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Case Report

Cognitive-Behavioral and Dialectical Behavioral Therapy: Effectiveness in the Case of Bulimia Nervosa and Borderline Personality Disorder

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Summary

The present study describes the clinical case of a 20-year-old woman diagnosed with Bulimia Nervosa (BN) and Borderline Personality Disorder (BPD). It was evaluated in the pre-treatment, post-treatment and in the follow-up of 12 months. The EDI 3 and SCL-90-R tests were used for the psychological evaluation. Cognitive Behavioral Therapy (CBT) and Dialectical Behavioral Therapy (DBT) were applied for eleven months, with a total of 32 sessions with one-hour duration per session. During the treatment phase, strategies were used for the stabilization of eating habits and lifestyle, reduction of anxiety, cognitive restructuring and interpersonal effectiveness. The results at one-year follow-up indicated, on the one hand, a decrease in the characteristic symptomatology of BN and BPD. On the other hand, there was an improvement in general psychopathology and in personal and social functioning. The effectiveness of psychological intervention focused on both food and emotional pathology is confirmed, according to the prognosis, in a case of BN and BPD comorbidity.

Keywords: Behavioral Dialectic Therapy; Borderline Personality Disorder; Bulimia Nervosa; Cognitive Behavioral Therapy; Single Case Experiment

Abstract

This study describes the clinical case of a 20-year-old woman diagnosed with Bulimia Nervosa (BN) and Borderline Personality Disorder (BPD). She was evaluated in pretreatment, posttreatment and at 12-month follow-up. EDI 3 and SCL.90-R were used for psychological evaluation. Cognitive Behavioral Therapy (CBT) and Dialectical Behavior Therapy (DBT) were applied for eleven months in a total of 32 one-hour sessions. Strategies for stabilizing eating habits and lifestyle, reducing anxiety, cognitive restructuring and interpersonal effectiveness were used during the treatment. The results after one year showed a decrease in the characteristic symptomatology of BN and BPD. It also showed improvement in general psychopathology and personal and social functioning. The effectiveness of psychological intervention in both eating and emotional pathology was confirmed according to the prognosis in a case of BN and BPD comorbidity.

Introduction

In recent years, an increase in the prevalence of eating disorders has been observed in worldwide [1,2]. In addition, in the scientific literature, a high level of comorbidity between Eating Disorders (ED) and Personality Disorders (PD) is evidenced [3,4,5]. Gabriel and Waller, Between Bulimia Nervosa (BN) and Borderline Personality Disorder (BPD) [6,7].

According to the "Practice guideline for the treatment of patients with eating disorders"[8], it must be taken into account that

the comorbidity between the ED and the PD can influence the alimentary pathology, affecting the prognosis and treatment of the illness. Therefore, the positive diagnosis of ED should lead to the evaluation of possible comorbid personality disorders. On the one hand, the recommended psychological treatment for this type of patients is Cognitive-Behavioral Therapy (CBT), with empirical support in recent years [9-13], and the results of the study (Table 1).

Variables	Examples of patient responses
A. Recurrent episodes of binge eating. An episode of binge is characterized by the following two facts: 1. Ingestion, within a given period (e.g. within any two-hour period), of a quantity of food that is clearly greater than that which most people would ingest in a similar period in similar circumstances. 2. Sensation of lack of control over what is ingested during the episode (eg, feeling that you can not stop eating or control what you eat or how much you eat).	A1. "For example, this morning I had a packet of chocolate chip cookies, chorizo bread and a packet of Lays potatoes in half an hour." A2. "I've never really liked the chorizo, but when it gets my nerves I eat whatever it is, I need to fill it. Sometimes I have come to take food from the trash or eat the steak in the pan itself because I can not wait, and of course, I have burned. "
B. Recurrent inappropriate compensatory behaviors to avoid weight gain, such as self-induced vomiting, misuse of laxatives, diuretics or other medications, fasting or excessive exercise.	B1. "Every time I give myself the binge I go to the bathroom, I drink a liter of water and I throw it all up. There are times when the vomit does not come out and I put my toothbrush and I drink more water, the water always helps. " B2. "There are times that if the binge is too big, with the vomit alone I do not reassure myself, then I take the aloe vera pills, which help me to loose from below."
C. Binge eating and inappropriate compensatory behaviors occur, on average, at least once a week for three months.	C1. "Since my first boyfriend left me I started vomiting the lunches. Then when I met Rafa (current couple) I calmed down a bit, but for six months I am worse, I binge and I vomit almost every day "
D. The self-assessment is unduly influenced by the constitution and body weight.	D1. "I'm disgusted, I'm ashamed to go out into the street with this fat body. Normal that my boyfriend wants to leave me, if I'm a fat. "
E. The disturbance does not occur exclusively during episodes of anorexia nervosa.	E1: "This does not change, since I threw up that day is worse. I can no longer control it ... Almost every day I get fed up thinking that I'm going to vomit it up."
Current severity is moderate: an average of 4-7 episodes of compensatory behavior inappropriate to the week.	Current severity: "I vomit almost every day, about 6 or 7 days a week."
Intensity of the discomfort that presents (0=nothing, 10=very much)	9: "I'm tired, I alone can not with this, I'm getting worse".
Level of motivation for treatment (0=nothing, 10=very much)	9: "I want to get out of this, it sucks, I can not take it anymore. I need help".

Table 1: Interest variables and response examples for the diagnosis of bulimia nervosa.

On the other hand, the effectiveness of Linehan's Behavioral Dialectic Therapy (DBT) in patients with comorbid PD and ED, namely BN [14], as well as binge eating disorder and BN. The present work focuses on the study of a clinical case corresponding to a 20-year-old woman with ED and BPD. The objective was to conceal the changes in the symptomatology manifested before the intervention, following the application of a combined treatment based on CBT and DBT [15], taking advantage of the strengths of both therapies to specifically treat symptomatology Food and limit, holistic and integrated.

For this, the application of the treatment, evolution and effectiveness of the intervention is described, paying attention to the results of the pre-post evaluation and after one year of follow-up, with an expected improvement over the initial moment. Please also note that the Contents presented here have been organized according to the guidelines for the elaboration of clinical reports or case studies carried out by Virués and Moreno [16].

