

# Cyclothymic Disorder: A Cognitive Behavioral Case Formulation

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**Abstract:** Cyclothymic disorder is recognized as a mild, less severe and subthreshold form of bipolar disorder. The complexity of the disorder leads to difficulties in diagnosis and treatment. A dimensional approach to diagnosis may help identify the goals, and the planning of the psychological intervention. In this paper, a case of cyclothymic disorder is presented, focusing on the cognitive-behavioral conceptualization of the case and its treatment planning.

**Keywords:** Cyclothymia, Bipolar disorders, Hypomania, Mild depression, Cyclothymic disorder, CBT, WBT  
Cognitive behavior therapy, Well-Being Therapy, Case formulation, Case conceptualization.

## 1. INTRODUCTION

Dimensional psychological diagnosis opposes the categorical approach and consists of recognizing a continuum between normality and pathology. The dimensional approach suggests that symptoms may be present in both normality and pathology. Dimensionality can be considered in terms of the number of symptoms and the severity of each group of symptoms (Avasthi *et al.*, 2014).

Case formulation reflects a dimensional perspective; it is one of the core features of psychotherapy including cognitive-behavioral therapy and has been described as the “heart of evidence-based practice” (Bieling & Kuyken, 2003). Conceptualization is the heart that synthesizes the client’s presenting problems and directs an intervention strategy. Aston (2009) described case conceptualization as a road map to guide treatment. cognitive behavioral therapy (CBT) case conceptualizations focus on four common elements (Owen, 2023): predisposing factors, precipitating factors, maintenance factors, and protective factors. Predisposing factors refer to biological components (*e.g.* genes, behavioral traits) and contextual components (*e.g.* difficult family environment, childhood trauma) linked to the individual’s life history that may contribute to increasing the likelihood of the onset of the disorder (*e.g.* Cyclothymic disorder). Precipitating factors refer to recent stressor events or traumatic experiences (*e.g.*, serious car accident, natural disaster, loss of a loved one) that occurred in the individual life that may lead to the onset of the disorder in a person with a predisposition. Perpetuating factors contribute to maintaining the disorder (*e.g.*,

irrational beliefs, secondary benefits of the disorder) Protective factors are those personal or environmental factors, that can decrease the likelihood of the onset of a disease or lessen its symptomatic impact (*e.g.*, good economic resources, high schooling, social support).

Cyclothymic disorder seems to be recognized as a mild, less severe and subthreshold form of bipolar disorder. It is a disorder that is still poorly understood, whose etiology is still not entirely clear, and whose prevalence seems to be underestimated because a limited number of patients with this disorder choose not to seek the help of a mental health professional (Youngstrom *et al.*, 2014). Furthermore, the presentation of cyclothymic disorder is highly heterogeneous (Van Meter *et al.*, 2012). The complexity of the disorder leads to difficulties in diagnosis and treatment.

## 2. RATIONALE AND OBJECTIVES

There is currently no clinical protocol for psychological intervention for cyclothymic patients.

A dimensional approach to diagnosis may help identify the goals of psychological intervention and in planning it. In this paper, a case of CD is presented, focusing on the cognitive-behavioral conceptualization and a proposal for cognitive-behavioral treatment planning.

## 3. THE STATE OF THE ART OF CYCLOTHYMIC DISORDER

To promote clarity in research and clinical practice, a brief overview of the state of the art of CD is presented (diagnostic classification, prevalence, etiology, differential diagnosis, and management of the disorder) is presented before describing the case report.

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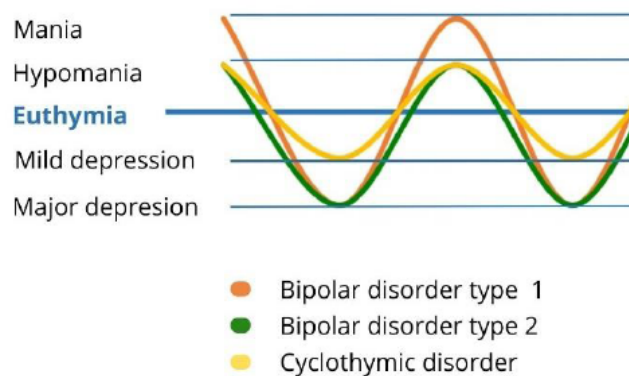
### 3.1. Diagnostic Classification of Cyclothymic Disorder

It has been conceptualized from different perspectives as a subtype of bipolar disorders (BD; Akiskal *et al.*, 1977), as an affective temperament (Akiskal *et al.*, 1979), or even as a personality style (Brieger & Marneros, 1997; Parker, 2011).

From a temperamental standpoint, cyclothymia has been considered an affective disposition associated with moodiness and impulsivity – thus functioning as a possible step between non-clinical levels of mood fluctuation and full-blown BD (Akiskal *et al.*, 1979). According to this approach, cyclothymic temperament should be viewed as a risk factor for psychopathology; it may significantly increase the risk of developing bipolar disorder type 1 (BD1) or bipolar disorder type 2 (BD2), along with many other moods, anxiety, personality, eating, and impulse control disorders, including drug and alcohol abuse, and behavioral addictions (Perugi & Akiskal, 2002).

