Journal of Contextual Behavioral Science 34 (2024) 100846

Contents lists available at ScienceDirect

Journal of Contextual Behavioral Science

journal homepage: www.elsevier.com/locate/jcbs

Contextual-compassion training for borderline personality disorder with long lasting symptoms: A randomized clinical trial

Elisabet Casellas-Pujol [a,b,c,1], Joaquim Soler [a,b,c,*,1], Carlos Schmidt [a], Anna Soria-Madrid [a,b], Matilde Elices [c,d], Juan Carlos Pascual [a,b,c]

[a] Department of Psychiatry, Hospital de la Santa Creu i Sant Pau, Institut d'Investigació Biomèdica-Sant Pau (IIB-SANTPAU), Barcelona, Spain
[b] Universitat Autònoma de Barcelona (UAB), Barcelona, Spain
[c] Centro de Investigación Biomédica en Red de Salud Mental, CIBERSAM, Barcelona, Spain
[d] Mental Health Research Group, Hospital del Mar Medical Research Institute, Barcelona, Spain

ARTICLE INFO

Keywords:
Borderline personality disorder
Long-lasting symptoms
Compassion
Dialectical behavior therapy
Contextual approach

ABSTRACT

Long-term follow-up studies have shown that the symptoms of borderline personality disorder (BPD) tend to remit over time. However, many patients present long lasting symptoms (LLS), including low mood, emptiness, and persistent impairment in psychosocial adjustment. Given the high rate of LLS in BPD patients, new treatment strategies are needed. We conducted a randomized clinical trial (RCT) to evaluate the efficacy of a novel intervention that combines self-compassion and contextual-based skills for patients with persistent symptoms. Sixty BPD individuals with LLS who had received dialectical behavior therapy skills training (DBT-ST) in the previous six months were recruited and randomized to receive the experimental intervention or treatment as usual (TAU) for 12 weeks. All participants were evaluated pre- and post-intervention and at 3-months follow-up. The primary outcome measure was self-reported well-being. Other clinical variables were also evaluated, including depressive symptoms, BPD symptoms, functionality, self-compassion, and self-criticism. Participants in the experimental arm showed a significant increase in indicators of well-being (e.g., happiness and quality of life) and a significant decrease in depressive symptoms. These results were sustained—and even continued to improve—at the three-month follow-up. No significant changes were observed in BPD severity, self-criticism, or self-compassion. More RCTs are needed to test the efficacy of new interventions targeting this population with persistent symptoms, not only to reduce symptoms but also to promote well-being and personal recovery.

1. Introduction

Borderline personality disorder (BPD) is a severe mental illness characterized by a pervasive pattern of emotional dysregulation, impulsivity, identity dysfunction, and interpersonal relationship disturbances (APA, 2013; Bohus et al., 2021). Although BPD was initially considered a chronic, untreatable disorder with a poor prognosis, recent data from long-term follow-up studies suggest that symptoms tend to ameliorate over time, with a mean diagnostic remission rate of up to 60% (Álvarez-Tomás et al., 2017; Gunderson et al., 2011; Morgan et al., 2013; Paris, 2002; Temes & Zanarini, 2018; Zanarini et al., 2012).

Follow-up studies have consistently found that certain core BPD symptoms (e.g., impulsivity-related behaviors) generally resolve relatively quickly, whereas other symptoms, such as affective instability and anger, tend to persist over time (McGlashan et al., 2005). Patients with long-lasting symptoms (LLS) typically present some degree of clinical improvement, but low mood, feelings of emptiness, and poor psychosocial adjustment typically persist (Casellas-Pujol et al., 2024; Soler, Casellas-Pujol, Pascual, et al., 2022). The subset of BPD patients over age 40 with LLS has increased considerably in the last two decades and now accounts for 16% of all individuals seeking specialized care for BPD (Casellas-Pujol et al., 2024).

Psychotherapy is recommended as a first-line intervention for BPD in all clinical guidelines (National Collaborating Centre for Mental Health, 2009; Storebø et al., 2020). Although several different psychotherapeutic approaches are available to treat BPD, the most extensively studied and well-established approach is dialectical behavior therapy (DBT), whose effectiveness is supported by multiple clinical trials and a

* Corresponding author. Department of Psychiatry, Hospital de la Santa Creu i Sant Pau. Av. Sant Antoni Ma Claret 167, 08025, Barcelona, Spain.
E-mail address: jsolerri@santpau.cat (J. Soler).
[1] E.C-P and J.S. contributed equally to this work.

https://doi.org/10.1016/j.jcbs.2024.100846
Received 30 November 2023; Received in revised form 16 October 2024; Accepted 22 October 2024
Available online 23 October 2024

meta-analysis (Bohus et al., 2021; DeCou et al., 2019; Gillespie et al., 2022; Kliem et al., 2010; Storebø et al., 2020).

Standard DBT is a highly structured treatment that integrates cognitive-behavioral principles, mindfulness, and dialectical-based strategies (Linehan, 1993). It offers a stage-specific treatment approach determined by the severity of the disorder. BPD patients often have a wide range of co-occurring disorders and a tendency to engage in multiple behaviors that interfere with effective treatment (Linehan & Wilks, 2015). For this reason, in order to address these complex patients, the therapeutic goals of DBT are structured into four consecutively hierarchical stages.

The first stage of treatment has several key aims: to reduce life-threatening behaviors (i.e., parasuicidal behavior, severe eating disorder, and substance abuse), to reduce therapy-interfering behaviors, to stabilize the patient, and to achieve behavioral control. DBT skills training (DBT-ST) focuses on these goals by increasing skillful behaviors. The second stage of DBT is known as "the stage of quiet desperation" (Linehan & Wilks, 2015). Given that controlling actions do not reduce emotional suffering, at this stage of the treatment process, the goal is to help patients to fully experience and regulate their emotions. Post-traumatic stress disorder (PTSD) and trauma-related symptoms are also addressed at this stage. In the third stage of treatment, the main goal is to improve problem-solving related to activities of daily living, promote self-respect and improve relationships. Finally, the fourth stage treatment seeks to promote a sense of connectedness and full participation in life, and to increase feelings of joy and acceptance (Linehan & Wilks, 2015; Lynch et al., 2007).

To date, most research in DBT has focused on stage one and two (Bohus et al., 2021; Dimeff & Linehan, 2001; Harned et al., 2014; Lynch et al., 2007; Robins & Chapman, 2004). By contrast, few studies have evaluated stage three and four treatments. Nevertheless, studies with outcomes compatible with stages III and IV (i.e., depression and emptiness) suggest that standard DBT might not be sufficiently sensitive to resolve stage III and IV issues (Storebø et al., 2020). BPD patients with LLS present specific needs in stages III and IV and thus require specialized treatment targeting their persistent psychosocial impairment, negative affect and emptiness. One interesting approach to treating those LLS symptoms could be mindfulness or compassion-based strategies, which numerous studies have shown to improve positive affect, quality of life (QoL), and prosocial behavior (Berry et al., 2020; De Vibe et al., 2017; Donald et al., 2019; Eberth & Sedlmeier, 2012; Feliu–Solaret al., 2017; Galante et al., 2014; Hofmann et al., 2011; Nyklíček & Kuijpers, 2008).

In general, contextual therapies—and DBT in particular—seek to promote "a life worth living", which is a broader approach of mental health that goes beyond mere symptom reduction. This conception of mental health is shared by the positive psychology model (Hayes et al., 2011; Hayes et al., 2004; Salsman & Linehan, 2006; Seligman & Csikszentmihalyi, 2000). Good mental health comprises several different domains, including meaningful living, significant relationships, and good self-management strategies (Fusar-Poli et al., 2020; Iasiello & Van Agteren, 2020; Keyes, 2005). Despite the high clinical remission rates of BPD, it is important to underscore that remission does not necessarily indicate recovery or the absence of suffering, but rather that the patient no longer meets the diagnostic criteria for BPD. Many individuals who no longer present clinical BPD still suffer from some symptoms, which continue to negatively impact their lives. In this context, the broader concept of "good mental health" underlying the contextual approach is consistent with patient perspectives regarding personal recovery from BPD (Donald et al., 2017; Ng et al., 2016).

Soler, Casellas-Pujol, Pascual, et al. (2022) recently performed a qualitative study to examine the feasibility and acceptability of a new group skills training for people with BPD and LLS. Originally, the intervention combined DBT-ST, self-compassion and positive psychology. Low retention rates were observed and, considering the participants' feedback on the intervention, it evolved to a more contextual-oriented intervention including ACT's techniques, while self-compassion practices and positive psychology exercises were dismissed since they were not acceptable to participants. That study, which was carried out at a BPD treatment unit with 32 patients with LLS, demonstrated the feasibility of implementing this combined intervention in a real-world setting and most participants considered the intervention to be acceptable (Soler, Casellas-Pujol, Pascual, et al., 2022).

