

## EATING DISORDERS IN CHILDHOOD AND ADOLESCENCE

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### Abstract

Eating disorders in childhood and adolescence are disorders of the normal flow of food, increasingly widespread with nuances that approach adult eating disorders. To date, the shift of the onset of these problems to early stages of the existence of the individual is increasingly observed. Eating disorders that occur in childhood cannot be reduced to problems inherent solely in nutrition, but involve the emotional, cognitive, behavioral and relational spheres of both the individual who is afflicted by it and those around him, such as the family atmosphere. For a correct diagnostic classification and an effective intervention, the integration between medicine and psychology is necessary, whose common goal is to restore the state of psychological well-being and the quality of life itself. The approach adopted towards this category of disorders is integrated and involves different professional figures (child neuropsychiatrist, psychologist, pediatrician, nutritionist).

In this paper we evaluate the characteristics that a disorder of food behaviors assumes, in particular the bulimia disorder, in the various stages of developmental age considering that the various syndromic psychopathological frameworks manifest themselves in different ways depending on the degree of neuropsychological achieved by the subject at the time of their debut.

**Keywords:** Adolescence, childhood, development, eating disorders, family

## Introduction

Childhood eating disorders have a heterogeneous nature, including a variety of specific problems with different etiologies and outcomes, both of an organic nature (development of oromotor, orosensory development, gastroesophageal reflux, gaseous colic) and of non-organic nature that can be classified as a relationship disorder with the caregiver. During childhood transient eating disorders are common at certain critical moments of development, such as at the time of weaning or between the second and third years of life with the transition to an autonomous diet, without necessarily constituting a disturbance. These moments of development, however, represent moments of reorganization of the relationship with the caregivers and therefore of extreme vulnerability due to the onset of a feeding disorder. The refusal of food is a common behavior in the context of a maturing process where the child's biological, cognitive and affective capacities reorganize themselves to a more complex level of development, requiring a new interactive regulation and a new mutual adaptation of the child-caregiver couple who take into account the greater sense of individual autonomy of the child. To these modifications and anomalous behaviors of the child the caregivers can react differently reflecting their evolutionary experiences in the separation-individuation process; some parents can encourage the child's autonomy, others feel uncomfortable and become overprotective. Parents' past interactive experiences with their caregivers can therefore significantly influence evolutionary regulation models; the relational history of parents thus represents an important part in the diagnostic evaluation of infantile eating disorders (1). Research in the field of child development has made it possible to identify the motivational forces that guide development and organize the trends that underlie stable patterns, highlighting that the drive to create and maintain relationships is central to human nature and as such organizes psychological experience. This innate tendency to search for dyadic relationships and to achieve a relational reciprocity represents a motivation on a par with the search for food, libidinal gratification or reduction of tensions (2). In this relational

motivation the child learns to signal his own discomfort and to elicit harmonic responses in the adult who takes care of him. The adult's appropriate response to a hunger signal transforms the internal state of tension and powerlessness into satisfaction. These transactions contribute to the construction of mental representations and to the stabilization of the representations of the generalized interactions that are the personality matrix, ie the psychological organization that underlies the specific individual patterns of perception, experimentation, adaptation and relational style. In this regard, the research showed that at the end of the first year of life the child has achieved some ability to regulate his own emotions and needs and to establish stable attachment bonds with the significant figures that will remain fundamentally stable during childhood and adolescence (3,4). The importance of maternal deprivation and incongruous mother-child relationships in the onset of psychopathology and how there is a link between early life events and behavior in later stages of life has been verified. Therefore it is unlikely that a psychopathology focused on the child, in particular below the age of three, due to the limited psychological autonomy, so it is unlikely that a disorder of the child is solely the reflection of the adult disorder (5). The behavioral syndromes of childhood, therefore, they seem to fit into the relational dynamics of the family.

Relational disorders can be classified into:

- relational disorders that cause worries within the family but are transitory and occur in moments of transition to new evolutionary acquisitions (weaning, autonomy in feeding, minor physical illnesses); they have a favorable outcome with satisfactory family and social support and can also be a stimulus to development. They generally last no more than a month.

- relational disturbances that indicate an evolutionary condition at risk in which repetitive incoherent and insensitive interactions occur which, if they persist, can evolve towards an individual or relational psychopathology. Interactions are more rigid but do not involve all areas of development. The duration varies from 1 to 3 months.

Among the regulatory alterations of different functional areas (sleep, relationships with peers or parents, academic performance) induced by the

relational disorder, there may be eating behavior that presents itself as the child's difficulty in establishing regular feeding patterns with a Adequate intake of food, both to regulate their diet with the physiological states of hunger and satiety. This descriptive definition allows us to include the specific clinical pictures of the childhood nutrition and childhood disorder that will be the subject of our discussion: the non-organic failure to thrive and childhood obesity (6).

