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Mini Review

Borderline personality disorder: Definition, differential diagnosis, clinical contexts, and therapeutic approaches

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Abstract

Starting from the general concept of "borderline", the present work focuses on the essential aspects of personality disorder that define the clinical and diagnostic contexts, laying the foundations for a correct differential diagnosis, without neglecting the neural characteristics developed by the scientific community. A new classification model of borderline personality disorder, based on five levels, is proposed. The discussion ends with the best suggested therapeutic approaches.

Contents of the manuscript

Definition, differential diagnosis and clinical context of borderline personality disorder

Definition, introduction and epidemiological profile: The term "borderline" was born as a label aimed at describing a whole series of characteristics and behaviors that are difficult to define. Migone (1990) draws up a list of the definitions of different authors, which refer more or less directly to the borderline area, below some: "borderline neurosis" (Clark, 1919), "parataxies in certain borderline mental states" (Moore, 1921), "impulsive character", "incipient schizophrenia" (Glover, 1932), "atypical schizophrenia" or "affective schizophrenia" (Kasanin, 1933), "outpatient schizophrenia" (Zilboorg, 1941), "personality as if" (Deutsch, 1942), "latent psychosis" (Federn, 1947), "pseudonevrotic schizophrenia" (Hoch & Polatin, 1949), "latent schizophrenia" (Bychowsky, 1953), "psychotic character" (Frosch, 1954, 1960), "attenuated schizophrenia" (Ekstein, 1955), "histeroids" (Easser & Lesser, 1965), "atypical psychosis", "borderline schizophrenia" (Kety, et al. 1968), "hysteroid dysphoria" (Klein & Davis, 1969;

Klein, 1977), "borderline psychosis", "indescribable patients" (Welner, et al. 1973), "subaffective disorder" (Akiskal, 1981) [1].

The use of the term "borderline", as we know it, has roots that lie in the early attempts to codify diagnostic classifications in the psychiatric setting. In fact, in the 50s of the last century, a group of dynamic psychotherapists and psychiatrists attempted to create a diagnostic classification for a series of mental disorders that did not meet the criteria proper to neuroses or psychoses, starting from the concept developed by Stern in 1938 on the pathology on the border between neurosis and psychosis. These patients suffered from severe mood instability, considerable difficulties in object relations, and above all integration problems in society. The description of the symptomatic behaviors created many nosographic perplexities since these patients presented a much more dramatic clinical picture of the neuroses but without the typical characteristics for the diagnosis of psychosis (especially about the fragmented contact with reality). In that period, therefore, special classifications for this kind of disorder flourished, such as the "pre-schizophrenia" of Rapaport and Gill or the "states/personalities at the limit" of Rangell. All suggestive hypotheses that opened the door to the most varied questions. On this



profile, in the 60s of the same century, Kernberg, psychiatrist and psychoanalyst, developed a psychoanalytic model of these disorders based on Klein's "Theory of object relations" and on the "Psychology of the Ego" of A. Freud and Hartmann. Kernberg, in particular, indicates various symptoms, such as free and fluctuating anxiety, multiple phobias, dissociative reactions, hypochondriac concerns, perverse polymorphic sexuality, and substance abuse. Believing, however, that the diagnosis should be based not so much on the symptoms found but more on the presence of some structural characteristics that determine the organization of personality, structured the definition of "Borderline Organization of Personality", distinct from neurotic organizations and psychotic organizations already codified by the scientific community, claiming that this organization was characterized by the systematic use of a certain group of defense mechanisms which Kernberg considered more "primitive" than those of the neurotic type, such as splitting, devaluation, idealization, and projective identification, through which the individual categorized each person in his environment as "completely good" or "completely bad", even if the judgment on a person could vary from day to day or even several times a day. Object relations were therefore pathological, the external person was not considered as a whole of positive and negative characteristics, and even self-representations were not integrated, leading to a diffusion or dispersion of individual identity, and to individual "trait" characteristics, some of which could also refer to a probably genetic nature. Specifically, Kernberg identified a form of "ego weakness", which manifested itself in a difficulty in deferring the driven discharge and in regulating anxiety; the thought of these people then seemed "primitive", as in the early stages of development, and psychotic-like when the individual was under the pressure of intense affects, a characteristic that in the past recalled the diagnostic framework between typically psychotic subjects. With the definition "borderline", Kernberg, therefore, intended to refer to an organization of personalities, with different "types", all characterized by an evident degree of pervasiveness and chronicity, and all (with different gradations) however incompatible with the social functioning that one would expect from a subject of that age and cultural level. Kernberg thus identified some typical behavioral and mental manifestations of the borderline organization: a) chronic, widespread and free anxiety; b) polysymptomatic neurosis which can manifest itself in the form of multiple phobias, obsessive symptoms, multiple conversion, dissociative reactions, hypochondria or paranoid tendencies; c) polymorphic perverse sexual tendencies; d) impulsive neurosis and risk of drug addiction; e) splitting and dissociation of the personality, even temporary, but without any development of multiple personalities. In borderline disorder alone, but with the possibility of appearance also in borderline organization, there was also confusion in relationships, a marked identity disorder, intense or uncontrollable emotional outbursts, instability in interpersonal relationships and self-esteem (the patient passes from great love for oneself, to insecurity and devaluation in a short time), concerns about abandonment (abandonment personality), self-injurious behaviors, impulsiveness, depression, dysphoria, dysthymia, anxiety, anxiety anger and substance abuse [2,3].

In those same years, Kohut dealt with "narcissistic personality disorders", which identified a series of relationship difficulties and profound deficits in narcissistic development. A strong controversy arose between this author and Kernberg regarding the actual classification of this type of disorder. If for Kernberg, the patients defined as "narcissistic" represented a particular typology within his borderline personality organization, for Kohut instead they responded to another structural need: these patients were still able to function in everyday life, perfectly integrating, since the central nucleus of their problem was in an evolutionarily frozen Self to a phase in which it did not receive the answers of admiration necessary for its healthy development. What emerged from this cultural clash was a certain perplexity about its correctness, since the patients of one were very different from those of the other: Kohut (privately) treated patients who complained of a sense of emptiness, forms of depression and relationship difficulties, while Kernberg (who worked in hospitals) dealt mostly with hospitalized patients, with sometimes even antisocial characteristics [3,4].

In subsequent years, however, also to remove any theoretical diatribe (such as the one born between Kernberg and Kohut), it was preferred to rely on the concept of personality disorder, as a specific class of structural mental disorder, comprising different "organizations". Not surprisingly, in the DSM diagnostic classification manual, also in its latest version (the fifth), among the personality disorders, in cluster B, both Borderline Disorder (described by Kernberg, although originally the author) are included separately wanted to propose a class/organization of disorders on the border between neurosis and psychosis) that the Narcissistic Disorder [5].

