RANDOMIZED CLINICAL TRIALS OF COGNITIVE BEHAVIORAL THERAPY FOR BINGE EATING DISORDER: A SYSTEMATIC REVIEW

Mateo Fernando Peláez Sarmiento[1*], Geovanny Genaro Reivan Ortiz[2]

Article History: Received: 26 .03.2023 **Revised:** 08.05.2023 **Accepted:** 22.06.2023

Abstract

Binge Eating Disorder (BED) is classified fundamentally within Eating Disorders (TCA), presenting a greater impact in the obese or overweight community, at the same time exhibiting an alarming growth above other disorders such as Bulimia Nervosa (BN) and Anorexia Nervosa (AN) are even considered as a public health problem. The objective of this study was to carry out a systematic review of randomized clinical trials that applied Cognitive Behavioral Therapy (CBT) to Binge Eating Disorder. The results obtained were 22 studies that indicate improvement in AT applying CBT. This study reinforces the performance of CBT over EDs, likewise we believe that the result of this study opens the possibility for the creation of various methods, tools for health professionals such as psychologists, psychiatrists, doctors, nutritionists among others, with the purpose of considering it as a therapeutic approach.

Keywords: Randomized Clinical Trials; Cognitive Behavioral Therapy; Binge Eating Disorder, Systematic Review.

[1*]Catholic University of Cuenca.
[2]Laboratory of Basic Psychology, Behavioral Analysis and Program Development (PAD-LAB).

***Corresponding Author:**
Mateo Fernando Peláez Sarmiento[1*]
[1*]Catholic University of Cuenca.
Email: [1*]mfpelaezs12@est.ucacue.edu.ec

DOI: 10.31838/ecb/2023.12.6.81

1. Introduction

Disorder (BED) is incorporated into the DSM-5 from the nineties (Baile, 2014), within eating disorders and food intake (APA, 2013), identifying some peculiarities such as impulsivity, compulsivity , as well as altered sensitivity in the reward system and attentional biases related to food (Kessler et al, 2016). Beginning to call it "Over Intake Syndrome" or "Binge Eating Disorder" (Eichin et al., 2022), in addition to presenting a higher prevalence among the youth and adolescent population (Hilbert et al., 2019), fundamentally showing prevalence in relation to other eating disorders such as Bulimia and Anorexia Nervosa (Cuadro & Baile, 2015). It should also be noted that ED affects at least 2% of the world population (Burrows et al., 2017) and in the same way it has been linked to other diseases such as Obesity (OB) and Overweight (SP) (Garcia Palacios, 2014). The ED is determined by the recurrent presence of binge eating (Keeler et al , 2022), which manifests itself as a behavior characterized by the excessive consumption of food in a set time, generally a period of 2 hours and at the same time a feeling of zero control over what is ingested (Martín Cortez et al., 2011; Wyssen et al., 2021; Baile, 2014). Likewise, these symptoms occur at least once a week in a period of three months, which is not attempted to be compensated with other behaviors, such as vomiting, physical exercise, laxatives or fasting (APA, 2013), in which the person It exposes a lack of control and discomfort marked by excessive food intake, (Citromé , 2019) In the same way, binge eating episodes are first associated with eating quickly. Second, eating until you feel unpleasantly full. Third, eat large amounts of food when not hungry. Fourth, eating alone due to shame and finally feeling disgusted with oneself, depressed or very ashamed (APA, 2014; Da Luz et., 2018).

All these symptoms lead to the need to implement a form of therapy that is subject to the needs of each person suffering from AD; For treatment planning in patients suffering from ED, it is necessary to identify the subject's experiential components, especially in order to understand the pathological evolution of eating behaviors. Emphasizing the inherent perception of one's own body, for this it is necessary to consider three dimensions of corporeality: Subject-Body, Object-Body and Body for Others (Castellini et al., 2022) . It should be noted that Fairbum (1998) implemented a transdiagnostic model in which it is evident that patients with AN, BN and TA coincide with a common psychopathology that focuses on a general concern related to body shape and weight, taking repercussions on eating behaviors (Celis, A., & Villanueva, E. 2011). In addition, for Castejón Martínez & Berengüi (2019) there are other significant variables such as perfectionism, having low self-esteem, a distorted self-concept, poor ability to deal with problems and other associated psychopathologies such as anxiety, depression and obsessive-compulsive disorders. It should be noted that in the intervention in people with ED through Cognitive Behavioral Therapy, techniques related to therapy for depression and behavioral skills in people with obesity Fairbum (1998) are applied , with the purpose of overcoming progressively and in a planned and structured way. compulsive food consumption, it is important to highlight that CBT not only focuses on reducing the compulsive behavior of binge eating, but also on self-perception, self-esteem, and social adaptation (Cuadro & Baile, 2015). It is important to add that CBT is a psychotherapeutic intervention that has shown efficacy based on evidence (Brown & Nicholson, 2018), with positive results in food addiction symptoms (Agüera et al., 2016), both in the eating symptoms and psychopathology; Through this therapy, we work to generate healthy eating habits in order to maintain them through psychoeducation. Finally, in this order of ideas, the objective of this study is to show the efficacy of CBT in patients with AD, through a search for randomized clinical trials with a low level of methodological bias. As far as we know, CBT manages to be an effective treatment in many eating disorders such as AN and BN, so we hypothesize that the effects of CBT will be similar in the treatment of ED.

2. Methodology

Design

Using the PRISMA method (*Preferred reporting items for Systematic reviews and Meta- Analyses), and AMSTAR, an evaluative systematic review of different scientific material was prepared using the* Scopus database and Web of Science provided by the Virtual Library of the Catholic University of Cuenca. The following parameters were met as inclusion criteria: a) having been published during the last 10 years, b) being written in English or Spanish, c) making use of experimental or quasi-experimental methodology applied to randomized clinical trials. As exclusion criteria, the following were established: a) studies with restricted access, b) unreliable databases or that do not meet the external approach criteria, and, c) that address issues that are not related to CBT in AT.

Search strategies, screening and data extraction.

This process included: search, screening and data extraction:

Identification: The keywords or terms DECS (Descriptors in health sciences) and MESH (medical subject headings) were defined. An exhaustive search was carried out in the different databases,

with the keywords used in combination with the Boolean operators (AND, OR), these were *"Cognitive behavioral therapy ", " Psychotherapy ", " Binge eating disorder " and " Eating behavior "* . A list of all the articles or references found by each database was created, once it was done, the duplicate records were verified and then they were excluded.

Selection: The titles and abstracts were read to select those articles that answered the research question: Is empirically supported cognitive behavioral therapy effective in treating binge eating disorder?

