Cognitive Therapy and Research (2023) 47:303–326
https://doi.org/10.1007/s10608-023-10372-x

ORIGINAL ARTICLE

Transdiagnostic Cognitive Behavioral Group Interventions: A Systematic Review

Stephanie Bittencourt Joaquim[1] · **Raquel Simões de Almeida**[2] · **António J. Marques**[2]

Accepted: 2 April 2023 / Published online: 27 April 2023

Abstract

Background Transdiagnostic cognitive behavioral therapy (tCBT) has presented itself as an intervention proposal that aims to integrate the common processes of human functioning with the therapeutic strategies of conventional cognitive-behavioral therapy, considered the gold standard for treating numerous disorders.

Objective As far as we know, this review is the first to specifically evaluate transdiagnostic cognitive-behavioral interventions in groups. This review aimed to systematically examine the evidence regarding the efficacy of cognitive-behavioral transdiagnostic interventions in groups for the adult population compared to the general interventions or no intervention (control/waiting list).

Method The report of the systematic review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement. PsycINFO, PubMed, and Web of Science databases were searched, obtaining a total of 1,058 records. After applying the inclusion and exclusion criteria, 32 articles, published between 2005 and 2022, were selected. Eligible studies were submitted to the assessment of the potential risk of bias through Cochrane's tool for risk assessment of bias (RoB 2).

Results The results suggest that transdiagnostic treatments are superior to waiting list conditions and the common treatments, and are at least as effective as active control interventions and specific cognitive-behavioral treatments for diagnosis.

Keywords Cognitive behaviour therapy · Transdiagnostic · CBT · Groups

Introduction

The conceptualization and treatment of mental disorders have always been a controversial issue throughout the history of psychotherapy, and despite all the advances, it continues to generate valuable discussions, such as the debate between specific factors and common factors that influence the construction of scientific research and clinical practice.

The disorder-specific proposes that the main processes of initiation and maintenance of psychopathology are significantly different between disorders, which means different interventions are necessary for the treatment of different disorders. In turn, there are several researchers who present an alternative and possibly complementary view to the disorder-specific by pointing out that there are certain etiological, maintenance cognitive and behavioral processes that are shared by different mental disorders, characterized as transdiagnostic processes (Mansell et al., 2009).

Predominant in the academic and clinical areas, with the support of the main diagnostic manuals, the disorder-specific presents great contributions and advances to the understanding of psychopathology and evidence-based practice. A classification system for mental disorders is commonly justified as a way to describe individuals with psychological problems and thus simplify communication between professionals, providing a tool to develop and improve clinical science and interventions and a coding system for health care systems and insurance companies (Hayes & Hofmann, 2020).

However, despite their importance, diagnostic manuals present some conceptual and theoretical problems and therefore receive much criticism regarding their clinical validity, the excessive focus on symptoms, the pathologization of normality, the lack of objective measures, the heterogeneity

✉ António J. Marques
ajmarques@ess.ipp.pt

[1] Faculty of Psychology and Education Science, University of Porto, Porto, Portugal

[2] LabRP - CIR, ESS, Polytechnic of Porto, Dr. António Bernardino de Almeida, nº 400, Porto 4200-072, Portugal

of categories, and especially the difficulty presented by clinicians to correctly frame their clients amidst so many combinations of symptoms and comorbidities (co-occurrence of two or more diagnoses), exemplified by the predominance of "unspecified" diagnosis (Gornall, 2013; Hayes & Hofmann, 2020; Pinto, 2020).

Criticism of disorder-specific becomes an urgent issue with a big impact in the face of clinical decisions. Especially in the presence of the dilemma of comorbidities, it is estimated that about 40% of people who experience a mental illness report more than one clinical diagnosis, and professional practice indicates that following the DSM, most people who present classificatory criteria for one disorder will also present criteria for a second or third (Pinto, 2020; Schaeuffele et al., 2021). Due to the data mentioned above, identifying the common factors among the various existing disorders has been the focus of a theoretical perspective that, by highlighting the similarities among the differences, presents a more parsimonious view regarding mental disorders and their comorbidities (Silva, 2016).

The transdiagnostic approach, still evolving, contextualizes that some mental disorders (e.g., anxiety disorders and depression) share similar etiological and maintenance processes, as well as cognitive, affective, interpersonal, and behavioral characteristics. Studies in this area focus on identifying cognitive and behavioral processes common to various disorders and on developing models of interventions aimed at these processes (Mansell et al., 2009; Silva, 2016).

According to Harvey et al. (2011), these processes can be categorized as either "descriptively transdiagnostic," meaning common processes present across a range of diagnoses, or "mechanistically transdiagnostic," reflecting a causal inter-relationship between the process and psychiatric disorders. Mechanistically transdiagnostic constructs offer insight into the underlying causes and mechanisms of a group of mental health disorders. They have important clinical implications by focusing on the central features of disturbances and guiding the development of treatments aimed at these features. For example, studies have shown that rumination contributes to the onset and persistence of a variety of emotional disorders, such as depression and anxiety, which has generated interest in the development of rumination-focused interventions (Harvey et al., 2011; Sauer-Zavala et al., 2017). Such evidence, incorporated with diagnostic heterogeneity and high prevalence of comorbidities, underpins the quest for understanding and developing treatments focused on the fundamental characteristics of mental disorders (Fusar-Poli et al., 2019; Hayes & Hofmann, 2020; Pinto, 2020).

As a dynamic field of study, numerous researchers have been pursuing a clear definition of transdiagnostic interventions. According to Sauer-Zavala et al. (2017), three main categories of treatments can be recognized as transdiagnostic, differing in terms of their focus and scope. The approach of universally applied therapeutic principles emphasizes the use of broad and general concepts and theories that can be applied to a wide spectrum of mental health conditions, such as Cognitive-Behavioral Therapy. The evidence-based modular strategies approach focuses on the utilization of specific, scientifically supported strategies for specific symptoms or disorders. The approach of targeting shared mechanisms across classes of disorders emphasizes addressing the underlying causes that are common across different mental health disorders, rather than focusing on the specific symptoms of each particular disorder.

It can be concluded that transdiagnostic interventions encompass a diverse group of treatments. These treatments can either be applied as a broad-spectrum approach to multiple disorders without being tailored to the individual "one size fits all", or they can be individualized and customized to the specific problem presentation of the individual "my size fits me" (Schaeuffele et al., 2021).

For Mansell et al. (2008) it is important to recognize that transdiagnostic approaches and disorder-specific need not be exclusive, but potentially complementary. After all, both have the potential to contribute significantly to the understanding of psychopathology and evidence-based mental health care. The transdiagnostic approach presents several methodological challenges and practical implications that need to be evaluated empirically, as well as its theoretically agreed upon framework. Establishing the clinical efficacy of transdiagnostic interventions about specific treatments becomes an essential point, mainly because we know that specific treatment for disorders has proven clinical effects and wide dissemination in academic and professional circles (Clark & Taylor, 2009).

Currently, transdiagnostic cognitive behavioral therapy (tCBT: transdiagnostic cognitive behavioral therapy) has been presented as an intervention proposal that aims to integrate the common processes of human functioning (e.g., emotion regulation) with the therapeutic strategies of conventional cognitive behavioral therapy, considered gold standard for the treatment of numerous disorders (Boswell, 2013). The main advantages of tCBT approaches refer to the possibility of offering a unique and flexible treatment to comorbidities and heterogeneous conditions, as well as allowing greater accessibility and dissemination of evidence-based practice (Almeida & Marinho, 2021).

The systematic review with meta-analysis performed by Pearl and Norton, (2017) identified that tCBT provides equally strong effects for the treatment of anxiety when compared to traditional cognitive-behavioral therapy focused on the specific diagnosis, and that comorbidity rates do not appear to affect treatment outcomes in tCBT. As well as the Unified Treatment Protocol (UP: Unified Protocol) developed by Barlow et al. (2011), which by focusing on shared transdiagnostic processes between emotional disorders,

presents results as effective as those achieved by treatments considered the gold standard for anxiety disorders.

The growing interest in this field has stimulated the development of different tCBT protocols and treatments, applied in search of empirical evidence in the clinical context, in internet-based treatments and in group interventions (Barlow et al., 2020; Bullis et al., 2015; Díaz-García et al., 2021; Talkovsky et al., 2017). Group cognitive-behavioral therapies (GCBT: group cognitive behavioral therapy) are deployed as effective strategies to increase efficiency and cost-effectiveness in treating common mental health problems. This format also makes it possible to share similar experiences that favor learning, cognitive restructuring, the search for problem solutions, engagement, and the reduction of feelings of isolation (Santana et al., 2014). The vast majority of these therapies are disorder-specific, but in recent years there has been growing interest in transdiagnostic GCBT (Kristjánsdóttir et al., 2019).

In the case study by Harris and Norton (2018), a transdiagnostic group intervention was developed for people experiencing emotional disturbances (depressive and anxiety disorders). The content of the 12-week program includes typical CBT strategies such as psychoeducation, self-monitoring, and cognitive restructuring; and the results support the feasibility and application of group tCBT by providing effective and efficient treatment, with reduced waiting time, to a range of clients with different disorders. The study carried out by (Kristjánsdóttir et al., 2019) is also worth mentioning. It showed that a low-intensity transdiagnostic GCBT treatment (6 weeks) was able to offer similar effects on general and specific symptoms of patients diagnosed with depression and/or anxiety disorders, compared to traditional GCBT. In this way, tCBT interventions in groups are postulated as a promising path for evidence-based mental health care, since by focusing on shared characteristics rather than differences, these interventions can remove dependence on diagnostic labels and reduce the list of waiting associated with specific treatments by allowing groups to be filled and performed more quickly and flexibly, thus increasing accessibility to evidence-based treatments (Harris & Norton, 2018).

However, research in the area is still limited and more research is needed to assess the effectiveness of tCBT interventions in groups compared to traditional CBT and other interventions, and a more comprehensive assessment of the factors underlying the changes is equally important (Almeida & Marinho, 2021; McEvoy et al., 2009). Therefore, the objective of this study is to provide an up-to-date review of the evidence on the effectiveness of group cognitive-behavioral transdiagnostic interventions for the adult population, compared to usual interventions or no interventions. The comprehensive nature of this review justifies the choice to examine transdiagnostic interventions for sub-clinical populations.

Methods

This systematic review was conducted in accordance with the guidelines of PRISMA statement (Preferred Reporting Items for Systematic Reviews and Meta-analyses) (Page et al., 2020). The protocol of this study is registered on the PROSPERO platform and can be accessed through the code: CRD42022299257.

This study aims to provide an up-to-date review of the evidence regarding the effectiveness of group-based cognitive-behavioral transdiagnostic interventions for the adult population, compared with usual interventions or no intervention (control/waiting list). To identify the research question, the PICO strategy was used (Moher et al., 2010): adult population (over 18 years old), what is the effect of group transdiagnostic interventions compared to alternative interventions or no intervention, is it expected effects on transdiagnostic processes focus of treatment (e.g., rumination, emotion regulation) or improvement in metrics related to mental health and well-being presented as moderators of results.

The search strategy in the electronic databases was developed jointly by the researchers after identifying the studies relevant to the research question and allowed the definition of the keywords and the search equation used in this review, namely: “transdiagnostic” OR “unified” treatment” AND “CBT” OR “Cognitive Behavior Therapy” OR “Cognitive Behavioral Therapy” AND “group therapy” OR “group treatment” OR “group intervention”. The databases chosen for consultation were PsycINFO, PubMed, and Web of Science. Scientific articles were analyzed in three screening stages, based on the title, abstract and full text, according to the inclusion and exclusion criteria.

The inclusion and exclusion criteria were defined according to the population, the design of the studies, the characteristics of the interventions evaluated, and also the characteristics of the published articles. The initial inclusion criteria were: studies conducted with adults (over 18 years of age), randomized controlled trials comparing group tCBT interventions with no intervention, in which the control condition received no intervention other than that provided for the treatment condition, or with minimal treatment (very brief or minimal intensity interventions); non-specific active control (active conditions in which no change mechanism or clear justification for treatment is provided) and specific active control (specific therapeutic mechanisms contained in a theoretical/treatment logic, e.g. mindfulness meditation therapy).

Studies comparing a group tCBT intervention to several other groups were included if they met the criteria described above; peer-reviewed articles, in Portuguese, English, or Spanish and with full text. The exclusion criteria applied to case studies were; non-randomized studies; transdiagnostic interventions that did not include CBT components (e.g., exposure or cognitive strategies); studies with unavailable data; and studies in languages other than English, Spanish, or Portuguese.

The inclusion and exclusion criteria were applied gradually, to identify and select the largest possible number of relevant studies available in the literature. The evaluation of the results according to the title and abstract allowed the removal of duplicates and studies that did not comply with the criteria mentioned above. The full text was checked whenever doubts about the eligibility of an article were raised. Studies that met the initial selection criteria were read in full and analyzed to answer the research question, quantitatively, descriptively, and with double-checking among the investigators. Disagreements were discussed with the senior author until a consensus was reached. In total, 32 studies that met all the inclusion criteria were accepted (Fig. 1—PRISMA flow diagram).

In the follow-up, the mapping of the information obtained and the classification of the studies according to the main characteristics and contributions underlying the initial question of this investigation were carried out. For this, the articles were inserted into an Excel spreadsheet, from the Microsoft Office package, with the main information about the characterization of the studies; the characterization of the participants; characterization of interventions, and characterization of metrics to assess effect size. Finally, the studies were summarized, compared, and categorized to present the results found regarding the effectiveness of group transdiagnostic cognitive-behavioral interventions.

