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International Journal of Psychology & Psychological Therapy, 2022, 22, 3, 277-287

Adaptation of a DBT Intervention to Reduce Self-harm in Borderline Personality Disorder

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Abstract

Borderline Personality Disorder (BPD) is characterized by instability that often leads to Non-Suicidal Self-Injury (NSSI) and greater healthcare utilization. Dialectical Behavioral Therapy (DBT) is useful although its long duration and the need for specialized therapists make it difficult to implement in low-resources settings, so brief interventions can complement DBT. The objective of the present study was to undertake cultural adaptation of a Brief, Manualized Intervention to reduce NSSI in the Mexican population with BPD. An experimental design with a single-case pilot study with replicas was used with seven women with a BPD diagnosis. Five to six online sessions were implemented and emotional dysregulation, experiential avoidance and NSSI were measured weekly. NAP index was calculated to assess the effect of the intervention. Most participants showed a large effect size in reducing NSSI and a moderate effect size in reducing emotional dysregulation. Moderate and small effect sizes were obtained in experiential avoidance. The intervention adapted and validated seems to be useful and serve as an additional therapeutically tool to complement usual treatment of patients with BPD.

Key words: NSSI, manual-assisted cognitive therapy, borderline personality disorder, cultural adaptation.

How to cite this paper: Hernández-Orduña O, Arango I, Terres EM, Muñoz-Toledo C, Rodríguez-Delgado A, & Robles-García R (2022). Adaptation of a DBT Intervention to Reduce Self-harm in Borderline Personality Disorder. *International Journal of Psychology & Psychological Therapy, 22, 3,* 277-287.

Novelty and Significance

What is already known about the topic?

- Emotional dysregulation and experiential avoidance are common characteristics among people with Borderline Personality Disorder and play an important mediating role in Non-Suicidal Self-injury.
- Dialectical Behavioral Therapy has been proven to be effective to treat Border Personality Disorder, although its long duration and the need for specialized therapists make it difficult to implement in low-resources settings.
- Manual-Assisted Cognitive Therapy is a brief intervention that has shown promising results in reducing Non-Suicidal Self-injury and could be adapted for its use in such contexts to complement the usual treatment of Borderline Personality Disorder patients.

What this paper adds?

- Present the first cultural adaptation and evaluation of the Spanish version of Manual-Assisted Cognitive Therapy to reduce Non-Suicidal Self-injury among Borderline Personality Disorder patients attending a public mental health facility in a middle-income country.
- Spanish version of the Manual-Assisted Cognitive Therapy showed content validity and efficacy to decrease emotional dysregulation, experiential avoidance and Non-Suicidal Self-injury in Mexican Borderline Personality Disorder patients.
- Results suggest that working directly with Non-Suicidal Self-injury behaviors while providing long-term treatment and coping skills in face of dysregulation could reduce this problem and the use of emergency services.

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Borderline personality disorder (BPD) is a highly disabling disorder characterized by a pattern of significant instability in interpersonal relationships, emotional regulation, self-image, and impulse control. The clinical course of BPD is frequently unstable (Grupo de Trabajo Guía Práctica Clínica BPD, 2011), with periods of crisis characterized by a series of symptoms and behaviors with a significant affective burden (Biagini, Torruco-Salcedo, & Fernández, 2009), such as substance abuse, transitory psychotic symptoms, and impulsive behaviors (i.e., anger and aggression, risky sexual behaviors, theft, bingeing and purging, suicide attempts, and self-injury).

Self-injury is an intentional, self-inflicted act that entails low-lethality bodily harm, carried out to reduce emotional pain or Non-Suicidal Self-Injury (NSSI) (Walsh, 2007). NNSI is a major social problem in many countries (Muehlenkamp, Claes, Havertape, & Plener, 2012), since it is linked to suicide risk and therefore increases the likelihood of use of health services (Sanson, Farukhi, & Wiederman, 2011).

The most common types of NSSI are skin cuts in women, and body blows in men (Klonsky, 2007; Klonsky, Muehlenkamp, Lewis, & Walsh, 2011). A key difference between NSSI and suicide attempts is that the former involves low-lethality damage to cope with emotional pain to continue living (Walsh, 2007), which is why self-injury is considered to represent increased emotional suffering. In the context of BPD, NSSI rates of 48% to 79% have been found (Dubo, Zanarini, Lewis, & Williams, 1997), and is common among patients attending psychiatric facilities (Zlotnick, Mattia, & Zimmerman, 1999). NSSI tend to escalate in intensity and frequency over time, which is why, in the long run, they can also produce life-threatening injuries (such as infections, or long-term organ damage) (Cunningham et alia, 2021; Stanley & New, 2017).

