as basic personality traits of such patients [26].

In his description, Lasègue added something that we feel is important, bearing in mind subsequent interpretations of the anorexic syndrome: "fasting is not total and is completely unconnected with the rejection of foods practiced by the melancholy". As well as underlining emotional alterations resulting from the transition to an adult age in the aetiology of the anorexic syndrome, he also indicated the existence of social aspects for the first time. He is probably the first doctor to consider the possibility of interfamily conflict between anorexic patients and their parents [27].

Six months later, Gull (in 1874) used the term "anorexia nervosa" for the first time. This was in an article in which he described the findings derived from the malnutrition of three anorexic patients, without paying attention to emotional aspects. This new name for the disease came about for two reasons: the rejection of the term "apepsia" as no alterations in digestion of food were observed and the rejection of the term "hysteria" on specifying that these patients did not present the clinical history of the typical hysteric. It recognised, however, the role of different psychological aspects that may well intervene in the etiopathogenesis of the anorexic condition.

Gender perspective cannot be ignored in the genesis and maintaining of the eating behavioural disorders suffered mainly by women. Men and women have different ways of living their bodies. At that time in history, women lacked the right to vote, they had no access to university, and they did not even have access to the inheritance of their parents unless they formed a good marriage. Hence, anorexia nervosa may be understood as a challenge to the established order. It questions health criteria and questions the symptoms as social by incarnating a body exposed to the gaze. The appearance of the disease as a clinical diagnosis occurred at the same time as the appearance of novels written by women, such as *Wuthering Heights*

(initially published under a male pseudonym as this was the only way to get published) by Emily Brönte (who was suspected of suffering from anorexia nervosa) and including the work of Jane Austen. All the female characters in literature up to that time had only been seen from the viewpoint of their relationship with the opposite sex. "And this is such a small part of the life of a woman" (as Virginia Woolf said). Love was the only role possible for women. Woolf [28] wrote that if in Shakespeare's tragedies men had been presented only as lovers of women and never as friends of men, as thinkers and as dreamers: "What few roles they could play! How literature would suffer!" This is how women have suffered in history, with the symptomatic expression of inequality and social unfairness being many times anorexic symptoms. Many women allow themselves to be locked in the "prison of the body" represented by anorexia nervosa. "Hunger, insomnia, disease" were the three words Oscar Wilde used to describe his time in Reading prison in letters to friends and relatives. The problems of prison are also problems of the body, and, in this case, prison became the body for these women.

The prestigious French physician Charcot, known for his study of hysteria at La Salpêtrière Hospital in 1889, proposed parentectomy (the isolation of the patient from her/his family) as a therapeutic formula for those parents with anorexia nervosa. He was the first to indicate "fear of obesity" as a reason for refusing to eat.

Meanwhile, Lord Byron was the prototype of the romantic writer whose fame and literary prestige helped to publicise his ideas on the body and the mind. He fasted to clear his mind; he defined himself as "ascetic vegetable eater"; he abhorred fatness; in his view, it symbolised lethargy, clumsiness and stupidity. His food restraint was accompanied by physical exercise:

> I don't find it at all hard to fast for 48 hours. Two years ago, I lived permanently on a diet of a thin slice of bread for breakfast, a dinner of fresh vegetables, only green tea and carbonated water in the interim. These days, when I start thinking that I am consuming, I chew tobacco, mastic gum or laudanum… [30].

The first description of a diet was published in 1863. In it, a layman explained the way to reduce food ingestion with the aim of losing weight. This appeared in all the books that referred to food over subsequent years.

The image of women historically perceived and conceived in terms of their reproductive function started to show a clear change with the development of science. At this time, talk began of combating obesity by reducing food ingestion and increasing physical exercise. In fact, this was a return to Hippocratic advice.

In 1875, the concept of energy balance was described, and it was postulated that greater intake of the foods the body needed led to an excess of weight. Greed or gluttony emerged as the principal cause of obesity. It was also in this period that two causes of obesity were described. On the one hand, there was talk of obesity caused by a physical problem (with symptoms similar to Prader-Willi Syndrome) and, on the other, obesity due to hyperphagia secondary to a defect in the person's character (with symptoms resembling Pickwick syndrome).

It may be asserted that it was really in the nineteenth century that the first progress in the study of obesity was made, with an important role played by writers who

worked almost simultaneously in Edinburgh, Paris and, subsequently, Germany. In fact, the interest in obesity in the latter country gave rise to numerous physiological theories, some of which are discussed even today [29]. These include body composition, energy conservation, the excess of fat cells as a cause of obesity and the concept of family obesity. In late nineteenth-century Belgium, Quetelet developed the index which bears his name and which relates a person's weight in kilogrammes to the square of their height in metres. Subsequently, following the introduction of the Lavoisier calorimeter, it was suspected that obesity could well be a metabolic disorder.

14.3.4 Our Most Recent History: The Twentieth Century

In the twentieth century, a true explosion occurred, and anorexia nervosa and bulimia nervosa increased to almost epidemic proportions. Specific intervention programmes were created for these pathologies, and there were major advances in research into obesity. Why was there such a large increase in the number of cases?

Psychopathology, as Jules Henry said, "is the final outcome of all that is wrong with a culture [30]. Nowhere is this more strikingly true than in anorexia and bulimia, which were barely known two centuries ago but which have reached epidemic proportions in the twentieth century. Far from being the result of a superficial fashion phenomenon, these disorders reflect our attention to some of the central ills of our culture, from our historical heritage of disdain for the body, to our modern fear of loss of control over our future, to the disquieting meaning of contemporary beauty ideals in an era of greater female presence and power than ever before" [31].

Changes in the incidence of anorexia have been dramatic. In 1945, when Ludwig Binswanger chronicled the now famous case of Ellen West, he said, "from a psychiatric point of view, we are dealing here with something new, with a new symptom" [32].

Anorexia nervosa is clearly, as Paul Garfinkel and David Garner have described it, a multidimensional disorder. It has familial, perceptual, cognitive and biological factors that interact in varying combinations in different individuals to produce a final common pathway [33].

Bray [34] cited the principal areas connected with the scientific developments over the century: the study of food intake and its control and the use of behavioural measures for losing weight.

Habermas [35], who studied the historic concept of the voracious appetite (*heisshunger*), saw bulimia nervosa as a much more recent disorder than anorexia nervosa and placed its origin at the start of the twentieth century. He also believed that pressure and the struggle of doctors against obesity lay in the origin of this phenomenon.

The contraceptive pill revolution allowed women to separate sex from procreation as women on the pill could control their fertility. However, although it was acceptable for single men to have sex, when women showed the same attitude, it proved disturbing for 1950s Western society. At that time, contrasting with the middle-class women, who were once again out of the factories and safely immured

at home, the dominant ideal of female beauty was exemplified by Marilyn Monroe. She was often described as femininity incarnate, femaleness embodied.

It is necessary to explore why it is women who are more oppressed by what Kim Chernin calls "the tyranny of slenderness". This particular oppression is a post-1960s, post-feminist phenomenon.

Gerald Russell published a paper describing and naming bulimia nervosa in 1979. It was not long afterward that the disorder was recognised as a common problem affecting young women in Western societies.

In the early 1980s, attention began to turn to the significance of cultural factors in the pathogenesis of eating disorders. We should ask why our culture is so obsessed with keeping our bodies slim, pert and young that when 500 people were polled about what they feared most in the world, 190 replied: "getting fat". This fear is more bizarre than the anorectic's misperceptions of her body image or the bulimic's compulsive vomiting. This is the desperate placing of our bodies into arenas of control, perhaps one of the arenas of control that remained available to us in the twentieth century.

In the 1980s, a student of Bordo's described Marilyn Monroe as "a cow". Was this merely a change in what hip, breast and waist sizes were considered attractive? Or had the very idea of incarnate femaleness taken on a different meaning, different associations and the capacity to set up different fantasies and images for the culture of the decade? [36].

Psychopathologies that develop within a culture, far from being anomalies or aberrations, are characteristic expressions of that culture; indeed, they are the crystallisation of much that is wrong with it. Every age, Christopher Lasch says, develops its own peculiar forms of pathology, which express its underlying structure in an exaggerated manner.

The greater risk for females of developing eating disorders has been attributed to social pressure in a male-dominated world. Background cultural factors are often implicated, not only fashion but also more relevant background structure and social norms.

In the 1980s, Bordo claimed that anorexia is the product of three cultural axes which mark the socially and culturally mediated relationship that human beings have with their bodies and the way that, through this mediation, they are normalised. Firstly, there is a dualistic axis upon the body, which is felt to be separated from the experience of being a person and a mind (Descartes and his separation between mind and body). The second axis is body control, where the body is seen as a mute instrument to be controlled by the person. The third axis is gender/power in which women are subjected to images of female beauty that include youthfulness and slenderness. This is the ideal image of a woman that is not yet a woman and the tendency of anorectics to retain their adolescence and to resist the more developed female form that is often perceived as fatter and more curved.

Bordo remarked that the body of the anorectic is an illustration of how deeply power relations are etched on our bodies that serve them [37].

Sheila MacLeod also wrote as a recovering anorectic in a text that took an existential approach to anorexia nervosa. Female identity is seen as central to the state

of anorexia nervosa that MacLeod viewed as a manifestation of an existential crisis resulting from women's confusion about their being-in-the-world. She focused on the meaning of anorexia nervosa serving as a symbol for both, oppression and resistance, with starvation having its own aesthetic [38].