Quality Assessment and Risk of Bias

Eligible studies were submitted to the assessment of the potential risk of bias using the Cochrane Risk of Bias Tool 2 (Cochrane Risk of Bias Tool—RoB 2). This tool consists of five domains used to assess the different types of bias that may be present in experimental studies. The above-mentioned domains are: bias in the randomization process, deviations from the intended intervention, bias due to missing data, bias in the measurement of outcomes and bias in the reporting of outcomes. For each of these domains, the risk of bias is assessed, being classified as high risk of bias, some concerns, and low risk of bias (Sterne et al., 2019). In this review, the risk of bias of the studies was evaluated and

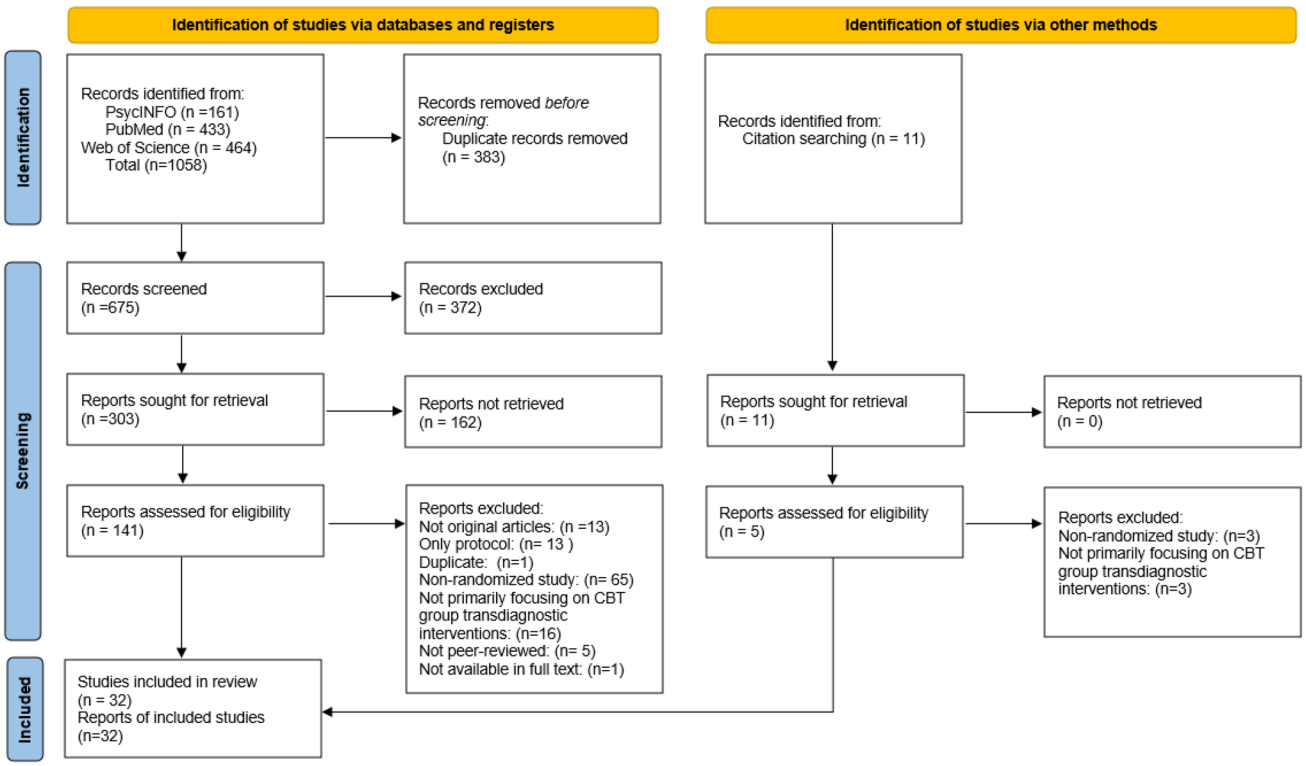

Fig. 1 PRISMA flow diagram demonstrating included and excluded studies and the reasons for exclusion in the systematic review of transdiagnostic group interventions

classified at an individual level and also at a general level. In the latter case, low risk of bias is judged (if most of the information is from studies classified as low risk of bias), some concerns (if most of the information is from low-risk and uncertain-risk studies) and high risk of bias (if the amount of high-risk information is sufficient to affect the interpretation of results) (Carvalho et al., 2013).

Results

The search strategy in the electronic databases resulted in 1058 records. After removing duplicates, titles and abstracts of 685 articles were selected. Of these, 534 were excluded, and 141 articles were read in full. One hundred and fourteen studies were rejected for the following reasons: (1) the study was based on secondary analyses of another study and provided duplicate data (n = 13); (2) consisted of protocol publications (n = 13); (3) the trials were not randomized (n = 65); (4) the transdiagnostic interventions did not present CBT components in the group (n = 16); (5) publications were not peer-reviewed (n = 5), and (6) the article was not available in full text (n = 1). There were then 27 articles left for complete analysis. In addition, another 11 studies were identified through the citations of the included articles—from these, the non-randomized (n = 3) and those that did not characterize CBT interventions in groups (n = 3) were excluded. Thus, 32 randomized clinical trials (RCTs) were analyzed for the present review, of which 27 resulted from the search of electronic databases and 5 through other methods. Figure 1 presents the flowchart that describes the inclusion of studies.

Characteristics of the Included Studies

The characteristics of the 32 studies included in this review are shown in Table 1. All of them were published between 2005 and 2022. Regarding the place of origin of the studies, the largest number of studies was carried out in Europe (43.8%, n = 14), followed by the United States of America (18.8%, n = 6), Iran (15.6%, n = 5), Australia (12.5%, n = 4), Canada (6.3%, n = 2) and Brazil (3.1%, n = 1). About treatment settings, transdiagnostic interventions were mainly deployed in outpatient clinics and public health centers (n = 16). They were also evaluated in academic research centers (n = 14), specialized clinics (n = 1), and in a therapeutic community (n = 1).

In total, 4452 participants were randomized into two conditions: tCBT transdiagnostic or control group. Most studies examined predominantly female samples (n = 29); two used exclusively male samples (Garland et al., 2016; Kananian et al., 2020); and one used a predominantly male sample (Wuthrich et al., 2016). Only 9 studies included ethnic and racial information, in which most patients identified as Caucasian. These data—female predominance and Caucasian ethnicity of the majority of patients treated in transdiagnostic interventions—point to the need for future research aimed at including a larger and more representative sample. In addition, three studies evaluated group tCBT only in samples of older adults (60–88 years) and the remainder included adults of working age over 18 years of age.

Overall, the studies analyzed tCBT interventions targeted at participants who met diagnostic criteria for anxiety, depression, and/or related disorders (n = 12); different anxiety disorders (e.g., generalized anxiety disorder, social anxiety disorder and panic disorder) (n = 5); major and residual depression (n = 2); eating disorders (n = 1); personality disorders (n = 1); and substance use disorder (n = 1). In addition, two studies applied interventions to address emotional sequelae present in medical disorders such as multiple sclerosis (n = 1) and infertility (n = 1); and there have also been studies applied to processes not classified as diagnostic in the DSM-5 (e.g., excessive worry).

The main instruments used for the diagnostic evaluation were the Anxiety Disorders Interview Program (ADIS-IV) (Brown et al., 1994), the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I) (First et al., 1996) and the Mini International Neuropsychiatric Interview (MINI) (Sheehan et al., 1998). Primary outcomes were evaluated mainly through the severity indices of the instruments mentioned above and also through measures for anxiety and depression, such as the Beck Anxiety Inventory (BAI) (Beck and Steer, 1993) and the Beck Depression Inventory (BDI) (BDI-II; Beck et al. 1996).

Most studies evaluated outcomes after the intervention (n = 13), with subsequent follow-up at 3 months (n = 6), 6 months (n = 5), 9 months (n = 2), or up to 12 months after completion of the intervention (n = 5). Only one study reported outcome data after 1 month of intervention. Results were primarily evaluated based on the effect sizes of estimated means, and observed means, and derived from intent-to-treat data (computed using different methods such as mixed effects, baseline, or last-observation methods). Adherence to group transdiagnostic CBT, expressed as the number of participants who completed the prescribed number of modules within the established number of weeks, was described by only 11 studies, with considerable variations between interventions. Only 10 studies used standardized metrics to assess treatment integrity; the other studies only indicated the performance of supervision, training, and the use of clinical manuals as indicators of integrity. Future research should examine the effects of treatments supported by integrity and adherence measures.

Table 1 Characteristics of studies included in the systematic review

Study	Country	N°	Participants	Intervention place	% F	Mean age ± SD	Intervention		Group format	Therapists and experience	Primary outcome measures	Design
							Treatment	Control				
Osma et al. (2022)	Spain	488	Anxiety, depression and related disorders	Health centers (primary care)	UP: 79.2% TAU:78.0%	UP 42.76 ± 11.61 TAU 42.45 ± 13.1	UP 12 weeks (120 min) 8 modules	TAU - CBT individual non-protocol + pharmacotherapy (30–40 min)	8–10 Participants 2 clinicians (therapist and co-therapist)	Psychologists licensed (8 a 10 years) Psychology residents (2 a 4 years)	ADIS-IV-L; NEO-FFI, PANAS, BDI-II, ODSIS,BAI,OASIS, QLI	RCT, pre–post (3 months), 6 e 9 months follow-up
Roberge et al. (2020)	Canada	231	Anxiety Disorders (GAD, SAD, PD, agoraphobia)	Community (primary care)	85.7%	tCBT+ TAU 37.8 ± 12.2 TAU 36.2 ± 11.8	tCBT+ TAU 12 weeks (120 min)	TAU (conventional therapy and/or pharmacotherapy) Unrestricted	8–10 Participants 2 Clinicians(therapist and co-therapist)	Psychologists with Ph.D. (min 2 years of experience)	ADIS-5, BAI, HPQ	RCT, pre–post, 8 and 12 months of follow-up
Zemestani et al. (2017)	Iran	43	Mood disorders and anxiety	Students	67.4%	22.8 ± 3.6	UP 14 weeks (90 min)	Waitlist	Data not provided 2 Therapists	Psychologist's doctoral candidates with CBT experience	ADIS-IV, SCID -I, BDI-II, BAI, ERQ	RCT, pre–post with 3 months of follow-up
Garland et al. (2016)	USA	180	Psychiatric disorders + substance use	Therapeutic withmunity	0%	MORE 37.7 ± 10.4CBT 36.5 ± 11.2TAU 38.7 ± 9.8	MORE 10 sessions (120 min)	TAU (120 min per day) CBT 10 sessions(120 min)	6–12 Participants 1 Therapist each group	Clinical social worker (MORE), clinicians (CBT and TAU), both master level	ADIS-IV, MINI, Histórico of traumas, PACS, PCL-C, BSI, PANAS, *Mindfulness Questionnaire*	RCT, pre–post
Wuthrich et al. (2016)	Australia	133	Elderly, anxiety disorders and depression	University clinic	CBT 32.8% Discussion Group 22.6%	67.35 ± 5.44 60–88 years	Aging Wisely 12 weeks - 1 interval (120 min)	Non-Directed Discussion Group12 weeks - 1 interval (120 min)	6–8 Participants(therapists)	Students Clinical psychology	ADIS-IV, MMSE, GDS, GAI ,WHOQOL-BRE	RCT; pre–post with 6 months of follow-up
Norton (2012)	USA	87	Anxiety disorders	University clinic	62.06%	32.98 ±10.73	tCBT 12 weeks (120 min)	RLX 12 weeks (120 min)	Data not provided	Students at doctoral level	ADIS-IV, STAI, ADDQ, BAI, PDSS, SPDQ, GAD-Q-IV	RCT, pre–post
Reinholt et al. (2022)	Denmark	291	Major depression, SAD, PD and/or agoraphobia	Outpatient services	64.60%	32.22 ± 11.0	UP 14 weeks (120 min) 8 modules	Groups dCBT 14 weeks (120 min)	8 Participants 2 Therapists	Psychologists licensed and psychotherapists with media of 8.8 years of experience	MINI, WHO-5	RCT, pre–post with 6 months of follow-up
Cano-Vinofl et al. (2021)	Spain	1061	Symptoms of depression, anxiety and/or somatoform	Health centers (primary care)	81.1%	43.6 ± 12.3	TD-GCBT+TAU 7 sessions (90 min, 12-14 weeks	TAU regular consultations with medical doctors	8–10 Participants 1 Psychologist	Experienced and trained clinical psychologists	PHQ, GAD-7, PHQ-9, PHQ-15	RCT, pre–post, 3, 6 e 12 months of follow-up

Table 1 (continued)