Emotional dysregulation and experiential avoidance have been proposed as mediators of NSSI (Gratz, 2007; Gratz, Bardeen, Levy, Dixon-Gordon, & Tull, 2015; Gratz & Tull, 2010; Linehan, 1993). According to Chapman, Gratz, and Brown (2006), NSSI serves to avoid unwanted emotional states, functioning as a negative reinforcer. Furthermore, when combined with a lack of effective regulatory skills, this behavior is more likely to recur.

Dialectical behavioral therapy (DBT) (Linehan, 1993) is an effective treatment of patients with BPD that helps reduce symptom severity and contributes to the management of NSSI and suicide attempts. Many studies, systematic reviews and guidelines for clinical use (Cristea, Gentili, Cotet, Palomba, Barbui, & Cuijpers, 2017; Grupo de Trabajo Guía Práctica Clínica BPD, 2011; National Collaborating Center for Mental Health, 2009; National Collaborating Center for Mental Health, 2012; Turner, Austin, & Chapman, 2014) suggest it as the treatment with the greatest evidence and effectiveness, and it is considered a first-choice treatment. Is a long duration and high-cost treatment and the diversity of existing modalities make it difficult to adjust and implement this treatment at overload public health institutions. There is therefore a need to correctly adapt and implement models and brief interventions that are effective and designed to modify the variables related to risky behaviors that can complement the treatments already available at health institutions.

The Manual-Assisted Cognitive Therapy -MACT- (Evans *et alia*, 1999) is a brief intervention that has shown promising results in reducing self-injurious behaviors, which has already been tested in studies with people diagnosed with BPD in addition to their usual treatments (Weinberg, Gunderson, Hennen, & Cutter, 2006). The MACT is brief intervention (five to six sessions), cognitively orientated and focused on problem solving and using bibliotherapy as a therapeutic resource. The MACT includes crisis coping

skills, basic problem-solving techniques to control emotions, cognitive strategies to identify maladaptive thoughts, and relapse prevention strategies. MACT has been used as a complement in mental health clinics overload by the demand for services and can reduce the costs caused by NSSI behaviors in emergency services.

The aim of the present study was to undertake the cultural adaptation of the MACT to reduce NSSI in a sample of participants with BPD, according to the recommendations for cultural adaptations of evidence-based treatments (Barrera & Castro, 2006), including the stages of data collection, design of the adaptation, support of clinical experts, evaluation, the opinions of participants, and finetuning the cultural adaptation by incorporating the results of the previous stage.

Method

Design and Participants

The study design to evaluate the preliminary adaptation was instrumental (Montero & León, 2007), while a single case design with replicas was used for the evaluation of the preliminary adaptation. To evaluate the adequacy of the intervention, four clinical experts in the treatment of patients with BPD, who were familiar with DBT and cognitive behavioral therapy, as well as the use and construction of intervention manuals, participated. Seven adult Mexican women, who were patients at the Instituto Nacional de Psiquiatría Ramón de la Fuente Muñiz (RFMNIP) in Mexico City, attending the BPD clinic and were on the waiting list to join a skills training group (treatment as usual), took part in the pilot study. The inclusion criteria were having a BPD diagnosis, which had been made by resident physicians at the RFMNIP through a semi-structured SCID-II interview (Morrison, 2015), and presenting NSSI.

The protocol was reviewed and approved by the ethics committee of RFMNIP (reference number: 09-CEI-010-20230316), to observe the ethical principles of scientific research in humans. Participation was voluntary and free and as a safety measure, in each session, participants were asked to provide an emergency contact, as well as the location of the place where they would take the sessions, in case they had a crisis, and it was necessary to call emergency services.

Instruments

Emotional Regulation Difficulties Scale (ERDS, Gratz & Roemer, 2004; version adapted to the Mexican population, Marín, Robles, González Forteza, & Palos, 2012): Emotional dysregulation was measured using ERDS, comprising 24 items to evaluate fear of emotional experience and feelings of loss of control over their internal and behavioral expression. Each item is scored on a scale of 1 to 5. A total and four subtotals (emotional experience, difficulty maintaining goal-oriented behavior, lack of emotional awareness and lack of emotional clarity) can be obtained, with a higher score indicating a greater fear of emotions. This scale showed an internal consistency of α= 0.93, and a test-retest reliability of r= 0.88 (Marín *et alia*, 2012).

Avoidance and Action Questionnaire (AAQ, Hayes *et alia*, 2004; version adapted to Mexican population (Patrón, 2010): The experiential avoidance variable was measured using the AAQ, which makes it possible to determine the degree to which a person is unwilling to be in contact with certain private experiences and does everything possible to modify them. It consists of 10 items with a 7-point Likert scale, three of which have an inverse score. A higher score indicates a greater tendency to engage in experiential avoidance. The Mexican adaptation showed a construct validity similar to the English version and good internal consistency, with a Cronbach's α of 0.89 (Patrón, 2010).