In this context, we conducted the present randomized controlled trial to compare a novel intervention that combines contextual-compassion and contextual-based skills with treatment-as-usual (TAU) in patients with BPD and LLS. We evaluated pre- and post-treatment changes in self-reported well-being, functionality, and clinical variables such as BPD severity and affective symptoms.

2. Method

2.1. Participants

A total of 60 outpatients with BPD and LLS were recruited from a BPD treatment unit at a public hospital in Spain. This outpatient program is part of Spain's Public National Mental Health Service and provides specialized care for people with BPD referred from other psychiatric clinical units (e. g, acute hospitalization units, general mental health outpatient services, psychiatric emergency units, private mental health centers, among others). Because of economic constraints, general mental health public services in Spain have some limitations in offering a complete care to individuals with BPD. In this sense, the specific care to BPD outpatients provided includes reliable BPD diagnostic confirmation with validated instruments, together with greater accessibility to the unit, emergency crisis intervention, higher frequency of visits, family support, general management with non-harmful strategies, and pharmacological supervision to avoid excessive medication use.

The staff has specific experience and sensitivity in treating BPD, as well as contextual training in DBT, mindfulness, compassion programs, and ACT. As part of routine care, DBT-ST intervention is offered to all participants in the BPD program. DBT-ST is a group format intervention based on the standard version of DBT (Linehan, 1993; Linehan & Wilks, 2015; Soler, Casellas-Pujol, Fernández-Felipe, et al., 2022). DBT-ST consisted of weekly skills training sessions (120 min each) and the treatment duration at the unit usually varies between 12 and 18 months. All training sessions were conducted by two experienced psychotherapists, each with over 10 years of clinical experience and specific training in DBT (Behavioral Tech Inc.; Seattle, WA, USA). The treatment groups consisted of 9–12 participants. None of the participants received any other type of individual or group psychotherapy during the study period.

DBT-ST aims to promote behavioural change, to help participants learn to be interpersonally effective, regulate emotions, foster acceptance, and develop mindfulness and distress tolerance. DBT-ST includes four modules: Mindfulness, Distress Tolerance, Emotion Regulation, and Interpersonal effectiveness. All participants recruited had previously completed a DBT-ST group intervention, which was a requirement to be included in the present clinical trial. Recruitment for the clinical trial was within six months after participants completed DBT-ST.

BPD with LLS was defined, in line with previous research (Casellas-Pujol et al., 2024; Soler, Casellas-Pujol, Pascual, et al., 2022), Soler, Casellas-Pujol, Fernández-Felipe, et al., 2022s the presence of some degree of clinical improvement and the absence of stage I and II behaviors (i.e., no life-threatening behaviors or trauma-related symptoms for $\geq$12 months), accompanied by persistent low mood, poor psychosocial adjustment, and/or feelings of emptiness. To assess for LLS, all participants were assessed by a clinical psychologist and a specialized psychiatrist.

Inclusion criteria were as follows: 1) adults aged 18–65 years; 2) primary diagnosis of BPD (DSM-IV-TR criteria), confirmed by two structured interviews, the Diagnosis Structured clinical interview for

DSM IV axis II personality disorders (SCID II; First et al., 1997) and the Diagnostic Interview for Borderlines Revised (DIB-R) (Barrachina et al., 2004); 3) presence of long-lasting BPD symptoms; and 4) previous participation in a DBT-ST intervention in the six months prior to inclusion. Exclusion criteria were: 1) presence of life-threatening behaviors in the last 12 months; 2) PTSD or related symptoms assessed by a clinical interview; 3) diagnosis of drug-induced psychosis, organic brain syndrome, bipolar or psychotic disorder; 4) intellectual disability; 5) participation in any other type of psychotherapy during the study. Patients were allowed to continue with pharmacological treatment already in place prior to study inclusion, but no dose modification was permitted during the study period. If some individual needed dose adjustments due to the presence of acute symptoms, they were dropped out of the study.

Written informed consent was obtained prior to inclusion in the study. The study was approved by the Clinical Research Ethics Committee at the Hospital de la Santa Creu i Sant Pau and carried out in accordance with the Declaration of Helsinki. This clinical trial was registered (Clinicaltrials.gov: NCT05972096).

2.2. Design

We developed a 12-week intervention based on self-compassion and contextual practices specifically designed to treat long-lasting BPD (for details, see Soler et al., 2022a,b). All participating therapists had received prior training in DBT, self-compassion programs, Acceptance and Commitment Therapy (ACT), and positive psychology (PP) (Cebolla & Alvear, 2019). Participants were assessed by a trained psychiatrist and a psychologist, both blinded to the treatment arms and not involved in the therapy. Both pre- and post-treatment assessments were conducted over two sessions to collect all relevant demographic data and to administer the self-report questionnaires described below. All participants were also evaluated 3-months after the final therapy session. Participants were randomized by a team member who was blinded to the two treatment conditions. The randomizer package in Rstudio (Coppock & Cooper, 2019) was used. In accordance with the study protocol, the 60 participants were randomized in equal numbers to the experimental intervention (n = 30) or TAU (n = 30).

2.3. Interventions

Experimental group: The treatment format consisted of 12 weekly sessions (2 h in duration) in a group setting (minimum 10 participants per group). As previously described by Soler, Casellas-Pujol, Pascual, et al. (2022), the content of the training was articulated around self-compassion, which played a central role in the intervention. Compassion in this training was considered as any other emotion in DBT, which can be differentiated in physiological, cognitive, motivational and behavioral domains and, thus, susceptible to influence. The initial sessions focused on compassion in terms of behavior (treating oneself in a caring way). The middle part progresses from loving-kindness to self-compassion, developing cognitive and emotional skills. The final part focused on the ability to feel positive emotions and also care for others. The therapists were instructed to emphasize that the goal of the intervention was not to achieve "instant" happiness, but rather to learn and practice evidence-based skills designed to promote self-care and well-being. Therapists had formal training in compassion programs, ACT, PP, and DBT. All participants received a workbook and recorded meditations for home. The intervention aims to introduce a set of new skills to DBT-ST for LLS of BPD and Stages III and IV of DBT (the less studied and developed stages). The new skills are taught following the same principles as in DBT: emphasizing validation, reinforcing practice and promoting dialectical thinking. Some of the skills are completely new to DBT, such as gratitude or savoring. Others, such as compassion or altruism, are skills already mentioned in the original DBT-ST, but the length, depth, and detail in which they are developed in the current contextual compassion training are far greater. Exercises and meditations were also trained during each session and participants were encouraged to keep practicing during the week. The session-by-session skills and intervention goals are summarized in Table 1. For more details, please see the article previously published by Soler, Casellas-Pujol, Pascual, et al. (2022).

Comparison condition (TAU): Although all patients in the comparison condition had previously participated in a DBT-ST group intervention as well, they did not receive any new specific psychotherapeutic interventions for BPD during the study period. Instead, they had psychiatric visits aimed at supervising pharmacological treatment according to general management and non-harmful strategies, based on the *Handbook of Good Psychiatric Management for Borderline Personality Disorder* principles (Gunderson, 2014).

2.4. Instruments

2.4.1. Diagnostic instruments

- *Diagnosis Structured clinical interview for DSM IV axis II personality disorders* (SCID II; First et al., 1997). The SCID II is a semi-structured interview to assess DSM-IV personality disorders. The Spanish validation study (Gómez-Beneyto et al., 1994) demonstrated good discrimination between personality disorders, with good inter-rater reliability (Kappa of .85).
- *Revised Diagnostic Interview for Borderlines* (DIB-R; Zanarini et al., 1989). The DIB-R is designed to diagnose BPD and assess symptom severity in the last two years. The Spanish version (Barrachina et al., 2004) has demonstrated good internal consistency (Cronbach's alpha .89), sensitivity (.81), and specificity (.94). Two authors (JS and JCP) were trained on the use of DIB-R and participated in the validation of a Spanish version of the DIB-R together with the first author of the interview.

2.5. Measures

Main outcome measure: well-being index.

- *The Pemberton Happiness Index (*PHI; Hervás & Vázquez, 2013). The PHI is a 11-item, self-reported Likert scale designed to measure happiness in the general population. The Spanish validation study showed high internal reliability (Cronbach's α = .91) (Hervás & Vázquez, 2013).