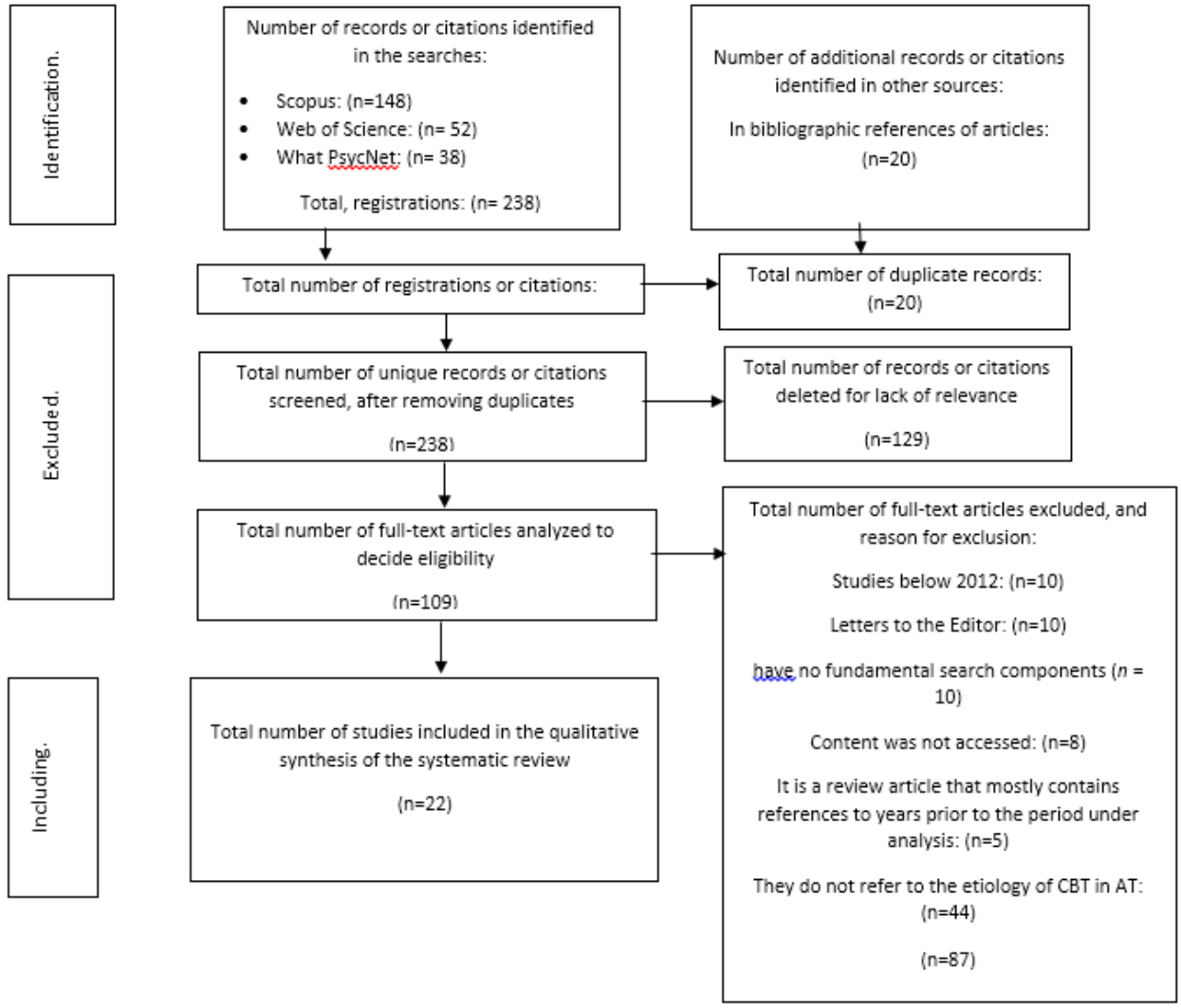
Eligibility : The full texts of the selected publications were retrieved to verify compliance with the inclusion and exclusion criteria.

3. Results

Selection of studies.

Through the search carried out from August 10, 2022 to November 26, 2022, it was possible to identify 258 studies, which after eliminating duplicate documents, 238 studies were preserved. Subsequently, the titles and abstracts were identified, eliminating the investigations that did not comply with the related terms, for which 109 articles were analyzed in full text, excluding 87 articles. Using the inclusion criteria, it was possible to analyze 22 articles considered in the present investigation (Figure 1).

Figure 1. *Selection of studies applied the PRISMA methodology*



Summary of included studies.

Table number 2 describes the 22 studies that were included for the present investigation, related to the theme of CBT in ED. Then, it was corroborated that all the studies have been published in the last 11 years. In addition, it was evidenced that the total number of participants in the studies was 3,560, with the age group of adult women predominating in the sample.

Study designs found.

Of the 22 articles that were considered for this review, it was possible to determine that 14 articles are Randomized Controlled Trials (RCTs), likewise 5 articles were multicenter randomized clinical trials. Likewise, 3 studies meet all the parameters of an RCT. Since the studies present a systematic analysis of the therapy that professionals apply to patients, evaluating the effectiveness under different experimental parameters, thus increasing the level of reliability of the document.

Therapies.

The therapies that were used the most within the studies were Behavioral Weight Loss Therapy (BWL) (*N=7*) which is based on a multidisciplinary intervention aimed at behavioral weight loss, in addition CBT was the therapy that stood out the most. with *(N=22)* ; Cognitive Behavioral Therapy based on email acronym in English (CBTgsh) / Cognitive Behavioral Therapy Applied by Therapist (CBTth) these therapies based on CBT is applied in a self-help way and also with the intervention of a professional to treat Binge Eating (Grillo et al, 2021) ; Self-Help Through Face-to-Face Meetings (FGSH) / Cognitive Behavioral Self-Help Program to Overcome Binge Eating (EGSH), which is an intervention in the form of "Self-help" that is based on CBT and can be applied both directly and face to face. face to face with the patient or via email (Jekkins et al, 2021); IMPLUS is a CBT therapy modified and adapted from the treatment of addictions and eating disorders, in which intervention is made to implement techniques (self-control and exposure) to treat compulsive eating behavior (Schag et al, 2019) ; Healthy Approach to Weight Management and Eating in Eating Disorders (HAPIFED) is a treatment that fuses Cognitive Behavioral Enhanced Therapy (CBT-E) focused on intervention in patients who have been diagnosed with ED and Weight Loss Therapy. Behavioral Weight (BWLT) aimed at weight loss (Palavras , 2021).

Therapists.

It was identified that in 19 articles of this research they have different professionals related to health, the same ones who were specialized in the intervention, monitoring, and application of treatments, it should be noted that they were supervised by professionals with more experience and only three articles They did not have the presence of professionals for the application of the treatments.

Binge eating disorder.

A total of 22 articles that were evaluated were based on identifying how CBT affects ED, in addition, in 15 studies, depressive disorder was examined more frequently using Beck's Clinical Depression measure: BDI/BDI-II/BDI-FS . Finally, in the 22 articles, the most used psychometric instruments to assess Eating Disorders and Binge Eating were through the Eating Disorders test: Eating Disorders Test (EDE)/ Eating Disorders Test-Questionnaire (EDE-Q) (Table 1) . .