The idea of cyclothymic temperament as a diathesis runs parallel with the conceptualization of cyclothymia as an intermediate stage in the development of other mental disorders. A cyclothymic disposition can be considered a character trait, or a personality descriptor without any direct relation to psychopathology (Brieger & Marneros, 1997). Any of these definitions of cyclothymia can be demonstrated to be empirically correct, but this range of definitions applied to a single term may prove to be misleading. Each of these definitions of cyclothymia weaves complex relationships with other psychiatric disorders, especially mood and personality disorders (PD), but also anxiety, substance use, eating, impulse control disorders, and so on.

According to The Diagnostic and Statistical Manual of Mental Disorders-5 text revision (DSM-5-TR; APA, 2022) bipolar disorders are a group of chronic mental disorders that include BD1, BD2, and CD.



**Figure 1:** Representation of mood swings in bipolar disorders.

They are characterized by mood swings that include emotional highs (mania or hypomania) and lows (depression) resulting in significant distress and difficulty in life. BP1 consists of at least one manic episode that may be preceded or followed by hypomanic or major depressive episodes. In some cases, mania may trigger a break from reality (psychosis). BP2 consists of at least one major depressive episode and at least one hypomanic episode, but a manic episode never occurs. The CD consists of at least two years — or one year in children and teenagers — of many periods of hypomania symptoms and periods of depressive symptoms (though less severe than major depression). The three disturbances are represented graphically in Figure 1. The diagnostic criteria of CD are summarized in Table 1.

**Table 1: Diagnostic Criteria of Cyclothymia According to DSM-5-TR (APA, 2022)**

<b>A</b>	Presence of a chronic, fluctuating mood disturbance involving numerous periods with hypomanic symptoms and periods with depressive symptoms. Hypomanic symptoms are insufficient in number, severity, pervasiveness, and/or duration to meet the criteria for a hypomanic episode fully, and depressive periods are inadequate in number, severity, pervasiveness, and/or duration to meet a major depressive episode fully.
<b>B</b>	During the initial 2-year period, criterion A symptoms must be persistent, <i>i.e.</i> they must be present for a greater number of days than when symptoms are absent, and each symptom-free interval must not exceed two months.
<b>C</b>	The criteria for a major depressive, manic, or hypomanic episode are not met
<b>D</b>	Symptom patterns of mood swings must not be better explained by other psychopathologies such as schizoaffective disorder, schizophrenia, schizophreniform disorder, and other psychotic disorders with other specifications or without specification.
<b>E</b>	The mood alteration must not be attributable to a substance's physiological effects, such as a substance of abuse, medicines, or other medical conditions.
<b>F</b>	During the prolonged course of the disorder, because of the altered mood, there must be significant discomfort or impaired functioning in social, occupational, or other important areas.

People who have hypomanic symptoms may experience an exaggerated feeling of happiness or well-being (euphoria); extreme optimism; inflated self-esteem; talking more than usual; poor judgment that can result in risky behavior or unwise choices; racing thoughts; irritable or agitated behavior; excessive physical activity; increased drive to perform or achieve goals (sexual, work-related or social); decreased need for sleep; tendency to be easily distracted; and inability to concentrate (Mayo Clinic Staff, 2022).

People who have depressive symptomatology may experience: a depressed mood, such as feeling sad, empty, hopeless, or tearful, marked loss of interest or feeling no pleasure in all — or almost all — activities; significant weight loss when not dieting, weight gain, or decrease or increase in appetite, either insomnia or sleeping too much; either restlessness or slowed behavior; fatigue or loss of energy; feelings of worthlessness or excessive or inappropriate guilt; decreased ability to think or concentrate, or indecisiveness; and thinking about, planning or attempting suicide (Mayo Clinic Staff, 2022).

In the presence of a diagnosis of CD, it is useful to specify whether anxious symptomatology is present, indicating its severity level (APA, 2022).

Anxious symptomatology can be defined as being present if at least two of the following symptoms are present on most symptomatic days in cyclothymic disorder: i) feeling agitated; ii) feeling unusually restless; iii) difficulty concentrating because of worries; iv) fear that something terrible may happen; v) feeling that the individual may lose control of himself.

The level of severity of anxiety can be categorized as follows: i) mild anxiety: two of the five symptoms above are present; ii) moderate anxiety: three symptoms are present; iii) moderate-severe anxiety: four or five symptoms are present; iv) severe anxiety: four or five symptoms are present with motor agitation.

### 3.2. Prevalence of Cyclothymic Disorder

Studies that have investigated the prevalence of CD are limited. The lifetime prevalence rate of CD appears to be 1.4 (Merikangas *et al.*, 2011) - 2.8% (Weissman & Myers, 1978). The one-year prevalence rate of CD seems to be included in the range from 0.8% (Merikangas *et al.*, 2011) to 1.4% (Faravelli & Incerpi, 1985).

The prevalence rate of CD within the general adult population ranges from 2.5% (Angst *et al.*, 2005) to about 10% (Akiskal, 1997; Angst, 2003) and appears to be about 4% in adolescents (Kessler, 2009). A study by Depue and colleagues (1977) found that 21.4 percent of a non-clinical university sample met the criteria to be diagnosed with CD. Clinical population studies have identified a prevalence rate of the disorder in the range of 6.29% (Van Meter and colleagues, 2011) to 7.75% in children and adolescents (Findling *et al.*, 2005) and 13.42 (Alnaes *et al.*, 1989) to 51.51% (Jacobsen *et al.*, 1993) in adults. In clinics that service individuals with mood disorders, the prevalence is 3–5% (APA, 2022). The cyclothymic disorder appears to affect the female and male gender indiscriminately (APA, 2022)

### 3.3. Etiology of Cyclothymic Disorder

It's not known specifically what causes CD. As with many mental health disorders, research shows that it may result from a combination of genetic factors, neurobiological dysregulation, and environmental triggers (Akiskal *et al.*, 2006; Edvardsen *et al.*, 2008; Rowland & Marwaha, 2018; Totterdell & Kellet, 2008; Van Meter *et al.*, 2012).