MacLeod viewed anorexia nervosa as a particular existential dilemma facing women and a specific aspect of female identity. Anorexia nervosa is still constructed as a disease condition that is gendered.

Far from being fundamentally stable, a cultural constant to which we must contrast all culturally relative and institutional forms, the body is assumed to be constantly "in the grip", as Foucault put it, of cultural practices. There is no "natural body". Cultural practices are already and always inscribed, as Foucault underlined, on our bodies and their materiality, forces, energies, sensations and pleasures. Our bodies, no less than anything else that is human, are constituted by culture.

Women, besides having bodies, are also associated with the body, which has always been considered the sphere of women in family life, mythology and in scientific, philosophical, and religious ideology. This is related to the maintenance of power relations between sexes over history.

Anorexia is not a philosophical attitude but a debilitating affliction. It is quite often a highly conscious and articulate scheme of images and associations presented in these women. In this battle, thinness represents a triumph of the will over the body, and the thin body (that is to say, the nonbody) is associated with absolute purity, hyper-intellectuality and transcendence of the flesh. Fat is associated with the tainting of matter and flesh, wantonness, mental stupor and mental decay.

> In early Christianity, individuals were exhorted to offset the threat raised by bodily appetites through fasting. Present-day societies have adopted a secular counterpart; it is called the diet. Lacking a moral vocabulary, contemporary societies have projected the notions of good and bad on the images of our own bodies: the idea of God (perfection, purity and kindliness) is now enclosed in the image of thinness; while that of the Devil (sloth, corruption through appetite and avarice) is incarnated in fatness. We are certainly closer to puritanical tradition than to the early Christians, particularly in our fight for individual self-regulation and our devotion to the work ethic" [17].

Indeed, obesity and eating behaviour disorders increasingly impact our culture with greater prevalence. There is no break in continuity between the attitudes and behaviours with regard to the body and the diet of the general population, subclinical eating disorders and actual clinical cases [11].

Nowadays, religion has lost its privileged position. Our dietary concerns are closely linked to two reasons: aesthetics and death. To be "good-looking", "young" and "thin" is an imperious narcissistic necessity, quality of life or new social acquisition, overcoming ageing as a surrogate for immortality. Gaining weight is dangerous because it leads to death in the short or long term. There is now a dark and imperious need for health and beauty, gripped to the self of each individual, that has taken the place of ethics and religion [5].

People have grown increasingly self-centred in today's Western world. Wars may be declared, entire regions may be wiped away by earthquakes, unemployment is

bellowing at the door, and there is a global economic crisis, but what is most important for certain patients is whether they have been able to control their binges or the lack of control of various types of impulses. The cult of the self is characteristic of all eras, but this way of making the body itself the centre of everything may lead ethically and culturally to a cul-de-sac [5]. There is the socially transmitted belief that drinking abundant amounts of water is healthy "for internal cleansing", and this has a moral connotation. There is guilt in being fat. The only obsession is weight and the body aesthetic on which thinness and youth depend.

Moreover, we should not ignore the impact of globalisation on the world food system. In a world where more food is produced than at any other time in history, over 10% of the population is hungry. The hunger of those 800 million people coincides with another historic record: "globesity", over a billion people are overweight. The obese and the hungry are interconnected. Hunger and obesity are symptoms of the same problem. The road that may lead to eradicating hunger would serve to prevent global epidemics of diabetes and heart complaints. There are moral excuses that act to calm a troubled conscience: the poor are hungry because they are lazy, or the rich are fat because they eat fattening food. The prevalence of hunger and obesity affects people too often and in too many places for it to be the consequence of any personal defect. In Mexico, a developing country, there are more obese adolescents than ever, although the number of poor Mexicans is growing. The crucial factor is not economic revenue but the proximity to the border and the habits of their northern neighbours whose processed food is rich in fats and sugar [32].

The weight of sociocultural factors in the genesis of eating behaviour disorders is a reality, as described in this historical introduction. So is the role of gender, the distribution of power, ethnicity and social class and wealth distribution at global level. Everything influences what we eat. We are what we eat and we eat what we are, as we said at the beginning of this chapter.

14.4 Psychopathology of Eating Behaviour

Eating disorders are the pathology that is most frequently presented by young people. Their medical complications, comorbidity and seriousness make them eligible for inclusion here. Since the first case report of anorexia nervosa appeared in the literature over 125 years ago, much has been learned about eating disorders. Presently, 11 distinct eating disorders are categorised in the DSM-5 [39].

We have divided this section into four parts. The first is devoted to the three syndromes that are most frequently presented in habitual clinical practice and that fundamentally affect women as often as they did two centuries ago: anorexia nervosa (AN), bulimia nervosa (BN) and binge eating disorder (BED). The second part contains eating disorders that have been recently included in the DSM-5 in the categories of other specified feeding or eating disorder (OSFED) and unspecified feeding or eating disorder (UFED). In the third part, we are going to describe feeding and eating disorders which are more frequent in children such as pica and rumination (which are presented equally by both sexes) and avoidant restrictive food intake

disorder (ARFID). Finally, there is a mention of new eating behaviours that are not included by the moment in the DSM-5 [40].

Approximately 95% of people with an eating disorder are 12–25 years of age. Adjusting for age, ethnicity/race, education and income categories, odds of lifetime and 12-month diagnoses of all three EDs were significantly greater for women than men, particularly for AN and BN [41]. Although 90% of patients with an eating disorder are female, the incidence of diagnosed eating disorders in males appears to be increasing. The aetiology of eating disorders is unknown and probably multifactorial; it is thought that a combination of biological, psychological and social factors contributes to the illness. We know EDs tend to cluster in families [39, 42]. Environmental influences include societal idealisations about weight and body shape [42]. Epidemiology of each disorder is more accurately described in each section.

14.5 Anorexia Nervosa

14.5.1 Introduction

Anorexia nervosa (AN) is a diagnostic term that literally means neurotic loss of appetite. Sir William Gull first reported a case of AN in the Lancet in 1888.

14.5.2 Epidemiological Data

A study conducted in the United States with a nationally representative sample of adults assessed with diagnostic interviews provides new prevalence estimates of EDs based on DSM-5. Prevalence estimates of lifetime AN is between 0.80% and 3.6 [41–44]. Findings regarding the mean age of onset for AN 19.3. Discrepancies in prevalence estimates underscore the need of more population-based studies with large samples using diagnostic interviews.

14.5.3 Clinical Features

The distinguishing clinical feature of anorexia nervosa is extreme restriction of food intake, resulting in extensive weight loss (or a failure to gain weight during growth periods). Under the criterion of DSM-IVR, patients might weigh less than 85% of what is expected but in DSM-5 criteria do not refer to a specific degree of weight loss required for the diagnosis but instead provide guidelines for specifying the severity of weight loss [40, 42, 45]. The other essential aspects are the individual wishes to be underweight making conscious attempts to avoid gaining weight and a distorted image or lack of recognition of low weight. Despite the fact that individuals with anorexia nervosa are by definition underweight, they are convinced that they will become substantially overweight if they cease their vigorous efforts to remain in control of their eating and exercising. There is a disturbance in the way in which

one's body weight or shape is experienced, an undue influence of body weight on self-evaluation or a denial of the seriousness of the current low body weight. Individuals with anorexia nervosa usually perceive their size accurately. The problem lies more often in the judgement they make about the size they see. This is determined by sociocultural factors and affects women more frequently. It is also striking that this fear of becoming fat typically intensifies, as more weight is lost.

Women with anorexia nervosa often do not menstruate although amenorrhea is no longer required as criterion of AN in DSM-5. Most women have progressed normally through pubertal development and have begun to menstruate before the onset of the eating disorder. However, some girls develop anorexia nervosa before the onset of menstruation.

Included in the differential diagnosis are gastrointestinal disorders, such as inflammatory bowel disease and celiac disease, endocrinological diseases, such as hyperthyroidism or Addison's disease, and other chronic illness that may lead to weight loss, such as an underlying malignancy [39].

Once anorexia nervosa has been diagnosed, the clinician is asked to classify the patient into two groups [46]:

- **Restricting type:** during the current episode of anorexia nervosa, the person loses weight purely by dieting and exercising and has not regularly engaged in binge eating or purging behaviour.
- **Purging behaviour:** during the current episode of anorexia nervosa, the person has regularly engaged in binge eating or purging behaviour (i.e. self-induced vomiting or the misuse of laxatives, diuretics or enemas).

The most powerful illustration of the effects of restrictive dieting and weight loss on behaviour is an experimental study conducted in 1950 by Ancel Keys at the University of Minnesota. The experiment involved 36 carefully chosen, young, healthy, psychologically normal men who restricted their caloric intake for 6 months as an alternative to military service. What makes the study so important is that many of the experiences observed in the volunteers were the same as those patients with eating disorders. The question is that while anorexia nervosa is mostly presented by women, only men were used for this study. What does this mean? Table 14.2 shows the effects of starvation in the study.

Table 14.3 presents common reasoning errors among patients with eating disorders, described by Garner and Garfinkel [33].

When a woman insists that the only way to succeed in our culture is to be thin, she could be described, by clinicians, as possessing distorted reasoning or misperception of reality. But for most people in Western culture, especially women, slenderness is equated with competence, self-control and intelligence. There is no firm demarcation between the normal and the pathological, as most women are affected in some way by the cultural construction of female beauty as involving slenderness.