Study	Country	Diagnosis clinical	Age / Half	Gender	Size	Design	Conditions	Therapy	sessions	Extent Clinic	binge measure
1. Grilo et al, 2021	USA	bed	46.9	83.8 %F 16.2% M	457	RCT	CBTth cbtgsh	I	NOT	BDI HAM-D	dts
2. Grilo et al, 2021	USA	bed	44.9	77.8 %F 22.2% M	90	RCT	CBT BWL	G.	16 sessions x 2 24 weeks x 60 minutes	BDI	dts
3. Grilo et al, 2020	USA	bed	48.4	71%F 29%M	191	RCT	BWL STEPPEDCARE cbtgsh	I	16 sessions x x 50-60min 15 sessions 11 sessions x 25-30 min	BDI	dts
4. Grilo et al, 2012	USA	Overweight overweight bed	42.2	75.3% F 24.7% M	81	RCT	CBT+fluoxetine CBT +placebo	I	16 sessions x 60 min x 16 weeks	SCIDI/P BDI BMI	dts DTS-Q
5.Hilbert et al., 2019	Germany	bed	18	100% M	86	MCTs	CBT	I	CBT 20 sessions x 16 weeks x 20 -50 min	BDI-II BMI	DTS-Q dts
6.Hilbert et al., 2020	Germany	bed	18	NOT	178	MCTs	CBT	I	20 sessions x 16 weeks x 20-50 min	INC. BMI BDI-II BIS/BAS	dts OBE DEB-Q
7. Jekins et al., 2021	UK	bed	42.5	92.8% F 7.2% M	180	RCT	fGSH eGSH bwl	I	fGSH, 10 sessions x 10 weeks x 20-25-min eGSH , 10 sessions x 10 weeks x 20-25-min	INC CORE-OM RSES	DTS-Q
8. Lammers et al., 2020	Netherlands	bed	37.3	89.2% F 10.8% M	74	THAT Quasi-randomized and	CBT+ DBT-BED	G.	CBT+ 20 group sessions x	SCL-90 Symptom Checklist 90	DTS-Q

						open 2-arm			20 weeks x 75 min DBT-BED 20 group sessions x 20 weeks x 2h	BDI-II EDI-3 BMI Weight ,	DEBQ
9. Lydecker et al. , 2020	USA	bed	45.64	74.24 %F 25.76 % M	660	RCT	CBT BWL CBT or BWL + plus pharmacotherapy	I	12-24 weeks	P.W.L. BDI	SCID-I DTS-Q
10 . Mathisen et al. , 2020	Norway	BN bed	28.8	100% F	144	RCT	PED-T CBT	G.I	group sessions x 16 weeks x 90-120 min	INC, SWLS BDI	DTS-Q
11. Manasse et al., 2020	USA	BN bed	45.5	NOT	60	RCT	CBT + ICT CBT+sham training	I	12 sessions x 12 weeks x 50min	ffq	dts
12. Mason, et al. , 2017	USA	bed	47.14	92.4% F 7.6% M	158	RCT	CBT	I	NOT	IWQOL-Lite BMI IDS RSES	dts CS-BN
13. Pisetsky et al., 2015	USA	bed	47.2	88.1% F 11.9% M	190	RCT Multicenter	gCBT	I G.	CBT 15 Sessions x 20 weeks x 80 min	GAS GCQ-E	dts
14.Peterson et al., 2020	USA	bed	39.6	100% M	112	RCT Multicenter	ICAT-BED CBT-Gsh	I I	ICAT-BED 21 Sessions x 17 weeks x 50 min CBT- gsh Self-help book x 10 sessions x 2 weeks x 60-30 min.	SCID-IV INC BDI 'RE AUDIT-C LESSON UPPS-R RSEQ+CS	dts BREADS + POMS RETAINE

										TSPE therapy or test BMI	
15. Words et al., 2021	Swiss	bed BN	41	96%F 4%M	98	RCT	HAPIFED CBT-E	I G.	HAPIFED CBT-E 35 sessions x 28 weeks x 20-90 min	MINI	OBE SBE dts LOS ES
16. Pulse, et al., 2019	Germany	DIFFERENT	14.17	81.3% F 18.7% M	64	RCT	CBT BWL	I	20 sessions x 20 weeks x 50 min	ACF CPPS WAI-OS BDI-II	dts
17. Quilty et al., 2019	Canada	bed	32.78	100% F	49	RCT	CBT+ tpsychostimulant	I,G	CBT 12 sessions x 12 weeks x 50 min TPT Daily dose of methyl phenidate x 12 weeks	SCIDI/P BMI -QOLI UPPSP	DTS-I BES
18. Schang et al., 2019	Germany	bed	40.1	67%F 33%M	80	RCT	IMPLUS	G.	IMPLUS 8 group sessions x 8 weeks x 90 min	BIS-15 TO BAS BDI-II BMI	DTS-Q *and* *DEB-Q*
19. Tasca et al., 2019	Canada	bed	41.4	88%F 12%M	135	RCT	USH (CBT) unguided self-help	I	10 weeks	SCID-I/P CES-D C	DTS-Q ICC

							GPIP	G.	17 sessions x 17 weeks x 90 min	IIP64 ECR	TRIPED
20. Wyssen et al., 2021	Swiss	bed	37.2	87%F, 13%M	63	RCT	CBT-GSH	I	11 sessions x 8 8 weeks	Mini-DIPS, BMI WSAS BDI-FS	DTS-Q wbq,
21.Wilson et al., 2010	USA	bed	18	79F, 21%M	205	RCT active control efficacy trial, randomized.	ETC BWL cbtghs	I	19 sessions x 24 weeks x 50-60 min 20 Sessions x 18 weeks x 50 min 10 Sessions x 10 weeks x 25 min	SCID-I BDI RSES SAS-SR	dts
22.Wilson et al., 2011	USA	bed	48.3	86% F, 14%M	205	RCT multicenter	ETC BWL, cbtgsh	I	19 sessions x 24 weeks 20 sessions x 24 weeks 10 sessions x 24 weeks x 25min	BDI RSES	dts

Note: BED: Binge Eating Disorder; BN, bulimia nervosa; RCTs: randomised controlled trial; CBTgsh: Email-based cognitive behavioral therapy; CBTth : Cognitive Behavioral Therapy Applied by the Therapist; PED-t: Dietary Therapy, CBT-E: Enhanced Cognitive Behavioral Therapy; fGSH: Self-Help Through Face-to-Face Meetings; EGSH: The Cognitive Behavioral Self-Help Program to Overcome Binge Eating; CBT+: Additional Individual and Group Cognitive Behavioral Therapy; CBT+ ICT: Cognitive Behavioral Therapy + Computerized Inhibitory Control Training; CBT+Sham Training: Cognitive Behavioral Therapy + Sham Training; Gcbt, Cognitive Behavioral Therapy, Group; BWL, Weight Loss Therapy; BWLT: Behavioral Weight Loss Therapy; ICAT-BED: Integrative Cognitive Behavioral Affective Therapy; HAPIFED: Approach to Weight and Eating Management in Eating Disorders; IMPLUS: Group Intervention Focused on Impulsivity to Reduce Binge Eating Episodes in Patients with Compulsive Disorder; GPIP: Intrapersonal Psychodynamic Group Therapy;

DTS, Eating Disorders Screening; BDI: Beck Depression Inventory; BDI II: Beck-II Depression Inventory; HAM-D: Hamilton Rating Scale for Depression; SCID-I: Structural Clinical Interview for DSM-IV Axis-1 Disorders; BMI, Body Mass