#### **Clinical pictures**

In the clinical evaluation it must be taken into account that nutrition is an essential aspect in the care and care of children and is of particular importance for parents both as a source of reassurance and satisfaction, and of concern if any disturbance emerges in such scope; This way, caregiving maladaptive behaviors that complicate the child's eating difficulties can easily be established. Around the feeding the earliest interaction axis between mother and child is knotted. In the first years of life, feeding difficulties are very common, especially in critical moments such as weaning and during the transition to an autonomous feeding (2-3 years), they are generally transient and children remain with a weight appropriate to the age; despite the alarm of the parents, those situations that we have defined relational disorders are configured. In order for the child's irregular eating patterns to be considered true disorders, a body weight below the fifth percentile with respect to the normative values for the age of the child and a slowing down in the acquisition of body weight with respect to growth rates prior to the disturbance should be noted. , in the absence of an associated organic condition. The diagnostic criteria of DSM-IV and ICD-10 for the nutrition disorder of infancy or early childhood (onset before 6 years of age) include, in addition to the persistent inability to feed adequately with significant weight loss (at least 1 month) and in the absence of a general medical condition, also the absence of another mental disorder or lack of food availability. This is to distinguish a primary eating disorder from secondary forms connected both to social causes (absence of food), and to organic causes (medical internist, sensory or motor disabilities), and mental (post-traumatic stress disorder, adaptation disorder, disorder of anxiety,

mood disorder) where the eating disorder can be classified as a symptom of other syndromic pictures (diagnostic classification: 0-3).

The primary clinical form is the difficulty of non-organic growth (non organic failure to thrive) which can have an early onset in neonatal age or, generally on the occasion of a change in the diet. Newborns or infants are over-excitabile, irritable, cry when they are offered food or are easily tired by prematurely interrupting their meal. Older children have an active oppositional attitude and an apparent lack of interest in food. He refuses to open his mouth, moves away from the food arching, spits food, turns the dish upside down, expresses intense anger together with the behavior of the caregiver, alarmed and apprehensive, to force the food, highlighting conflicting and controlling interactive modes. This picture may have a more nuanced onset with children, defined as "eaters", who show poor appetite and selective refusal for certain foods before evolving towards a persistent eating disorder with weight loss and conflictual relationship with the caregiver. It is not uncommon for this disorder to center on the relationship with the mother and for the child to feed normally with any other person. The mother feels this conduct as a refusal towards her, she is distressed, she is in difficulty, with reduced availability and annoyed by the approaching meal, increasing conflict. In these conditions the meal no longer means for the child to take nourishment, but rather to absorb the anguish of the mother. Regarding childhood obesity, on the clinical level, it is defined by pediatricians as having a body mass index of more than 25 m2/kg and is distinguished in exogenous obesity, when due exclusively to nutritional excess, and endogenous obesity, when caused by genetic, endocrinological or neurological syndromes. Depending on the characteristics of the adipocytes, paediatricians describe hyperplastic obesity, in which the number of adipocytes is high, and would be formed in the first year of life, and hypertrophic obesity when the number of adipocytes is normal, but their size is excessive; these would occur after the first year of life. Finally, the mixed forms. On the nutritional level, obesity is sometimes formed as a result of bulimic crises in the child, but more often it is the consequence of hyperphagia caused by the family

climate in which genetic factors and eating habits intertwine (7).

## Methods

### Epidemiology and course

The prevalence of specific clinical pictures of eating disorders in the pediatric age is not well documented due to the uncertainties, existing until a recent past, in the classification and distinction of the various nosographic pictures. Eating disorders in early infancy are very common reaching a percentage of 35% if one also considers children with developmental difficulties (prematurity, specific handicaps). But it is opportune to distinguish transient eating difficulties from the actual disorder with persistent rejection of food, recurrent vomiting and delayed growth that requires in-depth diagnostic examinations both in day hospital and in hospitalization when malnutrition conditions are at an advanced stage. Pediatricians report a prevalence of this disorder around 10% in the first 15 months of age. In about 50-58% of these cases there is no organic cause that justifies both the refusal of food and the growth delay in these children, which can therefore be classified in the "non-organic growth defect" (non organic failure to thrive). Even with regard to children who are excessively fed, epidemiological data are inaccurate as this food condition, although it may have its onset below three years of life, is reported late, generally in the pubertal period, causing a large gap between era of appearance and the era of consultation. Among other things, in many families the child's obesity is considered an indication of good health and the need to remedy it arises only in adolescence and, more often, for the daughters. Epidemiological data indicate a prevalence of the disorder around 10%, indicating that it is a figure that continues to rise in western societies.

The importance of prevention and early diagnosis of childhood eating disorders is supported by the many longitudinal studies that highlight the risk of a stability of the disorder over time, of developmental disorders, behavioral problems and personality disorders (8-10). In particular, poor appetite and selective rejection of food in childhood are predictive of an adolescent anorexic disorder, while irregular eating behavior and pica represent risk factors for bulimia nervosa in adolescence and

adulthood (8). Finally, only 15-25% of childhood obesity regress, the others persist in adulthood.

### Etiopathogenetic models

At the origin of eating disorders with infantile onset on a psychogenic basis, multiple factors can interact in a period of life characterized by rapid changes in biological, affective and cognitive development. In recent years, disciplines with an evolutionary perspective such as developmental psychology, attachment theory and evolutionary biology have found many interdisciplinary convergences and approaches, developing solid and consistent conceptualizations of evolutionary psychopathology (9,10). The psychoanalytic model envisages that oral impulses organize eating behaviors during infancy, both in the Freudian perspective, assuming the character of thrusts that are placed between the biological and psychological spheres, both in the Kleinian perspective, where the drives take on the character of psychic representatives in the form of unconscious fantasies. The repeatedly dissatisfied request, the resentment, the dependence would have a central role in originating conflicts at the oral level leading to the development of infantile neuroses which, in nutrition, are expressed with abnormal senses of hunger, the refusal to chew or ingest food. Anna Freud (11) was the first to emphasize the intimate connection between the pleasure of nutrition and the roots of the object relationship, considering oral tendencies as the first vehicle of libidinal attachment to the mother. Thus oral attitudes have a decisive role in the formation of the mother-child relationship as, the latter, is in determining the child's attitude towards food. Therefore, nutrition has an intrinsic biological function and a communication function with the mother, giving the food very special psychological, symbolic and affective valences. Therefore the act of feeding in infancy requires communicative competence of both partners and, involving more than any other bodily function the emotional life of the child, is used as an outlet for libidinal and aggressive tendencies (12-15).