Table 14.2 Effects of starvation

Attitudes and behaviour toward food
Food preoccupation
Collection of recipes, cookbooks and menus
Unusual eating habits
Increased consumption of coffee, tea and spices
Gum chewing
Binge eating
Emotional and social changes
Depression
Anxiety
Irritability, anger
Lability
Psychotic episodes
Personality changes on psychological tests
Decreased self-esteem
Social withdrawal
Cognitive changes
Decreased concentration
Poor judgement
Apathy
Physical changes
Sleep disturbances
Weakness
Gastrointestinal disturbances
Hypersensitivity to noise and light
Oedema (water retention, particularly in ankles)
Hypothermia and feeling cold
Paraesthesia
Decreased metabolic rate
Decreased sexual interest
Dry skin
Hair loss

Table 14.3 Reasoning errors

Selective abstraction or basing a conclusion on isolated details while ignoring contradictory and more salient evidence
Overgeneralisation or extracting a rule on the basis of one event and applying it to other dissimilar situations
Magnification, or overestimation of the significance of undesirable consequent events. Stimuli are embellished with surplus not supported by an objective analysis
Dichotomous or all-or-none reasoning or thinking in extreme and absolute terms. Events can be only black or white, right or wrong, good or bad
Personalisation and self-reference or egocentric interpretations of interpersonal events or over-interpretations of events relating to the self
Superstitious thinking, or believing in the cause-effect relationship of non-contingent events (Garner and Garfinkel)

This means that most women have some sort of problem in relation to food consumption. There is a continuum of eating problems from dieting to the extremes of anorexia and bulimia nervosa.

Body image disturbance plays a prominent role in the psychopathology of eating disorders. Historically, either the perceptual or the cognitive-affective components of body image disturbance (body image distortion or body image dissatisfaction) have been incorporated into the diagnostic criteria for both anorexia nervosa and bulimia nervosa and focus on the influence of body shape and weight on self-evaluation.

Body dissatisfaction is strongly associated with quality of life impairment among both male and female adults, and the strength of this relationship is comparable between the sexes. In a study performed among adolescent girls and boys in Australia, girls reported higher levels of dissatisfaction than boys. However, the strength of the adverse associations between body dissatisfaction and quality of life impairment did not differ by sex, and this was the case for both physical health-related and psychosocial quality of life domains [47, 48].

Multiple factors of body image disturbance have been identified. These include body image distortion, body image dissatisfaction and body image avoidance, which are all highly correlated. Patients with more severe body size distortion may benefit most from treatment that focuses on correction of size and weight overestimation. When body image dissatisfaction is more prominent, modifying negative and distorted thoughts and working toward acceptance of one's body may be indicated. Finally, treatment incorporating exposure to situations that provoke anxiety-provoking thoughts about appearance will be beneficial for those patients who exhibit extreme avoidant behaviours.

The anorectic's distorted image of her body, her inability to see it as anything but too fat, although more extreme, is not radically discontinuous, then, from fairly common female misperceptions [36].

14.5.4 Psychological Factors

AN has the lowest rate of psychiatric comorbidities between ED, despite they are still high. In terms of psychological factors, limited coping skills, poor distress tolerance, perfectionism, obsessionism, inflexibility, neuroticism, negative emotionality, harm avoidance, compulsivity, social inhibition, emotional restraint and decreased self-esteem are common traits among those with AN. However, those with AN who also engage in bingeing and purging display more impulsivity and sensation seeking. Those with AN classically tend to have problems with identify formation, autonomy issues and maturity fears. In relation to personality disorders, the restricting subtype of AN is associated with personality disorders such as obsessive-compulsive personality disorder or avoidant personality disorder. Borderline personality disorder is also common, especially among those with binge-purge subtype. Self-injurious

behaviour and suicide attempts are commonly associated with AN as well. AN has a strong association with anxiety and depressive disorders [39, 47].

Hilde Bruch reported that many anorectics talk of having a ghost inside them or surrounding them, "a dictator who dominates me" as one woman describes it; a little dictator, the "other self", was always reported by Bruch. The anorectic's other self, the self of the uncontrollable appetites, the impurities and taints, the flabby will and the tendency to mental torpor, is the body, but it is also the female self [36, 48]. These two selves are perceived as at constant war. But it is the male side, with its associated values of greater spirituality, higher intellectuality and willpower that is being expressed and developed in the anorexic syndrome. For Bordo [36–38], there are two levels of meaning. One has to do with fear and disdain for traditional female roles and social limitation. The other has to do with a deep fear of the female, with all its more nightmarish archetypal associations of voracious hungers and sexual insatiability.

Adolescent anorectics express a characteristic fear of growing up to be mature, sexually developed and potentially reproductive women. And indeed, as Bruch reports, many anorectics, when children, dreamt and fantasised about growing up to be boys.

Some authors interpreted these symptoms as a species of unconscious feminist protest, involving anger at the limitations of the traditional female role, rejections of values associated with it and fierce rebellion against allowing their futures to develop in the same direction as their mothers.

For females, the fatness that goes with normal adult body weight will always have had a sexual dimension, serving as it does both direct reproductive and related social and biological purposes, such as its attraction for males. The attempted regulation and control of weight and shape are commonplace among teenage females searching for a greater sense of ownership of the body and its impulses; the success of such attempts leads to enhanced self-esteem.

The greater risk for females of developing eating disorders has been attributed to social pressure in a male-dominated world. Background cultural factors are often implicated, not only fashion but also more relevant background structure and social norms.

Anorexia nervosa in a multidimensional model explanation should include the crucial dimension of culture and the construction of gender to understand the socio-cultural analysis of the phenomenon. This is gender as primary and productive in the emergency of anorexia, rather than as merely a contributing factor.

14.5.5 Medical Complications

Recent studies have demonstrated that the standard mortality rate for patients with anorexia nervosa approaches 12 times those of age-matched controls [49, 50]. The main medical complications are resumed in Table 14.4.

Table 14.4 Main medical complications of Anorexia Nervosa

System	Complication
Bone	Osteopenia, osteoporosis
Haematologic	Anaemia, leukopenia, thrombocytopenia
Neurologic	Brain matter loss, Wernicke-Korsakoff syndrome
Gastrointestinal	Dysphagia, constipation, reflux, gastroparesis, acute gastric dilatation, superior mesenteric artery syndrome, hepatic transaminase level disturbances
Cardiac	Bradycardia, hypotension, interlead variability of QT interval
Endocrine	Pituitary hypogonadism, low testosterone, low oestrogen, euthyroid sick syndrome, hypoglycaemia
Pulmonary	Spontaneous pneumothorax
Electrolyte imbalance	Hyponatremia, hypokalaemia

14.5.6 Treatment

Indications for hospitalisation include significant electrolyte abnormalities, arrhythmias or severe bradycardia, rapid persistent weight loss in spite of outpatient therapy and serious comorbid medical or psychiatric conditions, including suicidal ideation. The focus of initial treatment for patients who have anorexia nervosa with cachexia is restoring nutritional health, with weight gain as a surrogate marker. Feeding tubes may be needed in severe cases when the patient has a high resistance to eating. A reasonable target for weight restoration is 90% of the average weight expected for the patient's age, height and sex. Psychotherapy is the foundation for successful treatment of an eating disorder. Cognitive behavioural therapy (CBT), dialectical behavioural therapy (DBT), interpersonal therapy (IPT), cognitive remediation therapy (CRT) and acceptance commitment therapy (ACT) are all therapies that have been studied in AN and produced varying results [39].

Studies have shown only limited benefit of medications in the treatment of AN. Antidepressants, including selective serotonin reuptake inhibitors (SSRIs), may help mitigate symptoms of depression and suicidal ideation in patients with anorexia nervosa. However, they have not proved beneficial in facilitating weight restoration or preventing relapse. Although case reports and recent preliminary studies have suggested a role for atypical antipsychotics such as olanzapine (Zyprexa), controlled studies have not demonstrated significant benefit in patients with anorexia nervosa [42].

14.5.7 Prognosis

Although approximately one-half of patients with anorexia nervosa fully recover, about 30% achieve only partial recovery, and 20% remain chronically ill.

Anorexia nervosa has the highest mortality rate of any mental health disorder, with an estimated all-cause standardised mortality ratio of 1.7–5.9% [42]. Mortality

can be secondary to underlying medical complications or suicide. While most deaths from AN are thought to be due to cardiac complications, approximately one in five are thought to be from suicide. Special attention should be paid to assessing safety issues, including suicidality and self-injurious behaviour [39].

14.6 Bulimia Nervosa

14.6.1 Introduction

From *bou*, ox and *limos*, hunger was used in Greece to define a devouring hunger. The term bolism (*bolisme*) appeared in all French medical treatises at least until the fourteenth century, although Pinel, in his *Nosographie Philosophique*, conceived bulimia as a morbid type consistent with "hunger which is too intense and often insatiable" and included it in the "neuroses of the nutritional functions". During the nineteenth century, the term maintained a semiological meaning synonymous with terms like *citorexia* and others such as *hyperorexia*, *hyperphagy* and *sitomania* [1]. In the latter half of the twentieth century, English literature established the nosological nature of bulimia nervosa, this being described by Russell as the appearance of recurring episodes of excessive voraciousness followed by inappropriate compensatory behaviour. As in anorexia nervosa, there is both an irrational fear of gaining weight as well as severe alterations in the body image.