Index; CIA, Evaluation of Clinical Deterioration; BIS/BAS: Behavioral Inhibition/Behavioral Activation System RSES System Scales Self-Esteem Scale; CORE-OM: Clinical Results in Routine Measured Evaluation; RSES: Rosenberg Self-Esteem Scale; SCL-90: Symptom Checklist 90; EDI 3: Emotional Dysregulation Inventory of Eating Disorders; PWL, Percentage of Weight Loss; SWLS: Life Satisfaction Scale; FFQ: Food Frequency Questionnaire; IWQOL-Lite Rapid Inventory of the Impact of Weight on Quality of Life; IDS, Symptomatology Inventory; GAS: Group Attitude Scale; GCQ-E: Group Climate Short Form Questionnaire; SCID-IV Structured Clinical Interview for DSM-IV; STAI: Inventory of Anxiety State Trait; AUDIT-C Alcohol Use Disorders Identification Test; DERS: Emotional Regulation Difficulties Scale; STAI, Anxiety Inventory; DERS: Scale of Difficulties in the Regulation of Emotions; UPPS R; Impulsivity Scale; RSEQ+CS: Rosenberg Self-Esteem Questionnaire + Measure to Assess Self-Esteem and General Feelings of Self-Esteem and Computerized Selves; TSPE: Patient Expectations and Capabilities Questionnaire ; MINI: International Neuropsychiatric Mini Interview; ACF: Administration for Children and Families; CPPS: Practice Exam; DAPP-BQ: Basic Questionnaire; GSH: Guided Cognitive Behavioral Self-Help Therapy; DBT: Comparative Scale of Psychotherapy Processes; WAIOS: Intelligence Scale for Adults 16 to 89 Years; SCIDI/P: DSM-IV Structured Clinical Interview for Patients with Axis I Disorders; QOLI: Quality of Life Inventory; UPPSP: Impulsive Behavior Scale; BIS-15: Short Version of the Barrat Impulsivity Scale; BIS/BAS Behavioral Inhibition System/Activation System Questionnaire; CES-D: Epidemiological Study Depression Scale; IIP64: Inventory of Interpersonal Problems; ECR: The Scale of Experiences in Close Relationships; Mini-DIPS: Diagnostic Interview of Mental Disorders, Short Version; WSAS: Work Scale and Social Adjustment; BDI FS: Beck Rapid Depression Inventory; SCID-I: Clinical Interview Structure for the DSM-IV for Personality Disorders SCID-II; RSES Rosenberg Self-Esteem Scale; DTS: Eating Disorder Screening; DTS-Q: Eating Disorders Test – Questionnaire; OBE: Objective Binge Eating Episodes; DEB-Q: Dutch Behavior Questionnaire; SCID-S: Structured Clinical Interview for DSM-IV Axis I Disorders; CS-BN: Coping Scale for Bulimia Nervosa; PANAS+POMS: Positive and Negative Affect Scale + Mood Profile; RETAINE: Real-Time Assessment in the Natural Environment; SBE: Subjective Binge Eating; OBE: Objective Binge Eating; LOSES: Loss of Control Over Feeding Scale; DTS-I Eating Disorder Exam Interview; ICC: Intraclass Correlation Coefficient; TRIPED: Tape Classification Instrument for Psychotherapy of Eating Disorders.

4. Discussion

The objective of this systematic review was to demonstrate, through the analysis of randomized clinical trials, the efficacy of CBT for ED through the use of two tools: The PRISMA AND CONSORT statement, which facilitated the selection, identification, assessment, and synthesis of randomized trials. It was possible to identify 20 of the 22 studies that denote the effectiveness of CBT regarding the symptoms of ED and especially in Binge Eating episodes.

Comparison with other studies.

In the study carried out by Peat et al., (2017) on *the comparative efficacy of treatments for binge eating disorder: Systematic Review and Meta-analysis* , it was shown that CBT in all its modalities, both self-help and structured, applied by a professional, present modulations in abstinence, evidencing a variation from 17.9% to 86.7% and the frequency of Binge Eating from an average of 6.3 episodes to 0.4 episodes in the last 28 days, at the same time a follow-up was made for 12 months.

In the study by Brownley et al., (2016) to assess *binge eating disorder in adults in: A systematic review and meta-analysis* was able to identify through qualitative synthesis that CBT assigned by a professional and guided self-help CBT increased abstinence and it reduced the frequency of binge eating in 58% of patients and the duration of CBT treatment was 20 weeks.

Ghaderi et al., (2018) analysis on *psychological, pharmacological and combined treatments for binge eating disorder: A systematic review and meta-analysis* was able to identify that participants undergoing CBT achieved abstinence from binge eating in 40 %, it should be noted that the treatment lasted from 8 to 20 weeks and the sessions varied between 6 and 16 depending on the symptoms of the participants. While the CBT- gsh presented a remission of 25% of all the participants and the treatment time ranged from three to 24 sessions.

On the other hand, for the authors Traviss & Hill, (2017) in the *Systematic review and meta-regression of guided self-help for eating disorders* , showed that CBT-GSH helped abstinence from binge eating by 19% , this therapy is feasible to apply face to face, remotely or online, individually or in groups with a duration between 4 to 18 sessions and was administered over 6 to 7 months, in addition to being monitored and applied by professionals specialized in therapy.

Likewise, for Miniati et al., (2018) in the research *Interpersonal Psychotherapy for eating disorders: Current Perspectives*, compared IPT and CBT in patients diagnosed with ED, it should be noted that each treatment was applied during 20 weekly group sessions with a duration of 90 minutes plus 3 sessions applied individually in order to deal with the objectives and analysis of the progress of the patients, in the 2 therapy groups recovery rates related to the symptoms were achieved with the following percentages 79% for CBT and 73% for IPT, in addition to the year of follow-up, the percentages were presented as follows: 59% for CBT versus 62% for IPT.

By comparing the systematic reviews (Peat et al., 2017; Brownley et al., 2016; Ghaderi et al., 2018; Traviss & Hill, 2017; Miniati et al., 2018) with the selected RCTs, it was possible to identify that the CBT or CBT presents greater empirical support and effectiveness for the intervention in people suffering from BED when analyzing the authors (Grilo et al, 2021 ; Grilo et al, 2021; Grilo et al, 2020; Grilo et al, 2012; Hilbert et al. , 2019; Hilbert et al., 2020; Jekins et al., 2021; Lammers et al., 2020; Lydecker et al., 2020; Mathisen et al., 2020; Manasse et al., 2020; Mason, et al., 2017; Pisetsky et al., 2015; Peterson et al., 2020; Words et al., 2021; Puls , et al., 2019; Quilty et al., 2019; Schang et al., 2019; Tasca et al., 2019; Wyssen et al., 2021; Wilson et al., 2010; Wilson et al., 2011) indicate that interventions based on the Cognitive Behavioral current, whether applied in person or online, administered by a health professional or trained personnel, in both male and female patients, demonstrates a effectiveness in the psychopathology of BED, especially in the remission of binge eating and other comorbid disorders such as anxiety and depression that occur in BED.

Limitations presented in the study.

The limitations that could be observed throughout this research were: First, that most of the ECAS present a larger sample number of women than that of men, showing that this population seeks less help and also limits the determination of prevalences. . Second, a limitation was found when identifying and analyzing the information from the articles, which presented little or no information, being an inconvenience for a complete analysis of the methodological quality. Third, a small number of participants present in most of the investigations, which would result in a low extrapolation of the results. Fourth, there was a difficulty in the analysis of some studies since some authors describe their themes in a language other than English, which makes exact interpretation difficult at the time of translation. Fifth, cognitive behavioral intervention is the therapy that has significant scientific support, however, current research shows that it has certain limitations such as: the scant evidence of long-term results, and durability.

Proposals for future studies.