In this scenario, in recent years, an evolutionary model has become increasingly popular in which the child-caregiver relationship is central as a psychological response to the search for protection and



safety by reducing the role of oral drives in the emotional development of the child. In particular, the attachment theory proposed by Bowlby foresees that the mother-child bond is the result of a precise and partly preordained system of behavioral patterns that develops in the first year of life (12-15). When the child experiences a condition of difficulty (hunger, cold, physical pain) the attachment behavior is activated, as the primary motivation, which aims to obtain the mother's confident closeness to restore lost balance. On the basis of the sensitivity of the caregiver in responding to the child's signals, in the latter there are internal representations on the attachment figures and on the expectations of their behavior, determining internal operating models which, formed in the first years of life, tend to persist time even when their organization follows non-functional lines. Therefore, a mother with a history of insecure attachment is very likely to transmit the same pattern of attachment to the child who, internalizing it, will re-propose it in other significant relationships during the life cycle. In this context, nutrition plays a leading role in the development of relationship models, being, beyond its biological relevance, one of the first recurring social activities of the child. Feeding allows the child to encounter a significant amount of visual, tactile and auditory stimuli that accompany nutrition in the strict sense. Therefore it is an important attachment event that builds strong traces of memory as its biological rhythm requires a remarkable repetition that prevents the extinction of memory. The motivational system of organization and regulation of hunger-satiety cycles is built on the physiological state of need amplified by the affects associated with the different states, modulated by the person who takes care of them (12-15). The affective communication system between the child and the caregiver is composed of gestural, postural, mimic and vocal signals with which the child expresses his emotional state and his needs and also recognizes the emotional meaning of the affective expression of the caregiver. When interactions with the caregiver are problematic, as the latter is not very capable of correctly reading the child's communicative signals, it is inconsistent and unreliable, poorly positioning the child during breastfeeding, hindering social exchanges: the child experiences, so , negative

affects deriving from interactive failures. When this situation is repetitive and lasts over time without reparations, the child develops representations of himself as ineffective and of the mother as unreliable. This means that the child relies excessively, to overcome negative affects, on self-regulation, significantly reducing his involvement with others and compromising his cognitive development and his relational abilities. The observations of the early interactions of children with disorders of food regulation have highlighted a frequent refusal of food with unclear communicative signals, with elevated levels of anger, ambivalence and fear on the part of children, while their mothers show little receptivity and cooperative manifesting arbitrary, directive and controlling behaviors, disadvantaging processes of autonomy of the older child during the meal (12-15). The studies that used the observational procedure of the Strange Situation, to assess the quality of the attachment relationship between caregiver and child, in the growth difficulty resulting from an eating disorder (non organic failure to thrive), have shown that these children showed an insecure or disorganized attachment and showed low dyadic reciprocity. Therefore, it is clear the importance of recognizing dysfunctional relational patterns early enough to identify early the risk of psychopathological evolution. Metacognitive research, in the context of childhood eating disorders, focuses attention on the indefiniteness and vagueness of the contours of the Self. These disorders would develop from a parental attitude characterized by intrusiveness with a constant anticipation or redefinition of the child's feelings, emotions, behaviors and perceptions. Thus the latter builds, progressively, a vague and indefinite sense of self that constantly requires an external reference to outline its contours and recognize itself. In this indefiniteness the body remains as the only element of recognition and self-definition in relation to the other and in maternal representations nourishment and physical image are important emotional priorities on which the child tends to tune. Therefore, the food relationship becomes a vehicle of the quality of emotional ties, which, in the condition of highly conflicting and unsatisfactory mother-child interactions centered on food, could develop a "non-organic growth

difficulty", while a picture of poor emotional expressiveness and of interpersonal distance seems to determine some forms of childhood obesity (12-15). In these situations the constant consuming activity takes on a value of distancing from the emotion, while the body seems to be used as an "alibi" to avoid confronting the profound feelings of loneliness. In these cases, there is no kind of conflict with regard to attachment figures, but a climate of resignation to one's destiny of solitude prevails. In the context of childhood obesity, many studies underline the inability of the caregiver to interpret the crying signs of the newborn who is offered indiscriminately nourishment to calm him, thus leading to a condition of over-feeding. This caregiver behavior persists over time and even the older child is offered food as an element of gratification and comfort to the tension. This would disturb the physiological sensations of hunger-satiety predisposing the future adolescent-adult to an inadequate dietary behavior. In some cases, sudden weight gain occurred following a traumatic separation from the primary caregiver figure, suggesting an eating disorder secondary to emotional trauma (12-15). Many studies have verified the presence of both childhood obesity and non-organic growth difficulties, as both expression of an early eating disorder, in socially dysfunctional and greatly deteriorated family contexts, where there are disadvantageous socio-economic conditions, stories of drug addiction and alcoholism, violent or negligent relational models, serious psychiatric illness of caregivers, child abuse. The treatment of these eating disorders of the child requires first of all an accurate and careful evaluation of the individual characteristics of the child's temperament and his relationships within the family through direct observation of the interactions. It is also necessary to investigate the past interactive experiences of parents with their caregivers who can influence models of evolutionary regulation. The therapeutic approaches focus on the quality of the child-caregiver relationship and are oriented to the identification and resolution of dysfunctional relational patterns by proposing new interactive models that favor a secure attachment of the child to the primary figure of caregiver based on a reassuring interaction that, at the same time, support the child's autonomy behaviors (12-15).