14.6.2 Epidemiological Data

The lifetime prevalence of BN is predicted to be between 0.28 and 3% with a 12-month prevalence of 0.4% and average age of onset 16–17 years. Gender differences occur, with a women to men ratio of 9:1 [41, 43, 44, 51].

14.6.3 Clinical Features

The salient behavioural characteristic of bulimia nervosa is the frequent occurrence of binge eating episodes. A binge is defined on the basis of two elements: consumption of a large amount of food in less than 2 h and sense of loss of control during the eating episode (the feeling that one cannot stop eating or control what or how one is eating).

A second critical characteristic of bulimia nervosa is that following the eating binges, the individual engages in inappropriate attempts to rid her or himself of weight gain. In clinical samples, the most frequent inappropriate behaviour is self-induced vomiting. Vomiting is often difficult to induce when the illness begins but becomes less difficult and more habitual over time. Many individuals with bulimia nervosa eventually induce vomiting not only following binge episodes but also following the consumption of any meal, whether large or small. They also utilise

medications in an attempt to counteract the binges. Commonly, they use laxatives, diuretics, enemas and thyroid medication. In the DSM-5 criteria for bulimia nervosa, there is a decrease in the average frequency of bingeing and purging from twice to once a week. Other changes are that the subtypes of purging and non-purging in the DSM-4 were removed and that compensatory behaviours can now be classified depending on frequency in mild (1–3 episodes per week), moderate (4–7 per week), severe (8–13 per week) and extreme (14 or more per week) [42].

Bulimic episodes usually start from the afternoon and generally include every type of food. However, some studies have demonstrated that patients tend to ingest foods considered to be "taboo" for them, foods that they normally reject because they consider them to be high in calories, carbohydrates and fats. The manner of eating also tends to be altered, being rapid and voracious and mixing tastes, textures and foods. The binge frequency varies according to the seriousness of the disorder and morale and finally becomes a routine act. Triggers may be negative feelings related to weight and body shape, life stressors, eating a specific food that has been purposefully avoided or boredom [52].

Between binges, patients maintain a restrictive diet or even fast, which primes and facilitates the episodes of uncontrolled intake. Many patients find difficulty in feeling satiated at the end of a normal meal and may continue eating. This gives rise to continuous weight changes but without the notable weight loss of anorexia nervosa. Bulimic behaviour often begins after a period of diet, and there is a record of having suffered anorexia nervosa in a significant percentage of cases. Individuals with bulimia often go undetected by their families and physicians as their weight may be normal or above normal, and there is often no associated medical complaint that may bring one to seek medical help such as the absence of menses that occurs in AN. Individuals with bulimia may be reluctant to share their symptoms due to secrecy and shame over the binge or purge behaviours [52].

The third and final aspect in the characterisation of bulimia is persistent concern over figure and weight, with a morbid fear of weight gain. For many authors, this is the nuclear psychopathological aspect as it leads the patient to exclusive self-evaluation in terms of weight and figure.

14.6.4 Psychological Factors

Most bulimic patients present depressive symptoms such as sadness, guilt feelings, low self-esteem and suicidal thoughts. High anxiety levels form an inseparable part of bulimic behaviour. The moments prior to a binge are characterised by unease, excitation, tension and an imperious desire to eat. In this way, anxiety and dysphoria accompany and trigger most binges in bulimic patients. After the loss of control, anxiety may be reduced, and subsequently there is an increase in guilt feelings, low self-esteem and fear of growing fat, leading the patient to cause her or himself to vomit. As well as the anxiety associated with the binge, high levels of anxiety between episodes are presented.

Abuse of substances, mainly alcohol, together with kleptomania is among the compulsive behaviours most frequently found in these patients. Many of them present borderline personality features and interpersonal relationship problems. It is important to have in mind that BN places patients at a greater risk for suicide and self-injurious behaviour.

14.6.5 Medical Complications

Most of the complications are similar to the ones described in AN, but more specific medical complications of purging behaviours including self-induced vomiting and laxative abuse include hypochloremic alkalosis, hypokalaemia, subconjunctival haemorrhage, epistaxis, perimyolysis, oral mucositis, cheilitis, hoarse voice, chronic cough, sialadenosis, oesophageal rupture, rectal prolapse, haemorrhoids, cardiac arrhythmia, seizures and, finally, death. Most dangerous complication in BN is development of an electrolyte imbalance, which can lead in extreme cases to cardiac arrhythmia, seizure and death [50].

14.6.6 Treatment

Standard treatment for bulimia nervosa includes nutritional rehabilitation, psychotherapy and pharmacotherapy, as well as monitoring patients for medical complications. It is known that psychotherapy is more effective for BN compared to AN, largely thought to be due to the weight difference [39]. Clinical trials have shown significant improvement in bulimia nervosa with cognitive behaviour therapy and interpersonal psychotherapy. However, a recent meta-analysis studying the efficacy of psychotherapy in ED published in 2018 indicates that any psychotherapy will be equally effective [53]. Studies have suggested SSRIs may be beneficial in decreasing the frequency of binge eating and purging. Thus, the addition of an SSRI might be considered for patients who are not responding to psychotherapy and for patients with major depression or another comorbid disorder [42]. Indications for hospitalisation are the previously described for AN.

14.6.7 Prognosis

Several studies do indicate that a younger age at presentation, shorter duration of illness, less frequency of symptoms, absence of laxative use, close social relationships and a good therapeutic response with in the first month of treatment appear to be positive prognostic factors. Negative prognostic factors include continuous over emphasis on body shape and weight, a history of physical maltreatment, disturbed family relationships, poor motivation, self-injurious behaviours and presence of a personality disorder.

The prognosis for bulimia nervosa is more favourable than for AN, with up to 80% of patients achieving remission with treatment. However, the 20% relapse rate represents a significant clinical challenge, and the disorder is associated with an elevated all-cause standardised mortality ratio of 1.6–1.9% [42]. Despite the medical risks involved in BN, mortality is most often related to suicide [52].

14.6.8 Conclusion

Like patients with anorexia nervosa, those with bulimia nervosa are over-concerned with their body shape and weight, and their self-esteem is regulated in the extreme by these aspects of their appearance. They feel under intense pressure to diet and avoid weight gain. This is more frequent in female patients.

As Bordo points out, most women affected by eating disorders are pursuing today's boyish body ideal, which seems to be surrounded by an aura of freedom and independence. However, the body shape of most mature women does not fit the ideal, and therefore they must either spend hours each day dieting and exercising or simply give up trying to attain it. In opposition to this, the bodies of mature women tend to have more body fat than the bodies of younger boys and are rounder and fuller. In turn, this "womanish fat" seems to symbolise women's supposedly voracious appetites and also, for many women, the domesticity they associate with their mothers [36].

Thus, for many women, this appears to be a fight with their own bodies. This is not the pathological body. Instead, the average adult female body that is complexly and ambiguously symbolised is the problem for many women and not an internally distorted perception of their own body or cognitive malfunctions in the processing of information.

There is an embodied perception of the world. This is lived from a situated perspective that is both individual (the person's relation to the world and their experience of life events) and sociohistorical. Behind this lies a culture that is driving more, and younger, girls and women into the regimes of rigorous dieting and exercise, largely by encouraging the fear of weight gain. This is normalising images and ideologies on femininities and notions of female beauty (body image in men is muscular, fit and youthful; masculine beauty as the Grecian model or the David of Michelangelo). This will determine in some way how actual women are much more affected by these pathologies. People live their bodies with the world, especially the social world. From this viewpoint, culture is seen as lived through the body.

14.7 Binge Eating Disorder (BED)

14.7.1 Introduction

BED was first formally described in 1959 by Albert Stunkard as a form of abnormal eating among obese patients [54]. The delimitation of BED as a nosological

condition is very recent: it arose as the result of a multicentric study published in 1992 by Spitzer [55]. This established the diagnostic criteria met by a group of individuals who presented recurring binge eating problems but without compensatory behaviours characteristic of bulimia nervosa, such as repeated vomiting or laxative abuse. It was observed in this study that this disorder could be diagnosed with a high index of reliability and that it was very frequent in hospital slimming programmes, affecting 30% of obese patients. In 2013, BED was added as a standalone psychiatric disorder in DSM-5 [40].

14.7.2 Epidemiology

BED is the most common eating disorder. The lifetime prevalence rate of BED is estimated in 1.4%. BED continues to be an underrecognised and undertreated condition [41, 56]. BED usually makes its appearance in late adolescence or young adulthood and most often affects women who have subjected themselves to strict diets to lose weight and have suffered relapses. However, the ratio of female to male is more balance for BED than for the rest of ED, about 6:4. It has been hypothesised a correlation between oestradiol and progesterone levels and dysfunctional eating symptoms, being these higher during the luteal phase of the menstrual cycle [57]. Men and women did not differ significantly on developmental variables or on measures of current ED features, like binge eating behaviours or weight or shape concerns. However, higher body dissatisfaction, drive for thinness, dietary restraint and emotional eating were significantly more prevalent among women [58].

Environmental factors are essential in virtually all the patients in which obesity develops. The sociocultural conditions of the population, the “consumer culture” and the “McDonaldisation” of society, together with food technology, subject the public to a pressure that explains the increase of the prevalence of obesity [59], no matter how much the thin aesthetic, of the light body, is imposed. This causes in large sectors of the population, especially in females, a dissatisfaction with body image and an increase in the prevalence of eating behaviour disorders in the female population.