Case Presentation

The patient is a 20-year-old woman. It presents BN with a current moderate level of severity DSM-V (IMC =19.53). She does not have siblings and lives with his parents in the family home. The mother is 52 years old and is a psychologist in a company, the father is a computer scientist and is 56 years old. They have been married for 25 years and according to the patient, there is always a good relationship between them. Although she does not have siblings, she points out that her mother had an abortion before she was born, and she feels sad that she has not been able to meet her brother. She claims to feel alone at home because her parents work most of the day. Eating alone likes it, feels quieter.

She says she was a very happy and happy girl ("I wish I could go back to that stage, I was happy, I did not feel as disgusting

as I feel now"), she had many friends in school and her academic performance was normal. Currently attending the second academic year of the Degree in Journalism. During the first year the performance was normal. Approved all subjects with an average of 6 out of 10. However, during the current course the performance has worsened. She says she only goes to class a few days and feels blocked. She says that this situation is very difficult to manage, that she cannot go ahead and pass the subjects.

At the social level, she has few friends. She used to relate to friends, but since she is worse, she is no longer staying with them, she does not want to be seen and prefers to stay at home doing something to relieve his discomfort. She has noticed that every time she feels more alone, her friends make plans and do not include her, because she has previously refused to go out with them. She says that he is afraid to lose them, but he cannot do anything to avoid it, because when she leaves he becomes more nervous. Overestimates the physical image of them, noting that all are tall, thin and handsome. She feels very inferior. She has a partner for a year. The relationship was good, but for about six months has worsened, she does not feel supported or accompanied. In addition, last year she broke the relationship with her best friend.

The present problem goes back three years, with the experience of a sentimental rupture. At that time, he had a relationship with a girl of her class. According to he was the most handsome and interesting. She was in love with him and he decided to end the relationship and go out with another girl in the class, who according to the patient, was much more beautiful and thin. She comments: "She was the most beautiful girl in the class, even I thought she was very good". It refers to "Feeling lonely for not having a boy". She also comments that this feeling of loneliness and emptiness manifested itself with a "Hole (hole) in the Chest". Then it occurred to her that if she vomited, she would probably lose weight and that would help get another boyfriend, probably more handsome. From that moment, she began to manifest purgative behaviors such as vomiting and laxatives. In her beginnings, she only vomited after having lunch because it was when, according to her, the more she ate. However, purgative behaviors not only spread to other foods, but also began to binge on food targets, for example, "I could eat at that time a packet of super-fast potatoes, another of chocolate-chip cookies with a bowl of milk and a sausage sandwich in half an hour ... hardly chewed ... all fast and in. " She states that at that moment he lost control, she did not understand what was happening to her, but she could not control it. She identifies that the more she felt that internal emptiness, the greater the amount of food he ate. Then she vomited and took two or three Aloe Vera pills. In trying to control this discomfort, she began to diet, but that made her hungrier and more and more binges and more vomiting. By then, she says that she felt she was on a "Roller Coaster" going up and down without stopping. At first, she was relieved that she could eat as much as she wanted without getting fat, but when she decided to stop, she could not and that scared her a lot. He drank a lot of water and weighed continuously, which corroborated that his weight increased more and more. This made her feel very unwell. Simultaneously, she began to self-injure herself on his wrists and legs, saying that "I would pick up the razor blade or a broken tip of the ruler and make cuts, watch the blood go out and feel the pain calm me down, I forgot how bad I was I just felt like I was going to get fat and that I was going to be left alone. " These self-injures, binges and vomits were getting worse, as did the discomfort and feeling of loss of control.

That was how she stayed for two years until she met the boy she now shares the relationship with. Beside her the symptoms subsided, partially remitting. However, about six months ago, she feels that the relationship is not right, referring to being very afraid that he breaks and comments: "I cannot imagine how I will continue without him." She refers to being very close to him, satisfying him in everything, for example, she says "I give him a lot of sex, so he does not leave me." Cannot concentrate and academic performance is becoming worse, binges and vomiting are more frequent, seven or eight a week, and more serious self-injuries, for example, "I am cutting more in the belly and legs, I press more the blade so that it is deeper ... with the cuts that I used to do before, it's no good. "

She says that she cannot count the calories, that she is embarrassed to go out into the street, every time she uses clothes wider, she feels disgust of her body and she cannot control what happens to her. As for family relationships there is a worsening, increasingly isolated, spending most of the day in her room alone. Lately he argues more with his mother, because according to her, she controls her a lot and does not understand her problem. She says: "She looks like a cop every time I go to the bathroom". "She emphasizes his loss of control when she gets angry, she feels a lot of anger that she cannot control and in those moments, she usually punches the door or self-injuring herself."

She barely goes out with her friends, because she says she feels isolated and ashamed of his body, she says that when she loses the five kilos that she will "Spare," she will feel better and go out more with them. When he drinks a lot of alcohol to lose his embarrassment, so much so she comments: "I prefer to go blind and have a good time, it is also easier to vomit." She expresses embarrassment when she goes out to the street because "Everyone Looks at Her" and she gets very nervous, she feels how her buttocks and legs look at her. When asked "What do you expect from the treatment?", She responds: "Being a normal person, not swelling to eat and thinking about vomiting, controlling the nerves that enter me, not feeling the last shit and take away this vacuum that I feel in my chest and I cannot fill it."

Reason for Consultation

The patient comes to a public center specialized in ED, after having suffered an anxiety crisis and under the recommendation of the hospital staff.

According to the symptoms manifested both at the cognitive level (concern and constant rumination about body image and calories, sadness, apathy and guilt), physiological (sweating, chest tightness, shortness of breath and lack of energy) as behavioral (Presence of objective binges and purgative behaviors such as vomiting and use of laxatives), it is hypothesized that it has a three-year course of BN with partial remission one year ago and relapse of symptoms for six months. Also, several of the symptoms manifested in the three levels of the triple response system coincide with the diagnostic criteria of BPD. Specifically, at the behavioral level (desperate attempts to prevent her boyfriend from breaking the relationship, such as practicing unintentional sex or doing whatever he or she wants, self-mutilation behaviors on the wrists and legs, knocks on doors when Anger and alcohol abuse), cognitive (intense preoccupation with the idea that the couple leave the relationship, the passage from the absolute idealization of the friend considered as "A Sister "towards devaluation and alteration of one's identity) and physiological (feeling of permanent emptiness and crisis of distress: lack of air, sweating, among others).