In order for CBT to have a more solid theoretical base, it is necessary that there be more research on this therapy that demonstrates the effectiveness of this type of intervention, especially in the male population, in the same way, it is necessary to carry out more long-term studies that demonstrate the efficacy of CBT in TA and controlled comparators. Finally, with all the information collected, it would also serve the different health professionals who deal with this problem, since this would benefit the creation of a faster, more personalized and precise therapy in ED. All this could favor formulating a systematic review that helps to support CBT for ED.

Theoretical implications.

CBT is a therapy used by mental health professionals to address distorted functional cognitions and maladaptive behaviors. Through the collection of RCTs , it has been possible to identify empirical and theoretical evidence that contributes that the CBT proposed by Christopher Fairburn (1985) (Casanova et al., 2018) presents an efficacy in the symptoms of BP, this due to the fact that the CBT focuses in the homogeneous analysis of cognitions (beliefs, thoughts, expectations, attributions) considering emotional problems or dysfunctional behaviors to these cognitive models, also adding that each disorder presents a cognitive dysfunctional phenomenology (Álvarez et al., 2013). CBT is an intervention that has been rewarding with positive results in the symptoms of Food Addiction (Agüera et al., 2016), both in food symptomatology and psychopathology, through this therapy it is about working on healthy eating habits with In order to maintain them through psychoeducation (Cuadro & Baile, 2015), CBT not only focuses on reducing compulsive behavior in binge eating, but also on self-perception, self-esteem and social adaptation (Cuadro & Baile, 2015), as well as it can be applied individually or in a group, it is usually worked in 14-20 sessions and is made up of 3 phases: In the first phase, wrong eating habits are modified with the patient with the use of self-registrations; the second stage consists of identifying and modifying thoughts related to body weight and figure; and in the final phase, work is done on relapse prevention (González Calderón & Ormaechea Alegre, 2016), in adolescents work is done in 3 phases: First, the initial treatment in which motivation is worked on; Second, more intense treatment in eating behaviors, body image and stress; Third, self-monitoring for the prevention of falls is established, it lasts for 4 months and is made up of 20 individual sessions (Hilbert, 2013). Likewise, Guided Self-Help Cognitive Behavioral Therapy (Nazar et al., 2017), is based on the use and

application of new technologies, books presenting easy accessibility to users, benefiting the treatment offer since it can be applied in any time and place (Wyssen et al., 2021). The intervention focuses on explaining in an elaborate way the justification for the treatment, (Brownley et al., 2016) in addition to establishing objectives and compliance with the schedule in the treatment with the patient, at the same time presenting self-help interventions to their own rhythm, the therapeutic plan is to establish regulated moderate eating patterns, self-control, problem solving, psychoeducation and relapse prevention (Hazzard et al., 2021). While the improved CBT is elaborated in a more sophisticated way in which new strategies and procedures are applied, it even presents modules that are aimed at treating perfectionism, low self-esteem and intrapersonal problems (Hay, 2013) . There are two treatment modalities: the first, which is directed exclusively to Binge Eating Disorder, and the second, which is a broader treatment that focuses on overcoming external obstacles and more complex psychopathology (González Calderón & Ormaechea Cheerful, 2016)

Dialectical Behavioral Therapy (DBT) belonging to the second generation of therapies, proposed by Marsha Linehan (Soler et al., 2016) at the end of the 70s for the treatment of symptoms of Borderline Personality Disorder and behaviors suicides (Rodríguez Aguilera., 2022), which is based on the fusion between behavioral, Buddhist and Zen cognitive techniques that is based on admitting reality as it is presented (Vega & Sánchez., 2013), it should be noted that DBT is a multimodal therapy that incorporates four foundations for the intervention that are: individual therapy, group training for the development of skills, telephone support and a group of therapists specialized in the problem (Soler et. al, 2016). Also, it is suggested that the therapy be applied individually and in groups once a week, in a period of one year (Hyde., 2011), it has been possible to show that the dropout rates are lower and the economic cost is more accessible unlike community treatments with experts (Carmona et al., 2018). It should be noted that this therapy tries to provide the patient with skills to regulate emotions in an adaptive way, this is developed through a "Dialectical" posture by the therapist whose objective is: to accept the patient as they are, at the same time Time is spent stimulating the patient towards change to achieve their own goals (Lammers et al., 2020) .

Practical implications.

Through this study of the ECAS, the efficacy and effectiveness of CBT has been demonstrated, proving that it is a viable treatment in the symptoms of AD, favoring the diagnosis, prognosis and results, producing a modification of the Cognitive-Behavioral part thus improving the phenomenology and coping on the part of the patient, so it is necessary to apply this highly reliable therapy and with consistent theoretical bases in psychotherapy with trained personnel, in addition CBT helps therapists have a more accurate and effective intervention therefore that benefits the patient economically and therapeutically.

Benefits of cognitive behavioral therapy in binge eating disorder.

CBT offers better results, in different aspects, not only in terms of reducing the frequency of binge eating and remission rates to treatment, but also works on variables such as self-esteem or social adjustment, very similar to interpersonal therapy (González Calderón & Ormaechea Alegre, 2016). On the other hand, CBT-E, which is a Cognitive-Behavioral intervention model that aims to interrupt abnormal behaviors, such as starvation, binge eating, body review, and distorted beliefs related to shape and weight of the body (Castellini , 2022).

CBT in a self-help format is a much more accessible therapeutic intervention both for its cost and for its implementation with the use of new technologies such as the internet (Agüera et al., 2016), aimed at people who suffer from compulsive eating problems due to Since individuals with this disorder experience the problem in secret and present feelings of shame anchored in binge eating that prevent them from seeking help (Cuadro & Baile, 2015), it should be noted that telehealth is beneficial for treating eating disorders and obesity (Abrahamsson et al., 2018; Anderson et al., 2017; Cassin et., al 2016; Giel et al., 2015; Hamatani et al., 2019; Sockaligam et al., 2017)

5. Conclusion

Through the RCTs, it has been possible to highlight the effectiveness of CBT in the treatment of PD. Most of the studies indicate a total remission of the symptoms presented and associated with the pathology.

6. References bibliographic

1. American Psychiatric Association. (2013). Diagnostic and Statistical Manual of Mental Disorders. 5th ed. Arlington, VA: American Psychiatric Association.
2. American Psychiatric Association . (2014). DSM 5 - Diagnostic and statistical manual of mental disorders. Madrid: Editorial Panamericana.
3. Agüera, Z., Lozano-Madrid, M., Mallorquí-Bagué , N. et al. A review of binge eating disorder and obesity. *Neuropsychiatrist 35* (1), 57–67 (2021). https://doi.org/10.1007/s40211-020-00346-w