The original idea was therefore referred to patients with personalities who work "on the edge" of psychosis, even if they do not reach the extremes of real psychoses (such as schizophrenia). This definition is now considered more appropriate to the theoretical concept of "Borderline Organization", which is common to other personality disorders, while borderline disorder is a particular picture of it. Borderline organization is also found in the extremes of various mood swings, such as severe depression or non-psychotic bipolar disorder, and in other serious forms of pathology, but without real psychosis. The formulations of the DSM and ICD psychodiagnostic manuals have restricted the name of "borderline disorder" to indicate, more precisely, that pathology whose symptoms are emotional dysregulation, the instability of the subject in interpersonal relationships, and marked impulsiveness, thus suggesting a change of name of the disturbance [5,6].

The prevalence of borderline disorder was initially estimated between 1% and 2% of the general population [7,8] and is found three times more frequently in women than in men [9,10]. However, the one-time prevalence of the condition found in a 2008 study was 5.9% of the general population, with 5.6% of men and 6.2% of women [11]. More likely estimates, compared to the finding data coming from clinical practice, it is estimated that borderline personality disorder (in its traits or its chronic morbid condition) contributes more than 20% of



psychiatric hospitalizations, although many of these subjects do not present an official conclusive diagnosis; complicit in this exponential growth are, in the writer's opinion, the spread of incorrect and dysfunctional behaviors acquired through social networks and the family environment [6,12].

Etiological profile: The hypothesized causes for bipolar disorder are heterogeneous and include biological, genetic, and environmental factors [5].

Borderline personality disorder has often been associated with traumatic events in childhood (then developed following a post-traumatic stress disorder in childhood), such as sexual or physical abuse, or being raised with parents with behavioral problems or mental disorders (such as schizophrenia, bipolar disorder, and schizoaffective disorder). Some have suffered early separation from a loved one, bereavement in childhood, other problems, or are children of a dysfunctional family. Adler instead claimed that the intimate pain and intolerance were due to the impossibility of these subjects to recall comforting affective experiences, caused by the real lack in which comfort and protection were received in the face of feelings of danger, loneliness and anxiety that the family environment had created; in fact, the borderline patient does not develop comforting and containing object representations to call to mind in moments of separation from the maternal figure, even if some borderline patients do not report in their childhood clinical history an abandonment depression due to the absent mother (at most a mother presence but with a dysfunctional or incorrect educational style, in the presence of a strong anxious, obsessive or paranoid trait); in these cases, Masterson and Rinsley argue that the mothers of these borderline patients are themselves suffering from a borderline or mood disorder, or from anxiety, or paranoia, and are unable to promote a correct separation process, and usually - even completely unconsciously and without fault - implicitly teach that the conquest of greater autonomy will lead to a loss of love and protection of the mother herself, and that growth and separation will still produce pain (therefore they have a parenting style of overprotective care with a symbiotic mother-child bond, which for psychoanalysis corresponds to an unsolved Oedipus complex of the child). For Kernberg, the patient suffers from psychoanalytic fixation in the sub-phase of rapprochement, the period between sixteen and twenty-four months according to Mahler's model, a different and integrative development model of the classic phases of psychosexual development according to S. Freud; in this case, the child does not learn to have a proper distance from the mother, even if he loves her and cares for her after a period of estrangement, as normally happens and instead cannot bear expectations and frustrations, fearing to be abandoned and left alone, arriving internally not to feel safe from the fear of loss (thought with which he will never come to terms while trying to remove it). Again according to this model, his attachment also makes detachment very difficult when attending schools, isolates himself from peers, or interacts with the environment through conduct disturbances towards classmates, hyperactivity/distraction towards teaching, and oppositional disturbance- provocative towards adults who upset him. The child and adolescent do not learn to manage

their emotions, which remain in a primitive-impulsive state, very childish, even though intelligence is normally developed. Also on this profile, parents demonstrate immaturity in the management of their interpersonal relationships, which are often hostile, or morbid, anxious, paranoid, thus configuring an evident trace of the severely dysfunctional family nature to which the child, even the first infant, was a victim [13,14].

Therefore, stressful events during early childhood can contribute to the development of borderline personality disorder. A remote history of adolescent physical and sexual abuse, neglect, separation of parents, and / or loss of a parent is common among patients with borderline personality disorder. Some people may then have a genetic tendency to have pathological responses to stressful environmental conditions, and borderline personality disorder appears to have a hereditary component. First-degree relatives of patients with borderline personality disorder are five times more likely to have the disease than the general population. Finally, disturbances in the regulatory functions of brain systems and neuropeptides may also contribute, but are not present in all patients with borderline personality disorder [5]. In conclusion, the existence of four possible etiopathogenetic models, even simultaneous, for borderline personality disorder can be hypothesized [15].

Brain damage, prevalent at the level of the orbital- limbic-frontal region, could cause a disturbance of impulse control, emotional and affective instability, specific cognitive dysfunctions, and a vulnerability to psychotic decompensation. The predisposing neuro-biological condition could depend on anatomic-functional damage, cognitive dysfunction, and limbic hyperactivity, with or without epileptic seizures, or monoamine neurochemical alterations, involving the serotonergic and dopaminergic brain tone. The clinical, social, and interpersonal symptomatology would however be modulated subsequently by social, educational, and traumatic factors.

Patients could coexist in their childhood with other family members, often the parents themselves, with the same disorder. This would expose patients to disturbing behaviors such as substance abuse, the instability of parental figures, the conflict expressed between parents, as well as episodes of physical and / or sexual abuse. Behaviors of this kind can persistently alter normal psycho-sexual development and induce dysfunctional behavioral patterns through learning by imitation. The emergence of a borderline personality could lead, in this perspective, to a disorder of the patient's development due to exposure to aggressive behaviors, implemented by family members, with a similar developmental disturbance. Paradoxically, the development of this personality disorder could be adaptive to the family context in which the patient lived in childhood and adolescence [16,17].

Borderline personality disorder is to be considered as an impulse control disorder, with aspects of genetic predisposition. Poor impulse control would facilitate the risk of brain damage, traumatic or substance abuse, which, in turn, may worsen the pre-existing impulse control disorder with consequent and secondary cognitive deficits. In some patients, brain dysfunction may not depend on a previous impulse



control disorder, playing the role of the main and organic cause of impulsivity in this subpopulation of patients with borderline personality disorder. Impulsive behaviors and related cognitive aspects, in the absence of self-control and modulation skills in interpersonal relationships, would induce repeated failures in emotional and social relationships, subsequently associating with depression, anger, and dissociative episodes. From a purely genetic and biochemical point of view, several genes have been identified in the last ten years as responsible for the genesis of the disorder: COMT, DAT1, GABRA1, GNB3, GRIN2B, HTR1B, HTR2A, 5HTT, MAOA, MAOB, NOS1, NR3C1, TPH1, and TH, which coincide with the regulation of some key neurotransmitters, including serotonin, GABA, glutamate, dopamine, noradrenaline, and the neuropeptides oxytocin, neuropeptide Y and the corticotropin release factor [18,19].

The evolutionary structuring of the personality may require a minimum level of cognitive functioning, and therefore, a minimum level of functional integrity of the central nervous system. Any exogenous or endogenous factor sufficient to induce cognitive impairment, above this minimum level of functioning, could induce the development of a borderline personality. Brain damage, in subjects with previously high levels of functioning, has little influence on behaviors and the structuring of personality compared to how much brain insults can influence in the case of individuals of developmental age and with less cognitive abilities. A genetic predisposition, the simultaneous presence of an affective disorder or a psychotic vulnerability, but also the consequences of a traumatic experience, episodic or repeated over time, could lead to the development of a borderline personality.