Study	Country	N°	Participants	Intervention place	% F	Mean age ± SD	Intervention		Group format	Therapists and experience	Primary outcome measures	Design
							Treatment	Control				
Wuthrich & Rapee (2013)	Australia	62	Elderly, mixed depression and anxiety	University clinic	Aging Wisely 66.66% Waitlist 62.86%	67.44 ± 6.19	*Aging Wisely* 12 weeks (120min)	Waitlist	6–8 Participants(therapist and co-therapist)	Psychologists and students of graduate clinical psychology	ADIS-IV, ACE-R, GDS, CES-D, GAI, PSWQ, SF12 .	RCT, pre–post e 3 months of follow-up
Nazari et al. (2020)	Iran	64	Multiple sclerosis with mixed anxiety and depression	Hospital clinic	100%	35.13 ± 5.28	UP 14 sessions weeks (120 min)	social support intervention - 14 sessions (120min)	Data not provided	Data not provided	SCID I–IV, HADS, OFRS	RCT, pre–post e 3 months of follow-up
Mohammadi et al. (2013)	Iran	33	Symptoms of anxiety and depression	University students	75,8%	22.6 ± 3.1	UP adapted 8 sessions weeks (120 min)	dCBT 8 Sessions weeks (120 min)	Data not provided	Data not provided	ADIS-IV, DASS, WSAS	RCT, pre–post
Schmidt et al. (2012)	USA	96	PD, PAS and/or GAD	University ambulatory	72%	36.3 ± 10.7	F-SET 10 sessions weeks (120min)	Waitlist	Data not provided 1 Therapist	Ph.D. therapist and students of post-graduation in clinical psychology (1 to 2 years)	SCID-NP; ASI, BDI-II, MI, DIS, SPRAS, CGI	RCT, pre–post with 6 months follow-up
Neacsiu et al. (2014)	USA	48	Emotional dysregulation and symptoms of depression and/or anxiety	University Centre	DBT (68.2% ASG 63.6%	DBT 32.27 ± 10.50ASG 38.82 ± 13.55	DBT-ST 16 sessions weeks (120 min)	ASG - activity-based support 16 sessions weeks (120 min)	open and continuous groups therapist and co-therapist	Masters level therapists and bachelor assistant (both 3 years)	SCID-I;, OFRS, DBT-WCCL, PHQ-9, OASIS	RCT, pre–post with 6 months of follow-up
Berking et al. (2019)	Germany	218	Major depression and comorbidities	Outpatient services	64.2%	38.9 ± 12.7	ART 6 weeks (180 min)	CFC Waitlist	4–8 Participants	Psychologists at the master's level	SCID-IV, HRSD, BDI-I	RCT, pre–post
Korrelboom et al. (2011)	Netherlands	91	Personality disorders	Specialized psychiatric center	84%	36.1 ± 8.7	COMET + TAU 7 sessions weeks (120 min)	TAU continuous regular therapy	5–9 Participants	Psychologists clinicians e nurses	DSM-IV-TR, RSES, BDI, POS	RCT, pre–post with 3 months of follow-up
Norton Barreira et al. (2012)	USA	46	PD, GAD and/or SAD	University clinic	50%	31.6 ± 8.93	tCBT 12 sessions weeks (120min)	dCBT 12 sessions weeks (120min)	Data not provided therapist and co-therapist	Students of graduate level of doctorate	ADIS-IV, STAI, PDSS, SPDQ, GADQ-IV, BDI	RCT; pré - durante e pós Treatment.

Table 1 (continued)

Study	Country	N°	Participants	Intervention place	% F	Mean age ± SD	Intervention		Group format	Therapists and experience	Primary outcome measures	Design
							Treatment	Control				
Ejeby et al. (2014)	Sweden	245	Anxiety, depression, stress and somatoform	Health centers (primary care)	MMI 85% CBT 75%TAU 82.7%	MMI 44.3±9.5TCC 43.3±10.3CAU 45.6±9.5	MMI 6 sessions 2× por week (150 min)	CBT 12 weeks (120 min) CAUGP appointments	Data not provided therapists and co-therapists	Psychologists' clinicians licensed and nurses	ADIS-IV, MCS of SF-36	RCT; pre–post with 12 months of follow-up
Wade et al. (2017)	Australia	40	Eating disorders	University outpatient clinic	100%	23.9 ± 5	CBT-E 18 sessions weeks (120 min) + 2 sessions individuals (50 min)	Waitlist	Data not provided 2–3 Clinicians	Psychologists clinicians *trainee*	MINI, EOF-Q 6.0, RSES, CPQ, TOMS, IIP-32	RCT, pre–post with 3 months of follow-up
Chen et al. (2013).	Australia	49	Excessive worry	Community adults	77.6%	BAW 36.48 ± 12.30Waitlist 42.17 ± 13.11	BAW 8 sessions	Waitlist	5–7 Participants therapist and co-therapist	Psychologists and psychologists *trainee*	CBAS, IUS, SPSI-R:S	RCT; pre–post with 1 month of follow-up
Kananian et al. (2020)	Germany	24	Refugees, PTSD, depression, anxiety and/or somatoform disorder	University outpatient clinic	0%	22.1± 13.6	CA-CBT+ 6 weeks (90 min)	Waitlist	data not provided therapist and co-therapist	Therapists	MINI, GHQ-28, PCL-5, PHQ-9, SSS-8, WHOQOL-BREF, ERS.	RCT; pre–post with 12 months of follow-up
Corpas et al. (2021)	Spain	105	Depression, anxiety and/or somatoform	health centers (primary care)	68.6%	39.6±11.2	UP brief adapted 8 weeks (60 min) 8 modules	TAU pharmacotherapy	8–12 Participants	Clinical psychologists	SCID-5, GAD-7, PHQ-15, PHQ-PD, PHQ-9	RCT, pre–post
Ekkers et al. (2011)	Netherlands	93	Elderly, major depressive disorder and comorbidities	Outpatients	TAU+COMET 71.6% TAU 85%	TAU + COMET 71.8 ± 5.8 TAU 73.9 ± 5.7	COMET + TAU 7 sessions weeks (90 min)	TAU pharmacotherapy + usual therapies	6–8 Participants 2 Therapists	Trained CBT therapists	DSM-IV-TR, QIDS-SR, GDS, RRS, RSS	RCT; pre–post

Table 1 (continued)

Study	Country	N°	Participants	Intervention place	% F	Mean age ± SD	Intervention		Group format	Therapists and experience	Primary outcome measures	Design
							Treatment	Control				
Amirpour et al. (2018)	Iran	30	Symptoms of sub-clinical paranoia	University students/ non-clinical population university outpatient clinic	100%	tCBT - UP 26.4 years Waitlist 28.7 years	tCBT - UP 10 sessions (2× por week)	Waitlist	Data not provided 1 therapist	Trainer with experience in CBT	SCID-I, PS, WSAS	RCT, pre–post
Rogiers et al. (2022)	Belgium	80	Major depression and/or GAD	University outpatient clinic	RNT-G 66.66% DTCG 65.71%	RNT-G 41.5 ± 12.1 DTCG 43.7 ± 10.9	RNT-G 7 sessions weeks (90 min) + 1 after 1 month	Treatment Late	Data not provided 2 therapists	Psychologist and senior psychiatrist	MINI; PSWQ, LARSS, PTQ, MCV, CFQ-13, PRISM	RCT, pre–post with 3 e 9 months of follow-up
De Ornelas et al. (2017)	Brazil	48	Unipolar depression and GAD	University outpatient clinic	81.3%	Data not provided	UP -14 sessions weeks (120 min) 8 modules	Pharmacotherapy	8 Participants	Therapists (unspecified)	M.I.N.I, BAI, BDI, ASEX, WHOQOL - BREF	RCT, pre–post
Corpas et al. (2021)	Spain	102	Depression, GAD, PD and somatoform.	Health centers (primary care)	PBG 88.20%PBI 91.20%TAU 85.30%	38.50 ± 12.20	UPG 8 group sessions weeks UPI 8 sessions weeks, individuals.	TAUpharmacotherapy	PBG - 10 participants	Clinical psychologists	SCID - 5, PHQ-15, PHQ-9, PHQ-PD, GAD-7, STAI, BDI-II, BSI-18	RCT, pre–post
Mousavi et al. (2019)	Iran	45	Infertility + symptoms of depression and anxiety	Outpatient services	100%	47% -34 years 53% entre 35–44 years	UP 10 sessions weeks (120 min) MBSR 8 sessions weeks (120 min)	Waitlist	Data not provided 15 participants each group	Psychologist	SCID-I, SCID-II, BAI, BDI-II	RCT, pre–post with 3 months of follow-up
Norton et al. (2005)	USA	23	Anxiety disorders	University clinic	60.9%	39.58 ± 11.88	tCBT 12 sessions weeks (150min)	Waitlist	Data not provided	Therapists	ADIS-IV, CSR, DASS, MASQ	RCT, pre–post
Erickson et al. (2007)	Canada	152	Anxiety disorders	Outpatient services	GCBT 62%Waitlist 66%	GCBT 40.7 ± 11.8 Waitlist 41.0 ± 11.1	GCBT 11 sessions weeks (120 min)	Waitlist	9–13 Participants 2 Líderes	Senior psychologist doctoral student + clinical psychology student	SCID-IV, BAI, BDI-II, GAF	RCT, pre–post
Hvenegaard et al. (2020)	Denmark	131	Depression *major*	Outpatient services	RFCBT71%CBT 82%	RFCBT 39.8 ± 13.7	RFCBT 11 sessions weeks (180 min)	dCBT 11 sessions weeks (180 min)	Data not provided	Trained CBT therapists with an average of 9 years' experience	M.I.N.I, HRSD,	RCT; pre–post with 6 months of follow-up

Table 1 (continued)

Study	Country	Nº	Participants	Intervention place	% F	Mean age ± SD	Intervention		Group format	Therapists and experience	Primary outcome measures	Design
							Treatment	Control				
Korrelboom et al. (2009)	Netherlands	53	Eating disorders	Outpatient services	100%	WITHET 25.5 ± 5.3 TAU 25.4 ± 5.7	WITHET+TAU 7 sessions weeks (90 min)	TAU (regular group or individual consultations based on CBT)	6–8 Participants Therapist and co-therapist	Clinical psychologist with experience and an art therapist (co-therapist)	RSES, BDI, EDI-II	RCT; pre–post
Teismann et al. (2014)	Germany	60	Depression residual	University clinic	CBT-DR 71.0% Waitlist 72.4%	CBT-DR 47.58 ± 27.11 Waitlist 46.62 ± 12.47	CBT-DR 11 sessions weeks	Waitlist	6 Participants 2 Therapists	CBT-trained clinical psychologists (3 to 6 years)	SCID-I, BDI-II, PTQ, RSQ-B, PBRS,	RCT, pre–post with 12 months of follow-up

Countryes: USA = Estados Unidos da América. Participants: PAG = Perturbação da Ansiedade Generalizada, PAS = Perturbação da Ansiedade Social, PP= Perturbação of Pânico. Intervenções: UP = unified protocol, CBT = cognitive behaviour therapy, TAU = treatment-as-usual, tCBT= transdiagnostic group cognitive-behavioral therapy, MORE = mindfulness-oriented recovery enhancement, RLX = relaxation training program, dCBT = diagnosis-specific cognitive-Behavioral therapy, TD-GCBT = transdiagnostic group cognitive behavioural therapy, F-SET=false safety behaviour elimination therapy, DBT-ST=dialectical behavior therapy skills training, ASG=activities-based support group, ART=Affect Regulation Training, CFC=controlling for common factors (CFC), WITHET= Competitive Memory Training, MMI= multimodal intervention, CBT-E= enhanced cognitive behavioral treatment, BAW=behavioural activation treatment for worry, CA-CBT+= Culturally Adapted Cognitive Behavioral Therapy Plus Problem Management, RNT-G=Repetitive negative thinking group. Summary of results: ADIS-IV-L: Anxiety Disorders Interview Schedule for DSM-IV-Lifetime Version, NEO-FFI=NEO Five-Factor Inventory, PANAS=Positive and Negative Affect Schedule, BDI-II: Beck Depression Inventory-II, ODSIS: Overall Depression Severity and Impairment Scale, BAI:Beck Anxiety Inventory, OASIS: Overall Anxiety Severity and Impairment Scale, QLI:Quality of Life, ADIS-5:Anxiety and Related Disorders Interview Schedule for DSM-5, HPQ: World Health Organization Health and Work Performance Questionnaire, ERQ: Emotion Regulation Questionnaire, SCID-I: Structured Clinical Interview for DSM-IV Axis I Disorders; PACS: Penn Alcohol Craving Scale, PCL-C: Checklist-Civilian version; BSI: Brief Symptom Inventory, ADIS: Anxiety Disorders Interview Schedule for DSM-IV, MMSE: Mini Mental State Examination – Revised, GDS: Geriatric Depression Scale, GAI: Geriatric Anxiety Inventory, WHOQOL-BRE: World Health Organization quality of life measure brief, STAI: State-Trait Anxiety Inventory-State Version, ADDQ: Anxiety Disorder Diagnostic Questionnaire, PDSS: Panic Disorder Severity Scale, SPDQ: Social Phobia Diagnostic Questionnaire, GAD-Q-IV: Generalized Anxiety Disorder Questionnaire for DSM-IV, WHO-5: World Health Organization 5 Well-Being, PHQ: Patient health questionnaire, GAD-7: Generalized Anxiety Disorder 7 scale, PHQ-9: Patient Health Questionnaire for depression, PHQ 15: Patient Health Questionnaire of somatic symptoms subscale, ACE-R: Addenbrooke Cognitive Examination-Revised, CES-D: Centre for Epidemiological Studies e Depression Scale, SF12: Short Form e 12 version 1 Mental Health Subscale, SCID I–IV: Structured Clinical Interview for DSM-IV Axis I Disorders, HADS: Hospital anxiety and depression scale; OFRS:Difficulties in Emotion Regulation Scale, DASS: Depression, Anxiety, and Stress Scale, WSAS: Work and Social Adjustment Scale, ASI: Anxiety Sensitivity MI: mobility Inventory, DIS: Sheehan Disability Scale, SPRAS: Sheehan Patient-Rated Anxiety Scale, CGI: Clinical Global Impressions Scale, SCID-NP: Structured Clinical Interview for Axis I DSM-IV Disorders, DBT-WCCL: DBT Ways of Coping Checklist, HRSD: Hamilton Rating Scale for Depression, RSES: Rosenberg Self-Esteem Scale, POS: Positive Outcome Scale, DSM-IV-TR: fourth edition of the Diagnostic and Statistical Manual of Mental Disorders; MCS of SF-36: Mental component Summary (MCS) score of short form 36, EDQ-6.0: Eating disorder examination questionnaire; CPQ: Clinical perfectionism questionnaire; TOMS: Tolerance of mood states scale, IIP-32: Inventory of interpersonal problems, CBAS: Cognitive-Behavioural Avoidance Scale, IUS: Intolerance of Uncertainty Scale, SPSI-R:S: Social Problem Solving Inventory-Revised Short Form, GHQ-38: General Psychological Well-Being, SSS: Somatic Symptom Scale, QIDSSR: Quick Inventory of Depressive Symptomatology-Self Report, RRS: Ruminative Response Scale, RSS: Rumination on Sadness Scale, PS: Paranoia Scale, WSAS:Work and Social Adjustment Scale; PTQ: Perseverative Thinking Questionnaire, MCV: Metacognitive questionnaire, CFQ-13: Cognitive Fusion Questionnaire, PRISM: Pictorial Representation of Illness and Self Measure, ASEX: Arizona Sexual Experience Scale; M.I.N.I: MINI - 5.0: Mini International Neuropsychiatric Interview, PHQ-PD: Patient Health Questionnaire-Panic Disorder, CSR: Clinician Severity Ratings, a component of the ADIS-IV, MASQ: Mood and Anxiety Symptom Questionnaire