According to the DSM-V diagnostic criteria, the patient presents BN type BPD with a moderate current severity level (Table 1). Next to the diagnosis of TA, the assessment of possible BPD is performed by corroborating compliance with the DSM-V diagnostic criteria (Table 2).

Variables	Sample answers
Dominant pattern of instability in interpersonal relationships, self-image and affect, and intense impulsivity:	
1. Desperate efforts to avoid real or imagined helplessness. :	Having sex with her boyfriend even if she does not want to: "Sometimes I go to bed with him so that he is happy with me, but I do not feel like it even sometimes it hurts"
2. Pattern of unstable and intense interpersonal relations characterized by an alternation between the extremes of idealization and devaluation.	Relationship with the friend whom he called "Sister" and now "Hates", as has happened to several other people.
3. Alteration of identity: intense and persistent instability of self-image and sense of self.	"Sometimes I think I'm a bad person and sometimes I do not even know who I am."
4. Impulsivity in two or more areas that are potentially self-injurious (eg, expenses, sex, drugs, reckless driving, binge eating).	Drink alcohol in excess to relieve discomfort, p. Eg "Losing the Shame", "I prefer to go blind and have a good time, it is also easier to vomit". It also identifies the presence of objective binge eating.
5. Behavior, attitude or recurrent threats of suicide, or self-mutilation behavior.	"When I get nervous I try to control it but I can not, I take the knife from the pencil sharpener and cut myself in the legs or at the wrists. Then I reassure myself more. "
6. Affective instability due to a marked reactivity of mood (eg, intense episodes of dysphoria, irritability or anxiety).	"When I see my boyfriend weird, I think he's going to leave me, I'm very scared and I get nervous. I can be crying for hours. "
7. Chronic vacuum feeling.	"I have always felt this void I tell you, it is as if I had a hole in the chest that never fills."
8. Inappropriate and intense anger, or difficulty controlling anger (eg, frequent display of temper, constant anger, recurring physical fights).	"When I get very angry, I punch the door or the closet, I get a lot of bad milk."
9. Transient paranoid ideas related to stress or severe dissociative symptoms.	It is not identified in this patient.

Table 2: Interest Variables and Examples of Responses for the Diagnosis of BPD.

Evaluation

After the initial semi-structured interview, the general psychopathological [17] and possible eating disorder as well as psychological functioning were evaluated [18]. They are applied, in addition, in post training and after one year of follow-up.

Treatment Selection

The treatment was developed in eleven months, with a total of 32 sessions. The frequency of the sessions was adjusted to the evolution of the patient. During the first six months, a total of 24 sessions were held, with weekly frequency. Over the next three months, the following six sessions were biweekly due to the improvement shown. The last two were monthly, for the preparation of high therapeutic

The duration of each session was 60 minutes. The treatment was adapted to the physiological, cognitive and behavioral characteristics and symptoms manifested by the patient. Because of the comorbidity between ED and BPD, CBT was used to specifically address food symptoms and DBT [19] for the characteristic difficulties of BPD.

Application of Treatment

The general treatment procedure is described in (Table 3).

Steps	Session Contents
I	Welcome and joint review of commitments and homework assignments.
II	Comments and difficulties between sessions.
III	Application of specific techniques, which are developed in each of the following modules: 1. Establishment of healthy eating habits and lifestyle. 2. Reduce anxiety associated with food and fear of gaining weight. 3. Reduce dysfunctional thoughts and replace them with rational thoughts. 4. Develop interpersonal effectiveness skills.
IV	Homework assignments and commitments.
V	Final comments and closing session.

Table 3: General session procedure.

Module 1: Establishing Healthy Eating Habits and Lifestyle: In this module, food stabilization strategies, control for symptom reduction, low-cost behavioral activities and a high level of reinforcement were developed, as well as guidelines for sleep hygiene. From the first moment, she was motivated and involved in the treatment, alluding to her need to "Heal" and control her own life: "I need help to get out of this, I alone cannot, the disease controls me. I know it's going to be tough but it's not going to be harder than going on like I'm right now. " It started by stabilizing the food. She was asked to describe what she had eaten the previous day, in addition to sending her as a homework to fill a self-registration every day, which should appear the day, time, place, food and drink ingested, binges and administration of laxatives and / or use of vomiting.

As an example, the patient fasted throughout the day. During the afternoons, the usual binge eating: a cold pizza, a packet of cookies, milk and two donuts. Subsequently, he ingested two aloe Vera tablets and took a liter of water to facilitate the expulsion of vomiting. She used to binge, usually, always in the evenings. She did not eat any more until the next day. It was considered fundamental to break this cyclical dynamic of binge-vomiting-fasting. Therefore, it was agreed to make five meals a day. Breakfast, lunch and dinner should contain foods rich in protein, carbohydrates and vitamins, as well as not snacking between hours, not taking chewing gum or candy, not skipping any food and not drinking excess water.

We then focused on the control stimulus, to facilitate symptomatic management. To do this, her mother was mentioned, who was to play the role of co-therapist throughout the treatment, and was trained both at the level of psychoeducation of the ED and at the behavioral level. These guidelines included: putting a lock on the kitchen door and always leaving it closed, cooking and preparing meals, including in each of them different types of nutrients and not give money, among others.