Clinical context of borderline personality disorder: DSM's definition of Borderline Personality originates from the work of Gunderson & Singer (1975), which identifies as unpleasant characteristics of BPD an unpleasant mood and emotions, impulsivity, instability in interpersonal relationships, psychotic-like ideas and thoughts and social maladaptation. These authors also formulate a "Borderline Diagnostic Interview" (DIB) to highlight the criteria for diagnosis [5]:

- a) Low work performance, impulsivity (substance abuse, promiscuity),
- b) Manipulative suicidal gestures,
- c) Short or mild psychotic episodes,
- d) A good level of socialization with an identity disorder and rapid and fluctuating identification with others,
- e) Disturbances in intimate relationships characterized by a tendency to depression when the loved one is present and anger and suicidal gestures or psychotic reactions if the loved one moves away or threatens to move away.

Thus in DSM-III a precise and reliable diagnosis is constructed and usable by operators of different theoretical orientations. BPD is inserted in axis II, within Personality Disorders, but in order not to deviate too much from the historical tradition that considers this disorder close to

Schizophrenia, two different diagnoses are isolated from eight criteria each: Schizotypal Borderline and Unstable Borderline. The first becomes the Schizotypal Personality in DSM-III, while the second becomes in all respects "Borderline" Personality with the eight criteria derived from the works of Kernberg (1975) and Gunderson & Singer (1975) [5]:

- 1) Unstable and intense interpersonal relationships,
- 2) Impulsiveness,
- 3) Mood instability,
- 4) Intense and inappropriate anger,
- 5) Physically self-injurious behaviors,
- 6) Identity disorder,
- 7) Chronic feelings of emptiness and boredom,
- 8) Difficulty tolerating loneliness.

In DSM-III-R (APA, 1987), the diagnostic criteria remain unchanged and five of these are necessary to make a diagnosis [5]:

- 1) Intense and unstable interpersonal relationships characterized by alternating idealizations and devaluations,
- 2) Impulsiveness in at least two potentially dangerous areas such as sex, drugs, petty theft, dangerous driving,
- 3) Mood instability with rapid changes to depression, irritability and anxiety that last hours or a few days,
- 4) Intense and inappropriate anger,
- 5) Periodic suicidal or self-injurious behavior,
- 6) Marked identity disorder in at least two areas among the following: self-image, sex, career, choice of friends, values,
- 7) Chronic feelings of emptiness and boredom,
- 8) Frantic efforts to avoid loneliness or abandonment.

Thus, a diagnosis of an angry, depressed and strongly impulsive patient emerges, who increasingly moves away from the historically connected diagnosis of Schizophrenia. According to DSM-IV, to diagnose BPD, at least five of the nine diagnostic criteria established must be present simultaneously (APA, 1994). Based on the criteria of this edition, it is sometimes difficult to distinguish Borderline Disorder from other Personality Disorders, especially of the impulsive type (Paris, 1996). The revisions of the diagnostic manual of psychiatric disorders have led, finally, to include Personality Disorders, in DSM 5, within Sections II and III. Section II contains the DSM-IV-TR criteria, with an update of the text, while Section III proposes a research model for the diagnosis and conceptualization of Personality Disorder. In the latest edition of the DSM, Personality Disorder is described as a constant pattern of inner experience and



behavior, which differs significantly from the expectations of the culture of the individual, is pervasive and inflexible, stable over time, and causes discomfort. Personality Disorder begins in adolescence or early adulthood. In particular, Borderline Personality Disorder is a pattern characterized by instability in interpersonal relationships, self-image and affects, and marked impulsiveness (APA, 2013). Borderline Personality Disorder continues to be considered, to date, one of the most complex and controversial diagnostic entities in the scientific world [5].

The DSM-IV-TR criterion, reported in DSM 5 (unchanged), for Borderline Personality Disorder, is a pervasive pattern of instability of interpersonal relationships, self-image and mood and a marked impulsiveness, which begins by early adulthood and is present in various contexts, as indicated by five (or more) of the following elements [5]:

- 1) Desperate efforts to avoid a real or imaginary abandonment (does not include the suicidal or self-mutilating behaviors considered in Criterion 5).
- 2) A pattern of unstable and intense interpersonal relationships, characterized by the alternation between the extremes of hyper-idealization and devaluation.
- 3) Alteration of identity: self-image or self-perception markedly and persistently unstable.
- 4) Impulsiveness in at least two areas that are potentially harmful to the subject (for example, reckless expenses, sex, substance abuse, reckless driving, binge eating).
- 5) Recurrent suicidal behavior, gestures or threats, or self-mutilating behavior.
- 6) Affective instability due to a marked mood reactivity (for example, episodic intense dysphoria, irritability, or anxiety, which usually lasts a few hours and only rarely more than a few days).
- 7) Chronic feelings of emptiness.
- 8) Inappropriate, intense anger, or difficulty controlling anger (for example, frequent outbursts of anger, constant anger, recurring physical confrontations).
- 9) Transient paranoid ideation, associated with stress, or severe dissociative symptoms.

The alternative model proposed in Section III of DSM 5 [5], presents itself with the instability of self-image, personal goals, interpersonal relationships and affects, accompanied by impulsiveness, a tendency to take risks and / or hostility. Characteristic difficulties are evident in: identity, self-direction, empathy and / or intimacy, as described below, as well as specific maladaptive traits in the areas of negative affectivity and antagonism and / or inhibition:

1) Moderate or more serious impairment of the functioning of the personality, which manifests itself with characteristic difficulties in two or more of the following four areas:

- a) **Identity:** markedly impoverished, poorly developed, or unstable self-image, often associated with excessive self-criticism; chronic feelings of emptiness; dissociative states under stress.
- b) **Self-directionality:** instability in objectives, aspirations, values, or projects related to the profession.
- c) **Empathy:** Impaired ability to recognize the feelings and needs of others, associated with interpersonal hypersensitivity (for example, tendency to feel offended or insulted); perception of others selectively distorted concerning their negative characteristics or vulnerabilities.
- d) **Intimacy:** intense emotional relationships, unstable conflicts, characterized by distrust, dependence, and anxious concern for abandonment, real or imagined; emotional relationships often oscillating between the extremes of idealization and devaluation and alternating between excessive involvement, detachment.
 - 2) Four or more of the following seven pathological personality traits, at least one of which must be impulsiveness, tendency to take risks, I have hostility:
 - a) Emotional ability (an aspect of negative affect): unstable emotional experiences and frequent mood swings; emotions that arise easily, are intense and / or disproportionate to events and circumstances.
 - b) Anxiety (an aspect of negative affectivity): intense sensations of nervousness, tension or panic, often in reaction to interpersonal stress; concern about the negative affects of past unpleasant experiences and future negative eventualities; feel fear, apprehension or feel threatened by uncertainty; fear of "collapsing" or losing control.
 - c) Separation anxiety (an aspect of negative affectivity): fear of being rejected and separating from significant figures, associated with fears of excessive dependence and complete loss of autonomy.
 - d) Depressive (an aspect of negative affectivity): frequently feeling sad, unhappy, and / or hopeless; difficulty in recovering from these moods; pessimism about the future; pervasive shame; feelings of low esteem; suicidal thoughts and suicidal behavior.
 - e) Impulsiveness (an aspect of disinhibition): acting immediately in response to contingent stimuli; acting on a momentary basis, without a plan or an examination of the results; difficulty formulating and following plans; the sense of urgency and self-injurious behavior under emotional stress.
 - f) The tendency to take risks (an aspect of disinhibition): undertake dangerous, risky, and potentially harmful activities for oneself, without need and without worrying about the consequences; the carelessness of one's limits and denial of the real danger to the person.



g) Hostility (an aspect of antagonism): feelings of persistent or frequent anger; anger and irritability in response to minor insults and insults.