Fig. 2 Risk of Bias Summary of the included studies (Cochrane Risk of Bias Tool 2)

Risk of Bias and Study Quality

The risks of bias of the 32 included studies were assessed using the Cochrane RoB 2.0. Figure 2 presents the details of the risk of bias assessment for the 32 included studies. Primary outcomes related to mental health, and psychological well-being metrics were the focus of this assessment. Furthermore, to ensure that the results presented in the

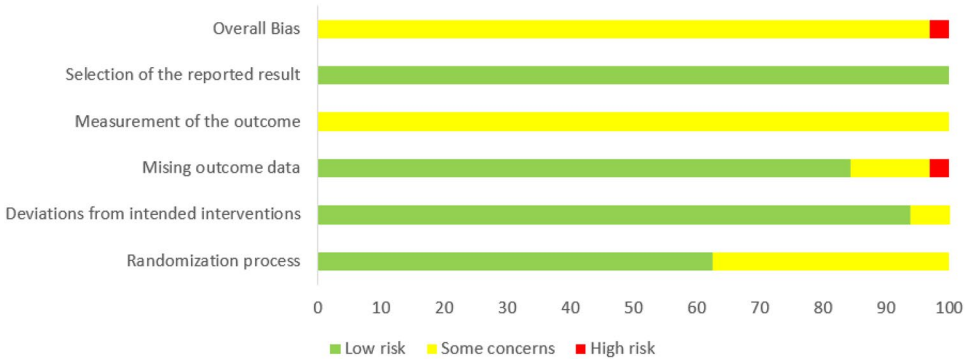

Fig. 3 Risk of Bias Graph of the included studies (Cochrane Risk of Bias Tool 2)

studies are attributed to the interventions carried out and not to extrinsic factors, the "intention to treat" (ITT) strategy was used. This strategy aims to minimize the risk of bias in the evaluation of results, taking into account factors such as participant dropout or group changes.

Regarding randomization bias, twelve studies were characterized as "some concern" for not providing sufficient information about the allocation blinding process. For the domain of intended interventions, 30 RCTs were assessed as "low risk of bias", considering the impossibility of blinding participants or treatment providers in the evaluated interventions and the fact that no serious flaws pointing to possible deviations from the intended interventions were found. Only two studies were classified as having "some concerns" due to the lack of information regarding this domain.

"Low risk of bias" was found for missing data in most studies, as the researchers employed adequate techniques to deal with missing data, and comparison between groups did not show significant differences between these data. Only four studies were characterized by "some concerns", for not sufficiently detailing this information. In this domain, a single study (Chen et al., 2013) was classified as "high risk of bias", because data from the control condition were lost on two important assessment measures, possibly affecting the results.

For the domain related to outcome measurement, most studies used self-report scales as an outcome measure, a practice widely used in psychometrics. For this reason, the domain "some concerns" was considered for studies in which self-report scales were appropriate, disregarding the automatic "high risk" assessment performed by the RoB 2.0 tool algorithm.

In the domain referring to the description of the results, the possibility of comparing the results of the studies with previously published protocols and the consistency between the methods of statistical analysis and the results presented allowed the classification of the studies as "low risk of bias". Figure 3 presents the overall of the risk of bias assessment for the included studies.

Characteristics of Control/Comparison Conditions

Most included studies compared treatment groups with non-active control conditions, such as waiting lists (n = 11). Eight studies used specific active controls such as disorder-specific (dCBT) a variation of CBT that is tailored specifically to treat a particular mental health condition, such as depression, anxiety, or obsessive–compulsive disorder; (n = 4), relaxation training (n = 1), discussion group (n = 1), social support group (n = 1) and activity-based support group (n = 1). Seven studies used usual care (TAU) control conditions such as psychotherapy and medical consultations with/without pharmacological interventions. Additionally, five studies compared two types of interventions: Mindfulness-Oriented Recovery Enhancement (MORE) versus Cognitive Behavioural Therapy (CBT), Affect Regulation Training (ART) versus a Common Factor Control Condition (CFC), Multi-Modal Intervention (MMI) versus CBT, individual Unified Protocol (UP) versus group UP, and Mindfulness-Based Stress Reduction Program (MBSR) versus UP with some control conditions (waiting list or TAU). Finally, one study used only pharmacological intervention (antidepressants and/or anxiolytics) as a control condition.

Characteristics of tCBT Interventions in Groups

Most transdiagnostic CBT interventions aimed to address common processes across various disorders, resulting in a "one size fits all" approach to treatment. The number of modules ranged from 6 to 16 and most studies contained around 12 modules. The duration of the intervention ranged from 6 to 14 weeks. Since most of the interventions in the RCTs were guided by psychologists—except for two that were guided by nurses and social workers—the therapists' experience ranged from supervised students to experienced psychologists.

Summary of Results

It was not possible to perform a statistical summary of the outcome variables due to the heterogeneity of measures and methods. Consequently, the present review focused on narrative synthesis. The effectiveness of the interventions was categorized based on their objectives and effects on primary and secondary outcomes and is presented below.

tCBT Interventions for Comorbid Anxiety and Depression Disorder/Symptoms

Eleven randomized clinical trials (RCTs) evaluated the Unified Protocol (UP) for the transdiagnostic treatment of emotional disorders. Barlow et al. (2011) developed the Unified Protocol to treat emotional disorders, which comprise a group of conditions that share common mechanisms of onset and maintenance. These disorders are characterized by heightened emotionality, negative reactions to emotions, and efforts to reduce their intensity. Examples of emotional disorders include anxiety and depressive disorders, eating disorders, borderline personality disorder, and somatic symptom disorders (Bullis et al., 2019).

Three studies compared group the UP with dCBT (Mohammadi et al., 2013; Osma et al., 2022; Reinholt et al., 2022). Osma et al. (2022) evaluated the effect of the UP intervention in public mental health facilities in Spain compared to usual care (TAU: specific CBT applied in an individual format). Results from the 488 participants indicated significant improvements in measures of depression, anxiety and quality of life for both conditions, except for extraversion in the TAU. Improvements were greatest in the UP condition, which also produced reductions in neuroticism and negative affect, supporting the idea that the UP is a useful intervention for dealing with emotional dysregulation. After treatment, improvements were maintained during subsequent follow-ups (6 and 9 months) across all study outcomes. It is important to note that even though most participants in the UP condition (92.86%) did not receive any additional treatment during the follow-up periods (6 and 9 months after the start of treatment), the changes were still sustained.

The effectiveness of the UP compared to dCBT applied in a specific group format was evaluated by Reinholt et al. (2022) in a sample of 291 outpatients from the mental health service in Denmark. The results indicated that the UP group was not inferior to dCBT regarding acute-phase well-being and symptom outcomes for patients with major depressive disorder, social anxiety disorder, panic disorder, or agoraphobia. After a 6-month treatment period, dCBT was found to have a statistically significant advantage over UP. However, the difference in effectiveness between UP and dCBT was not significant enough to establish that UP was inferior to dCBT by a margin of at least 9 WHO-5 points. Results for the long-term effect of the UP group about dCBT on subjective well-being were inconclusive and need further investigation. In addition, at the end of treatment, 53 participants (50%) in the UP group and 47 (50%) in the dCBT group achieved remission from their principal diagnosis, while 39 (40%) in the UP group and 39 (42%) in the dCBT group achieved remission from any diagnosis, whether principal or comorbid. These results coincide with the study carried out by Mohammadi et al. (2013) who compared an adapted version of the UP with group dCBT in university students ($n = 33$). The post-test results of the two groups showed no significant differences, except for measures of anxiety, which were higher in the UP group.

Two studies compared the UP with other active interventions: the Mindfulness-Based Stress Reduction Program (MBSR) (Mousavi et al., 2019) and social support intervention (TAU) (Nazari et al., 2020). Mousavi et al. (2019) found similar results between the UP and MBSR in reducing symptoms of anxiety and depression in women receiving in vitro fertilization (IVF) compared with a control (waiting list) group. Reported in the results was a significant reduction in symptoms of depression and general anxiety across various stages of pre-test, post-test, and follow-up (3 months), with an increasing trend observed in the control group ($p < 0.05$). The results suggest that the UP and MBSR interventions were effective in reducing measures of depression and anxiety when implemented with infertile women. Nazari et al. (2020) found that the UP significantly improved depression, anxiety, positive and negative affect, emotion regulation, and worry scale scores compared to TAU in women with Multiple Sclerosis. In addition, treatment gains were maintained at the three-month follow-up and the participants showed a high degree of adherence to the treatment protocol, which was well-tolerated. In the UP group, 90% of the participants completed all treatment sessions and filled out all measures at both post-treatment and follow-up.

Two studies compared the UP with TAUs based on pharmacological interventions (Corpas et al., 2022; de Ornelas et al., 2017). Ornelas et al. (2017) investigated changes in quality of life and sexual functioning of 48 patients with unipolar depressive disorder and anxiety disorders allocated to receive the UP or TAU treatment (anxiolytics and/or antidepressants). Results indicated significant improvements in quality of life, anxiety, and depression among participants treated with the UP, with an improvement in sexual functioning also observed.

In the study by Corpas et al. (2022), a brief, group-adapted the UP intervention was more effective than medication (anxiolytics and/or antidepressants) in reducing all clinical symptoms ($p = 0.007$ for generalized anxiety; $p = 0.000$ for somatization; $p = 0.000$ for panic disorder; $p = 0.041$ for depression) and in the emotional modification of regulation strategies and cognitive processes, with moderate/high effect

sizes. In addition, it was found that these variables acted as predictors of therapeutic change.

Corpas et al. (2021) conducted a study to assess the effectiveness of a group-format brief Unified Protocol (UP) intervention and an individual-format brief UP intervention compared to treatment as usual (TAU) with anxiolytics and/or antidepressants. The study included patients with mild to moderate emotional disturbances, excluding severe mental disorders, severe depression (as measured by Patient Health Questionnaire PHQ-9 scores ≥ 20), severe anxiety (as measured by General Anxiety Disorders GAD-7 scores ≥ 15), recent suicide attempts, substance use disorders, and intellectual disability. The study had a sample size of 102 participants.

Participants were assessed before and after the interventions, and results indicated that both brief individual psychotherapy and brief group psychotherapy demonstrated a significant decrease in all symptoms of emotional disorders (EDs) in both per protocol and intention-to-treat analyses. In contrast, treatment as usual (TAU) only resulted in a significant reduction in depressive symptoms.

A study by Zemestani et al. (2017) compared the Unified Protocol with a waiting list control group. The sample comprised 43 participants with comorbid depression and anxiety symptoms, and the study demonstrated that the UP has the potential to reduce these symptoms while improving the use of effective emotion regulation strategies over three months. These results suggest that UP may be a valuable group treatment option for individuals with comorbid depressive and anxiety symptoms. However, further studies with a larger sample size and an active control group are necessary to confirm these promising initial findings.

Two studies assessed emotional distress through other tCBT interventions. Cano-Vindel et al. (2021) investigated a total of 1061 adults in 22 primary care centers in Spain allocated to group tCBT treatment or regular consultations (TAU). Post-treatment outcomes were significantly better in the tCBT group compared to TAU (anxiety: $p < 0.001$; depression: $p < 0.00$; somatic symptoms: $p < 1; 0.001$). The tCBT group also had significantly better outcomes in the domains of functioning and quality of life, with sustained improvement at 12-month follow-up. In the study by Ejeby et al. (2014) two group interventions were compared with usual care (CAU) in primary care. Patients ($n = 278$) diagnosed with anxiety, depression, or related disorders were randomized to CAU, group dCBT administered by psychologists, or Multi-Modal Intervention (MMI). The MMI group was based on a protocol comprising a mix of existing group interventions and exercises borrowed from multiple techniques and therapeutic schools and administered by assistant nurses with brief training. The results indicated that MMI and CBT were more effective than CAU in improving patients' quality of life, supporting the idea that transdiagnostic group treatment can be effective for patients with common mental disorders when performed in a primary care setting.