First-degree relatives of diagnosed patients have major depressive disorder, BD1, and BD2 more often than the general population (Moini *et al.*, 2024). Risk factors include a family history of bipolar disorder (Akiskal *et al.*, 2006; Edvardsen *et al.*, 2008). Van Meter and colleagues (2012) note that the cortisol stress response of individuals with CD was twice as high as that of controls, and this finding suggests the persistent mood dysregulation related to CD. CD can derive from problems in the body clock's timing system (Goodman, 1996; Totterdell & Kellet, 2008). Totterdell and Kellet (2008) point out that individuals with CD are physiologically susceptible to disturbances in their circadian rhythms (*e.g.*, Grandin *et al.*, 2006), or as suggested by social zeitgeber theory (*e.g.*, Ehlers *et al.*, 1988) when social cues that are aligned with physiological rhythms are disturbed by negative life events, a disturbance in affect takes place (*e.g.*, Grandin *et al.*, 2006).

A growing body of evidence suggests that past and current environmental context has an important impact on the onset, course, and expression of bipolar spectrum disorders, such as adverse events related to perinatal and prenatal periods, traumatic experiences, prolonged stress periods, low or lack of social support,

substance abuse, medical conditions, and family dysfunctions (Aldinger & Schulze, 2017; Alloy *et al.*, 2005; Rowland and Marwaha, 2018).

### 3.4. Differential Diagnosis of Cyclothymic Disorder

The CD presents several important challenges for differential diagnosis. This condition shares many overlapping features with several psychiatric diagnoses. These include dysthymic disorder, other BP conditions, attention-deficit /hyperactivity disorder (ADHD), and borderline personality disorders (BPD). Table 2 summarizes the main common symptoms and differences between the disorders (Brus *et al.*, 2014; Van Maters *et al.*, 2012; Paris, 2018).

### 3.5. Management of Cyclothymic Disorder

The psychoeducational approach is one of the most effective interventions and should be adopted from the beginning of the treatment (Hauntouche & Perugi, 2012; Perugi *et al.*, 2017). It is aimed at knowledge of symptoms, acceptance of the disease, trust in the therapeutic relationship, and, as well as sharing the behavioral and interpersonal consequences of the CD condition. Finally, the psychoeducational focus is enhancing engagement with psychotherapy and pharmacotherapy (Perugi *et al.*, 2017).

Hantouche and colleagues (2007) elaborated on a psychoeducation group therapy specific for CD.

The format consisted of six weekly 2-hour sessions. The first session provides a clinical description of CD and a discussion of causes and medication. The second session focuses on monitoring mood swings, assessing warning signs, identifying strategies to cope with early relapses, and planning 'positive' routines. Sessions 3 and 4 are dedicated to the evaluation of psychological vulnerabilities such as emotional dependency, sensitivity to rejection, excessive need to please, and other psychological faults. The cognitive processes strictly associated with the ups and downs are examined during the fifth session. Finally, the sixth session is focused on interpersonal conflicts.

No medications are approved by the Food and Drug Administration (FDA) specifically for CD; however, medications may help control cyclothymia symptoms and prevent periods of hypomanic and depressive symptoms.

The first-line psychotropic treatment of CD is the administration of a mood stabilizer (valproate if mixity and mood reactivity are dominant, lamotrigine if the anxious-depressive polarity is more prominent, and lithium for significant affective intensity. Some patients

**Table 2: Differential Diagnosis of Cyclothymia with other Neighboring Diagnosis**

Neighboring Diagnosis	Features Similar to CD	Features Differentiating CD
Dysthymic disorder	<ul style="list-style-type: none"> <li>Chronic mood disturbance</li> <li>Subthreshold depressive symptoms</li> </ul>	<ul style="list-style-type: none"> <li>Periods of elevated mood</li> </ul>
BD1	<ul style="list-style-type: none"> <li>Chronic presentation,</li> <li>Intermittent hypomanic and depressive periods</li> </ul>	<ul style="list-style-type: none"> <li>Absence of major depression episodes</li> <li>Absence of mania episodes</li> </ul>
BD2	<ul style="list-style-type: none"> <li>Chronic presentation,</li> <li>Intermittent hypomanic and depressive periods</li> </ul>	<ul style="list-style-type: none"> <li>Absence of major depression episodes</li> </ul>
ADHD	<ul style="list-style-type: none"> <li>Chronic presentation,</li> <li>Sensation seeking,</li> <li>Distractibility,</li> <li>Restlessness,</li> <li>Impulsivity</li> </ul>	<ul style="list-style-type: none"> <li>Depressive symptoms</li> <li>Grandiosity</li> <li>More variation in symptoms</li> </ul>
BPD	<ul style="list-style-type: none"> <li>Chronic presentation</li> <li>Diffusion of identity</li> <li>Mood instability</li> <li>Interpersonal difficulties</li> <li>Negative self-concept</li> </ul>	<ul style="list-style-type: none"> <li>Identity diffusion closely linked to mood swings (euthymia, hypomania, and depressive periods)</li> <li>Negative self-concept derives from intrapsychic (not external, <i>i.e.</i> interpersonal) events</li> <li>Grandiosity is rare</li> <li>In general, there is a less pervasive and persistent pattern</li> </ul>

may benefit from the dual therapy of both lithium and lamotrigine (Hantouche & Perugi, 2012; Perugi *et al.*, 2017). Furthermore, atypical antipsychotics can be applied as a monotherapy or an adjunct in conjunction with a mood stabilizer. Current research recommends withholding the use of antidepressants in the setting of CD as it can exacerbate symptomatology (Hantouche & Perugi, 2012; Perugi *et al.*, 2015).