CAL-I Self-Injury Card (CAL-I, Marín, 2013): NSSI behavior was recorded using the CAL-I to measure the severity of this behavior. An algorithm has been developed to enable one to quantify the severity of self-injury. This study considered the first factor on this card (significant self-injury), which has a maximum score of 25 points and is considered significant from two points onwards.

Severity Assessment Scale over Time of Borderline Personality Disorder version 1.7 (SASBPD, Pfohl, Blum, St. John, McCormick, Allen, & Black 2009): The severity of BPD was evaluated using the SASBPD with 15 items on a 5-point Lickert scale, with three questions worded in reverse order to prevent bias when answering. Its internal consistency is high, with a Cronbach's α of 0.86 to 0.90, and test-retest reliability of 0.62 after 45 days.

Satisfaction Survey. At the end of the intervention, was administered a Survey which designed for the present study, with 17 items some (of which are Likert-type responses and others open-ended) to explore the opinions of participants regarding the intervention and its components (e.g., effectiveness, content, material, duration, and ease of use)..

Procedure

The original version of the MACT (Evans et alia, 1999) was adapted using the recommendations to adapt evidence-based interventions (Barrera & Castro, 2006). First, the information was reviewed using PIO methodology to determine the characteristics of the population, the BPD and the variables involved in NSSI to ensure their correspondence in each of the intervention modules.

Next, the original intervention was translated, adapted, and culturally adapted. Then four clinical experts (one psychiatrist and three psychologists) evaluated the adequacy of the different sections of the manual. Each chapter included sections with "explanations," "life stories," and "exercises" comprising 152 sections, which each of the experts evaluated in three respects: drafting, coherence, and relevance. As a result of the comments that emerged from this evaluation, the suggested changes were made and implemented with a pilot group.

The intervention manual comprises seven chapters containing explanations, life stories and exercises, which are given to participants to read and answer, and serve to structure the sessions. An individual session was held weekly by video call, corresponding to each chapter, to review the exercises and, if necessary, complete them with the participants (five sessions, plus an extra one for participants with substance use). Chapter 1 contains explanations of the function of NSSI, Chapter 2 explains some strategies to cope with a crisis, Chapter 3 contains problem-solving exercises, Chapter 4 gives an explanation of how to modify thoughts, Chapter 5 is designed to help participants reduce or stop substance and alcohol consumption (only who presented it), by identifying advantages and disadvantages, while Chapter 6 talks about acceptance and relapses, and an additional chapter was added, for which guidance was provided but no session was given) which is designed for family members and people close to the participants, and is intended to provide support and certain strategies that are useful when patients experience crises.

To pilot the intervention, a single AB case study with replicas (Barlow & Hersen, 1973) was designed, which included weekly self-records of NSSI, emotional dysregulation and experiential avoidance. These self-records were made three weeks before the intervention began (baseline) and during the 5-6 weeks the intervention lasted. SASBPD was only administered pre- and post-intervention to detect changes after the intervention. Both the invitation procedure and the implementation of the instruments and the intervention were conducted by virtual and electronic means, observing the recommendations made by the World Health Organization regarding the SARS-CoV-2

pandemic. Each session lasted between 50 and 60 minutes, with one week between each one. Patients who used substances were given six sessions (including chapter 5 of the manual) while the rest received five.

Finally, a satisfaction survey was administered to explore the experience and subjective perception of participants and make the corresponding adaptations, which was the last step of the adaptation procedure.

Data Analysis

For the evaluation of the adequacy of the translated, adapted manual, the opinion of the group of experts was obtained through a format that concentrated their qualifications and observations. Each expert contributed a total of 456 scores for the entire manual (152 sections evaluated as regards drafting, coherence, and relevance). The mean of assigned scores (which ranged from 1 to 4) was obtained for each of the sections in the different dimensions. Next, the Aiken's *V* index (Aiken, 1985) was calculated, which is a coefficient that enables one to quantify and determine the reliability of the rating of the experts and their degree of agreement. The cut-off points to identify low agreement established that the lower limit of the 95% confidence interval was less than .50. When a section did not achieve this agreement in any dimension, it was reviewed and modified.

For the pilot study, a visual analysis of the graphs of the weekly self-records of each of the participants was undertaken to identify atypical values and calculate reference values. Once plotted, the Non-overlapping All Pairs (NAP) (Parker & Vannest, 2009) was calculated to determine the effect of the intervention. This index shows the effect size with a value ranging from 0 to 1 for each of the variables and the participants, in which a higher score indicates a greater effect. The authors of this index propose the following: <0.65% is a small effect, between 0.66% and 0.92% is a medium effect and ≥0.93% is a large effect.

Results

Regarding the agreement of the clinical experts when assessing the adequacy of the translated and adapted intervention, the mean of their scores was obtained, which ranged from 1-4, in each dimension, which is summarized in Table 1, and the number of sections that fail to reach the cut-off point to consider that there was an agreement between the experts, is also shown.