Two studies evaluated the effectiveness of a group tCBT program designed to treat comorbid anxiety and depression in older adults, Aging Wisely. Wuthrich and Rapee (2013) evaluated the effectiveness of Aging Wisely compared to a waiting list in adults over the age of 60 years ($n = 62$). The results of the analysis showed that the treatment condition had a significantly higher primary disorder recovery rate at post-treatment, with 53% of participants showing recovery compared to 11% in the waitlist condition. Furthermore, this recovery rate was maintained and increased to 67% at the three-month follow-up. Additionally, the tCBT group had significantly greater reductions in symptoms of anxiety and depression compared to the waitlist group. However, there were no significant differences between the two groups in measures of worry and well-being.

The program was also evaluated against a discussion group (Wuthrich et al., 2016), where 133 elderly participants diagnosed with unipolar depression and/or anxiety were randomly allocated to the Aging Wisely group or a discussion group. Participants were assessed pre-post and at a 6-month follow-up. Both conditions resulted in significant improvements over time in all diagnoses, symptoms, and measures of well-being. The recovery rate for CBT was sustained at 46% at 6 months follow-up, while the recovery rate for the discussion group improved to 36%, resulting in no significant differences between the groups.

Group tCBT Interventions for Anxiety Disorders

In the study by Erickson et al. (2007), a unique protocol based on CBT techniques was developed to treat patients with different anxiety disorders in the same group. In total, 152 patients with different disorders (e.g., generalized anxiety disorder, social anxiety disorder, panic disorder and agoraphobia) were randomly assigned to immediate treatment (CBT—11 weeks) or to a control group (waiting list). The Beck Anxiety Inventory (BAI) was applied and the results showed significant improvements for the tCBT group, defined as a 20% or 40% improvement. Reductions in BAI scores continued at follow-up (6 months). As a result, a group cognitive-behavioral therapy (CBT) protocol for mixed anxiety disorders could potentially provide more accessible and effective treatment options.

Norton and Hope (2005) also developed a tCBT program for anxiety disorders, characterized by focusing on common features among anxiety disorders rather than their specific diagnoses. In this first RCT, 23 participants were randomly assigned to immediate treatment (tCBT in group—12 weeks) or control group (waiting list). At the end of the treatment, six out of nine participants no longer met the criteria for a

clinically significant anxiety disorder diagnosis. In contrast, none of the waitlist control participants experienced spontaneous remission of their symptoms to sub-clinical levels. Although the results were preliminary and based on a small sample, they supported the effectiveness of tCBT in measures of anxiety and fear prevention. However, the results were less favorable for tCBT on measures of self-reported anxiety and negative affect.

Norton and Hope's (2005) tCBT intervention was also compared with other active interventions such as relaxation training (Norton, 2012) and dCBT (Norton & Barrera, 2012). In the RCT conducted to examine the effectiveness of tCBT for anxiety (12 weeks) compared to relaxation training (12 weeks), results from the 87 participants suggested significant and statistically equivalent/non-inferior improvements across all conditions. Although relaxation was associated with a higher dropout rate, no differences in treatment credibility were reported between the groups. No evidence was found for any differential effects of tCBT for any primary or comorbid diagnoses (Norton, 2012).

Norton and Barrera (2012) evaluated the efficacy of tCBT (12 weeks) compared to dCBT protocols considering the gold standard for anxiety disorders (generalized anxiety disorder, social anxiety disorder and panic disorder). Preliminary results from the 46 participants suggested equivalent improvements between CBT-specific and transdiagnostic conditions, and no difference in treatment credibility. In the study by Roberge et al. (2020), 231 participants who met the criteria for anxiety disorders were randomized to group tCBT or TAU from Canadian public health services (e.g., psychotherapy and/or psychotropic medication), both groups continued on TAU. Results from mixed-effects regression models showed superior improvement post-treatment for participants on tCBT + TAU compared to TAU for measures of anxiety (BAI, $p < 0.001$) and depression (ADIS-p, < 0.001).

tCBT Interventions for Other Disorders

The study by Wade et al. (2017) evaluated the effectiveness of an enhanced cognitive-behavioral treatment for eating disorders (CBT-E) adapted to a group format. In total, 40 participants with different eating disorders were randomized to CBT-E or control (waiting list) condition. Global Eating Disorder Examination Questionnaire (EDE-Q) scores, Body Mass Index (BMI), and measures of Clinical Perfectionism, Self-esteem, Interpersonal Difficulties, and Mood Intolerance were measured during treatment and at follow-up (3 months). According to the authors, a good result (a Global EDE-Q within 1 SD of Australian community norms plus BMI ≥ 18.5) was achieved by 67.9% of those who completed the treatment, 66.7% of the total sample on the EDE-Q, and significant reductions in clinical perfectionism, self-esteem, interpersonal difficulties, and mood intolerance were also observed.

In the randomized clinical trial performed by Garland et al. (2016), the Mindfulness-Oriented Recovery Enhancement (MORE) intervention was compared with a dCBT group and with TAU for formerly homeless men residing in a therapeutic community. MORE combines the complementary aspects of mindfulness training, CBT, and positive psychology to form a unified treatment plan. It sets itself apart from other mindfulness-based interventions by incorporating structured mindfulness meditation, as well as strategies for cognitive reappraisal and enhancing positive experiences (Hanley & Garland, 2021). Study participants had psychiatric disorders with concomitant substance use, in addition to extensive trauma histories. Study results indicated that from pre- to post-treatment, MORE was associated with modest but significantly greater improvements in substance craving, post-traumatic stress, and negative affect than CBT, and greater improvements in post-treatment stress traumatic and positive affect than the TAU.

In their study, Amirpour et al. (2018) assessed the effectiveness of adapting the Unified Protocol (UP) for reducing subclinical symptoms of paranoia in a group of 30 university students. The study evaluated the impact of the intervention on individuals' mental and social performance by assessing paranoid thoughts and their effects before and after the therapy, using the Paranoid Scale and the Work and Social Adjustment Scale. The preliminary results were encouraging, as they showed a decrease in paranoid ideation ($p = 0.003$) and improvement in general function ($p = 0.001$), which suggests that transdiagnostic therapy can be effective in reducing paranoid thoughts. Further research is needed to confirm these findings.

Culturally Adapted tCBT (CA-CBT+)

The Culturally Adapted Cognitive Behavioral Intervention (CA-CBT) is a group intervention designed for refugees that incorporates psychoeducation, meditation, and stretching exercises. The program is transdiagnostic and involves modifying CBT techniques to align with the cultural beliefs, values, and experiences of the individual. This culturally-sensitive approach acknowledges that culture can influence an individual's perception and response to mental health concerns, and that culturally-sensitive therapy may result in better treatment outcomes (Hinton & Patel, 2017).In the study by Kananian et al. (2020), problem-solving training was added to CA-CBT and the intervention was evaluated with male refugees diagnosed with PTSD, major depression, and anxiety disorders. Participants ($n = 24$) were randomly assigned to CA-CBT+ or

a control condition (waiting list). Participants were assessed pre-post and at a 12-month follow-up. Following the intervention, all participants in the treatment group met the criteria for a clinically significant response on the General Health Questionnaire (GHQ-28), compared to only 8.3% of individuals in the wait-list control group. The findings indicated an improvement in both qualities of life and problem-solving, which persisted in the long term. Furthermore, the group delivery approach resulted in an exceptionally low dropout rate, with only one participant withdrawing from the study.

Interventions Focused on Transdiagnostic Processes

Ten randomized clinical trials evaluated interventions aimed at transdiagnostic processes. The study by Hvenegaard et al. (2020) tested the addition of a rumination-focused group CBT (RFCBT: Rumination-focused cognitive-behavioral therapy) program compared to group dCBT, both conditions continued with routine medical treatment. In total, 131 outpatients with major depression were randomly allocated to the RFCBT or dCBT group. The results showed that RFCBT significantly improved depressive symptoms compared to the CBT group after treatment. At the 6-month follow-up, there were no differences in rumination or depressive symptoms between the groups. However, the study's primary limitation is the missing data on secondary outcomes and the high rate of follow-up attrition at 6 months, which restricts the conclusions that can be drawn for these outcomes.

Rumination was also a transdiagnostic process evaluated in the study by Teismann et al. (2014), who investigated whether group CBT focused on depressive rumination would be effective in reducing residual depression. Participants (n = 60) were randomly assigned to group treatment or control condition (waiting list). Treatment significantly improved depressed moods, rumination, perceived control over rumination, and dysfunctional metacognitive beliefs compared to the control condition. Treatment gains were maintained during the follow-up period (1 year). A similar result reached the study by Ekkers et al. (2011), who investigated Competitive Memory Training (COMET) for depressive rumination. COMET is a form of cognitive-behavioral therapy (CBT) that utilizes a technique called contraconditioning to challenge negative self-perceptions and promote the development of more positive, nuanced perspectives (Balci et al., 2022). In that study, a total of 93 outpatients, aged over 65 years, were randomized to two treatment conditions: COMET + TAU versus TAU alone. Results were favorable for the COMET + TAU group, which showed a significant improvement in depression and rumination compared to TAU alone.

COMET was assessed in two additional studies, but with a different emphasis: low self-esteem. Despite the lack of a unifying theory that solidifies low self-esteem as a mechanistically transdiagnostic process, its presence in various disorders makes it descriptively transdiagnostic (Sauer-Zavala et al., 2017). As a result, interventions targeting this construct have also been incorporated into the current review. Korrelboom et al. (2009) evaluated this intervention for the treatment of low self-esteem in patients with eating disorders. In total, 52 patients with eating disorders and low self-esteem were randomized to receive 8 weeks of COMET + TAU or TAU alone. Indicator effects in favor of COMET + TAU were found for two measures of self-esteem and depressive moods. Korrelboom et al. (2011) also evaluated whether COMET for low self-esteem would be an effective intervention for patients with personality disorders. In these RCTs, 91 patients with personality disorders who were already in therapy at a regular mental health institution were randomly assigned to a COMET + TAU or TAU group. Compared with patients who received only TAU, patients in the COMET + TAU condition improved significantly and with large effect sizes on indices of self-esteem and depression. Significant improvements in measures of autonomy and social optimism also favored COMET but had small to intermediate effect sizes.

Two studies evaluated interventions aimed at emotion regulation. Neacsiu et al. (2014) investigated the DBT-ST: Dialectical Behavior Therapy Skills Training, developed by Linehan (1993). In this study, DBT-ST was evaluated as a stand-alone transdiagnostic treatment for emotional dysregulation and using DBT skills as an outcome mediator. Forty-four anxious and/or depressed adults without borderline personality disorder and with high emotional dysregulation were randomized to 16 weeks of DBT-ST or an activity-based support group (ASG). Participants completed measures of emotional dysregulation, DBT skill use, and psychopathology every 2 months until 2 months after treatment. Longitudinal analyses indicated that DBT-ST was superior to SGA in decreasing emotional dysregulation, increasing skill use, and decreasing anxiety but not depression.In the study by Berking et al. (2019), the effectiveness of general affect regulation as a stand-alone, group-based treatment for depression was investigated. In total, 218 subjects who met the criteria for major depression were randomized to Affect Regulation Training (ART), a control condition (waiting list), or a common factor control condition (CFC). Multi-level analyzes indicated that participation in ART was associated with a greater reduction in the severity of depressive symptoms than on the waiting list (d = 0.56), while the slight superiority of ART over CFC (d = 0.25) was not statistically significant. Mediation analyses indicated that changes in emotion regulation skills mediated the differences between ART/CFC and waiting list. Thus, the results provide evidence of improving emotion regulation skills as

a common mechanism of change in psychological treatments for depression.

Repetitive negative thinking (RNT) is considered an important transdiagnostic process in the onset, course, and recurrence of depressive and anxiety disorders. Rogiers et al. (2022) evaluated a transdiagnostic group intervention designed for the treatment of RNT compared with TAU in 80 patients with major depression and/or anxiety generalized disorder, both conditions continued their usual mental health care. The results showed that although all outcomes improved after the intervention, only the uncontrollability of rumination, worry, detachment from thoughts, and quality of life remained statistically significant compared to the control group. According to the results, the group intervention improves the RNT and the quality of life of patients treated for major depression and/or anxiety generalized disorder. Improvements remained stable up to 9 months after treatment.

Excessive worry is also a common feature of many disorders and represents an ideal process for transdiagnostic intervention. The study by Chen et al. (2013) examined the effectiveness of a behavioral activation treatment (BAW) in 49 individuals who showed signs of excessive worry. Participants were randomized to an 8-week group intervention (BAW) or waitlist. The results demonstrated that BAW was successful in reducing excessive worry, depressive symptoms, cognitive avoidance, uncertainty intolerance, and improving problem-solving orientation. Despite sample size and power limitations, this study shows promising support for BAW as a practical transdiagnostic treatment for concern.

False security behaviors are considered processes common to different anxiety disorders. In the study by Schmidt et al. (2012) the effectiveness of the Therapy to Eliminate False Safety Behaviors (F-SET) was evaluated in 96 patients with anxiety symptoms who were randomly assigned to F-SET or a control group (waiting list). The study found that F-SET is a successful intervention for patients with anxiety in mixed diagnostic groups, with reduced anxiety sensitivity and less impairment compared to the control group. Moreover, the improvements observed at posttreatment were sustained at follow-up after 6 months, indicating the enduring effectiveness of F-SET.