14.7.3 Diagnosis Features

The clinical condition is characterised by recurring food binges, defined as eating in a discrete period of time (about 2 h) and amount of food larger than most people would eat under similar circumstances, and behavioural manifestations of lack of control over them. The binges occur at least once a week during a 3 month or longer period, typically, without the compensatory manoeuvring typical of bulimia nervosa.

The key aspect of the psychiatric aspect of bingeing does not refer to the amount of food ingested but to the individual’s lack of control over intake. This is the feeling the individual experiences on not being able to stop eating or control what or how much she or he is going to eat. The manifestations of this lack of control are eating

very quickly, eating so much that an unpleasant feeling of postprandial fullness is felt, the ingesting of a large amount of food even though the individual is not hungry and the feeling of disgust, guilt or depression after the episodes. According to the DSM-5 [40], for a diagnosis of the BED, the binges need to cause a clinically significant malaise, with dissatisfaction during and after the episodes and concern over its effects on weight and body image. The patient may obtain a degree of gratification while she or he is eating, but her or his experience after bingeing is always negative, with feelings of guilt, remorse, rage, etc. After bingeing, the patient experiences a deep unease but in general does not display the compensatory strategies of bulimia nervosa. Body dissatisfaction is a strong predictor of lifetime binge eating disorders. It seems that gender does not interact with body image dissatisfaction on binge eating [60].

Differential diagnosis of BED therefore is made above all with atypical bulimia nervosa. However, the use of compensatory strategies characteristic of bulimia, such as fasting and excessive exercise, is not as frequent. Another difference that exists between the two disorders is the degree of obesity. Indeed, patients with BED frequently present serious obesity (defined as a body mass index equal or greater than 35) and greater weight fluctuations than patients with bulimia nervosa.

Some studies have suggested that "emotional eating" could exist. This would affect a group of obese patients whose bingeing responds to emotional stress [61].

14.7.4 Psychological Factors

Females with BED often present nonspecific mixed symptoms of chronic low mood, anxiety, sleep disturbances, poor concentration and anhedonia. It has been also associated with substance use disorders, more frequently among men. There is also a higher rate of personality and panic disorders compared to other obese patients, as well as family dysfunctions with abuse and emotional abandonment although not aggression or sexual abuse [62, 63].

Personality traits may play a major role in the development of this disorder through three possible mechanisms: firstly, they may show a predisposition to excessive eating; secondly, obesity itself, when it begins in early stages of life, may affect personality development; and finally, the two mechanisms mentioned may act in a combination. The attitude to the body, impulsiveness and the relationship with food learned from young ages are key aspects in the genesis of obesity.

Classic literature has associated the passive-dependent personality with obesity, although this has not been demonstrated scientifically. However, it has been reflected in history and literature as in the character of Ignatius Reilly in the novel *A Confederacy of Dunces*. Specific aspects, like insecurity, hypersensitivity and emotional instability, are more frequent than in the population as a whole; what is not clear is whether it is a prior disposition or a form of adaptation in a subject who finds difficulties in adapting to normality.

On the other hand, comorbidity with personality disorders like borderline personality disorder is frequent. This suggests that a causal relationship exists between both conditions, either with a common origin of a genetic and/or environmental basis or because obesity is secondary to the alteration of the control of impulses that

are so frequent in borderline personality disorder. In Western societies, thinness prevails as part of the present canons of beauty, and obese people are aware of the social rejection and discrimination to which they often receive, as well as suffering the limitations that their weight imposes on them in everyday life. This situation may produce dissatisfaction with their own body and with their body image. Their image becomes a principal source of their concerns, and thinness takes top place in their scale of values, above everything else.

An example of the unease these people may experience is “mirror avoidance”, which makes them travel large distances to avoid having to look at themselves in the mirror or in the reflection of a shop window. In fact, this suggests that these individuals present a body image disorder that is similar to what occurs in eating behaviour disorders.

Body image disturbance that is not modified despite weight loss demonstrates to us the need to treat underlying psychological aspects such as body dissatisfaction and dysmorphophobic and alexithymic aspects.

Added to this problem is the anxiety secondary to the undertaking of slimming treatments comprising diets without psychotherapeutic support, which are often associated with this problem, above all in the female population. The anxiety disorders most frequently associated with the severely obese are agoraphobia, simple phobia and post-traumatic stress syndrome, which is much more frequent than in the general population. It has been suggested that women with a background of violence and rape may seek relief from food [64].

Obesity in women is associated with a greater prevalence of depressive symptoms due to a greater perception of social stigma, which is much more intense in females. Corporality and body experience constitute a nuclear part of female identity, as has been explained in previous articles.

14.7.5 Medical Complications

BED is prospectively associated with the development of obesity. Among women, it is also associated with early menarche, menstrual dysfunction, delivery of higher-birth-weight babies and duration of the first and second stages of labour. BED is also associated with some endocrine conditions such as type 2 diabetes mellitus, polycystic ovary syndrome and metabolic syndrome. Metabolic syndrome and its consequences have been seeing to be more frequent among males [65].

14.7.6 Treatment

Psychotherapy alone or in combination with self-help tools can be considered the first line of treatment. Cognitive behaviour psychotherapy, interpersonal therapy and dialectical behaviour therapy had been the most studied. In moderate to severe cases, pharmacotherapy can be considered. The only medication that has been approved specifically for adults with BED is lisdexamfetamine dimesylate (LDX) [66]. There is also evidence of the utility of antidepressants and antiepileptics such as sertraline or topiramate [56].

14.7.7 Prognosis

Early responses to treatment are important from a prognosis standpoint. Binge abstinence should be pursued at the very beginning of treatment, also because the achievement of this goal per se in some cases leads to significant weight loss. Poor weight loss is shown in literature. In most cases treatment should not target weight loss at first, but weight stabilisation. Weight regain is a critical target for BED patients, who report marked weight fluctuations and spend much time trying to lose weight [56].

14.8 Other Specified Feeding or Eating Disorder (OSFED)

Epidemiological studies show that the prevalence of OSFED is about 1.5% [67]. The DSM-5 reconfigured and renamed DSM-4 diagnostic eating disorder not otherwise specified (EDNOS) as other specified feeding or eating disorder (OSFED) and unspecified feeding or eating disorder (UFED). OSFED is a formal diagnostic category including heterogeneous nosological entities, such as atypical anorexia nervosa (atypical AN), purging disorder (PD), subthreshold bulimia nervosa (sub-BN), subthreshold binge eating disorder (sub-BED) and night eating syndrome (NES). A study performed in female patients revealed that besides their symptomatologic heterogeneity, all of them share common eating and general psychopathological symptoms as well as personality traits [68, 69].

14.8.1 Atypical Anorexia Nervosa (Atypical AN)

This term describes those patients who have all of the features of AN, such as restricting, over-exercising, bingeing/purging and having a significant fear of being overweight, and like those with AN, lose a large amount of weight, but they are not considered significantly underweight. Patients with AN are often significantly emaciated, which may raise concerns with parents, teachers, etc. Those with atypical AN can be of normal weight, overweight, obese or slightly underweight. However, based on their trajectory of weight loss and restrictive behaviours, they are actually in a state of malnourishment [39, 69]. Atypical AN was also previously used to describe those who did not endorse fear of gaining weight or a distorted body image.

14.8.2 Subthreshold Bulimia Nervosa (Sub-BN)

All of the criteria for bulimia nervosa are met, except that the binge eating and inappropriate compensatory behaviours occur, on average, less than once a week and/or for less than 3 months [40, 69].

14.8.3 Subthreshold Binge Eating Disorder (Sub-BED)

All of the criteria for binge eating disorder are met, except the binge eating occurs, on average, less than once a week and/or for less than 3 months [40, 69].

14.8.4 Purging Disorder (PD)

This diagnosis is applied to those patients who purge but do not binge. This diagnosis is especially important for patients in the adolescent age group, as it is thought that there are more teenage patients who purge and do not binge compared to young adults. Those with PD show higher levels of dietary restraint than controls, perhaps feeling a loss of control when eating even a small amount of food ("subjective binge") leading to compensatory purge behaviours. Purging may also help regulate affect by decreasing negative thoughts after the purge. In comparison to those with BN, individuals with PD report greater postprandial fullness and gastrointestinal distress after meals. Although not included in the DSM-5, possible diagnostic criteria for PD suggested by one author include the following: recurrent purging to influence body weight or shape, purge behaviours at least once per week for at least 3 months, undue influence of body shape and weight and absence of objective binge episodes. The lifetime prevalence of PD is estimated to be at 1.1–5.3% for women; no studies for men are currently reported. The management approach is relatively the same as that reported for BN [52].

14.8.5 Night Eating Syndrome (NES)

NES was originally described in 1955 as a pattern of eating among obese individuals who were resistant to weight loss in an obesity treatment programme. NES has been associated with weight gain and obesity. The prevalence of NES has been reported to be 1–1.5% in the general population. The disorder is characterised by circadian delayed food intake that behaviourally manifests as evening hyperphagia (consumption of 25% of total daily food intake after the evening meal) and/or nocturnal ingestion (nocturnal awakening and ingestion of food at least twice a week) [70, 71].