Regarding the treatment of obesity of the older child, a pharmacological intervention is not recommended and even a simple calorie restriction is destined to failure without an adequate evaluation of the psychosomatic role of obesity and a psychotherapy oriented to the emergence and support of the motivation of the child patient to treatment (8).

## **Results**

### **Eating disorders in adolescence**

Eating disorders in adolescence are among the alterations of body-centered behaviors. The body in adolescence "begins to make noise" after the silence of childhood, playing a central role both in the context of concrete interactions with the environment and in phantasmal activity. The morphological transformation of puberty, the burst of sexual maturity call into question the image of the body that the child had progressively built, placing it at the center of most of the conflicts of adolescence. One of the characteristics of the adolescent is to use the body as a means of expressing one's difficulties and as a means of relating. In social interaction the body of the adolescent seems to occupy the same privileged place that the body of the infant or child occupies in the dual interaction with the mother. The representation of the body derives from three fundamental aspects that are closely intertwined: the body schema, the image of the body and the social body. The "body schema" refers to a strictly neurophysiological concept and derives from the exteroceptive and proprioceptive sensitivity that provides information on the dimensions and positions that the body occupies in space. Rapid puberty transformations require a modification of the body schema. The "body image" belongs to the imaginary symbolic system and has an affective connotation. Its organization depends on the ontogenesis of libidinal and aggressive drives, fixation points or eventual regressions at various stages of development. Therefore, dynamic, libidinal and aggressive investments, in times of great transformations such as those related to adolescence, determine a continuous rehash of the image of the body, further disfavoring the constitution of the recognition of a border that, on a symbolic level, it has the function of a stabilizing and

protective image. Hence the adolescent's uncertainties about the image of his body and the great vulnerability that derives from it (16-20).

Finally, the "social body" is the consideration of the body as a vehicle of being in the world, which is at the center of emotional relational exchanges. Also this aspect in adolescence is particularly fragile; in fact, in this period of the life cycle, the physiological transformations of the body (stature, appearance of secondary sexual characteristics, age of the menarche and of the first ejaculation) are very variable in the times and in the ways, widening the adolescent's uncertainties about his normality and the judgment of others. Therefore, the adolescent uses his body both to differentiate himself from the other (adult or child age), and to seek a resemblance and reassuring belonging to his peers. When these physiological disturbances take on a psychopathological connotation, two types of defense mechanisms prevail: the need for mastery and regression. In the first case we are witnessing the adolescent's need to cancel every instinctive emergency and the need to maintain the absolute control of his fantasies through mastery of the body; the adolescent uses his body with his physiological needs, in particular food, to keep away the sexuality and the disturbances it produces at the level of the body image. Therefore, it designates the body as an object to be controlled passing, in a dangerously progressive way, from a simple need to dominate the drives to the imperious need to possess and maintain absolute mastery over the body. Indeed, we are witnessing adolescents who impose spartan hygiene on their lives by not giving themselves any physical satisfaction, giving rise to the condition that A. Freud defined as "the asceticism of puberty". The ascetic behavior of the adolescent reaches its maximum expression in the disorder of dietary habits, particularly in its restrictive forms. The regression is characterized by the return to sources of previous partially abandoned drive satisfaction. In this case, the alterations of the alimentary conduits occupy a privileged position expressing the importance of the oral fixation points and their reactivation in conjunction with the typical drive reactivation of puberty (16-20). The relationship between corporeality and adolescence, in the last twenty years, is also the result of the rampant narcissistic

culture of the adult world that has led to an involution of the affective, sentimental and ideal investments of adolescents, all now centered on appearance and bodily well-being. The continuous and contrasting messages proposed by our society, which give great value to the ephemeral and the external image, find fertile ground in the adolescent with an identity that is still very fragile and vulnerable, being in a phase of structuring. The myth of thinness as a synonym of beauty and totipotency proposed by the mass media, the effects of the fashion industry, suitable only for lean and well-proportioned bodies, the continuous churning by pharmaceutical companies of products that promise miraculous weight loss without any sacrifice, not they leave no room for the uniqueness and originality inherent in every person, hindering that progressive process of building self-esteem and self-acceptance, which is one of the essential prerequisites for building one's identity. In this context, considering, however, both the constant decrease in the leading role of the family, unable to filter the messages, and the models imposed by the company, less and less available to listen by replacing it with offers of consumer goods, it is understandable the growth of the juvenile discomfort and related diseases. Epidemiological studies on eating disorders in non-Western populations confirm these hypotheses. In fact, these disorders are almost unknown in the undeveloped countries and are on the rise in countries engaged in rapid socioeconomic changes oriented culturally according to Western-type models. Clinically, bulimia nervosa acquired its own nosographic autonomy in 1979, although previously bulimic-type eating styles had already been described. Onset is rarely acute, in most cases it is insidious and easily overlooked by the family and the doctor. The beginning is often marked by a gradual and increasing attention to food following a hypocaloric diet for a real overweight or for a gastrointestinal disorder (swelling, stomach acid, nausea, diarrhea), to arrive, at variable times, at clear clinical picture characterized by recurrent episodes of compulsive binge eating defined as "eating more than normal in a short period of time with no impulse control". These food compulsions are almost never accompanied by a feeling of hunger, but rather by a feeling of malaise,