The experts failed to reach agreement in 22 sections, divided into two of the dimensions evaluated (drafting and relevance). There was no section in which experts failed to reach agreement over two dimensions at the same time. Most of the sections found with low assessment (i.e., the experts agreeing on this) were in the dimension of "Drafting" with 21 scores whose lower limit was less than .50, this being an indicator of the need for a detailed review of the syntax of the sentences to ensure better understanding by the population for whom the material is designed.

In the dimension of "Relevance," only one score was found below this value. This score was found in the "Life Stories" section and was eventually removed as it

Table 1. Average of the sections and number of sections below the lower limit of the CI <0.50.

Dimensions	Drafting	Coherence	Relevance
Average	3.68	3.94	3.94
Lower limit (CI) <.50	21	0	1

was not considered important for the purpose of the chapter. In all cases, the qualitative observations made by the experts were analyzed to make the suggested changes, which resulted in a preliminary version of the pilot manual was left.

The intervention was applied to seven female participants, with an average age of 37 years. Five (71%) of them were unpartnered (single or divorced) and two (29%) partnered (married or living together); four (57%) had completed high school and three (43%) held bachelor's degrees. For three (43%) of the participants, this was the first time they had had therapy; the other four (57%) had already done so but were not doing so at the time. Four (57%) of them reported a diagnosis of some mental health problems in addition to BPD (depressive disorder, generalized anxiety disorder, post-traumatic stress disorder, grief, and obsessive-compulsive disorder), and one reported a health problem (hypothyroidism). All the participants were under psychiatric treatment at RFMNIP at the time of the study.

NAP indices by participants and variable are summarized in Table 2. Participant 1 showed a strong effect on NSSI and a moderate effect size on the other two variables, participants 4 and 5 showed large effects in two of the variables (NSSI and dysregulation) and a moderate effect in one (avoidance), while participant 7 showed a moderate effect size in all three variables. All participants showed a moderate effect size in at least one of the variables studied.

Table 2. NAP indices of each of the participants in the variables studied.

Participants	Self-Injury	Dysregulation	Avoidance
P1	0.93**	0.87*	0.73*
P2	0.27	0.47	0.77*
P3	0.61	0.67*	0.67*
P4	0.94**	0.78*	0.42
P5	1**	0.92*	0.62
P6	0.83*	0.47	0.36
P7	0.83*	0.83*	0.70*

Notes: *= moderate effect size; **= strong effect size.

Figure 1 shows the results of the seven participants in the self-injury variable, where the first three measurements correspond to the baseline, and the rest to measurements taken during the intervention (5 to 6 sessions). Six of the participants reported significant NSSI (more than two) in their first reports. Throughout the sessions, none of the patients reported a score of more than two, which fell to zero in 6 participants and one participant

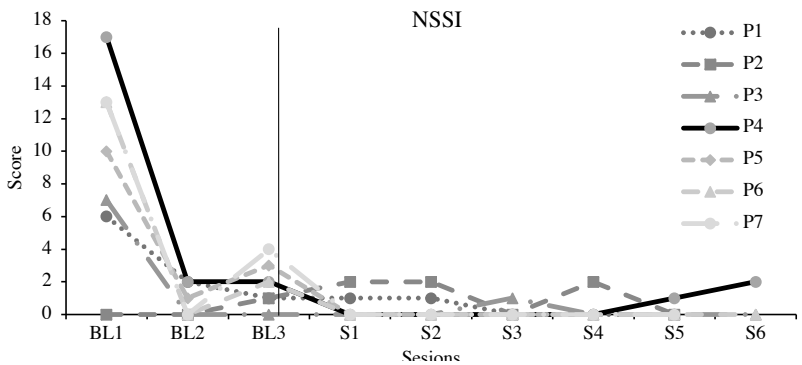

Figure 1. Graph of significant NSSI (BL: Baseline).

at the end of the intervention. As for the NAP, five participants showed a large effect and two a small effect.

Regarding the emotional dysregulation variable, scores are shown in Figure 2, where slight differences can be seen when comparing the baseline with the intervention of each participant. When the NAP was calculated, no participant showed a large effect, participants 1, 3, 4, 5 and 7 showed a moderate effect, which is more pronounced in participants 1, 5 and 7 in the graph, while the rest showed a small effect. Participant 3 showed marked fluctuations in her scores, ending with a downward trend.