Discussion

Summary of Evidence

The present review aimed to systematically examine the evidence regarding the effectiveness of group cognitive-behavioral transdiagnostic interventions for the adult population compared with non-active control conditions (e.g., waiting list), usual treatment conditions (e.g., regular appointments), or specific active interventions (e.g., dCBT). The evaluated outcomes correspond to the primary results presented by empirical studies in general, effects on symptoms of depression, anxiety, quality of life, and other measures related to mental health and psychological well-being. Of the 32 RCTs evaluated, most compared group tCBT with a wait-list control condition (n = 10). In these studies, the results indicated superior and significant improvements for tCBT interventions in different outcomes, such as reductions in depressive and anxiety symptoms (Wuthrich & Rapee, 2013; Zemestani et al., 2017), in anxiety symptoms (Erickson et al., 2007; Norton & Hope, 2005; Schmidt et al., 2012), in the subclinical symptoms of paranoia (Amirpour et al., 2018), in excessive worry (Chen et al., 2013), in depressive rumination (Teismann et al., 2014), in the psychopathology of eating disorders (Wade et al., 2017), as well as in improving the quality of life and problem solving for refugees (Kananian et al., 2020).

Overall, the results are promising and support the efficacy of group tCBT for the treatment of different clinical populations. However, it should be noted that these are preliminary studies, with reduced sample size and power, and the lack of control with active interventions does not allow us to assess whether the positive results refer to the intervention itself or to other therapeutic factors present in a format of group therapy, such as socializing with others and the therapeutic relationship. In addition, conducting comparisons between different types of interventions can enable researchers to identify the most effective treatment for a specific context or population, which can inform clinical decision-making and health policy. Therefore, future research can further investigate the effectiveness of group tCBT interventions compared to other active treatments and evaluate their potential benefits for various populations.

The reported results were also favorable to tCBT when compared to usual treatments (TAU) such as pharmacological interventions or regular consultations with general practitioners. However, it is important to note that TAUs can vary significantly according to different institutions, clinical guidelines, and countries. For example, in the study carried out by Osma et al. (2022), the group tCBT intervention was compared with the TAU, which consists of individually applied CBT, considered a gold standard intervention for many disorders; whereas, in other studies, TAU is characterized only as pharmacological interventions or regular medical consultations. Providing a clear definition of usual treatments (TAU) is essential for comprehending the contextual factors surrounding the evaluation of the tCBT intervention and for facilitating more precise comparisons.

Considering these particularities, studies that compared tCBT with TAU based only on pharmacological treatment showed significant improvements favorable to tCBT in

symptoms of depression, anxiety, and emotion regulation strategies (Corpas et al., 2021, 2022). tCBT also showed significant results in the quality of life and sexual functioning compared to pharmacological treatment in the study by Ornelas et al., (2017).In studies that evaluated tCBT with TAU based on regular medical consultations or psychological and social interventions, the results indicated significant improvements in measures of depression, anxiety, and quality of life when compared to individual CBT (Osma et al, 2022, Cano-Vindel et al. al., 2021), improvements in depression, anxiety, and emotion regulation when compared to social support (Nazari et al., 2020), and improvements in symptoms of anxiety, depression, and quality of life when compared to regular consultations with physicians at the health center (Ejeby et al., 2014; Roberge et al., 2020). When compared to usual treatments based on psychiatric consultations with or without supportive treatment (e.g. psychotherapy or psychosocial support), tCBT showed significant improvements in measures of depression and rumination (Ekkers et al., 2011), in repetitive negative thinking, and the quality of life of patients treated for major depression and/or anxiety generalized disorder (Rogiers et al., 2022), in measures of self-esteem for people with eating disorders (Korrelboom et al., 2009) and measures of self-esteem and depression in people with personality disorders (Korrelboom et al., 2011).

In the meta-analysis performed by Watts et al. (2015), the impact of CBT on clinical outcome was similar in studies that aimed to treat anxiety or depression compared to TAU, suggesting that CBT is superior to TAU in these outcomes; however, the effect was smaller in studies of transdiagnostic therapies. According to the authors, the few comparisons of transdiagnostic treatments versus TAU could be a possible explanation for these findings, in addition to the great heterogeneity of TAU interventions. The meta-analysis performed by Newby et al. (2015) found similar results by identifying only small differences in studies that compared tCBT with TAU, which could also be explained by the heterogeneity of TAU interventions, as well as the influence of other therapeutic factors nonspecific factors associated with the improvement of symptoms, such as the therapeutic alliance.

In the present review, the findings are similar to those of Watts et al. (2015) and Newby et al. (2015) regarding the heterogeneity of TAU; however, our study suggests favorable results for tCBT. Although we do not have the necessary quantitative analyzes to confirm this hypothesis, an important point to consider is that most of these studies compared group tCBT + TAU with TAU applied alone. Thus, the design of these studies and the results found suggest the addition of group tCBT to usual care as a co-intervention capable of reducing the severity of symptoms presented by the population and supporting the dissemination of evidence-based practice. It is noteworthy that future meta-analytic reviews are needed to examine in detail the impact of new treatments compared to TAU and its particularities.

Studies comparing tCBT interventions with active control conditions found similar and statistically equivalent/non-inferior results in reducing symptoms of anxiety and depression (UP vs MBSR, Mousavi et al., 2019); on symptoms and measures of psychological well-being in older adults (tCBT vs Discussion Group, Wuthrich et al., 2016), despite the most rapid and sustained improvements being from tCBT; and on anxiety symptoms among different anxiety disorders (tCBT vs RLX, Norton, 2012). The results were favorable to tCBT in decreasing emotion dysregulation and anxiety symptoms (STD-DBT vs CFC, Neacsiu et al., 2014) and in emotion regulation and decreasing depressive symptoms (ART vs CFC vs Waiting List, Berking et al., 2019). These findings are consistent with the review by Newby et al (2015), who found large differences in outcomes between transdiagnostic treatments compared to waiting-list control conditions and active control conditions (e.g., psychoeducation, discussion forums, relaxation training).

Compared with specific dCBT interventions, tCBT had similar (non-inferior) results on primary outcomes for most of the studies investigated. The tCBT results were equivalent to improving well-being and reducing anxiety and depressive symptoms (Mohammadi et al., 2013; Reinholt et al., 2022) and anxiety symptoms (Norton & Barreira, 2012). These effects are consistent with the meta-analysis performed by Pearl and Norton (2017), which found that the estimated effect of transdiagnostic treatments was similar to diagnostic-specific CBT treatments.

Only two studies showed superior results of a tCBT intervention compared to the results of group dCBT, such as group therapy focused on rumination (RFCBT), which showed significant improvements in depressive symptoms compared to the dCBT group, but these results were not sustained over the 6-month follow-up (Hvenegaard et al., 2020). In turn, the MORE intervention (Garland et al., 2016) was associated with modest improvements in substance craving, pre-traumatic stress and negative affect compared to dCBT, but unfortunately, the study was compromised by not meeting the standards of integrity approved by the developer of the dCBT intervention. For more information, see the same study, corrected by Garland et al. (2018).

To advance the field, future research should focus on identifying the specific components of tCBT interventions that are most effective and exploring which populations and problems are best suited for tCBT interventions. Furthermore, investigating the use of tCBT in combination with other treatment modalities and improving the methodological rigor of studies assessing the efficacy of tCBT interventions are also essential.

Of the 32 studies included, all were characterized by "some concerns" in assessing the risk of bias. Key reasons include lack of reports of allocation concealment, blinding, and lack of analysis of large groups or dropouts who did not complete the study. The evaluation considered the particularities inherent to pragmatic studies, such as the impossibility of blinding those who provide and receive the interventions and the use of self-report measures to evaluate the results, a common practice in psychometrics. Thus, all studies that used only self-report measures were classified as having "some concerns." Only 1 study was classified as "high risk of bias" because it presented methodological inconsistencies that cast doubt on the integrity of the results. Some restrictions on the quality of evidence from the studies included in this review and these limitations should be considered for interpretation purposes.

The results presented by the analyzed studies suggest that transdiagnostic treatments are superior to waiting-list conditions and usual treatments, and are at least as effective as active control interventions and diagnostic-specific cognitive-behavioral treatments. Although these results are preliminary and no conclusions can be drawn about the effectiveness of tCBT from this study—as the findings are analyzed in a narrative fashion and without the support of a meta-analysis—the results indicate that group transdiagnostic interventions can be an important tool for the treatment of comorbid mental disorders and are in agreement with the main reviews and meta-analyses performed to date (McEvoy et al., 2009; Newby et al., 2015; Pearl & Norton, 2017; Reinholt & Krogh, 2014). However, these reviews are not specific to group tCBT interventions. As such, the practice and research implications for this format will be discussed in the following section.

Implications for Practice and Research

To the best of our knowledge, the present review is the first to specifically assess transdiagnostic cognitive-behavioral interventions in groups. Results on the overall effectiveness of tCBT treatments are comparable to previous narrative reviews and meta-analyses (McEvoy et al., 2009; Newby et al., 2015; Reinholt & Krogh, 2014), however, they have different implications when evaluating this format's specific delivery. As expected, most of the tCBT interventions evaluated addressed comorbid anxiety and depression disorders, anxiety disorders, and symptoms of anxiety and depression. However, there were studies focusing on eating disorders, substance use, personality disorders, specific studies for the elderly population, a study that evaluated sexual functioning and studies that investigated the emotional sequelae present in medical disorders such as multiple sclerosis and infertility. In addition, studies with an interest in transdiagnostic processes as the focus of group interventions, such as excessive worry and emotional regulation, were also found.

The tCBT interventions evaluated were modular and targeted at common processes among "one size fits all" interventions (Schaeuffele et al., 2021). The number of modules ranged from 6 to 12 and the duration of treatments also ranged from 6 to 14 weeks. However, the content of the interventions was similar and mostly based on cognitive and behavioral models, applying a basic set of CBT principles and techniques (e.g., cognitive restructuring and gradual exposure) as well as specific strategies and techniques for emotion regulation and acceptance and mindfulness.

It should be noted that studies have shown promising and favorable results for tCBT interventions, but few have investigated interpersonal interactions between group members and between members and therapist(s), factors and processes that can influence the effects of group therapy, such as patient characteristics (e.g. attachment style), group therapy processes (e.g. preparatory sessions, group composition, group cohesion) and leader characteristics (e.g. therapeutic style, co-leadership) (Barkowski et al., 2020). The studies that evaluated the Unified Protocol (UP) were the ones that highlighted the characteristics of the patients and not only the symptomatologic manifestations such as affection and temperament. This is because UP has neuroticism as a therapeutic target. Neuroticism is a tendency to experience intense and frequent negative emotions that are associated with a sense of uncontrollability or a perception of inadequate coping in response to stressors (Barlow et al., 2014). Results indicated that in addition to improvements in symptoms of depression and anxiety, UP produced large reductions in neuroticism and negative affect (de Ornelas et al., 2017; Osma et al., 2022).

Group cohesion and therapeutic alliance were factors investigated through questionnaires in the study by Wuthrich et al. (2016), which compared tCBT with an active discussion group in the elderly population. The two groups did not differ significantly on these measures. Reinholt et al. (2022) and Roberge et al. (2018) cited the exploratory investigation of procedural factors such as group cohesion, but these data were not presented in the published studies. Indeed, future research should strive to incorporate these analyses to assist in understanding the therapeutic value of non-specific therapeutic components, such as social connection and sharing experiences with others.

Empirical assessments of the therapeutic factors and processes involved in interventions are essential to promote the advantages of group therapy and provide solutions for the possible disadvantages of this format. For example, for some people with anxiety disorders, a group intervention may seem like a very challenging scenario, implying avoidance, in which case a possible solution would be to offer introductory sessions to address doubts and motivational

issues (Barkowski et al., 2020). In the study by Ornelas et al. (2017), at each initial session, two former patients who had completed previous group treatment sessions were invited to talk to new participants about their experiences, and according to the authors, the inclusion of former participants motivated the new patients. Including different strategies for patient engagement may be the answer to increasing adherence, acceptability, and optimizing the delivery of group interventions.

Most of the interventions were conducted by experienced psychologists and psychology students, but there was also the participation of other professionals in the design and application of the groups, such as doctors, nurses, and social workers. Only one study investigated whether the therapist's experience would affect the results found (Schmitd et al., 2012), where half of the groups were purposely led by graduate students in clinical psychology at the master's level and the other groups were led by an experienced postdoctoral fellow. No differences were found between the groups in the results, but no specific measure was used to assess the therapists' experience either. Therefore, these are preliminary and inconclusive results.

Although the studies did not present enough information to assess whether the professionals' experience interfered with the outcomes and quality of interventions, the research carried out by Norton et al. (2014) examined the impact of therapists' experience on the results of clients who participated in a group tCBT intervention for anxiety disorders. The results showed that participants showed significant improvement and that the amount of therapist experience was not related to improvement. However, future studies are needed to better assess the causal relationships between the training/experience of the professionals involved and the clinical results of the participants, especially since the need for extensive training on the part of therapists involves high costs and constitutes a major limitation for the feasibility and accessibility of evidence-based interventions.

Furthermore, the advantages of group tCBT interventions appear to be the same as group psychotherapy in general, such as facilitating training and clinical application and serving a greater number of patients with fewer sessions, with better cost/benefit without losing the effectiveness of the individual form (Oliveira, 2019). The main difference corresponds to the extra advantages over these factors, considering that by focusing on shared characteristics rather than differences between disturbances, it is possible to further reduce the waiting list and the high training costs associated with treatments aimed at specific diagnoses (Harris & Norton, 2018).

Finally, it was observed that the studies with the largest number of participants were those carried out in public health centers, with interventions aimed at primary care. The results of more than 2500 participants, followed for up to 12 months, confirm the hypotheses raised about the advantages of tCBT applied in a group format for these environments. By addressing psychiatric comorbidities, promoting the efficient use of professional resources, and optimizing therapist training time, tCBT presents itself as a cost-effective approach with the potential to significantly improve clinical treatments for different disorders (Cano-Vindel et al., 2021). According to the authors, group tCBT can be a viable, ethical and effective alternative because it includes a wide range of diagnoses and allows treating several individuals at the same time with few additional resources (Osma et al., 2022), in addition to providing a model that can help overcome barriers to large-scale implementation of evidence-based psychotherapy (Roberge et al., 2020).