Secondary clinical variables:

- *The World Health Organization Quality of Life Assessment* (*WHO-QOL-BREF; The* WHOQOL-The WHOQOL Group, 1998). This 24-item questionnaire covers four domains related to QoL in the past two weeks: physical health, psychological health, social relationships, and environment. It also includes an unscored facet on overall QoL and general health. High scores indicate greater QoL. The Spanish validation study showed good internal reliability (Cronbach's α ranged from .75 to .80, depending on the domain) (Lucas-Carrasco, 2012).
- *The Borderline Symptom List -23* (BSL-23: Bohus et al., 2009). The BSL-23 is a self-report instrument designed to assess overall BPD severity in the last week. This scale has an unifactorial solution, with higher scores indicating more severe BPD. The Spanish validation study showed high internal reliability (Cronbach's α = .94) and good test-retest results (r = .73; p < .01) (Soler et al., 2013).
- *Remission from Depression Questionnaire* (RDQ; Zimmerman et al., 2013; Trujols et al., 2013). This instrument provides a broad, multidimensional assessment of remission from depressive symptoms. The questionnaire also evaluates self-reported anxiety, irritability, features of positive mental health, coping, functioning, life satisfaction, and a general sense of well-being. The RDQ has 41 items

Table 1
Summary of the final 12-week experimental intervention: skills and strategies and order of presentation.

Session number and goal	Skills	Description
1. Introduction	Emphasis on self-caring behavior.	Presentation of the goals of the intervention: defining self-caring and self-compassion.
2. Activating self-caring behaviors	"Please Self-care" "Self-calming and safe place meditations"	Promoting good health habits and behavioral changes related to self-caring. Introduction of self-compassion practices.
3. Identifying barriers and values to self-caring	"Wise-Matrix" "Wise-Mind meditations" "Identifying Values"	The Wise-Matrix is a compassionate and effective-oriented state of mind that is modeled to the participants once that barriers to self-caring behaviors emerge. Training a contextual view of problematic behaviors and exploring the main values for each participant. The use of "wise-mind" meditations to train a more self-compassionate behavior.
4. Identifying personal strengths	"Personal Strengths"	Exploring personal strengths as a way to promote values-oriented behavior. The use of "wise-mind" meditations to train a more self-compassionate behavior.
5. Identifying levels of self-care: cognitive	"Cognitive Self-care" "Loving-kindness meditations"	Promoting awareness and understanding of automatic emotional reactions (such as self-criticism). An evolutionary caring system model is presented. The use of loving-kindness meditations.
6. Identifying levels of self-care: behavioral	"Body Self-care" "Self-compassion meditations"	Skills such a "self-calming touch" gestures and body-related practices that convey feelings of love, care, acceptance and tenderness are modeled. Self-compassion meditations are practiced.
7. Identifying levels of self-care: emotional	"Self-compassion voice"	Participants were encouraged to discriminate self-criticism and replace it with a self-compassion. "Talking to themselves as they would talk to a loved one" and practicing "self-compassion meditations" were other skills used to facilitate a more compassionate behavior.
8. Identifying private events and generating self-perspective	"Multi-Self"	Exploring other perspectives of experiencing each situation ("other selves"), noticing *"who is in charge"*, and being able to access to a wise compassionate self.
9. Enhancing positive emotions	"Savoring"	Participants were trained to identify self-sabotaging and to use "savoring" as a way of noticing and amplifying positive experiences.
10. Enhancing positive emotions I	"Gratitude" "Interconnection meditations"	Paying attention to valued things in daily life that are not usually appreciated. "Interconnection meditations"
11. Enhancing positive emotions II	"Contribution" "Difficult person meditation"	Moving from self-centered negative emotions to taking concrete actions to help others in order to promote love and connection. The aim is to nurture old and new relationships. "Difficult person meditation" was also practiced.
12. Motivate daily practice of learned skills	Summary of skills and strategies learned	The final session focuses on underscoring the importance of continuing to practice the skills learned. Suggestions are given on how to facilitate practice in daily life.

with seven subscales. All items are evaluated on a 3-point scale. Higher scores indicate greater pathology.*The Self-Compassion Scale-Short Form* (SC-SF) (Neff, 2003). The SC-SF is a 12-item scale used to assess self-compassion. It evaluates three facets of compassion: (1) Common Humanity, which acknowledges that human suffering is inherent to the nature of life; (2) Mindfulness, which represents a stance of equanimity rather than over-identification, and (3) Self-kindness, which is an alternative to self-criticism and self-blaming. Responses are given on a 5-point scale ranging from 1 (almost never) to 5 (almost always). We used the Spanish version of this scale, which has shown good reliability, with Cronbach's α values ranging from .72 to .79 (Garcia-Campayo et al., 2014).

- *Forms of Self-Criticism/Self-Attacking and Self-Reassuring Scale* (FSCRS; Gilbert et al., 2004): This scale assesses the forms and styles of critical and reassuring self-evaluative responses to a setback or disappointment. The Spanish version has 14 items and three subscales, as follows: 1) Inadequate-self [IS], 2) Hated-self [HS], and 3) Reassured self [RS]). All items are rated on a 5-point Likert scale (ranging from 0 = not at all like me to 4 = extremely like me). In the Spanish version, all three subscales have shown good internal reliability (Cronbach's α = .80 for IS and HS, Cronbach's α = .81 for RS) (Navarrete et al., 2021).

3. Data analyses

Descriptive analyses were performed to check for baseline differences between the groups in demographic or clinical variables and measures of well-being. The chi-square test (or Fisher's exact test if the frequency was <5) was used for categorical variables and the *t*-test was used for continuous variables. Differences between completers (defined as having attended ≥6 therapy sessions) and non-completers in socio-demographic and clinical variables were explored by means of the chi-square test or ANOVAs, as appropriate.

All analyses were on an intention-to-treat basis, which included all enrolled participants, regardless of whether they completed the intervention or not. Missing data were treated with the last observation carried forward method. Multilevel modeling (MLM) with the restricted maximum likelihood method was used to evaluate the effects of treatment on well-being (i.e., PHI, WHO-QOL scales) and clinical outcomes (i.e., RDQ, BSL-23, SCS-SF, FSCRS). Time (pre-treatment, posttreatment, follow-up) and Group (experimental vs. control), and their interactions (Time x Group) were considered as fixed effects. Participants were considered as random effects (random participants' intercept). Post hoc analyses were conducted when significant interactions were found. All models were tested with the lme4 package using RStudio (CoreTeam, 2017). IBM-SPSS statistics (v. 24) was used to perform the descriptive analyses.

4. Results

4.1. Sample characteristics

A total of 60 outpatients with long-lasting symptoms of BPD were enrolled in the study. The sociodemographic and clinical characteristics of the sample at baseline are shown in Table 2.

Most participants were women (n = 57; 95%). The mean age of the sample was 40.4 years. Slightly more than half of the participants (51.7%) were single and 31.7% were receiving a disability allowance. Most participants presented comorbidity (n = 52; 86.7%), most commonly affective (55%) or anxiety (56.7%) disorders. More than 60% of participants reported a previous suicide and/or self-injury attempt. Most participants (n = 55; 91.7%) were on pharmacotherapy. The only significant between-group difference in demographic or clinical characteristics was employment status, with 13 (43.3%) participants in the experimental group employed versus 22 (73.3%) in the comparison condition.

Fifteen of the 60 participants (25%) dropped out of the study. Of these, six were in the experimental group (1 withdrew during the study and 5 during follow-up) and nine were in the comparison condition (4 withdrew during the study and 5 during follow-up) (see Fig. 1). No significant differences were observed between completers and non-completers in terms of sociodemographic variables (all p-values >.11), well-being (all p-values >.22), or clinical outcomes (all p-values >.14).

4.2. Well-being and functionality outcomes

Table 3 presents the mean scores on measures of well-being and functionality at the three study time points (pre-treatment, post-treatment, 3-month follow-up). That table also shows time × group interaction analyses for well-being and functional clinical measures. There were no significant between-group differences in well-being at baseline (all p-values >.45). Multilevel analyses showed a significant time × group interaction on the subjective happiness index (PHI), with a moderate effect size (Fig. 2 and Table 3). The post hoc analysis showed a higher level of happiness in the experimental group vs. comparison at the posttreatment evaluation (b = .67, SE = .36, p < .05). This difference was maintained at the 3-month follow-up (experimental vs. comparison condition: b = 1.04, SE = .36, p < .01).

Time × group interactions were also observed for the physical health-related QoL indicator (WHO-QOL), with a moderate effect size (Table 2). On the post hoc analysis, the perceived physical quality of life at follow-up was higher in the experimental group vs. comparison group (b = 2.13, SE = .79, p < .01). On the other WHO-QOL subscales, we found a time effect on environment QoL, with a moderate effect size (F = 4.86, p < .05, η2 = .06). No significant effects of the intervention were found on the psychological and social relationship QoL subscales (all p-values >.21).