According to the ICD, emotionally unstable personality disorder is described as an individual personality disorder characterized by a certain propensity for impulsive actions without taking into account the consequences, with the following characteristics: [5]

- 1) Unpredictable and capricious mood;
- 2) Tendency to burst of emotions and inability to control explosive behavior;
- 3) Grievances and conflicts with others, especially when impulsive actions are repressed and criticized.

It is divided into two types:

- a) An impulsive type, characterized by emotional instability and lack of control;
- b) A true borderline type, with a breakdown of self-perception between inner goals and aspirations, a chronic feeling of emptiness, tense and unstable interpersonal relationships and a tendency towards self-destructive behavior, including threats or suicidal gestures, self-harm, and behaviors resembling Münchhausen syndrome (today called factitious disorder).

It is, therefore, useful to analyze the psychological characteristics of individuals with borderline personality disorder, in terms of viewing themselves and others, intermediate and profound beliefs and coping strategies, distinguishing these four areas [5].

- 1) **Vision of oneself:** They consider themselves defective, vulnerable to abuse, betrayal, neglect. "I'm bad", "I don't know who I am", "I am weak and I feel overwhelmed", "I can't help myself";
- 2) **Vision of others:** They can see others as warm and affectionate but still consider them unreliable because "they are strong and could be supportive, but after a while, they change to hurt or abandon me";
- 3) **Intermediate and profound beliefs:** "I have to ask what I need", "I have to answer when I feel attached", "I have to do it because I have to feel better", "If I am alone, I will not be able to face the situation", "If I trust someone, sooner or later he will abandon me or abuse me and I will be sick", "if my feelings are ignored or neglected, I will lose control";
- 4) **Coping strategies:** Submitting, alternating inhibition with a dramatic protest, punishing others, expelling tension with self-injurious actions.

Personality disorder can, therefore, be seen as a dysregulation disorder; therefore, its clinical characteristics can be grouped into five main areas [5].

- 1) "Emotional dysregulation", characterized by affective instability and problems in anger management;
- 2) "Interpersonal dysregulation", characterized by chaotic relationships and fear of abandonment;
- 3) "Self-dysregulation", characterized by identity disorders and feelings of chronic emptiness;
- 4) "Dysregulation of behavior", characterized by self-harm and self-destructive conduct;
- 5) "Dysregulation of thought", characterized by dissociative responses under stress and paranoid ideation.

Their psychopathological condition, however, essentially depends on their "level of insight" concerning the external (reality and environment) and internal (the relationship between the deep instances) plan and consequently also the psychological treatment will have to adapt to the clinical form suffered [5].

"Excellent level of insight": Borderline patients of this level define themselves as "oriented" because they meet the criteria proposed by DSM-V, within a framework of persistent relationship instability, emotional dysregulation and marked impulsiveness, but in a strictly essential way (5 criteria out of 9, mainly related to the fear of being abandoned, to impulsiveness, to sudden changes in mood, to the feeling of emptiness and dysfunctional control of anger), still managing to fit well into the environmental, family and work context, building a network contacts able to allow him an excellent adaptation with the outside;

"Good level of insight": Borderline patients of this level define themselves as "precarious" because they meet the criteria proposed by the DSM-V, always within a framework of persistent relationship instability, emotional dysregulation, and marked impulsiveness, but in a more defined way (6 criteria out of 9, related to the fear of being abandoned, to impulsiveness, to sudden changes in mood, to the feeling of emptiness, to dysfunctional control of anger and the excessive use of the defense mechanisms of idealization and devaluation), managing to fit into the environmental, family and work context, but building a fragile and insecure network of contacts, which tends to disintegrate following the aforementioned behaviors;

"Mediocre level of insight": Borderline patients of this level define themselves as "sensitive" because they meet the criteria proposed by the DSM-V, always within a framework of persistent relational instability, emotional dysregulation, and marked impulsiveness, but in a more defined way (7 out of 9 criteria, related to fear of being abandoned, impulsiveness, sudden changes in mood, feeling of emptiness, dysfunctional control of anger, excessive use of defense mechanisms of idealization and devaluation and instability marked relationship), managing to barely fit into the environmental, family and work context and building a fragmented and disorganized network of contacts, which tends to distance them as soon as behavioral manifestations become pressing



and embarrassing. In some cases there are also paranoid and / or dissociative thoughts of a minor or temporary nature;

“Low level of insight”: Borderline patients of this level define themselves as “vulnerable” because they meet the criteria proposed by DSM-V, in an increasingly marked and persistent framework of relational instability, emotional dysregulation, and marked impulsiveness, in an almost completely defined manner (8 criteria out of 9, linked to the fear of being abandoned, to impulsiveness, to sudden changes of mood, to the feeling of emptiness, to the dysfunctional control of anger, to the excessive use of the defense mechanisms of idealization and devaluation, to the marked relationship instability and the distorted perception of the self), failing to fit into the environmental, family and work context, failing to build a network of contacts stable over time, if not with occasional, sporadic and superficial relationships. In some cases there are also paranoid and / or dissociative thoughts of moderate entity or in any case temporary;

“Bad level of insight”: Borderline patients of this level define themselves as “critical” because they meet the criteria proposed by DSM-V, in an extremely marked, complete, defined and persistent framework of relational instability, emotional dysregulation and marked impulsiveness (9 out of 9 criteria, related to the fear of being abandoned, to impulsiveness, to sudden changes in mood, to the feeling of emptiness, to dysfunctional control of anger, to the excessive use of the defense mechanisms of idealization and devaluation, to instability marked relationship and to the distorted perception of the self, and serious paranoid and/or dissociative thoughts), failing to fit into the environmental, family and work context and failing to build a network of contacts, even essential or minimal.

Personality Disorder can be diagnosed by the clinician based on the data collected during the first interviews and the results obtained with specific psychological reagents, which evaluate the individual's personality and the other areas to be investigated. Three specific tests are mainly used for the diagnosis of borderline personality disorder: a) Minnesota Multiphasic Personality Inventory - 2 (MMPI-2); b) Millon II (MCMI-III); c) Structured Clinical Interview - II (SCID-II). Also helpful are the Difficulties in Emotion Regulation Scale (DEES) and the Toronto Alexithymia Scale -20 (TAS-20) [6].