Strengths and Limitations

The strengths of the present review include the methodological advantages of pre-registration of the study protocol before conducting the research; a comprehensive and inclusive strategy applied across multiple databases; the survey in three different languages: English, Portuguese and Spanish; the inclusion of studies without the restriction of dates; conducting risk of bias assessment and inclusion of a large number of studies, all RCTs.

However, many limitations deserve consideration. In this review, studies with a large number of participants and good methodological quality were found, however, most of the studies evaluated were carried out in outpatient settings or specialized clinics, with small sample sizes. Another limitation was the lack of detailed data on the ethnic, cultural, and racial aspects of the participants. It is therefore suggested that future investigations should include these data to ensure a larger and more representative sample.

The heterogeneity of methods and measures used by studies to assess primary and secondary outcomes prevented a concrete assessment of the effects of interventions. Although there are previous meta-analyses that evaluated measures such as depression, anxiety, and quality of life in transdiagnostic interventions (Newby et al., 2015), the present study included many other metrics in addition to these. Therefore, it was not possible to perform a meta-analysis. Most studies used self-report measures to assess the impact of interventions, which directly implies the risk of bias. It is therefore suggested that future studies include instruments evaluated by clinicians and self-reported.

Although the choice to use only RCTs has advantages in terms of study quality, the investigators of the present review limited the evaluation of numerous non-experimental studies that could significantly contribute to a more comprehensive understanding of tCBT interventions. Additionally, the choice to include only transdiagnostic interventions with

CBT components also limited the evaluations. As hypothesized, the lack of a specific theoretical framework implied difficulties for researchers to identify which interventions would or would not be tCBT, since many interventions appear to be CBT, but are not. In these cases, emails were sent to the authors of the studies and/or the developers of the interventions to clarify these doubts and correctly categorize the interventions as transdiagnostic CBT.

The main focus of the interventions analyzed were emotional disorders such as depression and anxiety. However, despite the common goal, many interventions were different. The creation of different protocols and adaptations of tCBT interventions is justified for scientific evidence, but they put its main advantage compared to specific treatments at risk: the promise of being a single treatment applicable to many clinical presentations. In this way, we believe that future studies should increasingly investigate the common processes between different disorders, effective therapeutic techniques and strategies between different therapeutic demands, and the interpersonal factors that act as mediators of results in group therapeutic interventions, thus bringing together necessary efforts for the construction of an evidence-based, integrative and accessible psychological practice.

Conclusion

Despite the limitations presented, the results found confirm the initial hypotheses of this review and the studies carried out previously. Available evidence suggests that group tCBT interventions have similar and/or superior results to other interventions and may offer advantages in terms of therapist training time, cost, and accessibility. These findings are especially important given the high prevalence of mental disorders in our society. According to the most recent report by the World Health Organization (2022, June 17), in 2019, nearly a billion people—including 14% of the world's teenagers—were living with a mental disorder.

Mental disorders affect the lives of children, adolescents, and adults, both in developed and developing countries, cause enormous suffering and disability, and are responsible for high costs for individuals, families, and societies (Almeida et al., 2013). Given the high comorbidity among mental disorders and the need to optimize and disseminate evidence-based practice, group transdiagnostic interventions can have great benefits, especially as an integrative approach capable of expanding evidence-based care to community health services. For these reasons, tCBT must continue its evolution in terms of effectiveness and theoretical understanding, with the ultimate objective of responding to the limitations related to the focus on specific diagnoses and including evidence-based practice in the elaboration and implementation of policies, plans, and mental health services.

Funding Open access funding provided by FCT|FCCN (b-on).

Declarations

Conflict of Interest Stephanie Bittencourt Joaquim, Raquel Simões De Almeida and António J. Marques have no conflicts of interest to declare.

Animal Rights No animal studies were carried out by the authors for this article.

Informed Consent For this type of study formal consent is not required.

References

Almeida, D., & Marinho, G. (2021). Transdiagnostic cognitive-behavioral therapy: A literature review. *Psicologia, Saúde & Doença, 22*(03), 979–990. https://doi.org/10.15309/21psd220317

Almeida J, Xavier M, Cardoso G, Pereira M, Gusmão R, Corrêa B, et al. Estudo epidemiológico nacional de saúde mental - 1.o Relatório. 2013. p. 60.

Amirpour, L., Gharaee, B., & Birashk, B. (2018). Efficacy of group transdiagnostic cognitive-behavioral therapy on subclinical paranoia. *Iranian Journal of Psychiatry and Behavioral Sciences*. https://doi.org/10.5812/ijpbs.65161

Balci, S., Marga, K., Bianca, E., & B. (2022). Effectiveness of competitive memory training (comet) for low self-esteem in youth with autism spectrum disorder: A randomized controlled pilot study. *Journal of Autism, 9*(1), 5. https://doi.org/10.7243/2054-992x-9-5

Barkowski, S., Schwartze, D., Strauss, B., Burlingame, G. M., & Rosendahl, J. (2020). Efficacy of group psychotherapy for anxiety disorders: A systematic review and meta-analysis. *Psychotherapy Research, 30*(8), 965–982. https://doi.org/10.1080/10503307.2020.1729440

Barlow, D. H., Ellard, K. K., Sauer-Zavala, S., Bullis, J. R., & Carl, J. R. (2014). The origins of neuroticism. *Perspectives on Psychological Science: A Journal of the Association for Psychological Science, 9*(5), 481–496. https://doi.org/10.1177/1745691614544528

Barlow, D. H., Farchione, T. J., Fairholme, C. P., Ellard, K. K., Boisseau, C. L., Allen, L. B., & Ehrenreich-May, J. (2011). *Unified protocol for transdiagnostic treatment of emotional disorders: Therapist guide*. Oxford: Oxford University Press.

Barlow, D. H., Harris, B. A., Eustis, E. H., & Farchione, T. J. (2020). The unified protocol for transdiagnostic treatment of emotional

disorders. *World Psychiatry, 19*(2), 245–246. https://doi.org/10.1002/wps.20748
Beck, A. T., & Steer, R. A. (1993). *Beck anxiety inventory manual*. Psychological Corporation.
Beck, A. T., Steer, R. A., & Brown, G. (1996). Beck depression inventory–II (BDI-II) [Database record]. *APA PsycTests*. https://doi.org/10.1037/t00742-000
Berking, M., Eichler, E., Luhmann, M., Diedrich, A., Hiller, W., & Rief, W. (2019). Affect regulation training reduces symptom severity in depression—A randomized controlled trial. *PLoS ONE, 14*(8), 1–25. https://doi.org/10.1371/journal.pone.0220436
Boswell, J. F. (2013). Intervention strategies and clinical process in transdiagnostic cognitive-behavioral therapy. *Psychotherapy, 50*(3), 381–386. https://doi.org/10.1037/a0032157
Brown, T. A., Barlow, D. H., & Di Nardo, P. A. (1994). *Anxiety disorders interview schedule for DSM-IV (ADIS-IV): Client interview schedule*. Oxford University Press.
Bullis, J. R., Boettcher, H., Sauer-Zavala, S., Farchione, T. J., & Barlow, D. H. (2019). What is an emotional disorder? A transdiagnostic mechanistic definition with implications for assessment, treatment, and prevention. *Clinical Psychology: Science and Practice*. https://doi.org/10.1037/h0101755
Bullis, J. R., Sauer-Zavala, S., Bentley, K. H., Thompson-Hollands, J., Carl, J. R., & Barlow, D. H. (2015). The unified protocol for transdiagnostic treatment of emotional disorders: Preliminary exploration of effectiveness for group delivery. *Behavior Modification, 39*(2), 295–321. https://doi.org/10.1177/0145445514553094
Cano-Vindel, A., Muñoz-Navarro, R., Moriana, J. A., Ruiz-Rodríguez, P., Medrano, L. A., & González-Blanch, C. (2021). Transdiagnostic group cognitive behavioural therapy for emotional disorders in primary care: The results of the PsicAP randomized controlled trial. *Psychological Medicine, February*. https://doi.org/10.1017/S0033291720005498
Carvalho, A. P. V., Silva, V., & Grande, A. J. (2013). Avaliação do risco de viés de ensaios clínicos randomizados pela ferramenta da colaboração Cochrane. *Diagnóstico & Tratamento, 18*(1), 38–44.
Chen, J. W., Liu, X., Rapee, R. M., & Pillay, P. (2013). Behavioural activation: A pilot trial of transdiagnostic treatment for excessive worry. *Behaviour Research and Therapy, 51*(9), 533–539.
Clark, D. A., & Taylor, S. (2009). The transdiagnostic perspective on cognitive-behavioral therapy for anxiety and depression: New wine for old wineskins? *Journal of Cognitive Psychotherapy, 23*(1), 60–66. https://doi.org/10.1891/0889-8391.23.1.60
Corpas, J., Moriana, J. A., Vencesla, J. F., & Galvez-Lara, M. (2021). Brief psychological treatments for emotional disorders in primary and specialized care: A randomized controlled trial. *International Journal of Clinical and Health Psychology*. https://doi.org/10.1016/j.ijchp.2020.11.002
Corpas, J., Moriana, J. A., Venceslá, J. F., & Gálvez-Lara, M. (2022). Effectiveness of brief group transdiagnostic therapy for emotional disorders in primary care: A randomized controlled trial identifying predictors of outcome. *Psychotherapy Research, 32*(4), 456–469. https://doi.org/10.1080/10503307.2021.1952331
de Ornelas, A. C. C., Sanford, J., Boettcher, H., Nardi, A. E., & Barlow, D. (2017). Improvement in quality of life and sexual functioning in a comorbid sample after the unified protocol transdiagnostic group treatment. *Journal of Psychiatric Research, 93*, 30–36. https://doi.org/10.1016/j.jpsychires.2017.05.013
de SantanaSilva, S. M., da Silva, N. G., Gonçalves, D. M., Descendente, M. C. M., & Melo. (2014). Group interventions in cognitive-behavioral perspective: Experiences from the clinical school. *Revista Brasileira De Terapias Cognitivas, 10*(1), 47–53. https://doi.org/10.5935/1808-5687.20140007
Díaz-García, A., González-Robles, A., García-Palacios, A., Fernández-Álvarez, J., Castilla, D., Bretón, J. M., Baños, R. M., Quero, S., & Botella, C. (2021). Negative and positive affect regulation in a transdiagnostic internet-based protocol for emotional disorders: Randomized controlled trial. *Journal of Medical Internet Research, 23*(2), 1–23. https://doi.org/10.2196/21335
Ejeby, K., Savitskij, R., Ost, L. G., Ekbom, A., Brandt, L., Ramnero, J., Asberg, M., & Backlund, L. G. (2014). Randomized controlled trial of transdiagnostic group treatments for primary care patients with common mental disorders. *Family Practice, 31*(3), 273–280.
Ekkers, W., Korrelboom, K., Huijbrechts, I., Smits, N., Cuijpers, P., & van der Gaag, M. (2011). Competitive memory training for treating depression and rumination in depressed older adults: A randomized controlled trial. *Behaviour Research and Therapy, 49*(10), 588–596. https://doi.org/10.1016/j.brat.2011.05.010
Erickson, D. H., Janeck, A. S., & Tallman, K. (2007). A cognitive-behavioral group for patients with various anxiety disorders. *Psychiatric Services, 58*(9), 1205–1211. https://doi.org/10.1176/ps.2007.58.9.1205
First, M. B., Spitzer, R., Gibbon, M., & Williams, J. (1996). *Structured clinical interview for axis I disorders-Patient Edition*. Biometrics Research, New York State Psychiatric Institute.
Fusar-Poli, P., Solmi, M., Brondino, N., Davies, C., Chae, C., Politi, P., Borgwardt, S., Lawrie, S. M., Parnas, J., & McGuire, P. (2019). Transdiagnostic psychiatry: A systematic review. *World Psychiatry, 18*(2), 192–207. https://doi.org/10.1002/wps.20631
Garland, E. L., Roberts-Lewis, A., Tronnier, C. D., Graves, R., & Kelley, K. (2016). Mindfulness-oriented recovery enhancement versus CBT for co-occurring substance dependence, traumatic stress, and psychiatric disorders: Proximal outcomes from a pragmatic randomized trial. *Behaviour Research and Therapy, 77*, 7–16. https://doi.org/10.1016/j.brat.2015.11.012
Garland, E. L., Roberts-Lewis, A., Tronnier, C. D., Graves, R., & Kelley, K. (2018). Corrigendum to "Mindfulness-oriented recovery enhancement versus CBT for co-occurring substance dependence, traumatic stress, and psychiatric disorders: Proximal outcomes from a pragmatic randomized trial" [Behav. Res. Ther. 77 (2016) 7–16]. *Behaviour Research and Therapy, 100*, 78. https://doi.org/10.1016/j.brat.2017.09.007
Gornall, J. (2013). DSM-5: A fatal diagnosis? *BMJ (online), 346*(7909), 1–5. https://doi.org/10.1136/bmj.f3256
Hanley, A. W., & Garland, E. L. (2021). The mindfulness-oriented recovery enhancement fidelity measure (MORE-FM): Development and validation of a new tool to assess therapist adherence and competence. *Journal of Evidence-Based Social Work, 18*(3), 308–322. https://doi.org/10.1080/26408066.2020.1833803
Harris, K. R., & Norton, P. J. (2018). Transdiagnostic cognitive behavioral therapy for the treatment of emotional disorders: A group case study. *Clinical Case Studies, 17*(6), 387–405. https://doi.org/10.1177/1534650118793938
Harvey, A. G., Murray, G., Chandler, R. A., & Soehner, A. (2011). Sleep disturbance as transdiagnostic: Consideration of neurobiological mechanisms. *Clinical Psychology Review, 31*(2), 225–235. https://doi.org/10.1016/j.cpr.2010.04.003
Hayes, S. C., & Hofmann, S. G. (2020). *Terapia cognitivo-comportamental baseada em processos:ciência e competências clínicas*
Hinton, D. E., & Patel, A. (2017). Cultural adaptations of cognitive behavioral therapy. *The Psychiatric Clinics of North America, 40*(4), 701–714. https://doi.org/10.1016/j.psc.2017.08.006
Hvenegaard, M., Moeller, S. B., Poulsen, S., Gondan, M., Grafton, B., Austin, S. F., Kistrup, M., Rosenberg, N. G. K., Howard, H., & Watkins, E. R. (2020). Group rumination-focused cognitive-behavioural therapy (CBT) v. group CBT for depression: Phase II trial. *Psychological Medicine, 50*(1), 11–19. https://doi.org/10.1017/S0033291718003835
Kananian, S., Soltani, Y., Hinton, D., & Stangier, U. (2020). Culturally adapted cognitive behavioral therapy plus problem management (CA-CBT+) with Afghan refugees: A randomized

controlled pilot study. *Journal of Traumatic Stress, 33*(6), 928–938. https://doi.org/10.1002/jts.22615