In half of the cases, selective drug therapy with focused psychoeducation is sufficient to obtain a rapid clinical response with significant changes in behavior and cognition (Hantouche & Perugi, 2012).

In addition to psychoeducation and pharmacotherapy, psychotherapy can be carried out.

CBT is a form of psychological treatment developed by Beck (2020) that is applied to identify irrational thoughts and dysfunctional behavior underlying the maintenance of the psychopathological disorder, by replacing them with more functional ones.

Well-being therapy (WBT) is a short-term well-being-enhancing psychotherapeutic strategy developed by Fava (1999) and based on Carol D. Ryff's (1989) multidimensional model. It may be applied as a relapse preventive strategy in the residual phase of affective (mood and anxiety) disorders, as an additional ingredient of cognitive behavioral packages. It promotes self-observation of well-being episodes (Emmelkamp, 1974) by compilation of a structured diary and interaction between patients and therapists. Once the instances of well-being are properly recognized, the patient is encouraged to identify irrational and dysfunctional thoughts leading to premature interruption of well-being regarding some domains: psychological well-being, encompassing environmental mastery, personal growth, purpose in life, autonomy, self-acceptance, and positive relations with others.

#### 4. METHODS

A 22-year-old medical student approached the public psychology service of a hospital in a city in Tuscany at the end of 2023 for a psychological assessment and possible treatment.

To assess I.'s functioning, the following psychological tests/tools were used in conjunction with the clinical interview:

- a. **Clinical Outcomes in Routine Evaluation - Outcome Measure** (CORE-OM; Evans *et al.*, 2000; Palmieri *et al.*, 2009) is a self-report questionnaire consisting of 34 items, the answers are provided utilizing a five-level Likert scale, and the time explored is the last seven days. This instrument aims to measure the degree of psychological distress perceived by the individual and is used to monitor the progress of the psychological intervention. The outcomes refer to four scales: well-being, (4 items), problems (12 items), functioning (12 items), and risk (6 items). Among the risk items, four items deal with risk to oneself and two with risk to others. In addition, there is a total score (34 items; Tot) and a total score for risk-related items (28 items; Tot-R). Clinical scores are the scores obtained in the various domains or total indexes multiplied by 10. Clinical scores between 0 and less than 6 indicate a healthy psychological state, and scores between 6 and 10 indicate a low level of health. The value 10 corresponds, therefore, to the clinical cut-off score. Table 3 summarizes the clinical score ranges and their severity levels below (Palmieri *et al.*, 2009).

**Table 3: Range Clinical Scores of CORE-OM**

Range clinical scores	Severity level
10 - <15	Mild
15 - <20	Moderated
20 - <25	Moderated-Severe
≥ 25	Severe

- b. **Personality Inventory for DSM adult version** (PID-5; Krueger *et al.*, 2012; Fossati *et al.*, 2021) is a self-report questionnaire consisting of 220 items, with a 4-point Likert scale response (0 to 4). This questionnaire aims to measure the non-adaptive personality characteristics of the individual. The outcomes refer to 4 personality traits: Negative Affect, Detachment, Antagonism, Disinhibition, and Psychoticism. The facet of personality traits investigated are 25 (Anhedonia, Anxiousness, Attention Seeking, Callousness, Deceitfulness, Depressivity, Distractibility, Eccentricity, Emotional Lability, Grandiosity, Hostility, Impulsivity, Intimacy Avoidance, Irresponsibility, Manipulativeness, Perceptual Dysregulation, Perseveration, Affectivity, Rigid Perfectionism, Risk Taking, Separation

Insecurity, Submissiveness, Suspiciousness, Unusual Beliefs and Experiences, and Withdrawal). cores Scores are described in percentiles.