4.3. Clinical outcomes

No significant between group differences were observed in baseline clinical measures (all p-values >.10). A significant time × group interaction on symptoms of depression (RDQ) was observed, with a moderate effect size. On the post hoc analysis, the experimental group had a significantly greater improvement in depressive symptoms at the post-treatment evaluation (b = −8.90, SE = 3.84, $p < .05$) compared to comparison group (Fig. 3). These improvements in the experimental group were sustained and even increased at the 3-month evaluation (b = −10.42, SE = 3.84, $p < .01$).

In terms of the effect of the intervention on self-compassion levels, we found no significant effect on overall self-compassion (SCS-SF). A time × group interaction effect on the Isolation and Mindfulness

Table 2
Baseline demographic and clinical characteristics by group.

Variable	Active treatment (n = 30)		Control treatment (n = 30)		X^2	t	p
Demographic characteristics							
Gender, n (% females)	29	(96.7)	28	(93.3)	.35	–	n.s.
Age, mean (SD)	39.73	(8.14)	41.03	(7.67)	–	.11	n.s.
Ethnicity, n (% Caucasians)	30	(100)	30	(100)		–	n.s.
Education, n (%)							
Primary	6	(20)	8	(26.7)	3.5	–	n.s.
Secondary	9	(30)	14	(46.7)			
University	15	(50)	8	(26.7)			
Marital Status, n (%)							
Single	20	(66.7)	11	(36.7)	5.52	–	n.s.
Married/Stable couple	7	(23.3)	12	(40)			
Separated/Divorced	3	(10)	7	(23.3)			
Employment Status, n (%)							
Employed	13	(43.3)	22	(73.3)	5.55	–	.03
Disability pension	11	(36.7)	8	(26.7)	.69	–	n.s.
Clinical Characteristics							
DIB-R total score, mean (SD)	6.97	(1.06)	7.14	(1.26)	–	2.65	n.s.
DERS total score, mean (SD)	94.53	(21.34)	90.83	(18.01)	–	1.14	n.s.
BSL total score, mean (SD)	49.97	(22.98)	47.07	(22.29)	–	.44	n.s.
Current comorbid diagnoses, n (%)							
Any disorder	27	(90)	25	(83.3)	.57	–	n.s.
Any Affective disorder	19	(63.3)	14	(46.7)	1.68	–	n.s.
Any Anxiety disorder	17	(56.7)	17	(56.7)	.00	–	n.s.
Any Eating disorder	11	(36.7)	10	(33.3)	.07	–	n.s.
Any substance use disorder	9	(30)	10	(33.3)	.77	–	n.s.
Previous Self-injury behavior							
Previous suicide acts	19	(63.3)	19	(63.3)	.00	–	n.s.
Previous non-suicide self-injury	19	(63.3)	21	(70)	.30	–	n.s.
Pharmacological Treatment, n (%)	28	(93.3)	27	(90)	.21	–	n.s.
Antidepressant	26	(86.7)	25	(83.3)	.13	–	n.s.
Benzodiazepines	12	(40.0)	9	(30)	.65	–	n.s.
Antipsychotics	12	(40)	9	(30)	.65	–	n.s.
Mood Stabilizers	11	(36.7)	15	(50)	1.08	–	n.s.

Note. DIB-R = Diagnostic Interview for Borderlines Revised; BSL-23 = Borderline Symptom List 23; SD, standard deviation; n.s. = not significant.

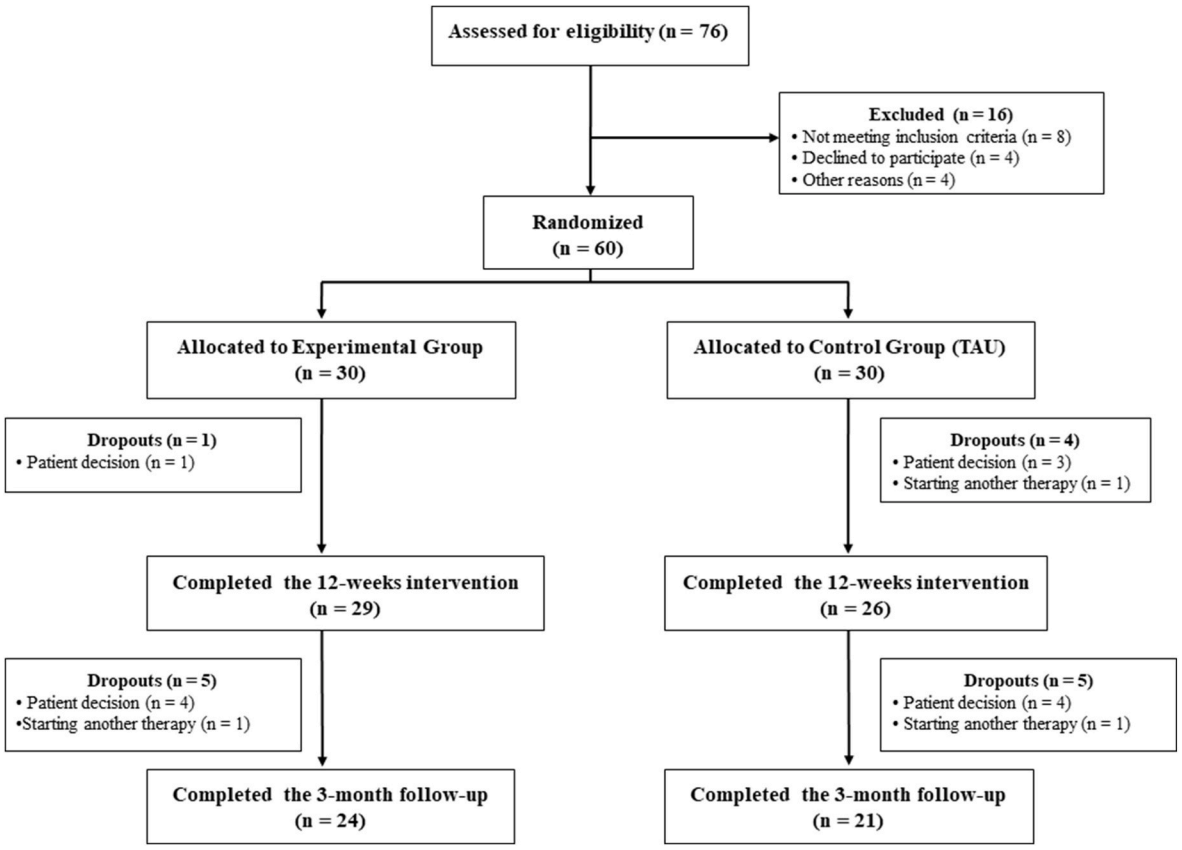

Fig. 1. Flow chart of participants throughout the study.

Table 3
Multilevel model analyses of well-being and clinical measures at pre, post-intervention and 3-month follow-up.

	Contextual-compassion group (N = 30)			Treatment as usual group (N = 30)					
	Pre	Post	Follow-up	Pre	Post	Follow-up	Group × Time Interaction		
	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	F	*p*	η_p^2
Well-being outcomes									
PHI	3.42 (1.88)	4.03 (1.76)	4.33 (1.84)	3.76 (1.69)	3.64 (1.41)	3.58 (1.62)	**4.48**	**.01**	.07
WHO-QOL									
Physical health	20.17 (2.75)	20.93 (3.22)	21.67 (3.88)	19.83 (3.26)	19.86 (3.76)	19.28 (3.45)	**3.95**	**.02**	.07
Psychological	14.37 (3.38)	14.37 (3.12)	15.93 (3.61)	14.86 (3.11)	14.66 (2.66)	15.00 (2.90)	1.54	.21	.03
Social relations	6.48 (2.50)	7.36 (2.43)	7.20 (2.63)	7.13 (2.65)	6.91 (2.95)	6.65 (2.82)	1.46	.23	.02
Environment	24.97 (5.85)	25.23 (6.06)	26.97 (6.40)	23.90 (4.90)	24.14 (6.05)	24.03 (5.36)	1.98*	.14	.03
Clinical outcomes									
RDQ	55.47 (13.02)	51.10 (17.79)	48.30 (15.09)	52.24 (17.59)	56.76 (12.79)	54.76 (15.16)	**4.27**	**.01**	.07
BSL-23	49.97 (22.98)	45.77 (23.81)	46.43 (22.06)	47.07 (22.29)	51.10 (22.09)	48.86 (24.07)	1.95	.14	.03
SCS-SF	23.90 (8.88)	26.37 (8.91)	27.13 (10.87)	25.79 (7.41)	26.14 (8.14)	26.21 (9.00)	1.74	.17	.03
Self-Kindness	4.30 (1.95)	4.77 (1.87)	5.07 (2.10)	4.45 (1.90)	4.83 (2.33)	4.45 (2.18)	1.76	.17	.03
Self-Judgment	4.13 (2.75)	4.20 (2.31)	4.27 (2.62)	4.48 (1.95)	4.52 (2.35)	4.76 (2.53)	.03	.96	.00
Common Hum	3.90 (1.72)	4.40 (2.02)	4.63 (2.12)	4.55 (2.04)	5.10 (2.22)	4.83 (2.13)	.55	.57	.00
Isolation	3.63 (1.95)	4.43 (2.04)	4.33 (2.10)	4.55 (2.18)	4.28 (2.21)	4.69 (2.45)	2.79	.06	.05
Mindfulness	4.70 (1.91)	4.90 (1.82)	5.40 (2.25)	5.03 (2.58)	5.28 (2.47)	4.93 (2.46)	2.91	.05	.05
Over-Identified	3.23 (1.85)	3.67 (1.84)	3.43 (1.71)	4.03 (1.88)	3.72 (2.12)	3.86 (2.16)	1.70	.18	.03
FSCRS									
IS	13.52 (4.35)	12.83 (4.02)	13.21 (4.37)	13.31 (3.85)	13.10 (4.63)	13.03 (4.46)	.34	.71	.00
HS	10.17 (3.92)	9.48 (3.97)	9.76 (3.27)	9.76 (3.58)	10.03 (4.08)	10.17 (4.29)	1.30	.27	.02
RS	7.52 (4.10)	7.72 (4.17)	7.48 (4.31)	7.48 (3.72)	7.83 (3.21)	7.93 (3.43)	.11	.89	.00