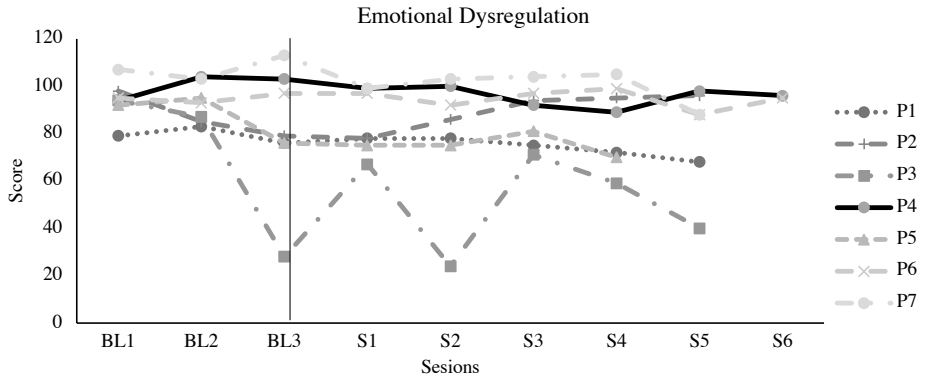

Figure 2. Graph of emotional dysregulation (BL: Baseline).

Regarding Experiential Avoidance, its decreasing trend was also lower than in the NSSI variable, each participant's scores on this variable during baseline and treatment can be seen in Figure 3.

Regarding the severity of BPD, the direct scores were considered at the beginning of the baseline measurements and at the end of the intervention, with five of the participants showing an improvement. However, participant 6 did not report any changes, while participant 4 showed an increase in her scores, as can be seen in Figure 4.

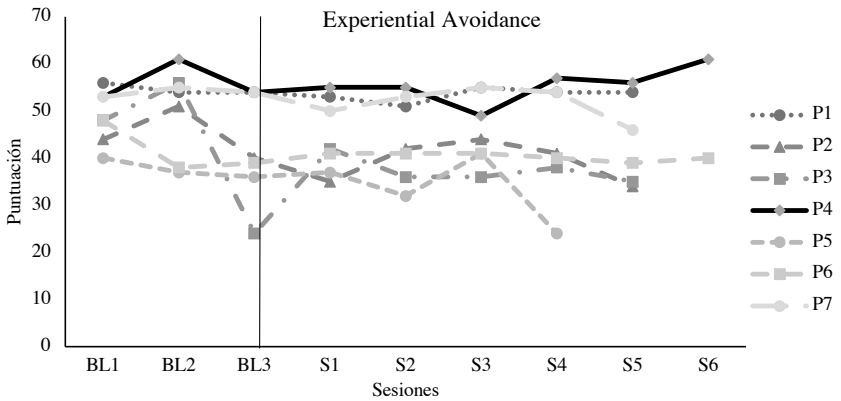

Figure 3. Graph of experiential avoidance (BL: Baseline).

Discussion

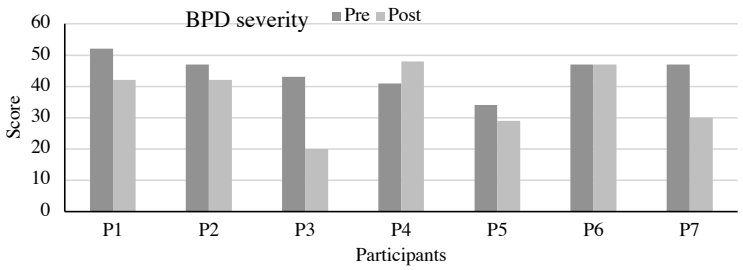

Figure 4. Graph of BPD severity.

In this study, the MACT was adapted. Attempts were made to gather evidence of content validity, as this was undertaken in keeping with the adaptation guidelines for evidence-based interventions (Barrera & Castro, 2006), evaluated by expert clinicians. The opinion of the patients after the piloting was considered, which enables it to be used to reduce NSSI in the Mexican population with BPD. In the pilot study, a decrease in the severity of NSSI was observed when the adapted intervention was administered, which coincides with the results of other studies that have used this intervention (Byford *et alia*, 2003; Davidson, Scott, Schmidt, Tata, Thornton, & Tyrer, 2004; Davidson, Brown, James, Kirk, & Richardson, 2014; Evans et alia, 1999; Goldney, 2004; Tyrer *et alia*, 2004; Tyrer *et alia*, 2003a; Tyrer et alia, 2003b; Weinberg *et alia*, 2006) which showed positive results in reducing NSSI. The MACT is a brief, manualized intervention on which there is evidence in the literature, which facilitates its use in overwhelmed health services (Byford *et alia*, 2003; Goldney, 2004; Tyrer *et alia*, 2003b) while reducing self-injury can decrease emergency service use (Tyrer *et alia*, 2004).