The maintenance model that the patient uses in Borderline Disorder to feed the vicious circle is based on two nuclei [20]:

1) The “Self-Unworthy”, or the idea of being in some way wrong, insane, inept, or degraded and is accompanied by symptoms of somatization, dysmorphophobias, eating disorders, especially binge eating. The unworthy self connects to an invalidating state, in which the patient feels anger and contempt for himself and criticizes himself ruthlessly. There is a tendency to recover memories of failures, inadequacies, or moral corruption. Furthermore, the subject perceives himself as a source of damage and pain for another loved one, who makes him experience pain and guilt and perpetuates the sense of personal indignity;

2) The “Self-Vulnerable”, or the perception of being easily injured and having no defenses and ability to cope with catastrophic events, both external and internal. In this core, the emotion of fear prevails and the person can reverse the roles, from attacked to an aggressor, in an attempt to manage the sense of threat. Experiencing the unworthy self and the vulnerable self leads the patient to extreme sensations of precariousness and danger, to which they can react by entering a state of emptiness and emotional anesthesia. Precisely in this state, self-injurious and suicidal gestures or behavior can be implemented to elevate arousal (activation), such as promiscuous sex, dangerous actions, alcohol abuse, or binge eating. It should be considered that patients with this disorder can establish intense and meaningful relationships, which can potentially help them manage feelings of unworthiness and vulnerability. The patient can pass through a mental state of idealization of the other, of himself and the relationship. This state is necessary to keep the patient in therapy and allows him to experience a sense of self-worth, within a protective and validating cycle.

From these therapeutic cycles the patient can obtain validation, protection, and comfort, even if temporarily. The reason why these cycles are short and fragile is linked to the tendency to invest in the other, idealizing him and setting excessive expectations that can easily be invalidated. The unworthy self, when it receives validation, leads the patient to experience himself as a deceiver, as if he had played a role. Another reason that makes the therapeutic cycle temporary is the fact that the patient's request for help and validation can be made in a pressing and aggressive way, causing fear and discomfort in the other and transforming the protective cycle into an alarm cycle. The patient with this pathological disorder perceives himself as wrong, monstrous, inept, has an idea of himself as unworthy, and finds himself in a state of continuous self-invalidation, denigration, and anger towards himself. In fear of being injured, abandoned, and criticized and perceiving himself as vulnerable, he experiences fear, anxiety and may experience dissociative symptoms. The underlying desire for the patient's behavior is to be protected and cared for and requires it manifestly, he perceives and expects the other to neglect him, abandon him and mistreat him. At that point the patient feels abandoned and feels anger at the injustice he underwent, closes himself to avoid other abandonments, but due to the need for care he reactivates himself and finds himself again in an interpersonal cycle of this type [20]

Differential diagnosis: In the psychodiagnostic field [5,21] proceeding with a diagnosis of a possible personality disorder is very complicated, because it is necessary to consider many elements and different factors. In the practical clinic, three main models are used to make a diagnosis:

1) Nosographic model of the DSM, which provides a general, uniform and schematic nomenclature of the symptoms;

2) Kernberg's structural model, which is based on the intuition that psychopathological disorders must be classified according to three areas (neurotic, borderline and psychotic) and that each of these is the reference container



for investigating - in the patient - the functioning of the I and his defense mechanisms, to conclude the physical examination of reality. This model, starting from the definition of "personality", intended as a unitary, coherent, continuous and stable organization of ways of being, knowing and acting (feelings, thoughts, behaviors), about the external environment, distinguishes between:

- a) **"Intelligence"**: It is the cognitive dimension of the personality;
 - b) **"Temperament"**: It is the biological dimension of the personality, understood as a genetic basis;
 - c) **The "character"**: It is the affective and emotional dimension of the personality, understood as the consequence of environmental interaction;
 - d) **The "personality structure"**: It is the set of deep and stable personal psychological characteristics, largely unaware, of a person who expresses themselves in every aspect of their psychic and behavioral life making it predictable in daily life. This structure also makes each unique and unrepeatable;
 - e) The "personality organization"
 - f) **"Personality traits"**: These are dispositions to act relatively independently of changing situations and contexts, that is, tendencies to experience and regulate emotions and affects, to process information, and to act in a substantially uniform way. The set of traits makes up the "personality type", divided into 16 different variants, divided into 4 different polarities, according to Jung and Briggs (extrovert-introvert, sensation-intuition, thought-feeling, judgment-perception) or according to Johnson [22] (common, reserved, exemplary, egocentric);
 - g) **The "personality dynamics"**: It is the functional set of processes and mechanisms that preside over the construction of the identity that govern the conduct and allow the individual to adapt and satisfy their needs.
- 3) Psychodynamic model of the PDM manual focuses instead on the possible compromises of the internal components, such as the IO (A. Freud), the Super-IO (S. Freud), the Self (Kohut), the object relations (Klein), the attachment styles (A. Freud) and the main emotions (fear, shame, anguish, sense of emptiness, fragmentation, anger), based on the structural model;
- 4) Rispoli's functional model, which identifies the root causes of people's ailments and pathologies in the alterations and deficiencies that occur during the development of the individual (from childhood to adulthood) in its fundamental vital functions (personal, social, family, work); therefore it does not refer to "typologies" (of whatever type they are) but identifies a diagnosis calibrated exactly on the person. The result is a highly specific intervention, an integrated therapy which, intervening on all levels of the Self, aims to recover and reconstruct the ancient "Basic Experiences of the Self".

For reasons of argumentative simplicity, we will only consider the nosographic model here, distinguishing borderline personality disorder from the following disorders [5,23-37].

"Depressive disorder" and "Dysthymia": Similar in their sense of emptiness and loneliness and the risk of suicide, borderline patients are convinced that they are self-sufficient, despite being dependent on others (it is particularly evident in the state of mania) while depressed people are aware of their need for help, but are usually capable of being completely autonomous. Sudden anger characteristics are rare in depression; although there are symptoms in common, in true depression a sense of mistrust with resignation prevails, in the borderline, this mistrust is accompanied by anger and it is also necessary to distinguish the isolated reactive depressive episode from the maladaptive behavioral nature that underlies the depressive episode;