Note. TAU group = Treatment as usual group intervention; η_p^2 = partial eta-square effect size; PHI = Pemberton Happiness Index self-report; WHO-QOL = World Health Organization - Quality of life questionnaire; RDQ = Remission from depression questionnaire; BSL-23 = Borderline Symptom List-23; SCS-SF = Self-compassion scale - Short form; Common Hum = Common Humanity; FSCRS = Forms of Self-Criticizing/Attacking and Self-Reassuring Scale; IS = Inadequate Self; HS = Hated Self; RS = Reassurance Self. * = Time Main Effect.

subscales did not reach significance (p = .06) (Table 2). Post hoc analyses showed that the experimental group presented lower levels of isolation than the comparison group (e.g., "*when I'm feeling down, I tend to feel like most other people are happier than I am*" [inverse item]) at the posttreatment evaluation (b = 1.14, SE = .48, $p < .05$). However, these differences were not maintained at the final follow-up (b = .60, SE = .48,

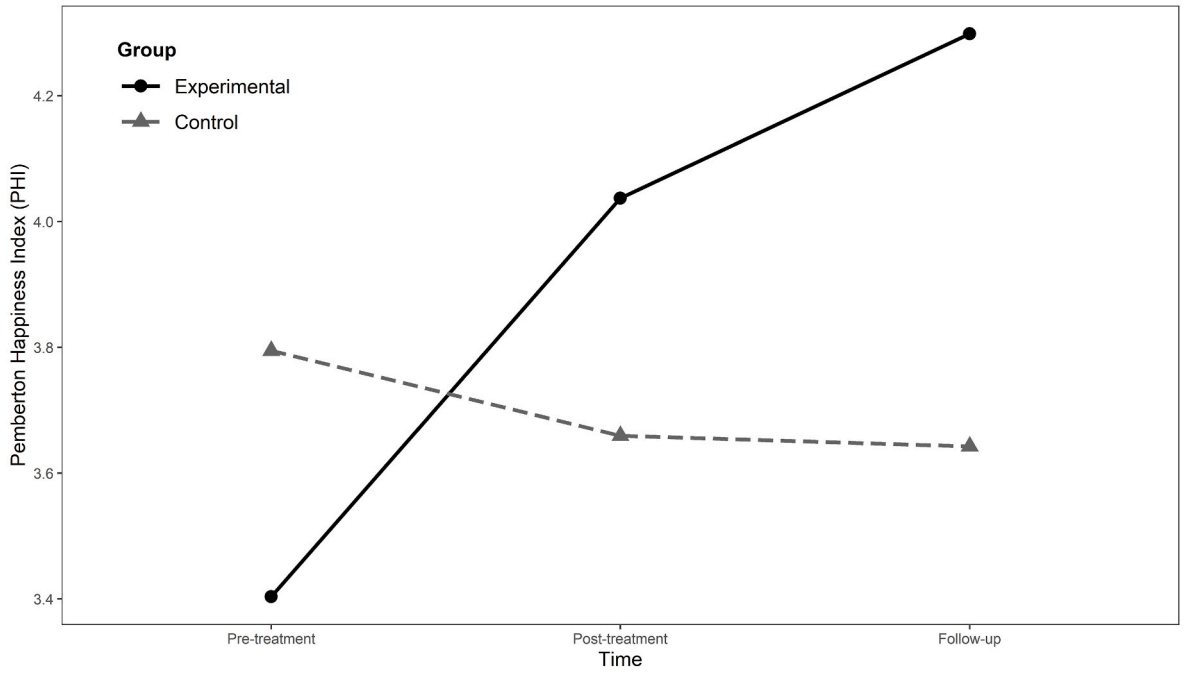

Fig. 2. Differences between groups in pre-post changes in the subjective happiness index (PHI) and at the 3-month follow-up.

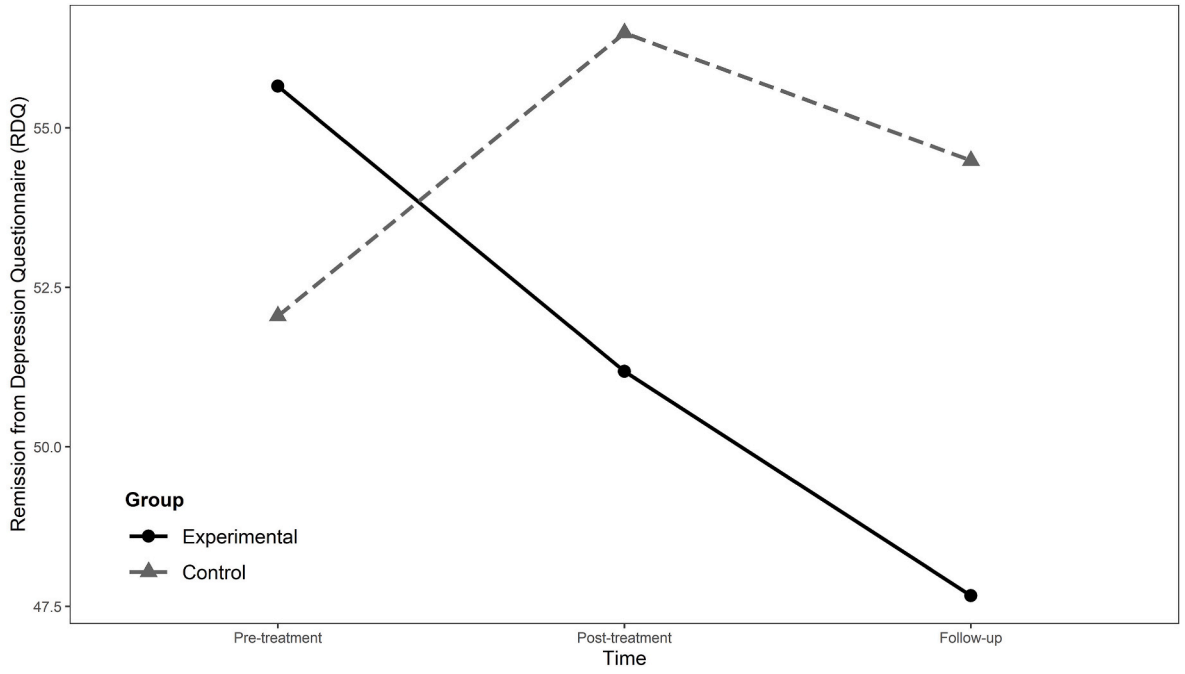

Fig. 3. Differences between groups in pre-post changes in symptoms of depression (RDQ) and at the 3-month follow-up.

$p = .21$). Mindfulness levels (e.g., "*When something painful happens, I try to take a balanced view of the situation*") were higher in the experimental group than in controls at the follow-up assessment (b = .82, SE = .40, $p < .05$).

Finally, the intervention had no significant effect in either group on clinical measures of borderline symptoms (BSL-23) or on the self-criticism subscales (FSCRS).