Except for participant 4, patients had reduced their NSSI to zero by the end of the intervention. In some cases, a reduction was also found in the other variables related to behavior. However, not all participants achieved a reduction in emotional dysregulation. As has been seen in the literature (Chapman *et alia*, 2006; Linehan, 1993) this variable plays a central role in NSSI, and serves to alleviate aversive emotional states, especially in people with BPD. A possible explanation for why this reduction was not achieved is that in order to break this behavioral pattern, it is necessary to learn basic strategies such as experiencing and identifying emotions and regulating the stimuli of emotions (Linehan, 1993), which require time and constant practice for their learning, which is difficult to achieve in short interventions. A similar thing happens with experiential avoidance, since people with BPD may experience a deficit in their skills for coping with discomfort. In the first instance, they resort to the avoidance of aversive states through NSSI, a pattern that is maintained when taking care of other states that are more bearable for the person and require time and practice to be modified.

Since changing such deep-rooted, rewarding response patterns may require long-term, consistent practice, a brief intervention such as the one in the present study may result in a moderate change in these two variables. However, this intervention teaches strategies for tolerating crises, and shows that although emotional dysregulation and experiential avoidance are not totally modified, they can directly affect the behavior of NSSI, meaning that it can serve as an adjunct to the usual intervention. This is

supported by the results of the two participants (P1 and P3) who had learned skills in the usual clinical treatment and showed moderate effect sizes in emotional dysregulation and experiential avoidance, as well as a reduction in the severity of BPD, which is also consistent with other studies (Morey, Lowmaster, & Hopwood, 2010; Tyrer *et alia*, 2004; Weinberg *et alia*, 2006).

Regarding the acceptability of the intervention by participants, it is important to consider the comments obtained in the satisfaction survey. The main disadvantage they reported focused on the perception of the brevity of the treatment (e.g., "I think there should have been more (sessions), it should have been at least twice as long"). Regarding positive aspects, one element that stood out was the self-perception of improvement (e.g., "Now I have the tools and knowledge of how to cope with problems and emotions").

They also expressed their satisfaction with the remote intervention scheme and the materials (e.g., "I liked the Zoom sessions," "the material is so clear"). In general, participants reported that, although they did not have enough time to master the strategies learned, they were left with the feeling that it is possible to do something different, which is understood as an increase in motivation. All these observations contribute to complementing the intervention and it would be useful if they were considered for future studies or uses of the intervention.

Despite the implications of this study, some possible limitations should also be considered. It is important to note that most of the study participants were already seeking some form of treatment, so their motivation to change may be high, which may not be representative of this type of patients. On the other hand, in this study it was only possible to recruit female participants who, although they constitute a majority of those treated at the clinic where the study was conducted, are not the only patients, meaning that the results could differ in male participants. Studies should be conducted with a larger number of participants and more elaborate designs that would allow results to be compared by gender. Although the treatment has proved to be effective in reducing significant self-injury, it is not generalizable to other variables involved in BPD. Accordingly, future studies should focus on proving its effectiveness as an adjunct to the usual treatment. Finally, it is important to emphasize that the therapists' training focused on treating this type of population, which could impact results. Future studies should incorporate health professionals with different levels of training, as has been done in other countries (Davidson *et alia*, 2004), with interesting results. It should even be administered in formal groups, with the addition of follow-up phases, which could allow more cost-effective interventions.

The intervention derived from this study was adapted and validated by clinicians who are experts in the treatment of patients with BPD, and it is suggested that it could function as an adjunct to the usual treatment. In addition, it has the advantage of being manualized, so it does not require special training. As it is a brief intervention, it can be used in saturated health services, which would increase the possibility of reaching a greater number of people. The pilot study showed a reduction in significant NSSI, which could reduce the use of emergency services in this population. However, further studies with different designs and populations are recommended to test its effectiveness.

References

Aiken LR (1985). Three coefficients for analyzing the reliability and validity of ratings. *Educational and Psychological Measurement, 45*, 131-142.

Barlow DH & Hersen M (1973). Single-case experimental designs: Uses in applied clinical research. *Archives of General Psychiatry, 29*, 319-325.

Barrera M & Castro FG (2006). A heuristic framework for the cultural adaptation of interventions. *Clinical Psychology: Science and Practice, 13*, 311-316. Doi: 10.1111/j.1468-2850.2006.00043.x

Biagini MB, Torruco-Salcedo M, & Fernández BC (2009). Estudio comparativo de psicoterapia de grupo para el tratamiento de pacientes con trastorno límite de la personalidad. *Salud Mental, 32*, 241-249.