- c. **Millon Clinical Multiaxial Inventory** (MCMI-III; is a self-report test consisting of 175 items, with the possibility of true-false responses, which investigates personality styles and the possible presence of psychopathology, referring to more stable personality characteristics and characteristics modulated by the environmental context. The test has a validity index, 3 modification indexes (disclosure, desirability, debasement), 11 scales of clinical personality models (schizoid, avoidant, depressive, dependent, histrionic, narcissistic, antisocial, sadistic compulsive, negativistic and masochistic), three severe personality pathology scales (schizotypal, borderline and paranoid), 7 clinical syndrome scales (somatoform anxiety, bipolar, dysthymia, alcohol dependence, drug dependence and post-traumatic stress) and 3 severe clinical syndrome scales (thought disorder, major depression, delusional disorder). For the personality scales, baseline rate (BR) scores between 75 and 84 indicate the presence of clinically significant personality traits, while BR scores of 85 or above suggest the presence of a disorder. For the clinical syndrome scales, BR scores of 75 to 84 indicate the presence of a syndrome, while BR scores of 85 or higher denote the prominence of a particular syndrome.
- d. **Difficulties in Emotion Regulation Scale** (DERS; Gratz & Roemer, 2004; Sighinolfi *et al.*, 2010) is a self-report instrument consisting of 36 items with a 5-point Likert scale response methodology (1 to 5) that aims to measure emotional regulation problems. The outcomes refer to 6 domains: Nonacceptance of emotional responses (6 items), Difficulty engaging in goal-directed behavior (5 items), Impulse control difficulties (6 items), Lack of emotional awareness (6 items), Limited access to emotion regulation strategies (8 items), and Lack of emotional clarity (5 items). The score is obtained by summing the corresponding items, and a higher score indicates greater difficulties in emotion regulation. Giromini *et al.*, (2017) developed formulas to transform raw scores into age- and gender-adjusted normative reference

values (T-scores) for the Difficulty in Emotion Regulation Scale (DERS). DERS scores ranging between 65T and 70T can indicate that problems exist in emotional regulation, whereas DERS scores of 70T or above can suggest that significant issues exist.

- e. **A-B-C technique**, in CBT, Ellis (1957) and then Beck (1975) emphasized the association between thoughts, emotions, and behaviors. ABC is an acronym that stands for A - Activating event (a conscious thought about something or an experienced situation), B - Belief system (thoughts, a system of beliefs, convictions, reasoning on which the individual constructs and 'reads' the lived experience), C - Consequences (emotional, physical and behavioral reactions).

## 5. CASE PRESENTATION AND PSYCHOLOGICAL TEST RESULTS

I., 22 years old, third-year medical student. She decides to approach the service independently. She immediately communicates a strong need to express her psychological distress and to feel listened to. She says she has shared her difficulties and suffering with her parents and close friends, but without satisfactory results, she has experienced feelings of loneliness. She recounts that these mood swings have occurred more frequently since she started studying Medicine at the university. She recalls that they were already present, albeit to a lesser extent, when she attended high school. She reports that when she started attending Medicine at the University she struggled to keep up with the educational demands. It was due to the lack of study methods and increased objective difficulties dictated by the medical degree course. This means that for the first time, I. was confronted with a subjective experience of failure: failing an examination, getting a lower grade than desired, being unable to keep up with examinations, and studying. I. speaks of 'failure' as something unacceptable, which creates a high sense of psychological discomfort for her. The psychological discomfort increases because she attributes the cause of 'failure' unequivocally and completely to herself. These difficulties in her career cause family tensions and quarrels, especially with the father figure, whom I. describes as strict, unsympathetic, and punitive. During the interviews, it emerges that, since childhood, I. has always sought her father's approval, even at the cost of great sacrifices, without apparent success. Running is

currently I's hobby; this sport helps her perceive a positive psychological state and she 'feels she can achieve something effectively'. She has been in a romantic relationship for more than five months with a man who is nine years older. The age difference worries her and leads her to predict the end of the relationship, without a specific reason. It sometimes struggles to read the partner's emotional states and intentions, especially in an argument.

No medical or psychiatric diagnoses are reported in I.'s family.

Table 4 summarizes the scores obtained on the various psychological tests administered at baseline.

**a. Clinical Outcomes in Routine Evaluation - Outcome Measure**

The clinical total scores (Tot=19.1; Tot-R=23.2) indicate moderate-severe psychological distress. The most damaged domain seems to be perceived well-being (clinical score=30.0) indicating a severe grade of distress. This is followed by the domain 'Functioning' (clinical score=22.5, corresponding to moderate-to-severe distress) representing I's social and interpersonal functioning. The "problems" domain (clinical score 21.7, corresponding to moderate-to-severe distress) appears to be associated with anxiety and depressive symptoms. No risks associated with hetero- or self-directed aggressive behavior were detected.

**b. Personality Inventory for DSM adult version A**

A high score was noted in the personality traits "Detachment" (percentile =99), "Negative Affect" (percentile=90), and "Antagonism" (percentile=90).

The highest percentile scores for personality trait facets were detected in "Suspiciousness" and "Intimacy avoidance" (both with a percentile score of 99). Other increases can be seen in the percentile scores of the personality trait facets of 'Callousness', 'Distractibility', 'Grandiosity', 'Hostility', 'Perseverance', 'Rigid Perfectionism', and 'Withdrawal', all with a percentile score of 97.5. "Emotional Lability", "Anhedonia", and "Affectivity" correspond to a percentile score of 95. Finally, "Anxiousness", "Deceitfulness", "Depressivity", and Submissiveness correspond to a percentile score of 90. The lowest scores were found in the personality characteristics of

"Impulsivity" (percentile score=25), "Separation Insecurity" (percentile score=33), and "Unusual Beliefs and Experiences" (percentile score=33).

**c. Millon Clinical Multiaxial Inventory**

The protocol proved valid (V=0). I. did not seem to show attitudes of resistance in talking about herself (X=82), nor a tendency to appear socially acceptable (Y=47), and did not appear to possess a self-evaluating response (Z=70). The highest scores were found in the Clinical Personality Scales of "Schizoid" (BR score=85), "Narcissistic", and "Masochistic", both with a BR score of 80. "Negative" personality scale corresponded to a percentile score of 77. Symptoms of dysthymia (BR score=70) and anxiety (BR score=72) emerged.