emptiness or a true state of anxiety (16-20). Eating behavior is disturbed and presents itself as a ritual: the adolescent is alone, swallows large quantities of food, without making any distinction, chaotically, in great haste and without getting any pleasure from it. The duration of the episode goes from a few minutes to the hour; subsequently a feeling of profound discomfort, disgust, humiliation, intense devaluation of oneself arises. Then follows self-induced vomiting, abuse of laxatives and diuretics (subtype with elimination pipelines) or long periods of fasting and excessive exercise (subtype without elimination) in an attempt to counteract the effects of food. In fact, there is a persistent concern and constant control over nutrition that, on the occasion of the bulimic crisis, is completely lost, leaving space for this uncontrolled drive. The bulimic teenager is almost always normal weight or even underweight, but you live too fat with a constant fear of gaining weight. Therefore there is an alteration of the body image which is a central psychopathological aspect in bulimia nervosa. In fact bulimics are frequently observed with attention focused on the body, dissatisfaction with one's own forms, the fear of gaining weight, the tendency to significantly overestimate one's body dimensions and a discrepancy between ideal measures and perceived measures of one's body. In the distortion of perception the affective component plays a prominent role. The alteration of the body image in eating disorders does not consist in seeing or thinking, but in feeling fat. The importance of the emotional element is confirmed by the results of studies in which the perceptive overestimation appeared to be strongly correlated with low self-esteem, ego fragility, high levels of anxiety and depression. Finally, from the initial stages, there is also an evident change in character, generally undervalued as it is considered typical of age. Apparently normal, mild, sociable, available, diligent girls become closed, grumpy, lonely and sad, they don't make new friends, they neglect the previous ones, they don't have emotional ties typical of the age, in school they live isolated even if they are hyperactive, in the family they are irritable, especially with their mother, and they do not tolerate comments on their appearance, they spend a lot of time in front of the mirror worrying excessively about their appearance and becoming

demanding and sought after in clothing that they do not use almost always wearing the same clothes that give them a maximum connotation of anonymity and non-visibility. In the clinical picture transversal to bulimia nervosa very often it is associated with a disorder of impulse control such as kleptomania, substance abuse, self-injurious conduct up to the suicide attempt. The association with borderline and avoidant personality disorders is not uncommon. The bulimic teenager is almost always normal weight or even underweight, but you live too fat with a constant fear of gaining weight. Therefore there is an alteration of the body image which is a central psychopathological aspect in bulimia nervosa. In fact bulimics are frequently observed with attention focused on the body, dissatisfaction with one's own forms, the fear of gaining weight, the tendency to significantly overestimate one's body dimensions and a discrepancy between ideal measures and perceived measures of one's body. In the distortion of perception the affective component plays a prominent role (16-20). The alteration of the body image in eating disorders does not consist in seeing or thinking, but in feeling fat. The importance of the emotional element is confirmed by the results of studies in which the perceptive overestimation appeared to be strongly correlated with low self-esteem, ego fragility, high levels of anxiety and depression.

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imbalances (metabolic alkalosis, hypochloremia, hypokalemia). Acute gastric dilation, which can lead to perforation and esophageal laceration following vomiting, is more rare, although potentially lethal. Dental complications are due to the repeated contact of hydrochloric acid with dental enamel. As far as epidemiology and the course are concerned, bulimia nervosa is equally widespread in all the industrialized countries of the world, while in developing countries this clinical picture becomes more and more frequent with increasing availability of food and wealth and the spread of the customs of the richest nations. Many authors disagree in considering eating disorders as an epiphenomenon of consumerism, but the increase in prevalence in recent decades would reflect an increased awareness and knowledge in this field to favor their diagnosis. It should be stressed that even today only a minority of clinical cases found in the general population come into contact with specialist structures. Only one in seventeen cases of bulimia is treated in psychiatric services. In Italy epidemiological studies are still few and have found a prevalence of bulimia nervosa ranging from 0.7 to 5.3%. Some groups of subjects seem to be more at risk for the development of an eating disorder; in fact in the world of dance, fashion and in some sporting fields the prevalence is higher than in the general population (16-20).

For bulimia nervosa the male / female ratio is 1: 20 and, in adolescence, it is more frequent than anorexia nervosa. However, anorexia and bulimia can alternate at different times in the same person. Some studies indicate a modest difference in the incidence values of eating disorders in recent decades, suggesting the hypothesis of reaching a plateau after a tumultuous increase in the immediate post-war years. Internal complications derive from the elimination behaviors: the most serious and frequent are the hydro-electrolytic imbalances (metabolic alkalosis, hypochloremia, hypokalemia). Acute gastric dilation, which can lead to perforation and esophageal laceration following vomiting, is more rare, although potentially lethal. Dental complications are due to the repeated contact of hydrochloric acid with dental enamel. As far as epidemiology and the course are concerned, bulimia nervosa is equally widespread in all the industrialized countries of the world, while in

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etiopathogenesis of eating disorders is discussed and different multifactorial pathogenetic models indicate that the successful and beauty prototype continually proposed by the media can have a strongly negative impact on the body experience of weaker and vulnerable subjects. Adolescence, due to the considerations discussed above, constitutes in itself an element of vulnerability; if family dysfunctions, genetic predispositions for affective disorders, traumatic experiences, a low level of self-esteem, the negative effect of the media are added, the risk of developing the pathology increases considerably (16-20).