Byford S, Knapp M, Greenshields J, Ukoumunne OC, Jones V, Thompson S, Tyrer P, Schmidt U, & Davidson K (2003). Cost-effectiveness of brief cognitive behaviour therapy versus treatment as usual in recurrent deliberate self-harm: A decision-making approach. *Psychological Medicine, 33*, 977-986. Doi: 10.1017/s0033291703008183

Chapman AL, Gratz KL, & Brown MZ (2006). Solving the puzzle of deliberate self-harm: The experiential avoidance model. *Behaviour Research and Therapy, 44,* 371-394. Doi: 10.1016/j.brat.2005.03.005

Cristea IA, Gentili C, Cotet CD, Palomba D, Barbui C, & Cuijpers P (2017). Efficacy of Psychotherapies for Borderline Personality Disorder: A Systematic Review and Meta-analysis. *JAMA Psychiatry, 74*, 319. Doi: 10.1001/jamapsychiatry.2016.4287

Cunningham KC, Aunon FM, Patel TA, Mann AJ, DeBeer BB, Meyer EC, Morissette SB, Silvia PJ, Gratz KL, Calhoun PS, Beckham JC, & Kimbrel NA (2021). Nonsuicidal Self-Injury Disorder, Borderline Personality Disorder, and Lifetime History of Suicide Attempts among Male and Female Veterans with Mental Health Disorders. *Journal of Affective Disorders, 287*, 276-281. Doi: 10.1016/j.jad.2021.03.033

Davidson K, Brown TM, James V, Kirk J, & Richardson J (2014). Manual-assisted cognitive therapy for self-harm in personality disorder and substance misuse: A feasibility trial. *The Psychiatric Bulletin, 38*, 108-111. Doi: 10.1192/pb.bp.113.043109

Davidson K, Scott J, Schmidt U, Tata P, Thornton S, & Tyrer P (2004). Therapist competence and clinical outcome in the Prevention of Parasuicide by Manual Assisted Cognitive Behaviour Therapy Trial: The POPMACT study. *Psychological Medicine, 34*, 855-863. Doi: 10.1017/S0033291703001855

Dubo ED, Zanarini MC, Lewis RE, & Williams AA (1997). Childhood Antecedents of Self-Destructiveness in Borderline Personality Disorder. *The Canadian Journal of Psychiatry, 42*, 63-69. Doi: 10.1177/070674379704200110

Evans K, Tyrer P, Catalan J, Schmidt U, Davidson K, Dent J, Tata P, Thornton S, Barber J, & Thompson S (1999). Manual-assisted cognitive-behaviour therapy (MACT): A randomized controlled trial of a brief intervention with bibliotherapy in the treatment of recurrent deliberate self-harm. *Psychological Medicine, 29*, 19-25. Doi: 10.1017/S003329179800765X

Grupo de trabajo Guía Práctica Clínica sobre Trastorno Límite de la Personalidad (2011) *Guía de práctica clínica sobre trastorno límite de la personalidad*. Barcelona: Agència d'Informació, Avaluació i Qualitat en Salut.

Goldney R (2004). Manual assisted cognitive behaviour therapy is as effective as treatment as usual for deliberate self-harm but is more cost effective. *Evidence-Based Mental Health, 7*, 15-15. Doi: 10.1136/ebmh.7.1.15

Gratz KL & Roemer L (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of Psychopathology and Behavioral Assessment 26*, 41-54.

Gratz KL (2007). Targeting emotion dysregulation in the treatment of self-injury. *Journal of Clinical Psychology, 63*, 1091-1103. Doi: 10.1002/jclp.20417

Gratz KL, Bardeen JR, Levy R, Dixon-Gordon KL, & Tull MT (2015). Mechanisms of change in an emotion regulation group therapy for deliberate self-harm among women with borderline personality disorder. *Behaviour Research and Therapy, 65*, 29-35. Doi: 10.1016/j.brat.2014.12.005

Gratz KL & Tull MT (2010). The Relationship Between Emotion Dysregulation and Deliberate Self-Harm Among Inpatients with Substance Use Disorders. *Cognitive Therapy and Research, 34*, 544-553. Doi: 10.1007/s10608-009-9268-4

Hayes SC, Strosahl K, Wilson KG, Bissett RT, Pistorello J, Toarmino D, Polusny M, Dykstra T, Batten S, Bergan J, Stewart S, Zvolensky M, Eifert G, Bond F, Forsyth J, Karekla M, & McCurry SM (2004). Measuring experiential avoidance: A preliminary test of a working model. *The Psychological Record, 54*, 553-578.

Klonsky ED (2007). The functions of deliberate self-injury: A review of the evidence. *Clinical Psychology Review, 27*, 226-239.

Klonsky ED, Muehlenkamp J, Lewis SP, & Walsh B (2011). *Nonsuicidal self-injury*, Vol. 22. Vancouver: Hogrefe.

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

Marín M, Robles R, González-Forteza C, & Palos PA (2012). Propiedades psicométricas de la escala "Dificultades en la Regulación Emocional" en español (DERS-E) para adolescentes mexicanos. *Salud Mental*. *35*. 521-526.

Marín, M. (2013). *Desarrollo y evaluación de un tratamiento cognitivo conductual para adolescentes que se autolesio-*

nan. Unpublished Doctoral Dissertation. Facultad de Psicología. Universidad Nacional Autónoma de México

Montero I & León OG (2007). A guide for naming research studies in Psychology. *International Journal of Clinical and Health Psychology, 7*, 847-862.