The patient showed some reluctance to the prescribed guidelines, since she felt unable to do the five meals. It was agreed during the first two weeks to meet three of the five established meals. Another of the difficulties encountered was his resistance to completing the self-registration of food. She did not go to the consultation with these, she commented that she forgot his notebook, or when she brought them, she did not complete them, she lacked information or she was crossed out. This situation was worked out from the confrontation, understanding why this happened, what was behind that behavior and what the consequences were. She became aware of his panic to gain weight and that noting meals and behaviors generated much anxiety, thought that she was going to take a lot of weight to eat (this irrational belief was worked at the cognitive level in module 3). However, after its confrontation, explanation and rationalization, it was achieved that it fulfilled the realization of the Self-registers and to analyze their irrational beliefs instead of avoiding them. Each time she made them and became aware of the irrational belief, she was positively reinforced with phrases such as: "Congratulations, you are doing very well. Even if it costs you, you can do it, you're on the road, congratulations. " After the first three months of treatment, she complied with all five meals a day and brought in completed self-registrations.

Also, to encourage the acquisition of other healthy living habits, she promised to go for a walk (sports activity chosen by her) in the park with her friend. As an alternative, it was proposed that on the day that the friend could not accompany her, she will take the music player with songs that will help her to carry out the task.

For the recovery of daily activities and routine, the strategy of implementing activities of low behavioral cost and high positive reinforcement was followed. For example, in the academic field, she was asked to choose which were her favorite subjects and once chosen, it was planned to attend these classes even if she was sad or weak. The others could be missing, but not those. In this way, she was acquiring the routine of going to class, fulfilling the obligations and regaining control. Simultaneously, activities were chosen that previously enjoyed much but which, since worse, had stopped doing, such as playing the piano or salsa dancing (one hour every two days). In the same line, activities that required more and more behavioral costs and that were less reinforcing, such as going to English classes or cleaning their room, were added. The response was very good, adhered adequately to the routine and the implementation of activities, as it had the support of parents, who had been previously explained the strategy to follow and the importance of positive reinforcement.

Finally, we worked on sleep hygiene, important because the patient presented behavioral disorganization. She planned to sleep between seven and eight hours and go to bed at the same time every day, according to her about 23:30. She was advised not to take any stimulating drinks (tea, coffee or others), not to sleep naps or

to sleep, although she was very sleepy the next day. Compliance with this type of guidelines was also expensive to establish, but improved when food habits began to normalize.

Module 2: Reduce Anxiety Associated with Food and Fear of Gaining Weight: The techniques of relaxation, self-instruction training and live exposure with response prevention were implemented. A priori, she explained the effect of breathing and relaxation, with the goal of helping her to maintain control in stressful situations. The Importance of working them during the first stages of the treatment so that it had practice and were effective in the dreaded situations, like for example, to eat two chocolate cookies and not the whole package.

First, breathing techniques were trained. Their learning facilitated the voluntary control of the respiratory process. The purpose of automating the process was to keep it even in the most stressful situations, such as when you went to a celebration and could not stop eating or when you felt the need to self-harm. It was recommended that you practice at home five times a day. It was discussed in consultation how it had gone and what the main difficulties had been.

Also, to help her control physiological hyperactivation, she was trained in Progressive Muscle Relaxation (Jacobson, 1929), henceforth PMR. It was explained that thanks to the experiences of the contrast that it experienced when tensing and de-tensioning the muscles, it is possible to relax that part of the body that is desired in situations with high level of anxiety, reaching well-being on a subjective level as well as physical level of health. Emphasis was placed on the importance of applying this technique in conjunction with previously learned breathing.

Although all parts of the body were tightened and relaxed during training, the ultimate goal was to detect tension in one part of the body and to relax it. Also, from the first moment the importance of carrying out these exercises every day in situations that did not provoke anxiety or that they did at very low levels, so that it was gaining control in the easiest situations, and generalizing it to the ones that triggered the most anxiety. It was recalled the convenience of noting the results obtained in the self-registries for later comment in consultation.

Once it reached an adequate control of breathing techniques and PMR, the technique of exposure in vivo was applied. As a complementary strategy, she was trained in the application of self-instructions, as a guide for the exhibition.

As for the effect of the exposure, she was explained that avoidance of feared situations (such as not taking an ounce of chocolate for fear of eating the whole tablet) meant both maintenance and worsening of the problem. It was considered fundamental to begin to face these feared situations so that it increased their sense of self-control, self-efficacy and, therefore, improvement of the ED. It was also clarified that these exercises would raise the level of anxiety and that, in order for them to work, she would commit to his daily practice, thus learning to endure the discomfort she caused, to get used to. After the commitment, a list was made of five objective behaviors, that is, what she wanted to achieve after the treatment, and assigned a score from 0 to 10 according to the level of difficulty that each of them causes. As an example, the patient chose the following behaviors: not looking at me in the mirror=5, putting on shorts=9 and eliminating binge=10, among others. Work began on the objective behavior that less anxiety produced, specifically, not looking at me in the mirror. The general procedure followed was to schedule as many tasks as were necessary to achieve the final target behavior established. Typically, two or three tasks per week were prepared for each target behavior (Table 4).

Goal Behaviors	Inter-session tasks
1. Put on shorts	1. Put on shorts while I'm in my room. In total you have to do it 60 minutes a day. It will start for three minutes and gradually increase. 2. Put on shorts to walk around my house, following the same time and procedure as in task 1. 3. Put on shorts to go down to the casapuerta of my block, following the same guidelines of duration as in previous tasks. 4. Turn the apple in short pants. Following the same total exposure time of 60 minutes per day, and at least 3 minutes in each exposure. 5. Walking around the neighborhood wearing shorts following the same procedure as above. 6. Be in shorts, around neighborhoods close to home, following the procedure previously established. 7. Go to the faculty with shorts and be there an hour.

2. Eliminate binge-eating: Exposures were carried out with cookies, chocolate-filled cookies, chorizo sandwiches and packets of potatoes, foods that used to binge.	1. Take a packet of cookies, open it, take out the cookie and smell it, then throw it away. It will begin by smelling it 3 minutes, although if the patient lasts longer, the better. In total, 60 minutes a day. 2. Take a package of cookies, open it, take out the cookie, smell it and give it a bite, stay without eating more and throw it away. It will start by smelling it for at least 3 minutes, if it can support it for longer, it can be enlarged. In total, 60 minutes a day. 3. Pick up a packet of chocolate-chip cookies, take out a cookie, smell it, give it two bites, and throw it away. It will start smelling it for at least 3 minutes, although if you decide to extend it longer it is also allowed. The total time to be exposed, per day, is 60 minutes. 4. Take a packet of cookies filled with chocolate, take out a cookie, smell it, eat it whole less a bite and throw it away. To do it in total 60 minutes a day, at least must be for three minutes, smelling and then eat it, in each exhibition

Table 4: Target behaviors and proposed inter-session tasks of live exposure.