4. Agüera, Z., Wolz , I., Sánchez, IM, Sauvaget , A., Hilker , I., Granero, R., Murcia, SJ, & Fernando, FA (2016). Food addiction: A controversial construct. Behavioral Psychology = Behavioral Psychology : International Journal of Clinical and Health Psychology, 3, 17–30. https://dialnet.unirioja.es/servlet/articulo?codigo=5564729 Thesis
5. Anderson, KE, Byrne, CE, Crosby, RD, & Le Grange, D. (2017). Using Telehealth to deliver family-based treatment for adolescent anorexia nervosa. *International Journal of Eating Disorders , 50* (10), 1235-1238. https://doi.org/10.1002/eat.22759
6. Abrahamsson , N., Ahlund , L., Ahrin , E., & Alfonsson , S. (2018). Video-based CBT-E improves eating patterns in obese patients with eating disorder: A single case multiple baseline study. *Journal of Behavior Therapy and Experimental Psychiatry , 61* , 104-112. https://doi.org/10.1016/j.jbtep.2018.06.010
7. Allen, S., & Dalton, WT (2011). Treatment of eating disorders in primary care: A systematic review. *Journal of Health Psychology, 16* (8), 1165-1176. https://doi.org/10.1177/1359105311402244
8. Álvarez, MP, Hermida , JRF, Rodríguez, CF, & Vázquez, IA (2013). Guide to effective psychological treatments I: Adults. Pyramid Editions.
9. Bentancour , L., Calvo, S., & Saona, G. (2019). Food Addiction: Another Determinant Associated with Adherence to Nutritional Treatment? *Nursing: Humanized Care, 8* (2), 152–168. https://doi.org/10.22235/ech.v8i2.1848
10. Blanchet , C., Mathieu, M.-È., St -Laurent, A., Fecteau , S., St-Amour , N., & Drapeau , V. (2018). A Systematic Review of Physical Activity Interventions in Individuals with Binge Eating Disorders. *Current Obesity Reports, 7* (1), 76-88. https://doi.org/10.1007/s13679-018-0295-x
11. Brownley, KA, Berkman, ND, Peat, CM, Lohr , KN, Cullen, KE, Bann, CM, & Bulik , CM (2016). Binge- Eating Disorder in Adults: A Systematic Review and Meta-analysis. *Annals of internal medicine, 165* (6), 409–420. https://doi.org/10.7326/M15-2455
12. Brown, CE, & Nicholson Perry, K. (2018). Cognitive behavioral therapy for eating disorders: How do clinical characteristics impact on treatment fidelity? *Journal of Eating Disorders , 6* (1), 19. https://doi.org/10.1186/s40337-018-0208-0
13. Dance, José I. (2014). Binge Eating Disorder: Officially recognized as the new eating disorder. *Chilean Medical Journal , 142* (1), 128-129. https://dx.doi.org/10.4067/S0034-98872014000100022
14. Casanova Menal , I., Cabañas Rojas, V., & Fernandez Montes Rodriguez , I. (2018). Treatment of a case of eating disorder from the perspective of acceptance and commitment. *Journal of Clinical Cases in Mental Health, 6* (1), 85-117. dialet thesis
15. Castejón Martínez, M. Á., & Berengüi , R. (2019). Differences in personality and in psychological variables related to the risk of eating disorders. *Annals of Psychology, 36* (1), 64–73. https://doi.org/10.6018/analesps.361951
16. Castellini , G., Cassioli , E., Rossi, E., Mancini, M., Ricca, V., & Stanghellini , G. (2022). Bridging cognitive, phenomenological and psychodynamic approaches to eating disorders. *Eating and Weight Disorders-Studies on Anorexia, Bulimia and Obesity, 27(* 7), 2273-2289. https://doi.org/10.1007/s40519-022-01379-6
17. Cassin, SE, Sockalingam , S., Du, C., Wnuk , S., Hawa , R., & Parikh, SV (2016). A pilot randomized controlled trial of telephone-based cognitive behavioral therapy for preoperative bariatric surgery patients. *Behavior Research and Therapy , 80* , 17-22. https://doi.org/10.1016/j.brat.2016.03.001
18. Celis , A., & Villanueva, E. (2011). Cognitive-behavioral therapy for eating disorders according to the transdiagnostic view . *Action psychological , 8* (1), 21-33 . https://doi.org/10.5944/ap.8.1.198
19. Citrome , L. (2019). Binge eating disorder revisited: What's new, what's different, what's next. *CNS Spectrums , 24* (S1), 4-13. https://doi.org/10.1017/S1092852919001032
20. Box , E., & Dance , JI (2015). Binge eating disorder: analysis and treatment. *Mexican Journal of Eating Disorders, 6(2),* 97–107. https://doi.org/10.1016/j.rmta.2015.10.001
21. Da Luz, FQ, Hay, P., Touyz , S., & Sainsbury , A. (2018). Obesity with Comorbid Eating Disorders: Associated Health Risks and Treatment Approaches. *Nutrients , 10* (7), Art. 7. https://doi.org/10.3390/nu10070829
22. Eichin , KN, Georgii , C., Arend , A.-K., van Dyck, Z., & Blechert , J. (2022). (Mouse cursor)-Tracking food decisions in binge eating disorder reveals preference for high-energy foods and a role of BMI. *Appetite , 170* , 105890. https://doi.org/10.1016/j.appet.2021.105890
23. Figueroa Quiñones, J., & Cjuno, J. (2018). Food addiction in Latin America. *Medwave , 18(1)* , 1–5. https://doi.org/10.5867/medwave.2018.01.7171