**d. Difficulties in Emotion Regulation Scale**

The total score (T=69) suggests a problem at the level of the regulation of unpleasant emotions. High scores were found in the domains 'Lack of emotional clarity' (T score = 72), 'Difficulty controlling impulses' (T score = 68), 'Difficulty engaging in goal-oriented behavior' (T score = 65), and 'Limited access to emotion regulation strategies' (T score = 65).

**Table 4: Scores Obtained by I. on Administered Psychological Tests**

Clinical Outcomes in Routine Evaluation – Outcome Measure (CORE-OM)	
Domains	Clinical scores
Wellbeing	30.0
Problems	21.7
Functioning	22.5
Risk	0.00
Tot	19.1
Tot-R	23.2
Personality Inventory for DSM (PID-5)	
Personality traits domains	Percentiles
Negative Affect	90
Detachment	99
Antagonism	90
Disinhibition	50
Psychoticism	75
Facet of personality traits	Percentiles
Anhedonia	95

Anxiousness	90
Attention Seeking	75
Callousness	97.5
Deceitfulness	90
Depressivity	90
Distractibility	97.5
Eccentricity	75
Emotional Lability	95
Grandiosity	97.5
Hostility	97.5
Impulsivity	25
Intimacy Avoidance	99
Irresponsibility	75
Manipulativeness	75
Perceptual Dysregulation	75
Perseveration	97.5
Affectivity	95
Rigid Perfectionism	97.5
Risk Taking	75
Separation Insecurity	33
Submissiveness	90
Suspiciousness	99
Unusual Beliefs and Experiences	33
Withdrawal	97.5
<b>Millon Clinical Multiaxial Inventory (MCMI-III)</b>	
<i>Clinical personality scales</i>	<i>BR scores</i>
Schizoid	85
Avoidant	67
Antisocial	63
Sadistic	63
Compulsive	52
Depressive	73
Dependent	32
Histrionic	43
Narcissistic	80
Negativistic	77
Masochistic	80
<i>Severe personality pathology scales</i>	<i>BR scores</i>
Schizotypal	60
Borderline	73
Paranoid	72
<i>Clinical syndrome scales</i>	<i>BR scores</i>
Somatoform	38
Anxiety	72

Bipolar	64
Dysthymia	70
Alcohol dependence	57
Drug dependence	59
Post-traumatic stress	60
<i>Severe clinical syndrome scales</i>	<i>BR scores</i>
Thought disorder	58
Major depression	47
Delusional disorder	60
<b>Difficulties in Emotion Regulation Scale (DERS)</b>	
<i>Domains</i>	<i>T-score</i>
Nonacceptance of emotional responses	58
Difficulty engaging in goal-directed behavior	65
Impulse control difficulties	68
Lack of emotional awareness	37
Limited access to emotion regulation strategies	65
Lack of emotional clarity	72
Total	69

e. **A-B-C technique** The compilation of the ABC technique by I. is mostly collected when she was in a difficult situation concerning studying. A minority number concerns difficulties in enjoying a pleasant situation and interpersonal problems. Again, however, these situations can negatively impact her study organization and exam preparation.

I. reported a few automatic thoughts such as: "I am a failure", "I cannot make it", and "I am an idiot". These automatic thoughts seem to be associated particularly with academic success or failure. Through the downward arrow technique (Beck, 2011), assumption and core belief have been explored. The first seems to be "If I can't study, it means I am a failure", and the second appears to be "I am incompetent".

The diagnosis was formulated by analyzing the results of the psychological tests in conjunction with information from the clinical interview. The clinical interview was used for the differential diagnosis (see Table 2). According to the DSM-5-TR (APA, 2022), the diagnosis is cyclothymic disorder (F34.0) with anxiety.

## 6. CASE FORMULATION

Predisposing, precipitating, perpetuating, and protective factors (4p) were explored by combining