5. Discussion

Although several studies have found that therapies tailored to the treatment of BPD can successfully reduce the severity of BPD symptoms and parasuicidal behaviors (Stoffers-Winterling et al., 2022; Storebø et al., 2020), the available evidence for improvement in well-being, affect, and QoL is scant (Chakhssi et al., 2021; Yoshimatsu & Palmer, 2014). Nevertheless, the findings of the present study demonstrate that contextual-compassion training specifically designed to treat BPD with LLS has a significant positive effect on well-being, depressive symptomatology, and QoL.

Participants who received the experimental contextual-compassion training showed a significantly greater increase in measures of well-being compared to the comparison group. Moreover, this benefit was

sustained over the course of the 3-month follow-up period. Given the high prevalence of feelings of emptiness, chronic affective symptoms, and severely impaired psychosocial functioning in patients with persistent BPD symptoms, the improved well-being levels observed in this study are a highly relevant clinical finding (Álvarez-Tomás et al., 2017; Casellas-Pujol et al., 2024). Moreover, this improvement in well-being is consistent with the therapeutic targets of stage III and IV of DBT, which aim to improve activities of daily living, self-respect, connectedness, acceptance, and full participation in life (Linehan & Wilks, 2015).

Compared to the comparison group, the contextual-compassion group reported a higher perceived physical QoL at follow-up. This finding makes sense given that the intervention was based on the self-care goals' pyramid (Soler, Casellas-Pujol, Pascual, et al., 2022). The initial focus of skills training is to improve the participant's general health status by reducing substance use and addressing any physical illnesses, and on implementing and maintaining healthy habits (better sleep practices, good nutrition, exercise, etc.), all of which are the most basic forms of biological self-care. In this regard, it is not surprising to observe that the experimental group, who received training in behavioral activation focused on physical self-care, reported a higher perceived physical QoL than the controls at the post-intervention assessment.

We did not observe any significant changes in several areas, including mental health, relationships, and environmental QoL domains. Individuals with LLS often report social isolation and a significant reduction in their general activity levels (Álvarez-Tomás et al., 2017). It seems likely that the relatively short duration of the intervention (3 months) might not be sufficient to achieve major improvements in these areas. Consequently, to achieve more durable changes on all QoL domains, it may be necessary to repeat the entire 3-month intervention, as recommended in the standard DBT skills training protocol (Linehan, 2014).

Previous studies (Soler et al., 2009; Linehan & Wilks supplementary data, 2015) have shown that while DBT training can reduce affective symptomatology depressive symptoms often remain after treatment finalization (Storebø et al., 2020). This is relevant given that depression (major depressive disorder and/or dysthymia) is associated with poor functional outcomes and depression is also a predictor of both long-lasting BPD symptoms and BPD persistence into older adulthood (Beatson et al., 2016; Casellas-Pujol et al., 2024). In the experimental group, depressive symptoms had improved significantly at treatment completion and this improvement was sustained (and even increased) at the 3-month follow up. This is a clinically-relevant finding given that more than half of the sample presented comorbidity with affective and anxiety disorders. Moreover, given that depressive complaints are common in BPD patients (despite the use of medications), it is important to develop novel interventions designed to enhance well-being and reduce depressive symptomatology (Pascual et al., 2023).

Interestingly, despite the improved well-being in the experimental group, this was not associated with a corresponding decrease in BPD symptomatology, as evidenced by the lack of significant between-group differences on the BSL-23. This finding was somewhat unexpected, as it would seem logical that improved well-being would result in fewer BPD symptoms. The fact that the intervention did not target typical BPD symptoms (and that the BSL-23 scale mainly assesses acute symptoms such as anger, emotional dysregulation, impulsivity and self-injury but to a lesser extent, LLS) could, at least partially, explain this finding. Another possible explanation is related to the treatment approach, as the focus of contextual-compassion therapy is not on symptom reduction but rather on improving resilience, positive growth and valued actions (Hayes & Hofmann, 2021). In fact, this seeming contradiction between improved well-being and a lack of symptom improvement is actually consistent with the findings of a recent review carried out to assess the impact of psychotherapy on QoL in patients with BPD (Chakhssi et al., 2021). That review found that clinical severity and QoL are two different constructs. Consequently, an improvement in one construct does not necessarily imply improvement in the other (Chakhssi et al., 2021; Zanarini et al., 2012). DBT—or other efficacious treatments for BPD—should be among the first interventions applied to improve the clinical aspects of BPD. Other treatments, such as contextual-compassion training, might be useful to improve certain functional domains and well-being and also to reduce depressive symptoms. In this regard, studies that have assessed patient perspectives have found that well-being plays an important role in recovery (Katsakou et al., 2012). Consequently, it seems clear that promoting well-being should be a primary target in the treatment of BPD patients with LLS.

Surprisingly, we did not find any association between contextual-compassion training and changes in measures of overall self-compassion or self-criticism. Studies have shown that well-being and self-criticism are negatively correlated (Donald et al., 2019). Consequently, based on that inverse relationship, together with the findings of previous studies (Allen & Leary, 2010; Neff & McGehee, 2010), we hypothesized that compassion skill training would improve well-being while simultaneously reducing self-criticism. Donald and colleagues (2019) suggested that there is a strong interaction between self-reported personal recovery in BPD and self-compassion or self-criticism. In that study, self-compassion was a predictor of recovery in BPD patients, which suggests that interventions that focus on personal recovery may promote more self-compassionate behavior. However, it is important to keep in mind that self-compassion training can cause negative reactions in some participants, an effect known as "backdraft" (Neff, 2003). Specifically, for BPD patients, self-compassion exercises seem to be hard to regulate and may trigger difficult experiences (Feliu-Soler et al., 2017; Soler, Casellas-Pujol, Pascual, et al., 2022). That said, given that improving self-validation is among the most relevant targets in DBT treatment, it seems important to explore ways to foster self-compassion in BPD with LLS.

The experimental intervention had only a minor impact on self-compassion. On the post hoc analyses, we observed a significant decrease in isolation levels in the experimental group, although this change was no longer present at the 3-month follow-up, suggesting that it may be necessary to extend the treatment period (or perhaps even have participants repeat the entire training program a second time) in order to achieve more durable therapeutic changes. In a previous pilot study (Feliu-Soler et al., 2017), we sought to determine whether adding three sessions of compassion training to DBT skills training would improve outcomes in patients with BPD. Although the addition of compassion training increased acceptance, it did not reduce self-criticism or improve self-compassion. Therefore, in the present trial, we increased the number of compassion training sessions from 3 to 5, but this did not improve outcomes either, perhaps because improving self-criticism in BPD patients—especially those with LLS—requires substantially more training. Nonetheless, we did observe an improvement on the mindfulness subscale in the experimental group at the final follow-up, suggesting some benefit. This improvement in mindfulness was not unexpected given that the objective of contextual training is to foster discrimination of one's own behavior and cognitive defusion of difficult private events, which correlate with mindfulness (Elices et al., 2016; Franquesa et al., 2017).

The study has several important limitations, including the limited sample size that may increase type II errors, the large number of dropouts, the presence of comorbidity, the lack of use of specific PTSD scales or other instruments to assess comorbidity, and polypharmacy. Consequently, these findings should be interpreted cautiously. By contrast, this study has several important strengths. To our knowledge, this is the first RCT conducted in a real-world clinical setting to investigate the effect of a novel intervention aimed at stage III and IV of DBT in individuals with LLS. In addition, the intervention itself was partially developed with patient feedback, which explains why it was well-accepted by study participants. Another strength is that, from the

patients' perspective, the main outcome measure—well-being—is considered to be one of the most important outcomes. Finally, the 3-month follow-up allowed us to determine whether these positive results persisted over time.

In summary, the findings of this study show that participation in a 12-week contextual-compassion training program is associated with improved well-being, fewer depressive symptoms, and modest improvements in functionality. Moreover, these positive effects were sustained over the 3-month follow-up period. More studies are needed to evaluate DBT stages III and IV, particularly to assess the impact of treatment on long-lasting symptoms and personal recovery.

CRediT authorship contribution statement

Elisabet Casellas-Pujol: Writing – review & editing, Writing – original draft, Data curation, Conceptualization. **Joaquim Soler:** Writing – review & editing, Supervision, Resources, Methodology, Investigation, Conceptualization. **Carlos Schmidt:** Methodology, Investigation, Formal analysis. **Anna Soria-Madrid:** Investigation, Data curation. **Matilde Elices:** Methodology, Investigation. **Juan Carlos Pascual:** Writing – review & editing, Supervision, Project administration, Investigation, Funding acquisition, Conceptualization.

Ethics approval and consent to participate

The study was conducted according to the guidelines of the Declaration of Helsinki, and approved by the Ethics Committee of Hospital de la Santa Creu i Sant Pau. Informed consent was obtained from all participants.