24. Fairburn , C. (1998). Overcoming binge eating. How to overcome control. Barcelona, Spain : ˜ Paidós.
25. Garcia Palacios, A. (2014). Binge eating disorder in the DSM-5. Cuadernos de Medicina Psicosoática y Psiquiatria de Enlace, 110, 70–74. https://scholar.google.com.ec/scholar?hl=es&as_sdt=0%2C5&as_vis=1&q=Binge-eating+disorder+in+the+DSM-5&btnG= dialet thesis
26. Garcia Palacios, A. (2014). Binge eating disorder in the DSM-5. *Liaison Notebooks of Psychosomatic Medicine and Psychiatry , 110* , 70-74. dialet thesis
27. Giel , KE, Leehr , EJ, Becker, S., Herzog, W., Junne , F., Schmidt, U., & Zipfel , S. (2015). Relapse Prevention via Videoconference for Anorexia Nervosa—Findings from the RESTART Pilot Study. *Psychotherapy and Psychosomatics , 84* (6), 381-383. https://doi.org/10.1159/000431044
28. Ghaderi, A., Odeberg , J., Gustafsson, S., Råstam , M., Brolund , A., Pettersson , A., & Parling, T. (2018). Psychological, pharmacological, and combined treatments for binge eating disorder: a systematic review and meta-analysis. *PeerJ , 6* , e5113. https://doi.org/10.7717/peerj.5113
29. Grilo , CM, Crosby, RD, Wilson, GT, & Masheb , RM (2012). 12-month follow-up of fluoxetine and cognitive behavioral therapy for binge eating disorder . *Journal of consulting and clinical psychology, 80(6),* 1108–1113. https://doi.org/10.1037/a0030061
30. Grilo , CM, Gueorguieva , R., & Pittman, B. (2021). Examining depression scores as predictors and moderators of treatment outcomes in patients with binge-eating disorder. *International Journal of Eating Disorders, 54(8)* , 1555-1559. https://doi.org/10.1002/eat.23569
31. Grilo , CM, Thompson-Brenner, H., Shingleton , RM, Thompson, DR, & Franko, DL (2021). Clinical moderators and predictors of cognitive-behavioral therapy by guided-self-help versus therapist-led for binge-eating disorder: Analysis of aggregated clinical trials. *The International journal of eating disorders, 54(10)* , 1875–1880. https://doi.org/10.1002/eat.23601
32. Grilo , CM, White, MA, Ivezaj , V., & Gueorguieva , R. (2020). Randomized Controlled Trial of Behavioral Weight Loss and Stepped Care for Binge- Eating Disorder : 12-Month Follow-up. *Obesity , 28(11)* , 2116-2124. https://doi.org/10.1002/oby.22975
33. Guevara Valtier, MC, Ruíz González, KJ, Pacheco Pérez, LA, Santos Flores, JM, González de la Cruz, P., & Sánchez García, AB (2020). Food addiction and nutritional status in adolescents from a public high school in Mexico. *Global Nursing , 19(2)* , 1–20. https://doi.org/10.6018/eglobal.370021
34. Hay, P. (2013). A systematic review of evidence for psychological treatments in eating disorders: 2005-2012. *International Journal of Eating Disorders, 46(5)* , 462-469. https://doi.org/10.1002/eat.22103
35. Hamatani , S., Numata , N., Matsumoto, K., Sutoh , C., Ibuki , H., Oshiro, K., Tanaka, M., Setsu, R., Kawasaki, Y., Hirano, Y., & Shimizu, E. (2019). Internet-Based Cognitive Behavioral Therapy via Videoconference for Patients With Bulimia Nervosa and Binge-Eating Disorder: Pilot Prospective Single-Arm Feasibility Trial. *JMIR Formative Research , 3* (4), e15738. https://doi.org/10.2196/15738
36. Hilbert, A., Herpertz , S., Zipfel, S., Tuschen-Caffier , B., Friederich , H.-C., Mayr, A., & de Zwaan, M. (2020). Psychopathological Networks in Cognitive-Behavioral Treatments for Binge- Eating Disorder . *Psychotherapy and Psychosomatics, 89(6)* , 379-385. https://doi.org/10.1159/000509458
37. Hilbert, A., Herpertz , S., Zipfel, S., Tuschen-Caffier , B., Friederich , HC, Mayr, A., Crosby, RD, & de Zwaan, M. (2019). Early Change Trajectories in Cognitive-Behavioral Therapy for Binge- Eating Disorder . *Behavior therapy, 50(1)* , 115–125. https://doi.org/10.1016/j.beth.2018.03.013
38. Hilbert, A., Petroff, D., Neuhaus, P., & Schmidt, R. (2020). Cognitive-Behavioral Therapy for Adolescents with an Age-Adapted Diagnosis of Binge- Eating Disorder : A Randomized Clinical Trial. *Psychotherapy and Psychosomatics, 89(1)* , 51-53. https://doi.org/10.1159/000503116
39. Hyde P. (2011). Report to Congress on Borderline Personality Disorder. *Substance Abuse and Mental Health Service Administration* , 4644. Thesis dialet
40. Jenkins, PE, Luck, A., Violato , M., Robinson, C., & Fairburn, CG (2021). Clinical and cost-effectiveness of two ways of delivering guided self-help for people with an eating disorder: A multi-arm randomized controlled trial. *The International journal of eating disorders, 54(7)* , 1224–1237. https://doi.org/10.1002/eat.23554
41. Keeler, JL, Chami , R., Cardi, V., Hodsoll , J., Bonin, E., MacDonald, P., Treasure, J., & Lawrence, N. (2022). App-based food-specific inhibitory control training as an adjunct to treatment as usual in binge-type eating disorders: A feasibility trial. *Appetite, 168* , 105788. https://doi.org/10.1016/j.appet.2021.105788

42. Kessler, RM, Hutson, PH, Herman, BK, & Potenza, MN (2016). The neurobiological basis of binge-eating disorder. *Neuroscience and biobehavioral reviews , 63* , 223–238. https://doi.org/10.1016/j.neubiorev.2016.01.013
43. Lammers, MW, Vroling , MS, Crosby, RD et al. Dialectical behavior therapy adapted for binge eating compared to cognitive behavior therapy in obese adults with binge eating disorder: a controlled study. *J Eat Disorder 8* , 27 (2020). https://doi.org/10.1186/s40337-020-00299-z
44. Linardon , J., Wade, TD, de la Piedad Garcia , X., & Brennan, L. (2017). The efficacy of cognitive-behavioral therapy for eating disorders: A systematic review and meta-analysis. *Journal of Consulting and Clinical Psychology, 85* , 1080-1094. https://doi.org/10.1037/ccp0000245
45. Lydecker , JA, Gueorguieva , R., Masheb , R., White, MA, & Grilo , CM (2020). Examining sex as a predictor and moderator of treatment outcomes for binge-eating disorder: Analysis of aggregated randomized controlled trials. *The International journal of eating disorders, 53(1)* , 20–30. https://doi.org/10.1002/eat.23167
46. Manasse , SM, Lampe, EW, Gillikin , L., Payne-Reichert, A., Zhang, F., Juarascio , AS, & Forman, EM (2020). The project REBOOT protocol: Evaluating a personalized inhibitory control training as an adjunct to cognitive behavioral therapy for bulimia nervosa and binge-eating disorder. *InternationalJournal _ of eating Disorders , 53(6)* , 1007-1013. https://doi.org/10.1002/eat.23225
47. Martínez González, L., Fernández Villa, T., Molina de la Torre, AJ, Ayán Pérez, C., Bueno Cavanillas, A., Capelo Álvarez, R., Mateos Campos, R., & Sánchez, VM (2014). Prevalence of eating disorders in Spanish university students and associated factors: uniHcos project . *Hospital Nutrition, 30(4),* 927–934. https://doi.org/10.3305/nh.2014.30.4.7689
48. Mason, TB, Crosby, RD, Kolotkin , RL, Grilo , CM, Mitchell, JE, Wonderlich , SA, Crow, SJ, & Peterson, CB (2017). Correlates of weight-related quality of life among individuals with binge eating disorder before and after cognitive behavioral therapy. *Eating behaviors, 27* , 1–6. https://doi.org/10.1016/j.eatbeh.2017.08.001
49. Mathisen , TF, Rosenvinge , JH, Friborg , O., Vrabel, K., Bratland- Sanda , S., Pettersen, G., & Sundgot-Borgen , J. (2020). Is physical exercise and dietary therapy a feasible alternative to cognitive behavior therapy in treatment of eating disorders? A randomized controlled trial of two group therapies. *The International journal of eating disorders, 53(4)* , 574–585. https://doi.org/10.1002/eat.23228
50. Mathisen , TF, Rosenvinge , JH, Pettersen, G., Friborg , O., Vrabel, K., Bratland- Sanda , S., Svendsen, M., Stensrud , T., Bakland , M., Wynn, R., & Sundgot-Borgen , J. (2017). The PED-t trial protocol: The effect of physical exercise–and dietary therapy compared with cognitive behavior therapy in treatment of bulimia nervosa and binge eating disorder. *BMC Psychiatry, 17(1),* 180. https://doi.org/10.1186/s12888-017-1312-4
51. Miniati , M., Callari , A., Maglio, A., & Calugi , S. (2018). Interpersonal psychotherapy for eating disorders: Current perspectives. *Psychology Research and Behavior Management, 11* , 353-369. https://doi.org/10.2147/PRBM.S120584
52. Nazar , BP, Gregor, LK, Albano, G., Marchica , A., Coco, GL, Cardi, V., & Treasure, J. (2017). Early Response to treatment in Eating Disorders : A Systematic Review and a Diagnostic Test Accuracy Meta-Analysis. European eating disorders review. *The journal of the Eating Disorders Association, 25(2)* , 67–79. https://doi.org/10.1002/erv.2495
53. Page, MJ, McKenzie, JE, Bossuyt , PM, Boutron , I., Hoffmann, TC, Mulrow , CD, Shamseer , L., Tetzlaff , JM, Akl , EA, Brennan, SE, Chou, R., Glanville , J ., Grimshaw , JM, Hróbjartsson , A., Lalu , MM, Li, T., Loder , EW, Mayo -Wilson, E., McDonald, S., Moher , D. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ (Clinical Research Ed.), 372* , n71. https://doi.org/10.1136/bmj.n71
54. Palavras , MA, Hay, P., Mannan , H., da Luz, FQ, Sainsbury , A., Touyz , S., & Claudino , AM (2021). Integrated weight loss and cognitive behavioral therapy (CBT) for the treatment of recurrent binge eating and high body mass index: A randomized controlled trial . *Eating and Weight Disorders-Studies on Anorexia, Bulimia and Obesity, 26(1)* , 249-262. https://doi.org/10.1007/s40519-020-00846-2
55. Peat, CM, Berkman, ND, Lohr , KN, Brownley, KA, Bann, CM, Cullen, K., Quattlebaum , MJ, & Bulik , CM (2017). Comparative Effectiveness of Treatments for Binge- Eating Disorder : Systematic Review and Network Meta-Analysis. *European Eating Disorders Review, 25(5)* , 317-328. https://doi.org/10.1002/erv.2517
56. Peterson, CB, Engel, SG, Crosby, RD, Strauman , T., Smith, TL, Klein, M., Crow, SJ, Mitchell, JE, Erickson, A., Cao, L., Bjorlie ,