Korrelboom, K., de Jong, M., Huijbrechts, I., & Daansen, P. (2009). Competitive memory training (COMET) for treating low self-esteem in patients with eating disorders: A randomized clinical trial. *Journal of Consulting and Clinical Psychology, 77*(5), 974–980. https://doi.org/10.1037/a0016742

Korrelboom, K., Marissen, M., & Van Assendelft, T. (2011). Competitive memory training (COMET) for low self-esteem in patients with personality disorders: A randomized effectiveness study. *Behavioural and Cognitive Psychotherapy, 39*(1), 1–19. https://doi.org/10.1017/S1352465810000469

Kristjánsdóttir, H., Sigurosson, B. H., Salkovskis, P., Sigurosson, E., Sighvatsson, M. B., & Sigurosson, J. F. (2019). Effects of a brief transdiagnostic cognitive behavioural group therapy on disorder specific symptoms. *Behavioural and Cognitive Psychotherapy, 47*(1), 1–15. https://doi.org/10.1017/S1352465818000450

Linehan, M. M. (1993). *Cognitive-behavioral treatment of borderline personality disorder*. Guilford Press.

Mansell, W., Harvey, A., Watkins, E. R., & Shafran, R. (2008). Cognitive behavioral processes across psychological disorders: A review of the utility and validity of the transdiagnostic approach. *International Journal of Cognitive Therapy, 1*(3), 181–191. https://doi.org/10.1680/ijct.2008.1.3.181

Mansell, W., Harvey, A., Watkins, E., & Shafran, R. (2009). Conceptual foundations of the transdiagnostic approach to CBT. *Journal of Cognitive Psychotherapy, 23*(1), 6–19. https://doi.org/10.1891/0889-8391.23.1.6

McEvoy, P. M., Nathan, P., & Norton, P. J. (2009). Efficacy of transdiagnostic treatments: A review of published outcome studies and future research directions. *Journal of Cognitive Psychotherapy, 23*(1), 20–33. https://doi.org/10.1891/0889-8391.23.1.20

Mohammadi, A., Birashk, B., & Gharaie, B. (2013). Comparison of the effect of group transdiagnostic treatment and group cognitive therapy on emotion regulation. [Comparison of the effect of group transdiagnostic treatment and group cognitive therapy on emotion regulation.]. *Iranian Journal of Psychiatry and Clinical Psychology, 19*(3), 187–194.

Moher, D., Schulz, K. F., Simera, I., & Altman, D. G. (2010). Guidance for developers of health research reporting guidelines. *PLoS Medicine*. https://doi.org/10.1371/journal.pmed.1000217

Mousavi, E., Hosseini, S., Bakhtiyari, M., Mohammadi, A., Isfeedvajani, M. S., Arani, A., & Sadaat, H. (2019). Comparing the effectiveness of the unified protocol transdiagnostic and mindfulness-based stress reduction program on anxiety and depression in infertile women receiving in vitro fertilisation. *Journal of Research in Medical and Dental Science, 7*(2), 44–51.

Nazari, N., Aligholipour, A., & Sadeghi, M. (2020). Transdiagnostic treatment of emotional disorders for women with multiple sclerosis: A randomized controlled trial. *BMC Women's Health, 20*(1), 1–11. https://doi.org/10.1186/s12905-020-01109-z

Neacsiu, A., Eberle, J., Kramer, R., Wiesmann, T., & Linehan, M. (2014). Dialectical behavior therapy skills for transdiagnostic emotion dysregulation: A pilot randomized controlled trial. *Behaviour Research and Therapy, 59*, 40–51. https://doi.org/10.1016/j.brat.2014.05.005

Newby, J. M., McKinnon, A., Kuyken, W., Gilbody, S., & Dalgleish, T. (2015). Systematic review and meta-analysis of transdiagnostic psychological treatments for anxiety and depressive disorders in adulthood. *Clinical Psychology Review, 40*, 91–110. https://doi.org/10.1016/j.cpr.2015.06.002

Norton, P. (2012). A randomized clinical trial of transdiagnostic cognitve-behavioral treatments for anxiety disorder by comparison to relaxation training. *Behavior Therapy, 43*(3), 506–517.

Norton, P., & Barrera, T. (2012). Transdiagnostic versus diagnosis-specific cbt for anxiety disorders: A preliminary randomized controlled noninferiority trial. *Depression and Anxiety, 29*(10), 874–882. https://doi.org/10.1002/da.21974

Norton, P. J., & Hope, D. A. (2005). Preliminary evaluation of a broad-spectrum cognitive-behavioral group therapy for anxiety. *Journal of Behavior Therapy and Experimental Psychiatry, 36*(2), 79–97. https://doi.org/10.1016/j.jbtep.2004.07.002

Norton, P. J., Little, T., & Wetterneck, C. T. (2014). Does experience matter? Trainee experience and outcomes during transdiagnostic cognitive-behavioral group therapy for anxiety. *Cognitive Behaviour Therapy, 43*(3), 230–238. https://doi.org/10.1080/16506073.2014.919014

Osma, J., Peris-Baquero, O., Suso-Ribera, C., Farchione, T. J., & Barlow, D. H. (2022). Effectiveness of the Unified Protocol for transdiagnostic treatment of emotional disorders in group format in Spain: Results from a randomized controlled trial with 6-months follow-up. *Psychotherapy Research, 32*(3), 329–342. https://doi.org/10.1080/10503307.2021.1939190

Page, M. J., Moher, D., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., & Page, C. R. (2020). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ*. https://doi.org/10.1136/bmj.n71

Pearl, S. B., & Norton, P. J. (2017). Transdiagnostic versus diagnosis specific cognitive behavioural therapies for anxiety: A meta-analysis. *Journal of Anxiety Disorders, 46*, 11–24. https://doi.org/10.1016/j.janxdis.2016.07.004

Pinto, J. (2020). *Abordagens transdiagnósticas e seus usos para o desenvolvimento de marcadores objetivos em psiquiatria*. [Tese de Doutoramento, Faculdade de Medicina da Universidade Federal do Rio Grande do Sul] *. Repositório Institucional da Universidade Federal do Rio Grande do Sul. https://www.lume.ufrgs.br/handle/10183/206577

Reinholt, N., Hvenegaard, M., Christensen, A. B., Eskildsen, A., Hjorthøj, C., Poulsen, S., Arendt, M. B., Rosenberg, N. K., Gryesten, J. R., Aharoni, R. N., Alrø, A. J., Christensen, C. W., & Arnfred, S. M. (2022). Transdiagnostic versus diagnosis-specific group cognitive behavioral therapy for anxiety disorders and depression: A randomized controlled trial. *Psychotherapy and Psychosomatics*. https://doi.org/10.1159/000516380

Reinholt, N., & Krogh, J. (2014). Efficacy of transdiagnostic cognitive behaviour therapy for anxiety disorders: A systematic review and meta-analysis of published outcome studies. *Cognitive Behaviour Therapy, 43*(3), 171–184. https://doi.org/10.1080/16506073.2014.897367

Roberge, P., Provencher, M. D., Gaboury, I., Gosselin, P., Vasiliadis, H.-M., Benoît, A., Carrier, N., Antony, M. M., Chaillet, N., Houle, J., Hudon, C., & Norton, P. J. (2020). Group transdiagnostic cognitive-behavior therapy for anxiety disorders: A pragmatic randomized clinical trial. Psychological Medicine. https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,shib&db=psyh&AN=2020-92662-001&lang=pt-pt&site=ehost-live&scope=site

Rogiers, R., Baeken, C., den Abbeele, D., Watkins, E. R., Remue, J., Colman, R., De Raedt, R., & Lemmens, G. M. D. (2022). Group intervention "Drop it!" decreases repetitive negative thinking in major depressive disorder and/or generalized anxiety disorder: A randomised controlled study. *Cognitive Therapy and Research, 46*(1), 182–196.

Sauer-Zavala, S., Gutner, C. A., Farchione, T. J., Boettcher, H. T., Bullis, J. R., & Barlow, D. H. (2017). Current definitions of "transdiagnostic" in treatment development: A search for consensus. *Behavior Therapy, 48*(1), 128–138. https://doi.org/10.1016/j.beth.2016.09.004

Schaeuffele, C., Schulz, A., Knaevelsrud, C., Renneberg, B., & Boettcher, J. (2021). CBT at the crossroads: The rise of transdiagnostic treatments. *International Journal of Cognitive Therapy, 14*(1), 86–113. https://doi.org/10.1007/s41811-020-00095-2

Schmidt, N. B., Buckner, J. D., Pusser, A., Woolaway-Bickel, K., Preston, J. L., & Norr, A. (2012). Randomized controlled trial of false safety behavior elimination therapy: A unified cognitive behavioral treatment for anxiety psychopathology. *Behavior Therapy, 43*(3), 518–532. https://doi.org/10.1016/j.beth.2012.02.004

Sheehan, D. V., Lecrubier, Y., Sheehan, K. H., Amorim, P., Janavs, J., Weiller, E., Hergueta, T., Baker, R., & Dunbar, G. C. (1998). The mini-International neuropsychiatric interview (M.I.N.I.): The development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. *Journal of Clinical Psychiatry, 59*(20), 22–33.

Silva, R. A. da S. (2016). *A perspetiva transdiagnóstica pela voz de psicoterapeutas e supervisores: um estudo qualitativo pela variedade de fatores* [Dissertação de Mestrado, Universidade de Lisboa] *. Repositório Institucional da Universidade de Lisboa.

Sterne, J. A. C., Savović, J., Page, M. J., Elbers, R. G., Blencowe, N. S., Boutron, I., Cates, C. J., Cheng, H. Y., Corbett, M. S., Eldridge, S. M., Emberson, J. R., Hernán, M. A., Hopewell, S., Hróbjartsson, A., Junqueira, D. R., Jüni, P., Kirkham, J. J., Lasserson, T., Li, T., … Higgins, J. P. T. (2019). RoB 2: A revised tool for assessing risk of bias in randomised trials. *The Bmj, 366*, 1–8. https://doi.org/10.1136/bmj.l4898

Talkovsky, A. M., Green, K. L., Osegueda, A., & Norton, P. J. (2017). Secondary depression in transdiagnostic group cognitive behavioral therapy among individuals diagnosed with anxiety disorders. *Journal of Anxiety Disorders, 46*, 56–64. https://doi.org/10.1016/j.janxdis.2016.09.008

Teismann, T., von Brachel, R., Hanning, S., Grillenberger, M., Hebermehl, L., Hornstein, I., & Willutzki, U. (2014). A randomized controlled trial on the effectiveness of a rumination-focused group treatment for residual depression. *Psychotherapy Research, 24*(1), 80–90. https://doi.org/10.1080/10503307.2013.821636

Wade, S., Byrne, S., & Allen, K. (2017). Enhanced cognitive behavioral therapy for eating disorders adapted for a group setting. *International Journal of Eating Disorders, 50*(8), 863–872.

Watts, S. E., Turnell, A., Kladnitski, N., Newby, J. M., & Andrews, G. (2015). Treatment-as-usual (TAU) is anything but usual: A meta-analysis of CBT versus TAU for anxiety and depression. *Journal of Affective Disorders, 175*, 152–167. https://doi.org/10.1016/j.jad.2014.12.025

Wuthrich, V. M., & Rapee, R. M. (2013). Randomised controlled trial of group cognitive behavioural therapy for comorbid anxiety and depression in older adults. *Behaviour Research and Therapy, 51*(12), 779–786. https://doi.org/10.1016/j.brat.2013.09.002

Wuthrich, V. M., Rapee, R. M., Kangas, M., & Perini, S. (2016). Randomized controlled trial of group cognitive behavioral therapy compared to a discussion group for co-morbid anxiety and depression in older adults. *Psychological Medicine, 46*(4), 785–795.

Zemestani, M., Imani, M., & Ottaviani, C. (2017). A preliminary investigation on the effectiveness of unified and transdiagnostic cognitive behavior therapy for patients with comorbid depression and anxiety. *International Journal of Cognitive Therapy, 10*(2), 175–185.