Trial registration

Clinicaltrials.gov: NCT05972096.

Consent for publication

Not applicable.

Availability of data and materials

Data are available upon reasonable request.

Funding

This study was supported by the Centro de Investigación Biomédica en Red de Salud Mental (CIBERSAM) and by a grant from Instituto de Salud Carlos III (PI19/00087 and PI21/00505) and co-financed by the European Regional Development Fund (ERDF).

Declaration of competing interest

The authors declare that they have no competing financial interests or conflicts of interest that may have influenced the work reported in this study.

Acknowledgments

The authors would like to thank Bradley Londres for professional English language editing.

References

Allen, A. B., & Leary, M. R. (2010). Self-Compassion, stress, and coping. *Social and personality psychology compass, 4*(2), 107–118.

Alvarez-Tomás, I., Soler, J., Bados, A., Martín-Blanco, A., Elices, M., Carmona, C., … Pascual, J. (2017). Long-term course of borderline personality disorder: A prospective 10-year follow-up study. *Journal of Personality Disorders, 31*(5), 590–605.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders*. American Psychiatric Association. https://doi.org/10.1176/appi.books.9780890425596

Barrachina, J., Soler, J., Campins, M. J., Tejero, A., Pascual, J. C., Alvarez, E., … Pérez Sola, V. (2004). Validación de la versión española de la Diagnostic Interview for Borderlines-Revised (DIB-R). *Actas Españolas de Psiquiatría, 32*(5), 293–298.

Beatson, J., Broadbear, J. H., Sivakumaran, H., George, K., Kotler, E., Moss, F., & Rao, S. (2016). Missed diagnosis: The emerging crisis of borderline personality disorder in older people. *Australian and New Zealand Journal of Psychiatry, 50*(12), 1139–1145.

Berry, D. R., Hoerr, J. P., Cesko, S., Alayoubi, A., Carpio, K., Zirzow, H., … Beaver, V. (2020). Does mindfulness training without explicit ethics-based instruction promote prosocial behaviors? A meta-analysis. *Personality and Social Psychology Bulletin, 46*(8), 1247–1269.

Bohus, M., Kleindienst, N., Limberger, M. F., Stieglitz, R. D., Domsalla, M., Chapman, A. L., … Wolf, M. (2009). The short version of the borderline symptom list (BSL-23): Development and initial data on psychometric properties. *Psychopathology, 42*(1), 32–39.

Bohus, M., Stoffers-Winterling, J., Sharp, C., Krause-Utz, A., Schmahl, C., & Lieb, K. (2021). Borderline personality disorder. *The Lancet, 398*(10310), 1528–1540.

Casellas-Pujol, E., Soler, J., Schmidt, C., Soriano, J., & Pascual, J. C. (2024). Long-lasting symptoms in borderline personality disorder: Defining an emergent population with differential clinical and therapeutic features. *Personality and Mental Health*.

Cebolla, A., & Alvear, D. (2019). *Psicología positiva Contemplativa [Contemplative positive psychology]*. Barcelona: Kairós.

Chakhssi, F., Zoet, J. M., Oostendorp, J. M., Noordzij, M. L., & Sommers-Spijkerman, M. (2021). Effect of psychotherapy for borderline personality disorder on quality of life: A systematic review and meta-analysis. *Journal of Personality Disorders, 35*(2), 255–269.

Coppock, A., & Cooper, J. (2019). Randomizr: Easy-to-use tools for common forms of random assignment and sampling. *R package version 0.20. 0*.

De Vibe, M., Bjørndal, A., Fattah, S., Dyrdal, G. M., Halland, E., & Tanner-Smith, E. E. (2017). Mindfulness-based stress reduction (MBSR) for improving health, quality of life and social functioning in adults: A systematic review and meta-analysis. *Campbell systematic reviews, 13*(1), 1–264.

DeCou, C. R., Comtois, K. A., & Landes, S. J. (2019). Dialectical behavior therapy is effective for the treatment of suicidal behavior: A meta-analysis. *Behavior Therapy, 50*(1), 60–72.

Dimeff, L., & Linehan, M. M. (2001). Dialectical behavior therapy in a nutshell. *The California Psychologist, 34*(3), 10–13.

Donald, F., Duff, C., Broadbear, J., Rao, S., & Lawrence, K. (2017). Consumer perspectives on personal recovery and borderline personality disorder. *The Journal of Mental Health Training, Education and Practice, 12*(6), 350–359.

Donald, F., Lawrence, K. A., Broadbear, J. H., & Rao, S. (2019). An exploration of self-compassion and self-criticism in the context of personal recovery from borderline personality disorder. *Australasian Psychiatry, 27*(1), 56–59.

Eberth, J., & Sedlmeier, P. (2012). The effects of mindfulness meditation: A meta-analysis. *Mindfulness, 3*(3), 174–189.

Elices, M., Pascual, J. C., Portella, M. J., Feliu-Soler, A., Martín-Blanco, A., Carmona, C., & Soler, J. (2016). *Impact of Mindfulness Training on Borderline Personality Disorder: A Randomized Trial. Mindfulness, 7*(3), 584–595.

Feliu-Soler, A., Pascual, J. C., Elices, M., Martín-Blanco, A., Carmona, C., Cebolla, A., … Soler, J. (2017). Fostering self-compassion and loving-kindness in patients with borderline personality disorder: A randomized pilot study. *Clinical Psychology & Psychotherapy, 24*(1), 278–286.

First, M. B., Gibbon, M., Spitzer, R. L., Williams, J. B. W., & Benjamin, L. S. (1997). *Structured clinical interview for DSM-IV Axis II personality disorders (SCID-II)*. Washington, DC: American Psychiatric Press, Inc.

Franquesa, A., Cebolla, A., García-Campayo, J., Demarzo, M., Elices, M., Pascual, J. C., & Soler, J. (2017). Meditation practice is associated with a values-oriented life: The mediating role of decentering and mindfulness. *Mindfulness, 8*, 1259–1268.

Fusar-Poli, P., de Pablo, G. S., De Micheli, A., Nieman, D. H., Correll, C. U., Kessing, L. V., … van Amelsvoort, T. (2020). What is good mental health? A scoping review. *European Neuropsychopharmacology, 31*, 33–46.

Galante, J., Galante, I., Bekkers, M. J., & Gallacher, J. (2014). Effect of kindness-based meditation on health and well-being: A systematic review and meta-analysis. *Journal of Consulting and Clinical Psychology, 82*(6), 1101.

Garcia-Campayo, J., Navarro-Gil, M., Andrés, E., Montero-Marin, J., López-Artal, L., & Demarzo, M. M. P. (2014). Validation of the Spanish versions of the long (26 items) and short (12 items) forms of the Self-Compassion Scale (SCS). *Health and Quality of Life Outcomes, 12*(1), 1–9.

Gilbert, P., Clarke, M., Hempel, S., Miles, J. N., & Irons, C. (2004). Criticizing and reassuring oneself: An exploration of forms, styles and reasons in female students. *British Journal of Clinical Psychology, 43*(1), 31–50.

Gillespie, C., Murphy, M., & Joyce, M. (2022). Dialectical behavior therapy for individuals with borderline personality disorder: A systematic review of outcomes after one year of follow-up. *Journal of Personality Disorders, 36*(4), 431–454.

Gómez-Beneyto, M., Villar, M., Renovell, M., Pérez, F., Hernandez, M., Leal, C., … Asencio, A. (1994). The diagnosis of personality disorder with a modified version of the SCID-II in a Spanish clinical sample. *Journal of Personality Disorders, 8*(2), 104–110.

Gunderson, J. G. (2014). *Handbook of good psychiatric management for borderline personality disorder*. American psychiatric pub.

Gunderson, J. G., Stout, R. L., McGlashan, T. H., Shea, M. T., Morey, L. C., Grilo, C. M., … Skodol, A. E. (2011). Ten-year course of borderline personality disorder: Psychopathology and function from the collaborative longitudinal personality disorders study. *Archives of General Psychiatry, 68*(8), 827–837.