"Bipolar disorder": "Bipolarity" differs from "borderline personality disorder" mainly due to the degree of pervasiveness in the subject's psychic sphere. Nothing strange if the borderline was simply the psychopathological evolution from a mood disorder to personality disorder, even if the scientific community struggles to hypothesize this possibility, frankly plausible and less complex than the comorbidity hypothesis, considering them as two distinct entities and separate. Beyond these speculations, however, there is no doubt the existence of a borderline clinic, characterized by severe difficulty in regulating impulsiveness and emotion, swings in mood, irritability and anger, symptoms psychotic (paranoid ideation, dissociative states) and self-injurious behaviors. Often pictures of this kind appear since early youth and remain rather stable over time, thus being rubricated by psychiatry as pervasive personality disorders. They are associated with a very high frequency of childhood traumas, and abuse, maltreatment, important emotional deficiencies suffered in childhood. The theme of abandonment is central and is the background of any typical dysfunctional behavior. Bipolar disorder is, therefore, a mood disorder, so everything that happens to those who are subject can be completely dystonic concerning his personality. If the borderline is so chronically affected by certain behavioral disturbances to make one think of penetration of discomfort into the deepest layers of character, the bipolar is instead invested by the dysregulation of mood as by an unexpected wave and alien to his way of being. The person is transformed as if under the influence of a drug, and others do not recognize it anymore. Thus, if the difficulty of regulating the impulses is a constant in the life of the borderline, bringing it systematically to act rather than to think, in the depressed maniac it appears in an episodic manner (especially in the manic phase with real passages at the act), distancing oneself from the usual character matrix of the person. So also, mood disorders are different in the two syndromes. In the borderline one, the oscillation is frequent, and the cycles are short, they last a few days or a few hours. The overhang is usually reactive to something that has to do with the perception of rejection by the other. Minimal signs of disinterest rather than alleged frustrations or losses are magnified and dramatized. In bipolar disorder, on the other hand, the oscillations are more discontinuous and lasting and



can occur unexpectedly, regardless of the external situation, as if they were real lightning bolts from a clear sky. The same goes for anger and irritability. The borderline is chronically nervous, always reactive to events, often even insignificant ones. While the bipolar is so only when it is strongly melancholy or revved up, that is when it is at the mercy of the humoral storm that attacks it without reason. On psychotic symptoms, there is an additional clarification to make, also because the differential diagnosis of schizophrenia also comes into play. In borderline, we frequently observe paranoid ideation or pseudo-delusional conviction of being victims of a bad other. However, it never reaches the level of a systematized delusion. Also the dissociative symptoms (detachment or amnesia), characterized by the absence of connection in thought, in memory, and the sense of identity, never lead to complete detachment from reality: the patient remains able to understand that something strange is happening to him. The bipolar instead can experience real hallucinations and delusions both in the manic and depressive phases. In the first, themes of omnipotence and grandeur will prevail, while in the second delusion of ruin. What differentiates these psychotic symptoms from those of schizophrenia is the peculiarity of the contents in line with the concomitant alteration of mood, they are always being closely associated with the change of mood and being circumscribed over time. Furthermore, what qualifies schizophrenia is that we do not find either in the bipolar or in the borderline is a marked and pervasive emotional blunting (coerced affectivity) [27,28].

“Post-traumatic stress disorder”: Both have anxiety, fear, anger but in the post-trauma stress the trauma that caused it is evident and often recent, even if it may develop in the borderline;

“Dependent personality disorder”: The employee willingly submits to whom he depends (for fear of abandonment), has a submissive personality; the borderline, on the other hand, if he does it is still frustrated. Both exhibit a degree of emotional immaturity (i.e. behave like children if they are teenagers, and as eternal teenagers, if they are adults) and possible behaviors passive-aggressive stronger than in the employee;

“Histrionic personality disorder”: Both want attention, but the histrionic seeks companionship and often appears happy in appearance, puts in place a seductive and sociable appearance, while the borderline shows his anger and frustration;

“Somatoform disorder”: In the borderline, there is no real simulation of all the symptoms of a pathology but mainly an altered emotional state;

“Narcissistic personality disorder”: Both are very sensitive to criticism, but the narcissist, however, has a fixed sense of his superiority (grandiose self) that the borderline does not have stably [29,30].

“Antisocial personality disorder”: In the borderline antisocial behaviors (transgressing the rules, lying, manipulating) can occur but the patient never loses the sense of guilt or the ability to feel remorse, as happens instead to

the sociopath; moreover, the sociopath or psychopath can be emotionless, while the borderline can repress them, but they are always very present;

“Schizotypal personality disorder”: Both present cognitive distortions, behavioral eccentricities and semi-psychotic symptoms during crises (for example, delusions, paranoia, derealization, depersonalizations and dissociations), but the symptoms of schizotypal are deeper, often with unusual perceptual experiences, bordering on schizophrenia; they also have in common the unstable emotionality (rapidly fluctuating mood) and the fear of social and personal rejection. However, the borderline can look a lot like schizotypal, especially if it has comorbidities with psychotic or obsessive symptoms.

Borderline personality disorder is often in comorbidity with behavioral addiction [31] and substance disorders, with eating disorders [32] and sleep-wakefulness [33], with obsessive disorders [34], with depressive disorder [35], anxiety disorders [36] and phobias, attention deficit hyperactivity disorder [37], post-traumatic stress [38] and panic attacks [5].

The neural correlates in borderline personality disorder

Structural neuroimaging studies with magnetic resonance imaging in groups of subjects with borderline personality disorder show differences in density of gray matter in the amygdala (some studies lower density, others greater). Again, a reduced density of gray matter is also reported in the anterior cingulate cortex; also, the integrity of the white matter at the level of the lower prefrontal cortex, measured through DTI (Diffusion Tensor Imaging) resonance is reduced in subjects with borderline disorder and self-injurious behavior. In functional magnetic resonance imaging, on the other hand, there is a reduced activation of the ventromedial prefrontal cortex (including the orbital portion and a portion of the anterior cingulate cortex) and greater activation of the amygdala and ventral striatum compared to controls. A hyperreactivity of the amygdala of subjects with borderline diagnosis is also reported in the face of facial expressions of emotions, as these patients tend to evaluate as threatening neutral facial expressions. During a cognitive high-empathy task, participants with borderline traits exhibited reduced activation of the superior temporal sulcus and superior temporal gyrus compared to healthy controls, while during the affective empathy task, patients were shown to have greater activity of the insula compared to the controls. In particular, a link was found between the participants with borderline personality traits and a lesser use of neural activity in two brain regions, the temporoparietal junction and the superior temporal sulcus, which are of fundamental importance during the type processes empathetic. Finally, a PET study reported reduced brain metabolism in the medial orbitofrontal cortex bilaterally [39-41,42].

Numerous studies have highlighted deficits in the cognitive and emotional processing of information in subjects with borderline disorder, referring to the cognitive processes of attention, memory, planning, visuospatial skills, and executive functions. In particular [39-41,43-53].



Executive functions: A deficit in executive functions is the most common data among the studies that have investigated the neurocognitive functioning of subjects with borderline disorder and this is congruent with the functional neuroimaging data showing altered neural activation patterns, compared to control subjects, during tasks that activate the prefrontal cortex, especially in its most medial/orbitofrontal portion. As regards the individual executive processes, impaired performances are reported in abstraction and cognitive flexibility tasks, in inhibition of motor response tasks, in work memory tasks, and decision-making tasks. It should be emphasized that some studies do not report significant differences in the executive functioning of subjects with borderline disorder and control subjects and some executive processes such as the inhibition of motor responses and decision-making skills are more often dysfunctional than other processes such as working memory and planning. This data on the different degrees of compromise of the different executive processes in subjects with borderline disorder is of particular importance for two reasons. First of all, it confirms what has been shown by functional neuroimaging studies, namely that neural dysfunction in borderline disorder is mainly borne by the more medial portions of the prefrontal cortex (more activated by response inhibition and decision-making tasks), while the more lateral portions (more activated by work memory tasks and planning tasks) are better preserved. Also, the orbitofrontal dysfunction of subjects with borderline disorder, suggested by the difficulties in the tasks of inhibiting motor responses and in decision-making tasks, is probably the neural correlate of behavioral impulsiveness, of clinical significance, frequent in subjects with borderline disorder. The neuropsychological approach to impulsivity describes the underlying neurocognitive processes, which are measurable through specific standardized tasks. A first process is the ability to inhibit already programmed behavioral responses: impulsiveness is associated, in fact, with a reduced ability to inhibit behavioral responses. A second process underlying behavioral impulsiveness concerns the ability to integrate reward/punishment contingencies in the choice between one or more options, and is assessed by decision-making tasks.