**Table 5: I.'s ABC Technique Extract**

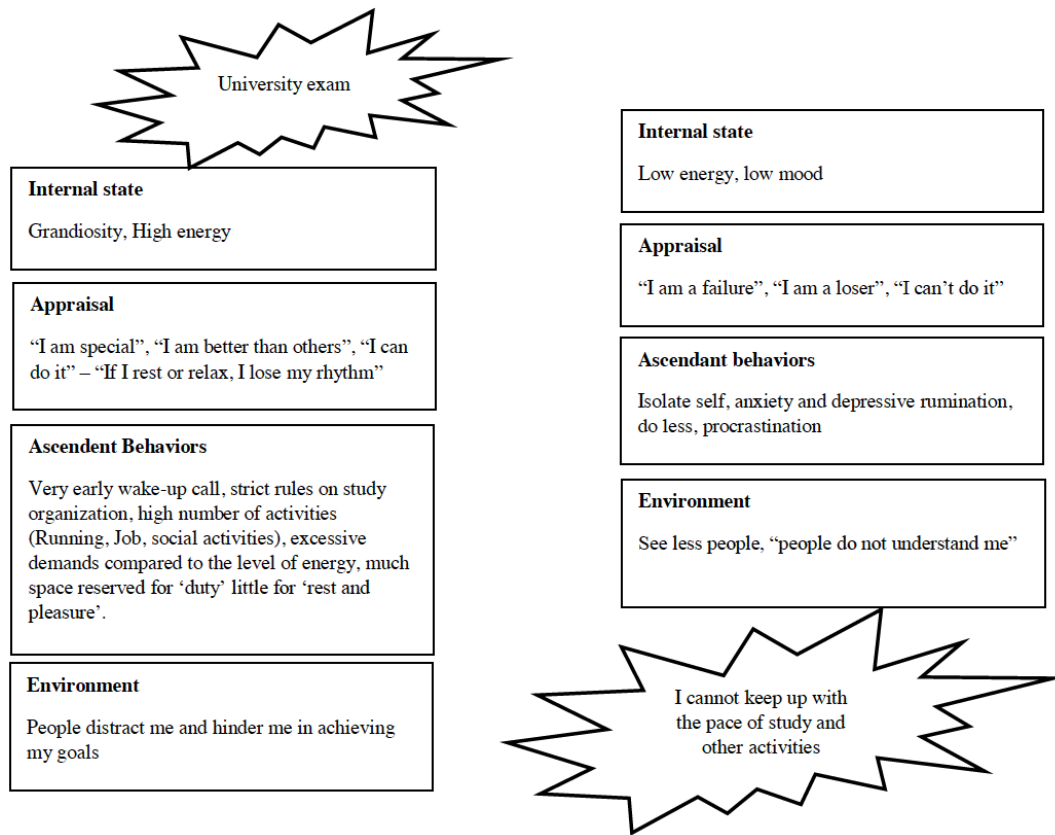
Antecedent	Cognitions	Consequences
University, library. 9 a.m. I feel overwhelmed by study, feeling that I will never arrive. Every effort is in vain.	I can't do it I am a loser	Emotions: Overwhelm 9, Anxiety 7, Disappointment 7 Behavior: I binge
My room, alone. 7.15 p.m. It's more than two hours that I have been looking at these notes and do anything	I'm wasting my time I am an idiot	Emotions: Tension 9, Disappointment 8, Irritation 8, Nervous 7 Confused head, tiredness, and foggy mental Behavior: I stay on social media for more than an hour
Today, as in previous days I wake up at 9.30 a.m. to study instead of 6.30 a.m. as per the alarm clock setting.	I am a failure, a disappointment, out of time in life, too slow.	Emotions: Anxiety 8, Worry 7, Guilt 8, Frustration 8 Behavior: I squeeze the pimples on my body

**Table 6: I.'s 4p Model**

Predisposing factors
Scheme of inadequacy and coping strategies to cope with it (surrender/overcompensation) Family environment (low expression of emotions and affection, strict and punitive father) Personality traits and individual characteristics (schizoid, narcissistic, and masochistic traits, low self-esteem, rigid perfectionism, and high standard) Emotional difficulties (Tendency to experience unpleasant emotions, lack of emotional clarity, emotional lability, difficulty managing unpleasant emotions, emotional withdrawal tendencies) Interpersonal difficulties (social withdrawal tendencies, unassertiveness, shallow friendship relationships, tendency to be hostile towards others, manipulation, and callousness, tendency to deceive or manipulate others for personal gain, avoiding or feeling uncomfortable in close relationships, maintaining emotional distance) Low perceived social support
Precipitating factors
Academic career stalemate
Perpetuating factor
Scheme of inadequacy and coping strategies to cope with it (surrender/overcompensation) Irrational beliefs (personalization, polarized thinking, overgeneralization, jumping to conclusions, mind reading, emotional reasoning, should statements magnification/minimization) Family environment (low expression of emotions and affection, strict and punitive father) Personality traits and individual characteristics (schizoid, narcissistic, and masochistic traits, low self-esteem, rigid perfectionism, and high standard) Emotional difficulties (Tendency to experience unpleasant emotions, lack of emotional clarity, emotional lability, difficulty managing unpleasant emotions, emotional withdrawal tendencies) Oscillating motivation to psychotherapy (ego syntonic hypomanic phase with an exaggerated sense of self-importance, arrogance, and a belief in one's superiority during up periods) Interpersonal difficulties (social withdrawal tendencies, unassertiveness, shallow friendship relationships, tendency to be hostile towards others, manipulation, and callousness, tendency to deceive or manipulate others for personal gain, avoiding or feeling uncomfortable in close relationships, maintaining emotional distance) Low perceived social support
Protective factors
Romantic relationship Hobby (Running) Intelligence and education level Employed part-time as a waitress in a pizzeria

information from clinical interviews and psychological tests. I.'s 4p model is summarized in Table 6.

These factors (see Table 6) play a role in the genesis and maintenance of mood swings and in



**Figure 2:** I.’s cycle of mood swings.

determining the transition from hypomanic to depressive phase and vice versa (see Figure 2). Predisposing factors increase I.’s vulnerability to the development of the disorder. Precipitating factors with the occurrence of an external trigger event (e.g., registration for a university exam) initiate the hypomanic phase with emotions, thoughts, and behaviors related to the symptomatology. During the hypomanic phase, I. tries to respond to the schema of inadequacy with overcompensation strategies. Her internal status and evaluations motivate her to study for a much longer period (e.g., from very early in the morning to late in the evening) and carry out many activities (e.g., waking up very early to run, studying, seeing friends, or boyfriend, going to work). Her strict rules in the scheduling of studies and activities lead I. to a high expenditure of energy. Her irrational beliefs and duty stations (perpetuating factors) lead I. to maintain a fast pace and goal-oriented behavior. She has no time for pleasant moments with her friends or boyfriend or to rest. According to I. interpersonal relationships are seen as a possible impediment to achieving her goals. In her opinion, rest can destroy her efficiency and task-oriented concentration. She has reported feeling guilty after being out late with friends or boyfriends while preparing for an exam. She has