Patients suffer recurrent episodes of night eating, as manifested by eating after awakening from sleep or by excessive food consumption after the evening meal. They have awareness and recall of the eating. Also, NES was found to be linked to poor sleep quality, and poor sleep quality/quantity was positively associated with obesity [72]. There are several factors related with NES such as obesity, gender, medications and presence of psychiatric disorders. Prevalence of depressive disorder, impulse control disorder, and nicotine dependency was higher among patients with NES.

14.9 Unspecified Feeding or Eating Disorder (UFED)

UFED applies to presentations in which symptoms are clinically significant but do not meet the full criteria for any of the specified disorders. It differs from the OSFED category in that it does not require specifying why the criteria are not met for a specific disorder, and it also includes presentations in which there is insufficient information to make a more specific diagnosis [68].

14.10 Other Feeding and Eating Disorders Included in DSM-5

General population prevalence data on rumination behaviour (RB) and pica behaviour (PB) are limited and inconclusive. A study performed in Switzerland in children between ages 7 and 13 estimated a prevalence of 1.7% with RB only, 3.9% with PB only and 1.1% with RB + PB. They also found that those with RB or PB more commonly have greater feeding disorder symptomatology and discovered that participants had greater levels of fear of weight gain, dissatisfaction with shape/weight and restraint over eating. They also had more frequent binge eating, vomiting and laxative/diuretic use [73, 74].

The most curious question is that feeding disorders presented in childhood are equally presented in male and female patients. However, anorexia nervosa, bulimia nervosa and binge eating disorders are mostly frequent in the female population.

14.10.1 Pica

This is also known as “allotriophagy”, which derives from Latin and refers to the magpie, a bird celebrated for its excessive appetite [75]. Pica is an extreme degree of dysorexia, that is, a severe disorder of the criteria of qualitative food selection.

The essential feature of pica in DSM-5 is the eating of one or more nonnutritive, non-food substances on a persistent basis over a period of at least 1 month that is severe enough to warrant clinical attention. Typical substances ingested tend to vary with age and availability and might include paper, soap, cloth, hair, string, wool, soil, chalk, talcum powder, paint, gum, metal, pebbles, charcoal or coal, ash, clay, starch or ice. The term non-food is included because the diagnosis of pica does not apply to ingestion of dietary products that have minimal nutritional content. There is typically no aversion to food in general. The eating of nonnutritive, non-food substances must be developmentally inappropriate and not part of a culturally supported or socially normative practice. A minimum age of 2 years is suggested for a pica diagnosis to exclude developmentally normal mouthing of objects by infants that results in ingestion. The eating of nonnutritive, non-food substances can be an associated feature of other mental health disorders (e.g. intellectual developmental disorder, autism spectrum disorder, schizophrenia). If the eating behaviour occurs exclusively in the context of another mental disorder, a separate diagnosis should be made only if the eating behaviour is sufficiently severe to warrant additional clinical

attention in DSM-5. Pica occurs in both male and females. It can occur in females during pregnancy; however, little is known about the course of pica in the postpartum period.

In some populations, the eating of earth or other seemingly nonnutritive substances is believed to be spiritual, medicinal or of another social value or may be a culturally or socially normative practice. Such behaviour does not warrant a diagnosis of pica. Some individuals may swallow potentially harmful items (e.g. pins, needles, knives) in the context of maladaptive behaviour patterns associated with non-suicidal self-injury in personality disorders.

It has also been reported that there is an increase in the comorbidity of pica with the rest of eating disorders (particularly bulimia nervosa), with obsessive-compulsive disorder, with the obsessive personality and with the dysorexias that characterise pregnancy. With regard to the etiopathogenesis of this disorder, this takes in cultural factors, psychological factors including those deriving from inadequate relationships between the child and her/his parents as well as factors that are characteristic of the family dynamic, this being more frequent in families that are seriously dysfunctional and with a greater prevalence of alcoholism, obesity and substance addiction. Pica during the current pregnancy has been associated with higher TfR concentrations indicative of low iron stores [76, 77].

Pica has been associated with harmful and potentially healthful consequences such as micronutrient deficiencies, particularly iron-deficiency anaemia, heavy metal exposure and intestinal damage, with a frequency of poisoning, intestinal obstructive conditions due to bezoars or foreign bodies (phytobezoars, trichobezoars), perforations or processes of an infectious type. These medical complications derive from malnutrition and the harmful nature of the substances ingested [76].

14.10.2 Rumination Disorder

Rumination (from the Latin *ruminare* (which means “chewing the cud”) or **merícism** (a Greek term with same meaning) is a disorder of low prevalence present in the early stage of life (between 3 and 12 months old) [4]. Its presence in adults is very unusual other than in severe cases of mental retardation. It was described by Fabricius ab Aquapendente in 1618 and included by Pinel in the digestive neuroses in his *Nosographie Philosophique.*

Rumination consists of repeated and voluntary regurgitation of food ingested followed by new processing (mastication, salivation, swallowing) or expulsion from the oral cavity with the consequent reduction in intake and weight gain. This phenomenon occurs in those who previously present a correct swallowing function and is therefore secondary. Despite being comparatively unusual, it has an elevated mortality rate, which is approximately 25% of cases, due among other causes to the high risk of malnutrition or secondary complications in the form of food inhalation and the subsequent development of bronchopneumonia. Over and above the psychological factors involved in the origin of this disorder (almost always related to the mother-child relationship or to other learning aspects and psychomotor

development), it is necessary to rule out possible organic causes for the anatomical and physiological aspects of the digestive function which may condition this process. Accordingly, the gastro-oesophageal reflux is usually the most frequent cause of mericism [4].

The essential feature of rumination disorder in DSM-5 is the repeated regurgitation of food that occurs after feeding or eating over a period of at least 1 month. Previously swallowed food that may be partially digested is brought up into the mouth without apparent nausea, involuntary retching or disgust. The food may be rechewed and then ejected from the mouth or reswallowed. Regurgitation in rumination disorder should be frequent, occurring at least several times a week, typically daily. The behaviour is not better explained by an associated gastrointestinal or other medical condition (e.g. gastro-oesophageal reflux, pyloric stenosis) and does not occur exclusively during the course of anorexia nervosa, bulimia nervosa, binge eating disorder or avoidant/restrictive food intake disorder. If the symptoms occur in the context of another mental disorder, they must be sufficiently severe to warrant additional clinical attention and should represent a primary aspect of the individual's presentation requiring intervention.

14.10.3 Avoidant/Restrictive Food Intake Disorder (ARFID)

This condition is included in the section on ingestion and eating behaviour disorders in the DSM-5. However, it is not accompanied by the symptomatic group of body image distortion, purging behaviour or fear of getting fat. This diagnosis replaces and extends the DSM-4-TR diagnosis of feeding disorder of infancy or early childhood. Estimated prevalence is between 3% in community samples and 14–23% in clinical samples [78, 79].

The main diagnostic feature of avoidant/restrictive food intake is persistent avoidance or restriction of food intake, without the weight and body image concerns in anorexia nervosa and bulimia nervosa, manifested by clinically significant failure to meet requirements for nutrition or insufficient energy intake through oral intake of food. One of the following key features is present: significant weight loss, significant nutritional deficiency (or related health impact), dependence on enteral feeding or oral nutritional supplements or marked interference with psychosocial functioning. The determination of whether weight loss is significant is a clinical judgement; instead of losing weight, children and adolescents who have not completed growth may not maintain weight or height increases along their developmental trajectory [80].

Determination of significant nutritional deficiency is also based on clinical assessment (assessment of dietary intake, physical examination, laboratory testing), and related impact on physical health can be of a similar severity to that seen in anorexia nervosa (e.g. hypothermia, bradycardia, anaemia). In severe cases, particularly in infants, malnutrition can be life-threatening. Dependence on enteral feeding or oral nutritional supplements means that supplementary feeding is required to sustain adequate intake.

In some individuals, food avoidance or restriction may be based on the sensory characteristics of qualities of food, such as extreme sensitivity to appearance, colour, smell, texture, temperature or taste. Such behaviour has been described as restrictive eating, selective eating, choosy eating, perseverant eating, chronic food refusal and food neophobia and may manifest itself as a refusal to eat particular brands of foods or to tolerate the smell of food being eaten by others. Individuals with heightened sensory sensitivities associated with autism may show similar behaviours. Food avoidance or restriction may also represent a conditioned negative response associated to food intake following or because a previous aversive experience, such as choking, usually involving the gastrointestinal tract or repeated vomiting. The terms functional dysphagia and *globus hystericus* have also been used for such conditions [78].

It is equally common in males as in females in infancy and early childhood. If it is comorbid with autism spectrum disorder, it has a male predominance. Food avoidance or restriction related to sensory sensitivities can occur in some physiological conditions, most notably in pregnancy, but it is not usually extreme and does not meet full criteria for the disorder. Other reasons for restriction or avoidance may include loss of appetite or interest in food [80].

Promising approaches to treatment include modifications to CBT and FBT [78, 81].

14.11 New Conditions Related to the Psychopathology of Eating Behaviour and/or Body Image

14.11.1 Orthorexia

Bratman first proposed orthorexia nervosa, literally meaning "proper appetite", in the late 1990s, defining it an obsession with eating healthy food to achieve, for instance, improved health. Although not yet officially recognised as a psychiatric diagnosis, orthorexia is often associated with significant impairment, as what starts as an attempt to attain optimum health through attention to diet may lead to malnourishment, loss of relationships and poor quality of life [82].