Morey LC, Lowmaster SE, & Hopwood CJ (2010). A pilot study of manual-assisted cognitive therapy with a therapeutic assessment augmentation for borderline personality disorder. *Psychiatry Research, 178*, 531-535.

Morrison J (2015). *DSM-5 Guía para el diagnóstico clínico*. México: El Manual Moderno.

Muehlenkamp JJ, Claes L, Havertape L & Plener PL (2012). International prevalence of adolescent non-suicidal self-injury and deliberate self-harm. *Child and Adolescent Psychiatry and Mental Health, 6*, 1-9. Doi: 10.1186/1753-2000-6-10

National Collaborating Centre for Mental Health (2009). *Borderline personality disorder: Treatment and management*. Leicester, UK: British Psychological Society.

National Collaborating Centre for Mental Health (2012). *Self-harm: Longer-term management*. Leicester, UK: British Psychological Society.

Parker RI & Vannest K (2009). An improved effect size for single-case research: Nonoverlap of all pairs. *Behavior Therapy, 40*, 357-367. Doi: 10.1016/j.beth.2008.10.006

Patrón FP (2010). La evitación experiencial y su medición por medio del AAQ-II. *Enseñanza e Investigación en Psicología, 15*, 5-19.

Pfohl B, Blum N, St. John D, McCormick B, Allen J, & Black DW (2009). Reliability and validity of the borderline evaluation of severity over time (Best): A self-rated scale to measure severity and change in persons with borderline personality disorder. *Journal of Personality Disorders, 23*, 281-293. Doi: 10.1521/pedi.2009.23.3.281

Sansone RA, Farukhi S, & Wiederman MW (2011). Utilization of primary care physicians in borderline personality. *General Hospital Psychiatry, 33*, 343-346. Doi: 10.1016/j.genhosppsych.2011.04.006

Stanley B & New A (2017). *Borderline Personality Disorder*. New York: Oxford University Press. Doi: 10.1093/med/9780199997510.001.0001

Turner BJ, Austin SB, & Chapman AL (2014). Treating nonsuicidal self-injury: A systematic review of psychological and pharmacological interventions. *The Canadian Journal of Psychiatry, 59*, 576-585. Doi: 10.1177/070674371405901103

Tyrer P, Jones V, Thompson S, Catalan J, Schmidt U, Davidson K, Knapp M, Ukoumunne OC, & on behalf of the POPMACT Group (2003a). Service Variation in Baseline Variables and Prediction of Risk in a Randomised Controlled Trial of Psychological Treatment in Repeated Parasuicide: The Popmact Study. *International Journal of Social Psychiatry, 49*, 58-69. Doi: 10.1177/0020764003049001148

Tyrer P, Thompson S, Schmidt U, Jones V, Knapp M, Davidson K, Catalan J, Airlie J, Baxter S, Byford S, Byrne G, Cameron S, Caplan R, Cooper S, Ferguson B, Freeman C, Frost S, Godley J, Greenshields J, Henderson J, Holden N, Keech P, Kim L, Logan K, Manley C, Macleod A, Murphy R, Patience L, Ramsay L, De Munroz S, Scott J, Seivewright H, Sivakumar K, Tata P, Thornton S, & Wessely S (2003b). Randomized controlled trial of brief cognitive behaviour therapy versus treatment as usual in recurrent deliberate self-harm: The POPMACT study. *Psychological Medicine, 33*, 969-976. Doi: 10.1017/S0033291703008171

Tyrer P, Tom B, Byford S, Schmidt U, Jones V, Davidson K, Knapp M, MacLeod A, & Catalan J (2004). Differential Effects of Manual Assisted Cognitive Behavior Therapy in the Treatment of Recurrent Deliberate Self-harm and Personality Disturbance: The POPMACT Study. *Journal of Personality Disorders, 18*, 102-116. Doi: 10.1521/pedi.18.1.102.32770

Walsh B (2007). Clinical assessment of self-injury: A practical guide. *Journal of Clinical Psychology, 63*, 1057-1068. Doi: 10.1002/jclp.20413

Weinberg I, Gunderson JG, Hennen J, & Cutter Jr CJ (2006). Manual assisted cognitive treatment for deliberate self-harm in borderline personality disorder patients. *Journal of Personality Disorders, 20*, 482-492. Doi: 10.1521/pedi.2006.20.5.482

Zlotnick C, Mattia JI, & Zimmerman M (1999). Clinical correlates of self-mutilation in a sample of general psychiatric patients. *The Journal of Nervous and Mental Disease, 187*, 296-301. Doi: 10.1097/00005053-199905000-00005

Received, Juny 16, 2022
Final Acceptance, August 16, 2022