Harned, M. S., Korslund, K. E., & Linehan, M. M. (2014). A pilot randomized controlled trial of dialectical behavior therapy with and without the dialectical behavior therapy prolonged exposure protocol for suicidal and self-injuring women with borderline personality disorder and PTSD. *Behaviour Research and Therapy, 55*, 7–17.
Hayes, S. C., Follette, V. M., & Linehan, M. M. (Eds.). (2004). *Mindfulness and acceptance: Expanding the cognitive-behavioral tradition*. The Guilford Press.
Hayes, S. C., & Hofmann, S. G. (2021). "Third-wave" cognitive and behavioral therapies and the emergence of a process-based approach to intervention in psychiatry. *World Psychiatry, 20*(3), 363–375.
Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (2011). *Acceptance and commitment therapy: The process and practice of mindful change*. Guilford press.
Hervás, G., & Vázquez, C. (2013). Construction and validation of a measure of integrative well-being in seven languages: The Pemberton happiness index. *Health and Quality of Life Outcomes, 11*, 66.
Hofmann, S. G., Grossman, P., & Hinton, D. E. (2011). Loving-kindness and compassion meditation: Potential for psychological interventions. *Clinical Psychology Review, 31*(7), 1126–1132.
Iasiello, M., & Van Agteren, J. (2020). Mental health and/or mental illness: A scoping review of the evidence and implications of the dual-continua model of mental health. *Evidence Base: A journal of evidence reviews in key policy areas*, (1), 1–45.
Katsakou, C., Marougka, S., Barnicot, K., Savill, M., White, H., Lockwood, K., & Priebe, S. (2012). Recovery in borderline personality disorder (BPD): A qualitative study of service users' perspectives. *PLoS One, 7*(5), Article e36517.
Keyes, C. L. (2005). Mental illness and/or mental health? Investigating axioms of the complete state model of health. *Journal of Consulting and Clinical Psychology, 73*(3), 539.
Kliem, S., Kröger, C., & Kosfelder, J. (2010). Dialectical behavior therapy for borderline personality disorder: A meta-analysis using mixed-effects modeling. *Journal of Consulting and Clinical Psychology, 78*(6), 936.
Linehan, M. M. (1993). *Cognitive-behavioral treatment of borderline personality disorder*. New York (NY): Guilford Press.
Linehan, M. (2014). *DBT Skills training manual*. Guilford Publications.
Linehan, M. M., & Wilks, C. R. (2015). The course and evolution of dialectical behavior therapy. *American Journal of Psychotherapy, 69*(2), 97–110.
Lucas-Carrasco, R. (2012). The WHO quality of life (WHOQOL) questionnaire: Spanish development and validation studies. *Quality of Life Research, 21*(1), 161–165.
Lynch, T. R., Trost, W. T., Salsman, N., & Linehan, M. M. (2007). Dialectical behavior therapy for borderline personality disorder. *Annual Review of Clinical Psychology, 3*, 181–205.
McGlashan, T. H., Grilo, C. M., Sanislow, C. A., Ralevski, E., Morey, L. C., Gunderson, J. G., … Pagano, M. (2005). Two-year prevalence and stability of individual DSM-IV criteria for schizotypal, borderline, avoidant, and obsessive-compulsive personality disorders: Toward a hybrid model of axis II disorders. *American Journal of Psychiatry, 162*(5), 883–889.
Morgan, T. A., Chelminski, I., Young, D., Dalrymple, K., & Zimmerman, M. (2013). Differences between older and younger adults with borderline personality disorder on clinical presentation and impairment. *Journal of Psychiatric Research, 47*(10), 1507–1513.
National Collaborating Centre for Mental Health (UK). (2009). Borderline personality disorder: Treatment and management. *Leicester (UK): British Psychological Society (UK)*. ; (NICE Clinical Guidelines, No. 78.) Available from: https://www.ncbi.nlm.nih.gov/books/NBK55403/.
Navarrete, J., Herrero, R., Soler, J., Domínguez-Clavé, E., Baños, R., & Cebolla, A. (2021). Assessing self-criticism and self-reassurance: Examining psychometric properties and clinical usefulness of the Short-Form of the Forms of Self-Criticizing/Attacking & Self-Reassuring Scale (FSCRS-SF) in Spanish sample. *PLoS One, 16*(5), Article e0252089.
Neff, K. D. (2003). The development and validation of a scale to measure self-compassion. *Self and Identity, 2*(3), 223–250.
Neff, K. D., & McGehee, P. (2010). Self-compassion and psychological resilience among adolescents and young adults. *Self and Identity, 9*(3), 225–240.
Ng, F. Y., Bourke, M. E., & Grenyer, B. F. (2016). Recovery from borderline personality disorder: A systematic review of the perspectives of consumers, clinicians, family and carers. *PLoS One, 11*(8), Article e0160515.
Nyklíček, I., & Kuijpers, K. F. (2008). Effects of mindfulness-based stress reduction intervention on psychological well-being and quality of life: Is increased mindfulness indeed the mechanism? *Annals of Behavioral Medicine, 35*(3), 331–340.
Paris, J. (2002). Chronic suicidality among patients with borderline personality disorder. *Psychiatric Services, 53*(6), 738–742.
Pascual, J. C., Arias, L., & Soler, J. (2023). Pharmacological management of borderline personality disorder and common comorbidities. *CNS Drugs, 37*(6), 489–497.
Robins, C. J., & Chapman, A. L. (2004). Dialectical behavior therapy: Current status, recent developments, and future directions. *Journal of Personality Disorders, 18*(1), 73–89.
Salsman, N., & Linehan, M. M. (2006). Dialectical-behavioral therapy for borderline personality disorder. *Primary Psychiatry, 13*(5), 51.
Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist, 55*(1), 5–14. https://doi.org/10.1037/0003-066X.55.1.5
Soler, J., Casellas-Pujol, E., Fernández-Felipe, I., Martín-Blanco, A., Almenta, D., & Pascual, J. C. (2022a). "Skills for pills": The dialectical-behavioural therapy skills training reduces polypharmacy in borderline personality disorder. *Acta Psychiatrica Scandinavica, 145*(4), 332–342.
Soler, J., Casellas-Pujol, E., Pascual, J. C., Schmidt, C., Domínguez-Clavé, E., Cebolla, A., … Elices, M. (2022b). Advancing the treatment of long-lasting borderline personality disorder: A feasibility and acceptability study of an expanded DBT-based skills intervention. *Borderline personality disorder and emotion dysregulation, 9*(1), 1–14.
Soler, J., Pascual, J. C., Tiana, T., Cebrià, A., Barrachina, J., Campins, M. J., … Pérez, V. (2009). Dialectical behaviour therapy skills training compared to standard group therapy in borderline personality disorder: A 3-month randomised controlled clinical trial. *Behaviour Research and Therapy, 47*(5), 353–358.
Soler, J., Vega, D., Feliu-Soler, A., Trujols, J., Soto, A., Elices, M., … Pascual, J. C. (2013). Validation of the Spanish version of the borderline symptom list, short form (BSL-23). *BMC Psychiatry, 13*, 139.
Stoffers-Winterling, J. M., Storebø, O. J., Kongerslev, M. T., Faltinsen, E., Todorovac, A., Jørgensen, M. S., … Simonsen, E. (2022). Psychotherapies for borderline personality disorder: A focused systematic review and meta-analysis. *The British Journal of Psychiatry*, 1–15.
Storebø, O. J., Stoffers-Winterling, J. M., Völlm, B. A., Kongerslev, M. T., Mattivi, J. T., Jørgensen, M. S., … Simonsen, E. (2020). Psychological therapies for people with borderline personality disorder. *Cochrane Database of Systematic Reviews, 2020*(5).
Temes, C. M., & Zanarini, M. C. (2018). The longitudinal course of borderline personality disorder. *Psychiatria Clinica, 41*(4), 685–694.
The WHOQOL Group. (1998). Development of the world health organization WHOQOL-BREF quality of life assessment. *Psychological Medicine, 28*(3), 551–558.
Trujols, J., Portella, M. J., & Pérez, V. (2013). Toward a genuinely patient-centered metric of depression recovery: One step further. *JAMA Psychiatry, 70*(12), 1375, 1375.
Yoshimatsu, K., & Palmer, B. (2014). Depression in patients with borderline personality disorder. *Harvard Review of Psychiatry, 22*(5), 266–273.
Zanarini, M. C., Frankenburg, F. R., Reich, D. B., & Fitzmaurice, G. (2012). Attainment and stability of sustained symptomatic remission and recovery among patients with borderline personality disorder and axis II comparison subjects: A 16-year prospective follow-up study. *American Journal of Psychiatry, 169*(5), 476–483.
Zanarini, M. C., Gunderson, J. G., Frankenburg, F. R., & Chauncey, D. L. (1989). The revised diagnostic interview for borderlines: Discriminating BPD from other axis II disorders. *Journal of Personality Disorders, 3*(1), 10–18.
Zimmerman, M., Martinez, J. H., Attiullah, N., Friedman, M., Toba, C., Boerescu, D. A., & Ragheb, M. (2013). A new type of scale for determining remission from depression: The remission from depression questionnaire. *Journal of Psychiatric Research, 47*(1), 78–82.