Also, the tasks went from less to greater difficulty, for example, at first it was exposed next to the co-therapist and then alone but maintaining the distance of the stimulus, among others. In total, the patient had to be exposed 60 minutes a day and at least each exposure should last three minutes to promote self-control. In each exposure exercise, he had to record the initial anxiety level, during and at the end of the exposure. This procedure was followed with all tasks until the difficulty or discomfort experienced did not interfere with the performance of the objective behavior. As the live exposure was accompanied by prevention of response, it was prevented the conduct of the behavior to be extinguished, binge eating.

Module 3: Reduce Dysfunctional Thoughts and Replace Them with Rational Thoughts: The techniques of cognitive restructuring, tolerance to malaise and emotional regulation were used. In the first place, cognitive restructuring techniques were developed. It was observed that the patient manifested irrational beliefs that affect her feeding, self-esteem level and way of relating to others, among others. In this phase, we worked on the self-registers of the ABCDE sequence and the Socratic dialogue during the course of the sessions. The technique used to modify the distorted thoughts was divided into seven phases:

1. Detection of distorted automatic thinking or self-deprecating belief: "My ass is disgusting, it is fat and greasy. Plus, I have all the cellulite-filled fangs. "

2. Analyze the ABCDE scheme:

A. Event that precedes the emotional response of the patient: The patient thinks she has to wear the shorts.

B. Beliefs or cognitions: "Everyone on the street will look at my legs", "Shame, they will think this is a fat and on top they will wear shorts."

C. Emotional consequences suffered by the patient: "I feel very sad and ashamed for my body, my ass, fat in general."

D. Discussion of cognitive errors, beliefs, or automatic thoughts: "Is my ass really that big? Am I sure everyone is looking at me? And if so, am I really sure they notice my ass? And if so? What's the worst that could happen? Well, maybe I do not have Beyoncé's ass, but I'm not obese, people usually have the size I use. 40 is normal, maybe I'm not that fat. Also, let me look at everyone is practically impossible, not everyone will be aware of me."

E. Emotional negative effects of cognitive errors and emotional difference with corrective thoughts: "If I think that my ass is fat, greasy and with cellulite, I feel terrible and it makes me want to binge, because as I am Fat, one more or one less that gives more. But then I feel even worse. Otherwise, if I do not focus on my ass and shorts, but also think about how I'm going to comb or other parts of my body, I reassure myself more.

3. Use of corrective thoughts in the face of cognitive distortions. Examples:

- All or nothing. She explained that things are not black or white, but you have to learn to see the gray, before she replied: "I'm not the best ass girl in the world, but I'm not obese and I cannot be overweight"
- The Unreal Idea. It was emphasized that beauty is relative and not the most important thing in life, does not ensure happiness. He showed reluctance and said: "The physicist is not everything, I'm tired of being so superficial."
- Or Loupe and blind mind. She focused on those aspects that disgusted her, oblivious to everything else: "I'm only looking at my ass, and there are more parts in my body, such as my eyes, my teeth, my ears, my bangs."
- Or Predicting misfortunes. This point was essential to work your anticipation and divination of the future. It was explained that conclusions should not be drawn to a fact without real evidence: "Actually, people do not look at me on the street or tell me that I have a fat ass, who thinks I am. Maybe I'm putting out what I think. "
- Limiting Beauty. It was discussed the possibility of not making prohibitions based on false predictions of misfortune, such as: "I cannot go out in shorts with my friends because I have a very fat ass" and this phrase could be replaced by a more functional one such as: "There is no law prohibiting me from going out with my friends for wearing shorts."

- Reflection of moodiness. It turned out that it was necessary to really look for the trigger of his bad mood, instead of victimizing the body. A corrective example to this distortion was: "My ass is not the cause of me feeling bad, what really scares me is that they do not want me."

4. The thought approach was approached as a hypothesis to corroborate. She herself had to challenge distorted and devaluing thinking with a behavioral test. The patient had to reformulate the belief in the form of hypotheses to be able to confirm it or not. One way to do this was to ask his mother about the body element that distressed her, for example: "Yesterday I asked my mother if she saw the amount of cellulite in my legs. She told me that I was being exaggerated, she taught me hers and the truth is that she does have cellulite, I do not have so many bumps. "

5. It was tried to question the usefulness of these thoughts, their functionality, which helped her to realize the need to change it: "What good is it to me to be thinking about my hips all day? That only makes me feel bad, nervous and prevents me for example going to class because I give myself the binge and lie down."

6. They sought alternative thoughts that would help them to act in a more adapted and functional way, without focusing on the problem, for example: "In my life there are other things more important than my ass", "I am more than that, I have other Qualities like being good person or affectionate with the people that I want ".

7. Evaluating the Consequences of Changing Self-Determining Thoughts: "If I think it's really not that big of a deal, and I'm going to class with my friends, I'll laugh at the nonsense they talk about, I'll enjoy their company and I lay in bed crying. "

Subsequently, the development of tolerance skills was continued. During this phase, she was trained so that she learned to accept the discomfort and tolerate it, which would probably influence in the reduction of the episodes of binge and self-harm, since what is pursued is the decrease of the discomfort. It was also emphasized that pain is inevitable and that it is part of life itself, that everyone feels pain but we do not manage it in the same way. Another objective was to accept what happened as it was, as well as his body, in order to tolerate moments of crisis and develop new strategies of coping, such as acceptance. She was told: "All people throughout life feel pain, but not all do the same with that pain. Those people who avoid feeling it and do different things, live Continuously in that pain. When we try to suppress the emotional pain, as you do when you cut the blade on your wrists or give yourself a binge of food, you go back and forth to think that, continuously and greater is the pain. So, to help you support it, let's practice together different skills."