The course of eating disorders goes from the extreme of a single benign episode, which resolves itself during adolescence, to the opposite one of a chronic, persistent or recurrent disease with high mortality. Adequate interventions can reduce mortality, but there is uncertainty as to whether they are able to favorably change the long-term course of the disease. The high incidence of chronic disorders of eating habits, as evidenced by studies on long-term evolution, increases the relevance of these disorders on an epidemiological and clinical level, emphasizing the importance of early case recognition and timely treatment, considering that a long history of illness represents an unfavorable prognostic factor. Follow-up studies of not less than four years indicate a relapse rate of more than 10% and recurrences that can occur even after many years linked to a stressful event (16-20). Clinical experience suggests that even after remission of specific dietary symptoms, clinically relevant psychopathological disorders persist in more than half of cases. In people cured of bulimic or anorexic symptoms, disorders of body image and sexuality are frequent long-term psychopathological outcomes. The specific role of media in the etiopathogenesis of eating disorders is discussed and different multifactorial pathogenetic models indicate that the successful and beauty prototype continually proposed by the media can have a strongly negative impact on the body experience of weaker and vulnerable subjects. Adolescence, due to the considerations discussed above, constitutes in itself an element of vulnerability; if family dysfunctions, genetic predispositions for affective disorders, traumatic experiences, a low level of self-esteem, the negative effect of the media are added,

the risk of developing the pathology increases considerably (16-20). Therefore it is useful to make a distinction between predisposing factors, precipitating factors and factors that tend to perpetuate the syndrome. The predisposing factors are in turn divided into individual, family and socio-cultural factors. Among the individual predisposing factors we find the female gender and the adolescent age. These conditions are associated with a history of overweight or diets in childhood, childhood and adolescent experiences of criticism and derision regarding body characteristics, biological problems that predispose to the risk of obesity, growth in environments that have a high regard for the physical appearance and a tendency to confront one's own and others' bodies (16-20). The psychological characteristics predisposing to an eating disorder include the presence of obsessive personality traits, pathological perfectionism, rejection of the adult body and adolescent sexuality with ascetic or regression responses to infantile forms of dependence and control. In bulimia there are frequent personality disorders of borderline type, intolerance to frustrations and poor impulse control. In fact, according to the model of addiction, bulimia is considered as a generic predisposition to substance abuse and consequent dependence. There are numerous similarities on the symptomatological level between drug addiction and bulimia: the continuous concern and the search for the substance (food, alcohol, drugs), the loss of control over the intake, the secrecy and the ritual that often characterize these behaviors, the social isolation and the dysfunctionality that results. Added to this is the high incidence of alcoholism and substance abuse among family members of bulimics. Familial predisposing factors include genetic predisposition for affective disorders, obesity, alcoholism and the same eating disorders (21-27). A fundamental part is played by the characteristics of stickiness and poor definition of family roles, the inability to recognize and encourage separation and autonomy. The need to always respond to social expectations and the dependence on the consent and admiration of others determine a family climate predisposing to the disorder. The socio-cultural factors, such as the exaltation of thinness as a synonym of beauty and success, the competitiveness that in certain

environments becomes exasperated, and all the stresses to which an adolescent is exposed in today's society, play a role of great importance especially when they impact in more vulnerable and defenseless subjects (21-27). The events that can precipitate the onset of the disease are similar to those reported for other psychiatric disorders: separations and losses, alterations of family homeostasis, experiences that threaten self-esteem, new environmental demands, puberty. In the latter case, as already seen, bodily changes are experienced as a serious threat to self-control and relationships.

The main factors of self-perpetuation of the disorder are on the one hand the functional aspects of the symptom (call for attention to oneself, avoidance of agonizing sexual and social situations) and on the other hand the concentration on food and on the body that aggravate image distortion body. Bulimic crises, in turn, increase anxiety and the fear of losing control and require defensive countermeasures with elimination behaviors. Finally the iatrogenic factors that can favor the onset, maintenance or aggravation of eating disorders should be reported. Among these there is the prescription of drastic diets in adolescence without an adequate evaluation of risk factors, the prescription of hormonal preparations which, favoring the return of a punctual menstrual cycle, reinforce the denial of the disease, the forced feedings not contracted with the patient is not accompanied by psychotherapeutic support and the use of negative humiliating reinforcements to induce a food re-education that have a very harmful effect on already fragile people with a low level of self-esteem (21-27).