Memory: Recent meta-analyses of neuropsychological studies indicate that subjects with borderline disorder may perform on average worse than control subjects in long-term memory tasks, both verbal and visual. In particular, a recent fMRI study indicates that subjects with borderline disorder, to provide performance similar to that of control subjects, in both episodic and semantic long-term memory tasks, must activate much more complex and wider neural circuits than those activated by the controls themselves. A particular area of interest is the study of autobiographical memory in subjects with borderline disorder, in particular how it is influenced by the state of affective activation of the subjects themselves. These data pose an interesting parallel with post-traumatic stress disorder it is estimated that about 80% of subjects diagnosed with borderline disorder report abuse or mistreatment during childhood and neuroimaging studies on subjects with post-stress stress disorder traumatic show how traumatic experiences can produce stable brain changes over time, especially in the prefrontal cortex, hippocampus,

and amygdala. In particular, subjects exposed to trauma show an increased reactivity of the amygdala during exposure to hemogenic stimuli, compared to control subjects, and a reduced activation of the anterior cingulate cortex, during the re-enactment of the traumatic experience, can represent the neural correlate of the failure to extinguish the fear response that often characterizes these subjects. The emotional activation aroused by negative stimuli seems, therefore, to interfere negatively both in the coding phase and in the recovery phase of autobiographical information relating to specific life events of subjects with borderline disorder: this phenomenon is particularly evident in subjects who have suffered trauma in childhood and could help explain the dissociative phenomena that often characterize this clinical population.

Social cognition: The functional neuroimaging tools reveal that the processing of information of a social nature activates complex neural circuits that connect cortical structures and subcortical structures, both those usually thought to be responsible for the emotional processing of stimuli, such as the amygdala and structures usually thought to be responsible for cognitive processing of stimuli, such as the temporo-occipital junction and the medial prefrontal cortex. The perception, the elaboration, and the reaction to social stimuli require, in fact, a continuous interaction of cognitive and emotional processes. Many of the structures that neuroimaging shows involved in the processing of social information had already been indirectly identified by injury studies that had shown significant deficits in interpersonal behavior following focal brain damage, in particular affecting the orbitofrontal cortex, in adulthood and childhood. Deficits in some social cognition processes are well documented in numerous developmental and adulthood psychopathologies, all united, it is interesting to underline this, from clinical symptoms at the level of interpersonal behavior. The first process of social cognition consists in the recognition of emotions: the neuroimaging allowed to identify the active areas in the human brain during the perception of the faces: a region of the lateral fusiform gyrus of both hemispheres, defined as Fusiform Face Area, which contributes to the coding identity, and the superior temporal sulcus, responsible for the representation of dynamic and changing characteristics of the faces and for the elaboration of facial expressions and gaze direction. The recognition of emotional expressions, in particular facial ones (produced thanks to specific neuromuscular programs for each discrete emotion, with the result of the same facial expression common to all human people, regardless of gender, or culture of belonging and degree of education), is based on a set of structures that includes the occipitotemporal neocortex, the amygdala, the orbitofrontal cortex, the basal ganglia, and the right parietal cortex: these structures are also involved in a variety of other processes, thus making it difficult to identify the specific functions of each facility. Among these structures, the amygdala is particularly active in the face of facial expressions of fear and sadness. The amygdala seems to play a fundamental role in directing attention towards the eyes, the region of the face that conveys more emotional information. Some studies that have investigated the recognition of emotions in subjects with borderline disorder have reported that the functional



hyperactivity of the amygdala detected by the functional neuroimaging is reflected: a) in early identification of the emotion, if the expression of the face gradually changes from neutral to expressive, compared to the control subjects; b) in a tendency to interpret facial expressions as threatening, in reality, ambiguous or neutral; c) in a difficulty in correctly recognizing emotions in complex stimuli in which facial and prosodic expressions of emotions are integrated.

Other studies have shown that, in borderline subjects, reduced levels of oxytocin, a hormone identified as a regulator of social relationships and competences, correlate (in women) with hyperactivity of the amygdala and the medial part of the prefrontal cortex, areas assigned to emotional and cognitive processing of stimuli [54].

Clinical strategies for the management of the disorder

Although personality disorders are generally considered to be the most difficult psychopathological disorders to manage, precisely because of the low collaboration of the patient, especially those of Cluster A and B, the best clinical strategy is considered the integrated one: psychotropic drugs, to stabilize, and psychotherapy (cognitive-behavioral and strategic) to teach the patient how to manage and accept his condition [5].

In particular, concerning psychotherapy, the technique developed by Linehan proved extremely effective in the 70s of the last century. Dialectical Behavior Therapy (DBT), conceived and developed by Marsha Linehan in the 1970s, represents the chosen and evidence-based treatment for Borderline Personality Disorder and has proven effective for problems associated with emotional dysregulation and reduced control of impulses. People with borderline disorder are characterized by a biological emotional dysregulation that determines an intense reaction to stressful events and a slower return to the basic level after the emotion has reached its peak. To this innate feature, there is also the contribution of the invalidating environment. When the growth environment does not approve, punish, or provide inadequate responses to his emotional reactions, the child begins to evaluate himself, his thoughts, emotions, and behaviors as wrong or of little value. This leads to an inability to regulate, understand and tolerate emotional reactions and, over time, people begin to invalidate what they feel and adopt a hyper simplified and unrealistic vision of their emotional experiences. Hence, the primary targets of borderline disorder treatment are intense emotional reactions, reduced impulse control, and dangerous and/or self-injurious behaviors put in place to ward off emotions that people are unable to understand and endure. To treat the complex and varied picture of symptoms related to the presence of emotional dysregulation, DBT uses a series of strategies aimed at creating a synthesis and a balance between acceptance and change. Its uniqueness, therefore, is represented by the fact that the intervention is based on the assumptions and cognitive-behavioral strategies oriented to the change of thoughts, feelings/emotions and dysfunctional behaviors that feed and maintain suffering, but also on interventions based on Mindfulness, who are oriented towards accepting themselves,

their emotions, their thoughts, the world and others. Standard DBT treatment involves individual therapy, participation in the skills training group, and telephone coaching. DBT skills training offers concrete tools through the teaching of four skill modules: a) Mindfulness "increase awareness of oneself, one's thoughts, emotions, and behaviors, to overcome and manage effectively the moments in which painful emotions are experienced; b) "Suffering Tolerance skills" allow you to face moments of crisis in a functional way and accept reality as it is, accepting the present moment in a non-judgmental way and accepting the facts of life that cause suffering; c) the "emotional regulation skills" help the person to have a more functional relationship with their emotions and to modify the behaviors that are put in place when experiencing intense emotions; d) "Interpersonal Efficacy Skills" allow you to use strategies that help improve relationships and manage interpersonal conflicts [55].