Once she decided to learn, she went on to develop cop survival strategies, with the goal of using them instead of alcohol abuse, binge eating, vomiting or self-harm. Within the strategies of survival, the four subtypes worked in the sessions were:

- Distraction. It helped in the moments in which it felt very fat and began to hyperactivate physiologically because of the corporal dissatisfaction. Playing the piano then served to modulate the negative emotions associated with the activation of that thought. That way she kept his attention distracted and short-term memory focused on touching the keys, counteracting the effect of the thoughts that had triggered the negative emotion. On the other hand, distraction was also experienced with other sensations, for example, holding ice cubes when he was very eager to binge. Which helped her focus his attention on the cold feeling in his hands.
- Provide positive stimuli. It helped her learn to care for herself, to encourage herself and to treat herself well in general. She felt that she did not deserve to be treated well, in fact she felt she had to pay for her brother's death. Therefore, this practice was considered fundamental. It showed certain resistances that in the end ended in a "I do not deserve to live, because of my fault my brother died and above I only displease to my parents". With patience and working these irrational beliefs, as explained in the previous module, the patient was able to do the exercise of providing positive stimuli. At the auditory level, she put on music from her favorite singer; For the smell and the sight, went to the street and collected some jasmine flowers, which she smelled and watched. Finally, for the touch he liked to touch the cold water, to feel it in the palm of his hands.
- Improve timing. She emphasized "Living the Present", which helped her to stop the continuous anticipation and anxious expectation of the future. During times of crisis she helped her to stand before carrying out any impulsive behavior, although she says: "The present is difficult, I am always in the past but above all in the future, to see what will happen. When I get nervous I cut short and fret everything, this does not help me much. " Therefore, it was convenient to continue to work on impulsivity through live exposure with response prevention, thus increasing their level of perceived self-efficacy and self-control.
- Think about the pros and cons. It helped her to differentiate the advantages of tolerating discomfort and the disadvantages of not doing so. For example, she said: "If I endure the discomfort, then I get well but if I cut myself every time I feel worse and I need to cut myself more to calm down. It's like a drug. "

Along with these strategies, to increase tolerance for discomfort, some activities related to smile were practiced. It was agreed to fulfill the commitment to sketch half a smile in the morning when waking, during free time, while listening to music, when she felt angry or lying down. It was intended that she would experience that when his face shows acceptance, there is more probability of holding an attitude of acceptance.

In this module, to approach the emotional regulation, the model of the DBT was followed [19]. First, we worked on the

identification and labeling of emotions. It showed certain difficulties in distinguishing emotions and thoughts. See, by way of illustration, the following passage from the conversation between Therapist (T) and Patient (P):

T: "What emotion do you feel right now?

P: Well that if my boyfriend leaves me I do not know what I'm going to do, it's that she cannot, she cannot leave me.

Okay, but remember that what you just told me is a thought, not an emotion. Let's go step by step: First: where and when did you feel like this? What has happened previously?

P: Well at my boyfriend's house this morning. That I asked him to give me a massage and he said no, I was tired.

T: What body sensation did you have when that happened? Did something change in your body?

P: Yes, I got very hot and gagged, my heart was beating very hard and I turned red.

T: What did you do?

I screamed and cried, insulted him and started to cry in a corner.

T: What were the consequences?

P: Well that she came to me and told me that it was not so much, that why she put me so, that she had the right to be tired. I felt terrible there for having bundled it this way, but it is that at that time ...

T: Vale, then if you had to give a name to the emotion, for example: anger, fear, joy, sadness, despair ... what would it be?

P: Fear, fear, fear.

T: Very well, this is what you have to do to identify the emotion and remember to distinguish it from the thought. This will help you a lot to understand your emotions, be less sensitive, reduce discomfort and increase your positive emotions. For this we will continue to practice in consultation and it is fundamental that you practice at home and write it down in your self-registration notebook to be able to work it out in consultation next week. Voucher? Without the subsequent commitment, this is not maintained.

P: Okay, for the next day I bring the self-registrations. I think you can help me, thank you very much for everything."

Once the identification of emotions was learned, reference was made to the obstacles that often appear to emotional change. She was explained that when she acted from the experienced emotion, she usually obtained some reward (positive reinforcement), that is why they maintained over time although it would hurt her. Taking the previous example as a reference, she noticed that when she screamed at her boyfriend and went to a corner to cry, the boyfriend approached her, even if it was to say that it was not so much. He went and she got what she wanted, her attention. In addition, he validated his own perceptions of being abandoned.

We also used the strategy of increasing the frequency of positive emotional events in daily life, to help control the onset of negative emotions. During this phase, she emphasized that all emotions pass, that none is eternal, neither pleasurable nor negative, to which he responded: "When I am very bad that reassures me, what happens is that I do not usually endure that much Malaise, I think it's going to stay there forever and I'm going to get worse and worse and then the mess."

Finally, we worked with her to become aware of the secondary negative emotions that arose from the discomfort that the primary produced. For example, following the example above, when she was afraid at the thought that her boyfriend could leave her, her Emotional reaction was the pain of the gut, the crying, the screams and away in the corner. However, she also said: "Then I feel terrible for having bundled it this way, I feel guilty and crazy and clear, I feel worse every time." In this case, she was judging the negative emotion of fear as bad, and felt guilty and crazy about it. The addition of secondary emotions further increased discomfort, so that emotional tolerance became more complex to manage. The objective was that she tolerated the primary emotion, in this case the fear, from the beginning, without adding any more, would be able to tolerate the painful situation. It was also considered important to learn to express emotion in another way, not to block it; For example, when she was very

frightened because she thought her boyfriend was going to leave her, she could go out and walk or scream herself instead of shouting and insulting him. Overall, both cognitive restructuring and malaise tolerance skills along with emotional regulation strategies helped her with the cognitive difficulties of ED and BPD, in addition to increasing the level of self-esteem through self-efficacy and self-actualization.