### Treatment

Bulimia nervosa is a mental disorder that, by deeply and dangerously involving the body, requires a complex treatment with more specialized interventions. It is essential that the different skills act, albeit at different times, but in a coherent and unambiguous manner with strategies that have been appropriately agreed so as to return to the patient the idea that the different interventions belong to a single treatment plan thus avoiding that the Resistance to change in the patient and her

family can re-propose, at the stage of treatment, the same mental processes of fragmentation, splitting and confusion of the disease. Hospitalization is necessary in the event of the emergence of internal complications by choosing the most suitable department for the resolution of the emerging problem, while it is to be carefully evaluated for serious patients who are resistant to outpatient treatment but do not present particular urgencies. In these last cases hospitalization must be done in a psychiatric ward adequately equipped for the treatment of eating disorders. During hospitalization it would be advisable to prepare a psychotherapeutic treatment to be undertaken after discharge, giving a sense of continuity to therapeutic practices. In the case, not rare, in which the bulimia disorder is associated with a substance abuse disorder is considered the opportunity for long-term hospitalization in therapeutic communities. The psychopharmacological intervention must never be started before the resolution of medical complications. It has been widely established that serotonergic agonists reduce overfeed attacks. The critical review of psychopharmacological treatments in adolescence indicates SSRIs, in particular fluoxetine, as an effective and well tolerated treatment. The antimicrobial effects with antidepressant drugs are manifested independently of the comorbidity of a depressive disorder which, however, if present, increases the therapeutic indication of these drugs. It has not been demonstrated so far that the antibulimic efficacy of the drugs is maintained for a long time after stopping the therapy, therefore not going beyond an anti-symptomatic action (28-33).

In the context of developmental psychopharmacotherapy it is appropriate to make some general considerations:

- in developmental age, in a much more accentuated way than in adulthood, non-biological determinants, such as dysfunctions in the relational network, the family and domestic context, play a fundamental role in the pathogenesis of the mental disorder relegating pharmacological intervention only at a time, even if in the case of acute can appear the most urgent and necessary, of an overall therapeutic project of global management.

- It is appropriate to use drugs for which there is sufficient clinical evidence of tolerability and

efficacy and of which the specialist knows, in depth, all the pharmacological properties.

- It is important to evaluate the minimum effective dosages. For some drugs it is known that both hepatic metabolism and excretion in developmental age are relatively faster than in adults. For these drugs, theoretically, the minimum therapeutic dosage should be moderately higher than the one calculated for the adult. But if the tolerability and safety of a drug are well known and predictable in the adult, in the adolescent, and even more so in the child, some unknowns may arise with possible unforeseen manifestations. Therefore it is good practice to start a treatment with much lower doses than theoretical ones, with a very progressive increase until the minimum effective dose is reached.

- The pharmacokinetics of psychoactive drugs in developmental age has been relatively little studied. Bearing in mind, however, both that the metabolic activity of hepatic drug transformation is on average double in the child compared to the adult, and the greater speed of renal excretion, it is necessary to consider both halving times of the plasma concentration of drugs lower than those calculated in the adult, it is the lower plasma concentration at the same dosage based on body weight. This suggests that it is appropriate to split drug doses even in cases where a single daily dose may be sufficient in the adult.

- It is essential to establish a good therapeutic alliance not only with the adolescent, but also with parents or family members, for the purpose of optimal compliance to prevent the realization of a "masking" effect of the conflictual dimension.

- The adolescent and his family should be informed in a complete and correct way about the type of drug chosen, its dosage, the action expected in controlling some target symptoms and the possible occurrence of possible side effects. This attitude, in addition to improving compliance, is deontologically correct and legally necessary considering that the patient is a minor.

- The decision of a pharmacological treatment must be taken only after a careful evaluation of other possible interventions and in the light of a cost/benefit balance.

- The specialist must avoid attitudes, whether they emphasize the effectiveness of the drug, or

excessive caution and prudence that could nullify the therapeutic meaning and the effectiveness of the drug.

Therefore, the treatment of choice for eating disorders, particularly in the developmental age, is psychotherapy which is the most useful instrument of intervention. There is a lack of sufficiently rigorous studies that compare the results achieved with the various psychotherapeutic techniques, although they have all tried to treat this type of disorder.

Psychoanalysis has been concerned with eating disorders since its origins and, for over twenty years (fifties-seventies) has represented the dominant approach to these disorders (28-33).

The systemic - relational psychotherapy of the family aims at defining the roles of the family group and overcoming the inability to recognize and encourage a process of patient autonomy. The cognitive-behavioral approach, both individual and group, aimed at modifying the bulimic behavior and the typical cognitive distortions, offering principles and techniques of problem solving or assertive training, is what he has given, so far, in controlled studies, best results in curing bulimic disorders (28-33). Interesting family psychoeducational interventions that allow parents and adolescent children to structure a true alliance of peers in order to achieve a common evolutionary path that facilitates the acquisition of a full and conscious autonomy. Finally, a particular form of intervention that has spread in recent years is represented by self-help groups among people suffering from eating disorders - the so-called "anonymous overeaters" - born on the model of anonymous alcoholics (28-33).

### Discussion

The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) classifies Nutrition and Childhood and Early Childhood Eating Disorders into three groups: The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) (1) classifies Nutrition and Childhood and Early Childhood Eating Disorders into three groups:

1. **Pica**: the term refers to the compulsive tendency (outside the control) to eat inedible materials (earth, sand, plastic, paper, leaves, insects), very common among children during the first year of life.



When this behavior continues even after 18 months and tends to persist persistently for over a month, we are in the presence of a pathology. Usually it occurs in children with severe mental retardation or living in an environment with severe deprivation and deficiencies. In adults it is present in very serious psychopathologies, such as schizophrenia (1).

2. **Rumination or mericism disorder:** indicates the repeated voluntary, slow regurgitation of food, which is brought back from the stomach into the mouth, chewed, savored and swallowed again. It occurs in children between the third month and the first year of life. For the diagnosis it is necessary that this behavior is present for at least a month and is not caused by an organic medical pathology (for example gastro-esophageal reflux). When it occurs in adults, it is included in pictures of very serious mental illnesses, such as chronic psychosis and mental retardation. It is rarely present in patients with Anorexia Nervosa or Bulimia Nervosa (1).