Orthorexic individuals are typically concerned by the quality of food in one's diet, spending considerable time scrutinising the source, processing and packaging of foods that are then sold in the marketplace. The fixation on food quality is prompted by a desire to maximise one's own physical health and well-being, rather than religious beliefs or concerns for sustainable agriculture, environmental protection or animal welfare [83]. It is true that restrictive diet anomalies and weight loss may be presented, but these may not be considered as atypical or incomplete cases of anorexia nervosa [84]. Sports and exercise have been examined in relation to orthorexia within research, but their interrelationships remain unclear. The disorder often starts innocently with a desire, for instance, to improve one's diet and/or eating habits or general health [82].

Finally, this disorder may give rise to anaemia or vitamin deficiencies and affect the health of children raised with this type of diet, leading to malnutrition. This has

created raw vegans, who only eat uncooked vegetables. For example, *Rawer* (2012) is a Dutch documentary about 14-year-old Tom and his mother, Francis, who adhere to a strict diet of raw food (dairy, fish, meat and eggs are also off limits). It is discovered that Tom is malnourished and not growing at the rate doctors think he should be, and child welfare steps in. These are some of the controversial issues raised in the film. There are difficult questions that stem from conflict between health-care providers and families in a world where alternative nutritional practices continue to be viewed as oppositional to the logic of Western science. Though the field lacks data on therapeutic outcomes, current best practices suggest that orthorexia can successfully be treated with a combination of cognitive-behavioural therapy, psychoeducation and medication [82].

14.11.2 Muscle Dysmorphia

This condition is characterised by excessive concern over seeking bodily perfection through physical exercise. This leads to great dissatisfaction with self-image; exaggerated amounts of exercise; special diets and foods, to a degree where there is dependence; and also the consumption of doping substances [85]. This condition is ill-defined at present and related to obsessiveness, perfectionism and dysmorphophobia. It is more frequent in males.

14.11.3 Drunkorexia

Food restriction achieved through the ingestion of large amounts of alcohol with the aim of reducing food intake. This type of presentation is more frequent in young women. Both disordered eating and alcohol use were significant predictors of drunkorexia among young people. It is associated with weight concern and fear of gaining weight, and thus, restrictors tend to alter both their eating patterns. Drunkorexia may also be driven by the desire to intensify the intoxicating effects of alcohol [86].

14.12 Discussion

Young women present eating disorders more than any other pathology. The effects, complications and comorbidity of these disorders oblige us to assess why they still affect women in similar proportions (10:1) to two centuries ago. We choose to ignore existing biological factors, studied genetic factors with greater concordance between monozygotic twins and the presence of alterations in neuropsychological aspects. Instead, we have focused on the sociocultural aspects that, to a certain extent, shape biology and make these disorders persist over time in a Western world where, due to a lack of other ethical values, youth and thinness are what matters most.

A thinner female image leads these dominant cultures to influence teenagers who internalise these figures as personal values. It is a major achievement to be

aware of this. In a society that emphasises freedom, individual ability and free will and choice, awareness of the complexity and nature of the culture in which we are immersed is an advance with regard to those underlying aspects that condition our behaviour, personal choices and even our professional vocations, following Bourdieu's habitus model. One only achieves success by playing to the cultural norms. It is alienating that a woman feels "nothing" in this postmodern world unless she is slim, thin, unwrinkled, blemish-free and fat-free (apart from her breasts), a literally smaller body in the physical sense. We should remember that the ideal male figure has remained the same since the ancient Greeks and an athletic build has been the male beauty ideal throughout history. The postmodern discourse is disturbing, with fixed concepts such as "youth" or "old age" and their corporal expression becoming unstable, fluid, fragmented and undetermined. They are dominated therefore by more sophisticated technologies that make us believe, for example, that any woman can become a mother after menopause. "You only need an egg donor". The same happens with the gender paradigm. These discourses are altering the conception and experience of our bodies, encouraging us to imagine possibilities and close our eyes to limitations and consequences. Anorexia nervosa and bulimia nervosa-binge eating have reached epidemic proportions in the twentieth century. The prison of the body in which these patients live it had become a clinical reality. New ways of addressing this problem are required. More research is needed to determine the role of gender in the construction of these symptoms. A failure to include the gender paradigm in clinical construction will make it impossible for us to practise good science.

References

1. Alvarez JM, Esteban R, Sauvagnat F. Fundamentos de psicopatología psicoanalítica. Madrid: Síntesis S.S.; 2004.
2. Zutt J. Psiquiatría Antropológica. Madrid: Gredos; 1974.
3. Alonso Fernandez F. Compendio de psiquiatría. 2ª. Madrid: Oteo; 1982.
4. Eguiluz JI, Segarra R. Introducción a la Psicopatología. 2ª. Madrid: IM&C; 2001.
5. Harrus-Révidi G. Psicoanálisis de la gula. Gijón: Trea; 2004.
6. James R. A medical dictionary. Londres: Osborne; 1743.
7. Rozin P. Social and moral aspects of food and eating. Hillsdale, NJ: In I. Rock; 1990.
8. Fallon A. Culture in the mirror: socio-cultural determinants of body image. New York: T. F. Cash y T. Pruzinsky; 1990.
9. Baas MA, Wakwfield LM, Kolasa KM. Community nutrition and individual food behavior. Minneapolis: Burgess; 1979.
10. Contreras J. Antropología de la alimentación. Madrid: Eudema; 1993.
11. Toro J. El cuerpo como delito. Anorexia, bulimia, cultura y sociedad. Ariel Ciencia: Barcelona; 1996.
12. Carson IA. Ritchie. Comida y Civilización. Madrid: Alianza; 1986.
13. Ford C, Beach R. Patterns of sexual behaviour. New Haven: Harper and Brothers; 1955.
14. Noordenbos G. Door dik en bun. P. Allagaert and A. Cailleau: Gante; 1991.
15. Stunkard AJ. A history of binge eating. Londres: Guilford Press; 1993. (Binge eating: nature, assessment and treatment).
16. Von Boehn M. La moda: historia del traje en Europa desde los orígenes del Cristianismo hasta nuestros días. Barcelona: Salvat; 1944.

17. Gordon RA. Anorexia and bulimia: anatomy of a social epidemic. Oxford: Blackwell; 1990.
18. Bell RM. Holy anorexia. Chicago: University of Chicago Press; 1985.
19. Elias N. The court society. Oxford: Basil Blackwell; 1983.
20. Auster P. El arte del hambre. Barcelona: Edhasa; 1992.
21. Gianninni AJ. In: Gianninni AJ, Slaby AE, editors. A history of bulimia. New York: Springer; 1993.
22. Morton R. Phthisiolgia, or, a treatise of consumptions. Londres: Smith & Walford; 1694.
23. Pinel PH. Traité Médico-Philosophique sur l'Alienation mental. 2a ed. Paris: Brosson; 1809.
24. Gull WW. Anorexia nervosa. Trans Clin Soc Lond. 1874;7:22–8.
25. Gull WW. Anorexia nervosa. Lancet. 1888;I:516–7.
26. Lasègue C. De lá anorexia hysterique. Arch Générales Médecine. 1873;1:384–403.
27. Brumberg JJ. Fasting girls. The emergence of anorexia nerviosa as a modern disease. Cambridge: Harvard University Press; 1988.
28. Wolf V. Una habitación propia. Barcelona: Seix-Barral; 2001.
29. Brownell KD. History of obesity. In: Brownell KD, Fairburn CG, editors. Eating disorders and obesity. New York: The Guilford Press; 1995.
30. Henry J. Culture against Man. New York: Alfred A. Knopf; 1963.
31. Bordo S. Anorexia nervosa: psychopathology as the crystallization of culture. Unbearable weight: feminism, western culture, and the body. Berkeley: University of California Press; 1993.
32. Binswanger L. The case of Ellen west. Existence. New York: Simon and Schuster; 1958.
33. Garfinkel, P, Gardner, D. Handbook of treatment for eating disorders. 2[a] ed. New York: Guilford Press; 1997.
34. Bray GA. Obesity: historical development of scientific and cultural ideas. Int J Obes. 1990;14:909–26.
35. Habermas T. Heisshunger: historische bedingungen der bulimia nervosa. Frankfurt: Fischer; 1990.
36. Bordo, S. In: Diamond I, Quinby L, editors. Anorexia nervosa: psychopathology as the crystallization of culture. Boston: North East University Press; 1988 (Feminism and Foucault. Reflections on resistance).
37. Bordo S. Eating disorders: the feminist challenge to the concept of pathology. Dordrecht: Kluwer Academic Publishers; 1992.. (Leder, D. The Body in medical thought and practice).
38. Bordo S. Unbearable weight: feminism, western culture and the body. En Berkeley: University California Press; 1992.
39. Moskowitz L, Weiselberg E. Anorexia nervosa/atypical anorexia nervosa. Curr Probl Pediatr Adolesc Health Care abril de. 2017;47(4):70–84.
40. Diagnostic and Statistical Manual of Mental Disorders (DSM-5®). 5[a]. American Psychiatric Association; 2013.
41. Udo T, Grilo CM. Prevalence and correlates of DSM-5-Defined Eating Disorders in a Nationally representative sample of U.S. adults. Biol Psychiatry. 2018;84(5):345–54.
42. Harrington BC, Jimerson M, Haxton C, Jimerson DC. Initial evaluation, diagnosis, and treatment of anorexia nervosa and bulimia nervosa. Am Fam Physician. 2015;91(1):46–52.
43. Lindvall Dahlgren C, Wisting L, Rø Ø. Feeding and eating disorders in the DSM-5 era: a systematic review of prevalence rates in non-clinical male and female samples. J Eat Disord [Internet]. 2017 [citado 20 de septiembre de 2018];5. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5745658/.
44. Ernst V, Bürger A, Hammerle F. Prevalence and severity of eating disorders: a comparison of DSM-IV and DSM-5 among German adolescents. Int J Eat Disord. 2017;50(11):1255–63.
45. Pichot P, López-Ibor Aliño JJ. DSM-IV: manual diagnóstico y estadístico de los trastornos mentales. Barcelona: Masson; 1998.
46. Marzola E, Kaye WH. In: Bier DM, Mann J, Alpers DH, Vorster HHE, Gibney MJ, editors. Anorexia nervosa. World review of nutrition and dietetics [Internet]. Basel: S. KARGER AG; 2014 [citado 20 de septiembre de 2018]. p. 169–73. https://www.karger.com/Article/FullText/362320.