reported feeling guilty even when she tries to rest or relax (e.g., watching a movie). The stress load increases, and coping skills to cope with stressful situations are deficient. I.’s energy level goes down more and more. I. can no longer carry out her activity plan; she ends up adopting a surrender response to her inadequacy’s schema. She feels overwhelmed by unpleasant emotions, anxiety, and depressive rumination. The depressive phase begins with feelings of loneliness, and social withdrawal. Her dysfunctional behavior (e.g., procrastination, social withdrawal) and irrational beliefs keep the depressive phase active. The depressive phase lasts until she regains energy, and the cycle of ups and downs begins again. Protective factors diminish the negative impact of psychopathological symptoms.

**7. TREATMENT DESIGN**

Case formulation is a tool that seeks to explain how and why the patient has psychological distress and is fundamental to individual treatment planning. I.’s mood swings, cause her much distress, especially when I., is in the depressive phase. Academic life and interpersonal relationships, including romantic ones, are also affected.

**Table 7: I's Psychological Treatment Proposal**

Objectives	Techniques	Description
Understanding mood swings	Psychoeducation of cyclothymia, and case conceptualization sharing.	Explanation of the general functioning of cyclothymic disorder. Explanation of the functioning of I. concerning mood swings.
Manage better mood swings	ABC model, cognitive restructuring, Compassion focus therapy, Construction of flashcards Evaluate the use of drug therapy	Monitor mood swings regularly, formulate events triggering sudden mood swings; and identify different appraisals and behaviors. Identify irrational beliefs and dysfunctional behaviors and replace them with more adaptive ones. Reduce hyper-critical attitudes and the impact of negative evaluations towards oneself. Introduce pleasant or relaxing activities. Construction of flashcards with phrases, thoughts, behaviors, advice, and keywords, which help to deal with the difficult moment.
Helping more functional daily routines	Psychoeducation	Increase awareness of the discrepancy between energy level and activities performed. Balance the energy level with the number of activities performed.
Manage anxiety	Relaxation training	Using relaxation techniques to lower arousal.
Not to be stalled with the study	Cognitive restructuring. Compassion focus therapy. Time management techniques (introduction of systematic breaks)	Decrease irrational beliefs associated with rigid rules for studying (e.g., excessively early waking up, excessive study time, no breaks). Set realistic and achievable goals for the study activity. Reduce hyper-critical attitudes and the impact of negative evaluations towards oneself. Set a structured study method where moments of study alternate with rest.
Increasing coping strategies for dealing with unpleasant emotions	Psychoeducation of unpleasant emotions, ABC model, cognitive restructuring, problem solving	Explanation of the functioning of emotions. Monitor unpleasant emotions, their trigger events, and thoughts and behavior associated. Find alternative functional beliefs and behaviors.
Increasing treatment motivation	Motivational interviewing techniques.	Increase ambivalence between cyclothymic disorder (also hypomaniacal phase) and I.'s values.
Improving interpersonal relations	Cognitive restructuring, exposure, Assertiveness, and social skills training	Identify and decrease irrational beliefs associated with interpersonal relationships. Exposition of social situations. increase of assertive communication and interpersonal skills.
Decrease the likelihood of relapse	Well-Being Therapy Utilization of flashcards	Identify irrational and dysfunctional thoughts leading to premature interruption of well-being.

## CONCLUSIONS

The dimensional approach, by recognizing a continuum between pathology and normality, makes it possible to highlight the person's characteristics, which, although pathologically subdued, can still cause distress and psychological suffering. This is the case of the cyclothymic condition, characterized by mood swings with hypomanic and depressive phases that do not reach the clinically significant threshold. The lack of evidence-based psychological intervention protocols for cyclothymia treatment underlines the importance of a dimensional approach to identify the subject's problem areas and, consequently, choose the targets of psychological intervention. This makes it possible to plan a customized psychological intervention in collaboration with the patient that includes the typical symptom picture of the disorder (mood swings) and all those dimensions of the person that cause distress.

## LIMITS

Case conceptualization is a clinical process in which the clinician formulates a hypothesis about the genesis

and maintenance factors of the disorder. The hypothesis has a subjective component, so there may be disagreement on the case conceptualization factors' identification by different therapists. This subjectivity may be influenced by the degree to which the therapist is an expert and the type of psychotherapeutic orientation (Dudley *et al*, 2015). In addition, further studies are needed to establish the effects of cyclothymia therapy based on case conceptualization and its stability over time.

## ACRONYMS

**ADHD:** Attention-deficit /Hyperactivity Disorder

**BD:** bipolar disorders

**BD1:** Bipolar disorder type 1

**BD2:** Bipolar disorder type 2

**BPD:** Borderline Personality Disorders

**CBT:** Cognitive-Behavioral Therapy

**CD:** Cyclothymic disorder (or cyclothymia)

**DSM-5-TR:** The Diagnostic and Statistical Manual of Mental Disorders-5 text revision

**FDA:** Food and Drug Administration

**WBT:** Well-Being Therapy

## CONFLICTS OF INTEREST

The author declares that she has no conflicts of interest.

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