Another technique often used is Schema Therapy, or more precisely Schema-Focused Therapy, which is an integrated approach that combines aspects of cognitive-behavioral, experiential, interpersonal, and psychoanalytic therapy in a single intervention model. Schema Therapy was developed in 1994 by Young who initially worked closely with Beck, the founder of Cognitive Therapy. Young and his colleagues realized that a portion of patients did not benefit from the standard cognitive-behavioral approach. They discovered that these subjects had recurring and lasting patterns or themes of thoughts, emotions, and behaviors that therefore required new intervention tools. Young called these deeply rooted and profound patterns or themes "patterns" or "traps". These patterns function as filters through which individuals put the world in order, interpret, and predict. People with personality disorders have developed maladaptive patterns and, consequently, manage their lives less well. According to Young, these maladaptive patterns developed early as a result of the interaction between factors such as the temperament of the child, the parenting style of the mother and father, and any significant and / or traumatic childhood experience. Early maladaptive patterns reflect the child's important unsatisfied emotional needs and represent his or her attempt to adapt to negative experiences, such as family quarrels, rejection, hostility or even aggression or abuse by parents, peers or other significant figures, lack of affection and love, inadequate parental support or care. The primary origins of the most serious personality disorders, therefore, according to the Scheme Therapy, are the unmet emotional needs of childhood, in particular those relating to rejection and abuse. Furthermore, cognitive-behavioral therapy turns out to be very useful because it focuses on the analysis of the patient's dysfunctional beliefs, as well as interpersonal metacognitive therapy, which teaches mastery or emotional regulation strategies, which can help the patient to manage more functional the problematic state [6].

Concerning the psychopharmacological picture, second-generation antipsychotics, mood stabilizers, and antidepressants in combination are usually indicated in support of psychological therapy. Second-generation



antipsychotics have significant effects both on the reduction of the peculiar symptoms of borderline personality disorder (affective instability, anger, hostility) and on the improvement of commonly associated symptoms (anxiety, depression, psychotic symptoms). Mood stabilizers show positive effects in reducing interpersonal problems and in improving depression and anger. As for antidepressants, there is only limited evidence of efficacy that suggests the use of tricyclics as a specific treatment in the presence of depression and suicidal ideation. The use of anxiolytics is not recommended if not for an episodic treatment, given the marked characteristic of all benzodiazepines to create addiction in the patient, already predisposed. Treatment with short- and medium-term antipsychotics is very effective. Only if necessary antidepressants, which will be suspended at the slightest suspicion of the beginning of a period of mania, a more dangerous characteristic of this disorder (resembling the bipolar mania), as it precedes the consequent depressive episode. The manic episode, frequently, leads the patient to abandon drug therapy, given his characteristic inability in the manic phase to have a correct reality test. Benefits have also been demonstrated with the therapy scheme. Mood stabilizers are the cardinal therapy in borderline disorder. The characteristic of the disorder is the episode of mania (mild, moderate, very rarely severe) in which the patient loses control, the real test, and the ability to insight, and which, once exhausted, is followed by an episode deep depressive. Unlike type 1 bipolar, the borderline presents manic episodes lasting a few hours (at most a few days), which precede the depressive fall of the same duration, and which could escape the preliminary clinical examination, in which the patient could present himself healthy and unaware of the state of malaise. Episodes are frequent. To avoid prolonged use of antipsychotics, to which the patient proves to be very sensitive, the stabilizer allows a reduction in the dosages and frequency of use, in the long term, of these. Carbamazepine, lamotrigine, sodium valproate and lithium are all first-line drugs and widely effective over the long term. The latter, however, has the limitations induced by endocrine side effects, therefore it becomes a second choice drug in the presence of previous or even only suspected endocrine disorders. SSRIs have proven effective only in alleviating anxiety and depression, such as anger and hostility, associated with some patients with this condition. A longer period than depression is needed for the beneficial effects of the medicines to appear. They therefore prove useless, if not counterproductive, in the treatment of the critical episode. They can be dangerous in the manic phase of the disorder, in which the patient will feel healthy, healed, manifesting irresponsible therapeutic conduct. Therefore the user should be moderate and attentive, the enhancements must follow an adequate stabilization of mood. Only in the case of borderline diagnosis in comorbidity with early or severe onset obsessive-compulsive disorders (which increase thinking distortions), strong anxiety, borderline organization of personality or pervasive tic disorders, the association of SSRIs at the maximum dose (only if far from the phase in which manic behavior prevails), or valproate, or other milder stabilizers, with antipsychotics at a lower than normal dose, is it considered a useful therapeutic practice [55].

Conclusions

Borderline disorder is classified as a personality disorder, in cluster “B”, and is characterized by emotional dysregulation, by an instability of the subject in interpersonal relationships and by a marked impulsiveness. It is often associated with traumatic events suffered in childhood (therefore developed following a post-traumatic stress disorder in childhood), such as sexual or physical abuse, or having grown up with parents suffering from behavioral problems or mental disorders. Etiology is not yet known but research shows the multifactorial nature of the disorder, to be found in neurobiological, environmental, and behavioral conditions.

The neurobiological profile is particularly interesting, as it has been shown that borderline patients morphologically present significant variations in the density of the gray matter, both in the amygdala and in the anterior prefrontal cortex, as well as a reduction in the integrity of the white matter at the level of the lower prefrontal cortex. From a functional point of view, it has been highlighted that subjects with borderline disorder obtain lower than average results in the evaluation of executive functions: their performance in abstraction and cognitive flexibility tasks, as well as in inhibition of motor response and decision-making tasks result in fact deficiencies. These results directly correlate with the alteration of the neural activation patterns affecting the prefrontal cortex, identified as the seat of executive functions, that is, the set of processes necessary to implement adaptive and oriented behaviors. Among the areas of the prefrontal cortex, these patients show a neural dysfunction mainly affecting the medial/orbitofrontal portion while the more lateral areas would be preserved. This dysfunction would seem to explain the phenomenological correlation of impulsivity, often associated with a reduced inhibitory ability of behavioral responses and an inability to integrate reward or punishment contingencies in the orientation of the action. Even the low oxytocin values (in women) are somehow related to the dysregulating behaviors of borderline subjects. The alteration of the neural patterns of these two structures, the amygdala and the medial prefrontal cortex, respectively responsible for reading the fearful external stimuli and decoding the information that derives from the face of others by integrating them with emotional information, in borderline subjects is manifested by the characteristic behavioral dysfunctions such as aggression, social antagonism, the attitude of suspiciousness and their tendency to interpret ambiguous or neutral expressions as threatening expressions. The emotional hyperactivation in the recovery of information on one's own experiences would carry out an inhibitory action on the recovery of information, explaining the characteristic fragmentation of the self and the frequent dissociative episodes that characterize this personality. Even from a biochemical point of view, several genes have been identified as responsible for the genesis of the disorder.

The best clinical treatment is certainly the integrated one, between psychotherapy (cognitive-behavioral, functional or strategic) and administration of psychiatric medicines.



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