Module 4: Develop Interpersonal Effectiveness Skills: In this module, skills were developed for the management of interpersonal relationships. It was about being able to get the changes she wanted, maintaining her relationships with others and respect for herself. The patient had good interpersonal skills, however, when "Emotional activation is very powerful, I find it impossible." Following the previous example of the discussion she had with her boyfriend, it was evident that due to her lack of tolerance to discomfort, difficulties of emotional regulation and interpersonal problems, she could not bear the fear. This triggered her to do some inappropriate behavior impulsively to block or alleviate emotion, such as binge eating and self-harm. For this, an intervention strategy was designed based on the DBT [19]. We worked on the awareness of the importance of relationships, make it happen that we need to attend to human relationships while maintaining a balance with our own needs. The following is a fragment of the dialogue between the Therapist (T) and the Patient (P):

Objective 1: Learn to deal with relationships:

T: "We are all social beings and therefore we need to attend to relationships and take care of them, before they explode and that you leave and break it, as happened with your friend.

P: ... I've always had that happen to me, that when something I do not like, I get crazy and I break, and, goodbye. Although later I feel alone and guilty.

Of course, that's why it's important that you learn to take it in another way, because that behavior hurts you, and you learn to express what you feel and want. "

Goal 2: Balance priorities against the demands of life and relationships.

T: "Priorities are things that are important to you, what you do to get something, for example, to study for a test the next day because what you want to achieve is to pass that subject. However, the demands are the things that others ask you, the things they want. Most problems occur when your priorities conflict with those of others. Can you think of an example that we can work on?

P: I think so, when I have to study and my mother asks me to accompany her to the center, right?

T: Very well, what do you usually do in that situation?

P: I usually go to avoid being angry with me, but I'm angry because I think I should study and at the end anything happens and I piss and scream.

T: So this is a very good opportunity to learn how to manage it differently. You have to reach a balance between what you want and what your mother asks you, because if not, you burst and get angry because you did not do what you wanted. If you do that to have your mother's approval, in the end the relationship is affected, you have checked it yourself.

P: Yes ... but I'm afraid that my mother is angry ...

T: What would it be like to do something in between with what you feel good and do what you want to study and accompany her to the purchase?

P: Well tell her that I have to study because the next day I have a test, that we go to the center the day after tomorrow.

T: What if it tells you that another day cannot?

P: Well I say that I am sorry, that I have to study today, that another day I would go with her but not today. If I go, I'll end up getting angry and having an argument with her, maybe this way she'll be better. It's that if I go I forget about myself and I get angry. That's better.

T: Very well for proposing to go another day, and if she cannot, decide what is the priority if your exam or accompany her to the center. In this case you have chosen the exam, very well, you are taking care of yourself and respecting yourself. However, you have to continue working this in different situations, for example with your boyfriend or your friend."

Goal 3: Balance the amount of desire/duties in relationships and life in general.

The importance of working on this objective was due to the imbalance that showed in the balance of desires and duties in certain situations, where it used to manifest impulsive behaviors. When equilibrium did not occur, he tended to become disorganized and later to see his mood affected, as he was when he came to the clinic, presenting a depressive state.

It also worked out how it could achieve this balance, which was linked to the performance of activities of low behavioral cost and high level of reinforcement, developed in module 1. She herself concluded that it was necessary, for her well-being, Reserve different spaces in which to carry out leisure activities, such as playing the piano or strolling in the park, as well as going to classes and starting to study. To specify this goal, a weekly plan was developed during the sessions, including leisure activities and tasks. A comment from the patient during the last sessions of the treatment was: "I am very happy, now I give time to everything, I go to classes and play the piano, I go out with my friends, with my parents ... I can go party Without being busted the next day and doing nothing else, this is a joy."

Objective 4: Generate a sense of competence and personal respect.

Time was spent working on the identification of situations in which she had felt that she was far below the others and others in which she had felt more competent. The patient told the following example: "I always was nervous when I went to eat with my uncles, I felt that I did not know what to say and that if I participated in their conversation subjects I was underneath. However, when I went with my little cousins I felt better. But the other day they were talking about journalism and I love that, and I have a lot of things to say on that subject, so I spoke and gave my opinion about the political situation in Spain. At that moment, I felt much stronger and above than when I am with the children ... If I continued this way I think I could do what you are saying." Work continued on this line of validation and personal strengthening.

Finally, two more types of interpersonal skills were also developed: asking for things and saying no, resisting each other's pressure and maintaining their own point of view. She highlighted one of the situations that she said in the initial interview, having sex with his partner without feeling like it. In this respect, it was considered essential that she learn to "Say No" and to remain firm in her decision, taking into account the other and herself, as had been practiced during the balance exercises between the others and her.

Evaluation of Treatment Effectiveness

First, EDI-3 showed a favorable evolution in all posttreatment variables, compared to the pre-treatment evaluation. At the specific scales of ED (obsession for thinness, bulimia and body dissatisfaction) scores decreased. The major change occurred in the bulimia scale (34.32%), with a maintenance of the benefits and a tendency to improve with the passage of time in the bulimic symptomatology, that is after twelve months of follow-up. Also, in the other scales, related to psychological functioning, also experienced a decrease compared to the pretreatment results. The largest change occurred in the emotional imbalance scales (33.33%) and interpersonal insecurity (29.63%), improving the results over time (Table 5).

EDI-3						
Psychological scales	P.T. pre	P.T. post	P.T.12 Months	% Pre-post improvement	% Achievement achievement Post-12 months	% Overall improvement Pre-sec.12 months
Obsession with thinness	55	45	42	18.19	6.67	23.63
Bulimia	67	44	41	34.32	6.81	38.80
Body dissatisfaction	46	41	37	10.86	9.75	19.57
Low self-esteem	53	45	41	15.09	8.89	22.65
Personal alienation	57	50	46	12.28	8	19.29
Interpersonal insecurity	54	40	38	25.92	5	29.63
Interpersonal distrust	49	42	40	14.28	4.76	18,37
Interoceptive deficits	51	41	36	19.60	12.19	29.41
Emotional maladjustment	60	40	36	33.33	10	40
Perfectionism	54	45	44	16.67	2.22	18.52
Asceticism	60	50	47	16.67	6	21.67
Fear of maturity	55	44	42	20	4.54	23.64
SCL-90-R						
Scales	P.T. pre	P.T. post	12 months	% Pre-post improvement	% Achievement achievement Post-12 months	% Overall improvement Pre-sec.12 months
Somatizationn	54	49	47	9.25	4.08	12.97
Obsession-compulsion	51	40	39	21.57	2.5	23.53
Interpersonal sensitivity	62	50	48	19.35	4	22.59
Depression	54	45	39	16.67	13.33	27.78
Anxiety	58	48	39	17.24	18.75	32.76
Hostility	60	50	48	16.67	4	20
Phobic anxiety	47	40	37	14.89	7.5	21.28
Paranoid Ideation	57	50	49	12.28	2	14.04
Psychoticism	55	48	47	12.72	2.08	14.55

Table 5: Typical scores on pre, post-treatment and follow-up of 12 months. Percentages of therapeutic improvement.