K., & Wonderlich , S.A. (2020). Comparing integrative cognitive-affective therapy and guided self-help cognitive-behavioral therapy to treat binge-eating disorder using standard and naturalistic momentary outcome measures: A randomized controlled trial. *The International journal of eating disorders, 53(9)* , 1418–1427. https://doi.org/10.1002/eat.23324

57. Pinto Robayna , B., Benítez Brito, N., Moreno Redondo, FJ, Ramallo Fariña, Y., & Díaz Flores, C. (2019, February). New horizons in Eating Disorders: addiction to food. *Appetite, 52(2)* , 430–436. https://doi.org/10.1016/j.appet.2008.12.003
58. Pisetsky , EM, Durkin, NE, Crosby, RD, Berg, KC, Mitchell, JE, Crow, SJ, Wonderlich , SA, & Peterson, CB (2015). Examination of early group dynamics and treatment outcome in a randomized controlled trial of group cognitive behavior therapy for binge eating disorder. *Behavior Research and Therapy, 73* , 74-78. https://doi.org/10.1016/j.brat.2015.07.013
59. Puls , H.-C., Schmidt, R., & Hilbert, A. (2019). Therapist adherence and therapeutic alliance in individual cognitive- behavioural therapy for adolescent binge-eating disorder. *European Eating Disorders Review, 27(2),* 182-194. https://doi.org/10.1002/erv.2650
60. Quilty , LC, Allen, TA, Davis, C., Knyahnytska , Y., & Kaplan, AS (2019). A randomized comparison of long acting methylphenidate and cognitive behavioral therapy in the treatment of binge eating disorder. *psychiatrist Research , 273* , 467-474. https://doi.org/10.1016/j.psychres.2019.01.066
61. Rodríguez Aguilera, M. (2022). Proposal for psychological intervention based on Dialectical-Behavioral Therapy and aimed at the symptoms of Borderline Personality Disorder in patients with chronic pain. http://tauja.ujaen.es/jspui/handle/10953.1/17332 thesis dialet
62. Sockalingam , S., Cassin, SE, Wnuk , S., Du, C., Jackson, T., Hawa , R., & Parikh, SV (2017). A Pilot Study on Telephone Cognitive Behavioral Therapy for Patients Six-Months Post-Bariatric Surgery. *obesity Surgery , 27* (3), 670-675. https://doi.org/10.1007/s11695-016-2322-x
63. Santos-Flores, Jesús Melchor, Cárdenas-Villarreal, Velia Margarita, Gutierrez-Valverde, Juana Mercedes, Pacheco-Pérez, Luis Arturo, Paz-Morales, María de los Ángeles, & Guevara-Valtier, Milton Carlos. (2021). Reward sensitivity, food addiction and obesity in mothers and children. *Sanus, 6,* e187. Epub Jan 24, 2022. https://doi.org/10.36789/revsanus.vi1.187
64. Schag , K., Rennhak , SK, Leehr , EJ, Skoda, EM, Becker, S., Bethge , W., Martus , P., Zipfel, S., & Giel, KE (2019). IMPULS: Impulsivity-Focused Group Intervention to Reduce Binge Eating Episodes in Patients with Binge Eating Disorder - A Randomized Controlled Trial . *Psychotherapy and psychosomatics, 88(3)* , 141–153. https://doi.org/10.1159/000499696
65. Soler, J., Eligas , M., & Carmona, C. (2016). Dialectical Behavioral Therapy: Clinical applications and empirical evidence. *Analysis and Modification of Conduct, 42(165-66)* , Art. 165-66. https://doi.org/10.33776/amc.v42i165-66.2793
66. Tapajóz , F., Catoira , N., Soneira , S., Aulicino , A., Calandri , I., & Allegri , RF (2016). Study of cognitive functions in patients with eating disorders . *Magazine neuropsychological Latin American , 8(3)* , 42–51. https://doi.org/10.5579/rnl.2016.0300
67. Tasca , GA, Koszycki , D., Brugnera , A., Chyurlia , L., Hammond, N., Francis, K., Ritchie, K., Ivanova, I., Proulx, G., Wilson, B., Beaulac , J., Bissada , H., Beasley, E., Mcquaid , N., Grenon , R., Fortin- Langelier , B., Compare, A., & Balfour, L. (2019). Testing a stepped care model for binge-eating disorder: a two-step randomized controlled trial. *Psychological medicine, 49(4)* , 598–606. https://doi.org/10.1017/S0033291718001277
68. Traviss -Turner, GD, West, RM, & Hill, AJ (2017). Guided Self-help for Eating Disorders: A Systematic Review and Metaregression . *european eating disorders Review , 25(3)* , 148-164. https://doi.org/10.1002/erv.2507
69. Vega, Irene de la, & Sánchez Quintero, Sabrina. (2013). Dialectical behavior therapy for borderline personality disorder. *Psychological Action, 10(1)* , 45-56. https://dx.doi.org/10.5944/ap.10.1.7032
70. Wilson, GT, Wilfley , DE, Agras, WS, & Bryson, SW (2011). Allegiance Bias and Therapist Effects: Results of a Randomized Controlled Trial of Binge Eating Disorder. Clinical psychology : a publication of the Division of Clinical Psychology of the American Psychological Association, *18(2),* 119–125. https://doi.org/10.1111/j.1468-2850.2011.01243.x
71. Wilson, GT, Wilfley, DE, Agras , WS, & Bryson, SW (2010). Psychological treatments of binge eating disorder. *Archives of general psychiatry, 67(1*), 94–101. https://doi.org/10.1001/archgenpsychiatry.2009.170