3. **Childhood and Early Childhood Nutrition Disorder:** This disorder is manifested by the lack of adequate nutrition and inability to gain weight, or significant weight loss during a period of at least a month, not caused by another medical condition of organic type, with a debut before 6 years of age. Subjects aged between 8 and 14 can present a series of problematic eating behaviors, not covered by the DSM-IV, often characterized by the refusal of food, but which do not always coincide with anorexia itself. In this age group the number of individuals of male subjects is greater than in the following age groups. Taking into consideration another diagnostic classification system for children, the Great Osmond Street Criteria (GOS) (35), the eating disorders that occur below the age of 14 are:

° **Emotional disorder of food refusal:** it is a partial form of anorexia nervosa, and therefore less severe. It is characterized by a history of difficulty with food that comes to the refusal to eat, although not all the criteria listed in the DSM-IV are present and in the absence of organic causes.

° **Functional dysphagia:** it is a problem that occurs mainly in young children, but it is not linked to any concern for weight and body shape. These children are not underweight and can often eat normally.

° **Pervasive refusal:** it is a serious pathology characterized by the categorical refusal to eat, drink, talk, and do other activities. The picture does not remain limited to food and this is what distinguishes this picture from anorexia nervosa.

° **Selective feeding:** the picture manifests itself with the exclusive intake of two or three types of food, a normal state-weight development, absence of signs of malnutrition. There are often problems with social relationships and anxiety, but there are no worries related to body weight and shape.

° **Anorexia secondary to depression:** in this case the worries about weight and body shapes are absent, but sometimes making a clear distinction is complicated because often depression is accompanied by anorexia. Establishing whether depression is primary is secondary to anorexic behavior is still very difficult.

° **Bulimia nervosa:** it is a rare picture in the prepubertal era, but it can occur exactly as in the adult, or with episodes of overeating followed by elimination behaviors, especially vomiting and physical hyperactivity, aimed at avoiding weight gain, and expressing concerns about the weight and shape of one's body and the desire to lose weight. There is no underweight condition.

° **Anorexia Nervosa.**

These official classifications do not include childhood obesity, although it represents the most widespread nutritional problem in children, with alarming growth in the industrialized countries in recent years. Starting from childhood obesity is associated with functional alterations of the organism of various types and constitute the prelude to those that will occur in adulthood. Furthermore, in children the psycho-physical effects of being overweight are immediately visible (relationship and self-esteem problems due to being ridiculed and living in a society that stigmatizes people with weight problems, not to mention the various orthopedic, respiratory and gynecological). Certainly the evolution of the disorder appears to be more positive in children than in adults, because the growth to which a young person is subjected maintains a high energy requirement even after weight loss and in any case a change in lifestyle is generally easier and in eating behavior, even if the maintenance of the results is the main problem of the treatment. The risk factors that increase the

likelihood of developing a eating disorder, without making it inevitable, are for example the presence of personal or family obesity, the presence of a eating disorder in the parents or other relatives, comments and criticisms of family and others on nutrition, weight and body shape. The presence of a body dissatisfaction or a food difficulty assumes particular importance if one or more of the listed factors are present in the family.

In conclusions, the basis for the development of a eating behavior disorder often originates during the first year of life and the education imparted by the parents in this sense may have a decisive role in the actual appearance or not of the disorder. Furthermore, feeding a child is an important form of communication between parents and their child, which is very important for their development; the surrounding environment must respond promptly to the needs of the child by helping him to organize the various information he receives in order to understand and interpret them. Before acquiring this mastery, the child is not able to differentiate between his needs and his impulses, and if he is not helped to do so, he will grow confused without the ability to distinguish biological experiences from emotional ones. Who takes care of him, when he feels his need for nutrition, expressed for example through crying, offers him food, and so, gradually, the baby learns to distinguish the sensation of "hunger" from other tensions and needs. But if the adult's reaction is not adequate, if this communication turns out to be continually defective, such as when the parent believes that the child is hungry, cold or tired when in reality he is not, the result will be a situation of confusion and loss; the child is prevented from learning to manage food-related needs, to distinguish the feeling of "hunger" from other tensions and needs, between hunger and satisfaction, between nutritional needs and other feelings of discomfort and tension. When the first experiences are negative and confusing, they interfere with the ability to recognize the sensations of hunger and satiety and do not allow to distinguish the desire of food from other unpleasant signals that are linked to other conflicts and problems. They are just parents who should help the child to develop an adequate sensitivity to the impulse of hunger, so that he recognizes it as a

definite feeling. Food should be offered when the child is physically hungry and should never be used as a reward or retained for punishment. Listening to understand the feelings and needs of the child to respect them becomes the fundamental task of parents: children must feed themselves driven by the stimulus of hunger and stop when they feel full. They should not be forced to do so when they refuse, nor should parents give excessive emphasis to eating, especially when the child tends to show opposition. Food should be offered when the child is physically hungry and should never be used as a reward or retained for punishment. Listening to understand the feelings and needs of the child to respect them becomes the fundamental task of parents: children must feed themselves driven by the stimulus of hunger and stop when they feel full. They should not be forced to do so when they refuse, nor should parents give excessive emphasis to eating, especially when the child tends to show opposition.

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