More moderate posttreatment results were obtained in fear of maturity (20%), interceptive deficits (19.60%) and obsession with thinness (18.19%). However, with the passage of time, improvement continued to occur with percentages ranging from 4.54% in fear of maturity, 6.67% in obsession with thinness and 12.19% in interceptive deficits.

On the other hand, although the treatment effect produced a more moderate improvement in (10.86%) and self-esteem (15.09%). Over time, in addition to maintaining the achieved results, there was an improvement in these variables after twelve months of follow-up (9.75% and 8.89%, respectively) (Figure 1).

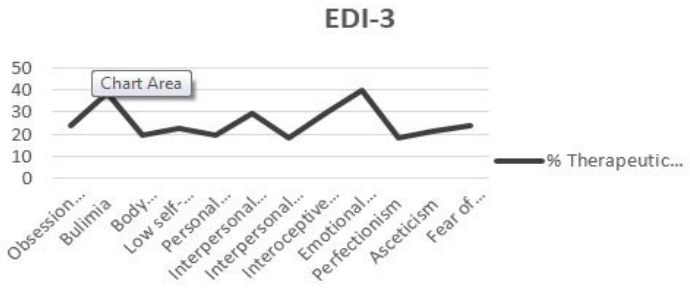

Figure 1: Shows the percentages of overall improvement achieved after twelve months of follow-up on the EDI-3 scales: Bulimia (38.80%), interpersonal insecurity (29.63%) and interceptive deficits (29.41%), followed by fear of maturity (23.64%), obsession with thinness (23.63%) and low self-esteem (22.65%).

Second, regarding the assessment of general psychopathology (SCL-90-R), the results showed a decrease in the scales in the post-treatment. The greatest change occurred in obsession-compulsion (21.57%), followed by interpersonal sensitivity (19.35%), with a tendency to improve after twelve months of follow-up. Also, in the scales related to the emotional alterations, a decrease was also observed regarding the initial scores, both in anxiety (17.24%) and in depression (16.67%), with a marked improvement during the follow-up phase. In hostility, the posttreatment results were similar, although a maintenance of the achievements with a slight tendency to the improvement was observed.

More moderate posttreatment results were obtained in psychoticism (12.72) and paranoid ideation (12.28), with a slight tendency to improvement in the follow-up of the twelve months (Figure 2).

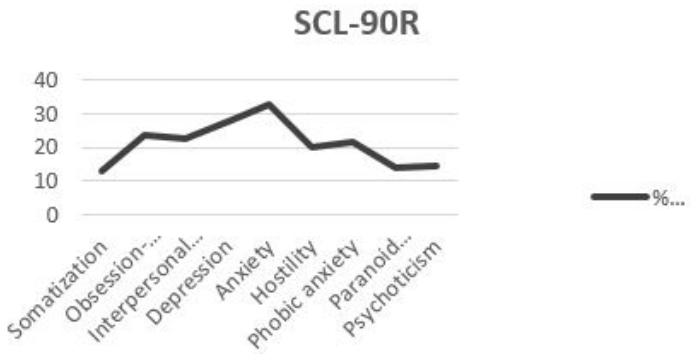

Figure 2: Shows the percentages of overall improvement achieved after twelve months of follow-up on SCL-90 scales. The improvement in anxiety (32.76%) and depressive symptoms (27.78%), symptoms of obsession-compulsion (23.53%) and interpersonal sensitivity (22.59%) were noted.

Discussion

The main objective was to determine the improvement in a patient with a comorbid clinical picture of ED and BPD, specifically bulimia nervosa, after a year of follow-up since the end of the psychological intervention. This study reveals, on the one hand, the presence of self-injury [20] as well as aggravation of food symptoms in the presence of BPD [21,22] and, on the other hand, the complexity of the treatment for comorbidity between BN and TLP.

The results obtained indicate that, after a reasonable 12-month follow-up, the intervention based on CBT and DBT is effective in improving symptoms Behavioral characteristics of. In this sense, the performance of binge eating is reduced, as well as the use of purgative behaviors of vomiting and use of laxatives. As for bodily dissatisfaction, the preoccupation with the body diminishes, and also the obsession with thinness. All this while establishing healthy eating habits.

It has also decreased anxiety in general as well as related to food and fear of gaining weight, and has improved mood. You feel less sad, apathetic, tired or powerless and guilty. She has reduced the presence of irrational thoughts by generating tolerance skills to malaise, emotional regulation (she has less feelings of loneliness, less self-reproach, no longer feels hurt or offended so easily and the impression that others do not (she feels more hopeful about the future) and interpersonal (she no longer feels so inferior to others, she is less suspicious of people, she does not refuse to be with others, nor does she feel that the others are talking "Bad" about it). These results are in line with the study [23] comparing the efficacy of treatment in patients with BN with and without BPD, with a

more severe symptomatology in those with PD and a favorable outcome after the intervention.

Therefore, the applied treatment has generated changes in the lifestyle that have contributed to increase the emotional adjustment of the patient who simultaneously courses BN and BPD, which shows the effectiveness of interventions focused on both food and emotional pathology.

Conclusion

As a conclusion, the effectiveness of psychological intervention based on CBT and DBT, at the level of BN and BPD, is confirmed. However, it remains to be determined which of the two disorders is prior, the ED or the PD, constituting a risk factor to be taken into account, both in terms of prevention, intervention and prognosis of the disease.

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