47. Ulfvebrand S, Birgegård A, Norring C, Högdahl L, von Hausswolff-Juhlin Y. Psychiatric comorbidity in women and men with eating disorders results from a large clinical database. Psychiatry Res. 2015;230(2):294–9.
48. Pugh M, Waller G. Understanding the "anorexic voice" in anorexia nervosa. Clin Psychol Psychother. 2017;24(3):670–6.
49. Brown C, Mehler PS. Medical complications of anorexia nervosa and their treatments: an update on some critical aspects. Eat Weight Disord EWD. 2015;20(4):419–25.
50. Gravina G, Milano W, Nebbiai G, Piccione C, Capasso A. Medical complications in anorexia and bulimia nervosa. Endocr Metab Immune Disord Drug Targets. 2018;18(5):477–88.
51. Mohler-Kuo M, Schnyder U, Dermota P, Wei W, Milos G. The prevalence, correlates, and help-seeking of eating disorders in Switzerland. Psychol Med. 2016;46(13):2749–58.
52. Castillo M, Weiselberg E. Bulimia nervosa/purging disorder. Curr Probl Pediatr Adolesc Health Care. 2017;47(4):85–94.
53. Grenon R, Carlucci S, Brugnera A, Schwartze D, Hammond N, Ivanova I, et al. Psychotherapy for eating disorders: a meta-analysis of direct comparisons. Psychother Res J Soc Psychother Res. 2018:1–13.
54. Stunkard AJ. Eating patterns and obesity. Psychiatr Q. 1959;33(2):284–95.
55. Spitzer RL, Devlin M, Walsh BT, Hasin D, Wing R, Marcus M, et al. Binge eating disorder: a multisite field trial of the diagnostic criteria. Int J Eat Disord. 1992;11(3):191–203.
56. Amianto F, Ottone L, Abbate Daga G, Fassino S. Binge-eating disorder diagnosis and treatment: a recap in front of DSM-5. BMC Psychiatry. 2015;15:70.
57. Culbert KM, Racine SE, Klump KL. The influence of gender and puberty on the heritability of disordered eating symptoms. Curr Top Behav Neurosci. 2011;6:177–85.
58. Shingleton R, Thompson-Brenner H, Thompson DR, Pratt EM, Franko DL. Gender differences in clinical trials of binge eating disorder: an analysis of aggregated data. J Consult Clin Psychol. 2015;83(2):382–6.
59. Patel R. Obesos y Famélicos. Barcelona: Los libros del lince; 2008.
60. Blostein F, Assari S, Caldwell CH. Gender and ethnic differences in the association between body image dissatisfaction and binge eating disorder among blacks. J Racial Ethn Health Disparities. 2017;4(4):529–38.
61. Telch CF, Agras WS. Obesity, binge eating and psychopathology: are they related? Int J Eat Disord. 1994;15(1):53–61.
62. Yanovski SZ, Nelson JE, Dubbert BK, Spitzer RL. Association of binge eating disorder and psychiatric comorbidity in obese subjects. Am J Psychiatry. 1993;150(10):1472–9.
63. Moyer DM, DiPietro L, Berkowitz RI, Stunkard AJ. Childhood sexual abuse and precursors of binge eating in an adolescent female population. Int J Eat Disord. 1997;21(1):23–30.
64. Black DW, Goldstein RB, Mason EE. Prevalence of mental disorder in 88 morbidly obese bariatric clinic patients. Am J Psychiatry. 1992;149(2):227–34.
65. Kornstein SG, Clayton AH. Women's mental health, an issue of psychiatric clinics of North America, E-Book. Elsevier Health Sciences; 2017. 165 p, 40, i.
66. McElroy SL, Hudson J, Ferreira-Cornwell MC, Radewonuk J, Whitaker T, Gasior M. Lisdexamfetamine Dimesylate for adults with moderate to severe binge eating disorder: results of two pivotal phase 3 randomized controlled trials. Neuropsychopharmacology. 2016;41(5):1251–60.
67. Mangweth-Matzek B, Hoek HW. Epidemiology and treatment of eating disorders in men and women of middle and older age. Curr Opin Psychiatry. 2017;30(6):446–51.
68. Mustelin L, Lehtokari V-L, Keski-Rahkonen A. Other specified and unspecified feeding or eating disorders among women in the community. Int J Eat Disord. 2016;49(11):1010–7.
69. Riesco N, Agüera Z, Granero R, Jiménez-Murcia S, Menchón JM, Fernández-Aranda F. Other Specified Feeding or Eating Disorders (OSFED): clinical heterogeneity and cognitive-behavioral therapy outcome. Eur Psychiatry J Assoc Eur Psychiatr. 2018;54:109–16.
70. Saraçlı Ö, Atasoy N, Akdemir A, Güriz O, Konuk N, Sevinçer GM, et al. The prevalence and clinical features of the night eating syndrome in psychiatric out-patient population. Compr Psychiatry. 2015;57:79–84.

71. Striegel-Moore RH, Dohm F-A, Hook JM, Schreiber GB, Crawford PB, Daniels SR. Night eating syndrome in young adult women: prevalence and correlates. Int J Eat Disord. 2005;37(3):200–6.
72. Yahia N, Brown C, Potter S, Szymanski H, Smith K, Pringle L, et al. Night eating syndrome and its association with weight status, physical activity, eating habits, smoking status, and sleep patterns among college students. Eat Weight Disord EWD. 2017;22(3):421–33.
73. Murray HB, Thomas JJ, Hinz A, Munsch S, Hilbert A. Prevalence in primary school youth of pica and rumination behavior: the understudied feeding disorders. Int J Eat Disord. 2018;51(8):994–8.
74. Zanetti T, Strumia R. Epidemiology of eating disorders. Berlin: Springer; 2013.
75. Chatoor I, Lucarelli L. Feeding and eating disorders of infancy and early childhood [Internet]. Two. WoltersKluwer; 2017 [citado 21 de septiembre de 2018]. https://iris.unica.it/handle/11584/110945#.W6UjALjta00.
76. Roy A, Fuentes-Afflick E, Fernald LCH, Young SL. Pica is prevalent and strongly associated with iron deficiency among Hispanic pregnant women living in the United States. Appetite. 2018;120:163–70.
77. Moore DF, Sears DA. Pica, iron deficiency, and the medical history. Am J Med. 1994;97(4):390–3.
78. Mammel KA, Ornstein RM. Avoidant/restrictive food intake disorder: a new eating disorder diagnosis in the diagnostic and statistical manual 5. Curr Opin Pediatr. 2017;29(4):407–13.
79. Fitzgerald M, Frankum B. Food avoidance and restriction in adults: a cross-sectional pilot study comparing patients from an immunology clinic to a general practice. J Eat Disord. 2017;5:30.
80. Nicely TA, Lane-Loney S, Masciulli E, Hollenbeak CS, Ornstein RM. Prevalence and characteristics of avoidant/restrictive food intake disorder in a cohort of young patients in day treatment for eating disorders. J Eat Disord [Internet]. 2014 [citado 21 de septiembre de 2018];2. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4145233/.
81. Pitt PD, Middleman AB. A focus on behavior management of Avoidant/Restrictive Food Intake Disorder (ARFID): a case series. Clin Pediatr (Phila). 2018;57(4):478–80.
82. Håman L, Barker-Ruchti N, Patriksson G, Lindgren E-C. Orthorexia nervosa: an integrative literature review of a lifestyle syndrome. Int J Qual Stud Health Well-Being. 2015;10:26799.
83. Koven NS, Abry AW. The clinical basis of orthorexia nervosa: emerging perspectives. Neuropsychiatr Dis Treat. 2015;11:385–94.
84. Grupo de trabajo para la actualización de GPC, España, Ministerio de Ciencia e Innovación, España, Ministerio de Sanidad y Política Social. Actualización de guías de práctica clínica en el Sistema Nacional de Salud: manual metodológico. Madrid: Ministerio de Ciencia e Innovación: Ministerio de Sanidad y Política Social; 2009.
85. Morgan JF. From Charles Atlas to Adonis complex—fat is more than a feminist issue. Lancet Lond Engl. 2000;356(9239):1372–3.
86. Pompili S, Laghi F. Drunkorexia: disordered eating behaviors and risky alcohol consumption among adolescents. J Health Psychol. 2018;1359105318791229.