Revista de Psicología Clínica con Niños y Adolescentes
Vol. 11 nº. 1- enero 2024 - pp. 24-32
doi: 10.21134/rpcna.2024.11.1.3

Copyright© 2024 RPCNA
www.revistapcna.com - ISSN 2340-8340

Revista de Psicología Clínica con Niños y Adolescentes

Changes in adolescents with borderline personality features and caregivers after dialectical behaviour multifamily group therapy

Sara Marco[1, 2], María Mayoral, [3, 4], & Gonzalo Hervás [2]

[1]*Sant Joan de Déu Terres de Lleida Hospital, Spain*
[2]*Department of Personality, Assessment and Clinical Psychology, Complutense University of Madrid, Spain*
[3]*Psychiatry Department of Child and Adolescent Psychiatry, Institute of Psychiatry and Mental Health, Hospital General Universitario Gregorio Marañón, Madrid, Spain*
[4]*School of Medicine, Universidad Complutense, IiSGM, CIBERSAM, Madrid, Spain*

Abstract

Dialectical Behaviour Therapy (DBT) is an effective treatment for symptoms of Borderline Personality Disorder (BPD) and has been adapted to adolescent population (DBT-A). The objective of this pilot study was to determine if DBT-A skill group as a stand-alone treatment could improve rearing styles and emotion regulation in adolescents with BPD features and their parents. We designed a 12-week skills group intervention with 14 adolescents with BPD features and their caregivers. Participants (81.82% female) ranged in age from 14 to 17 (*M*= 15.55 *SD*=.82).We tested the results of the intervention using the non-parametric Wilcoxon test and calculated effect sizes. To understand individual changes, we reported clinical reliable change (CRC). Acceptability of the intervention was also evaluated. The intervention was effective for improving rearing styles (more affectionate and less criticism) in parents and adolescents. Changes in emotion regulation processes were mixed. Some of the changes were stable 6 months after intervention. Participants reported good levels of satisfaction with the intervention. A DBT-A multifamily group intervention could modify potential mechanisms related with the developing BPD as rearing styles. The duration of the intervention could not be enough to improve emotion regulation processes. Developing early interventions with adolescents with BPD features could modify mechanisms that prevent the establishment of BDP. *Keywords: parenting; emotional regulation; family.*

Resumen

Cambios en adolescentes con rasgos de trastorno límite de personalidad y cuidadores tras un grupo multifamiliar de terapia dialéctico conductual. La Terapia Dialéctico Conductual (TDC) es efectiva para el tratamiento de los síntomas del Trastorno Límite de Personalidad (TLP) y ha sido adaptada a población adolescente (TDC-A). El objetivo de este estudio piloto fue determinar si el grupo de habilidades de TDC-A como tratamiento independiente podría mejorar los estilos de crianza y la regulación emocional en adolescentes con características de TLP y sus padres. Diseñamos una intervención grupal de habilidades de 12 semanas de duración con 14 adolescentes con características de TLP y sus cuidadores. Los partici-pantes (81.82% mujeres) tenían edades desde 14 a 17 años (*M*= 15.55 *SD*= .82).Evaluamos los resultados de la intervención mediante la prueba no paramétrica de Wilcoxon y el cálculo de los tamaños del efecto. Para conocer los cambios individuales, informamos el cambio clínico significativo (CCS). También se evaluó la aceptabilidad de la intervención. La intervención fue efectiva para mejorar los estilos de crianza (más afectivo y menos crítico) en padres y adolescentes. Los cambios en los procesos de regulación emocional fueron mixtos. Algunos de los cambios se mantuvieron estables 6 meses después de la intervención. Los participantes reportaron buenos niveles de satisfacción con la intervención. Una intervención multifamiliar grupal de TDC-A podría modificar los potenciales mecanismos relacionados con el desarrollo del TLP como son los estilos de crianza. La intervención podría no ser suficiente para mejorar los procesos de regulación emocional. Desarrollar una intervención temprana con adolescentes con rasgos de TLP podría modificar los mecanismos que previenen el establecimiento de TLP. *Palabras clave: crianza; regulación emocional; familia.*

Dialectical Behavioral Therapy (DBT) has been recognized as an effective treatment for suicide ideation and other symptoms of Borderline Personality Disorder (BPD) (Chen et al., 2021; Cristea et al., 2017; Cuevas-Yust & López-Pérez, 2012; Panos et al., 2014). Its use

Corresponding author:
Sara Marco.
Hospital Sant Joan de Déu Terres de Lleida.
Avinguda de la Canadenca, 26. 25001 Lleida, (Spain).
E-mail: saramarco@hotmail.com

has been spread to new settings (Flynn et al., 2019; Groves et al., 2012) and disorders (Feldman et al., 2009; Fischer & Peterson, 2015; Lang et al., 2018; Salbach-Andrae, et al., 2008). Healthcare workers adapted DBT to suicidal adolescent population (DBT-A) (Miller, 1999; Miller et al., 2006; Rathus & Miller, 2002), including the same components as DBT: individual therapy, skills training group, inter-session phone coaching and consultation team. However, DBT-A includes some differences from the original DBT, such as shortening the duration from one year to 12 weeks, adding a fifth skills module (Walking the Middle Path) and including families in the skills group (Miller, 1999; Rathus & Miller, 2002). The biosocial theory of BPD (Linehan, 1993) states that emotion dysregulation is the core difficulty for people with BPD. This theory proposes that emotion dysregulation is the consequence of the interaction of two factors: a biological vulnerability creating more intense emotions and an "invalidating environment" that punishes, ignores, and reacts inconsistently to the emotional expressions of the child (Linehan, 1993). Investigators have proposed DBT-A as a preventive intervention and an opportunity to influence the invalidating environment (Miller et al., 2006). Miller et al. (2002) proposed that including families in interventions with adolescents with BPD features could influence in decreasing risk factors (e.g. high level of conflict) and improving protective factors (e.g. warmth) of BPD. DBT-A was adapted to community settings in the Spanish public health system (Mayoral et al., 2020). This adaptation included the same structure, modules and components of intervention than the original version. This group also implemented a skills group for parents-only, addressed to improve emotion regulation in parents and crisis management skills with their children (Mayoral et al., 2020). Recently, DBT-A has been adapted to general population of adolescents in the Spanish school system (Gasol et al., 2022) and the preliminary outcomes showed good levels of acceptability and a better regulation of emotions.

Several randomized controlled trials (McCauley et al., 2018; Mehlum et al., 2014) have demonstrated the effectiveness of DBT-A compared to standard care for reducing depressive symptoms, self-harm, and suicidal ideation in suicidal adolescents. A meta-analysis of DBT-A interventions with adolescents (Cook & Gorraiz, 2016) revealed that a 12 to 24 weeks intensive DBT intervention seems to be enough to reduce BPD features, depression symptoms, self-harm, suicidal ideation and emotion dysregulation. In addition, DBT-A has shown higher satisfaction and retention rates compared with other effective interventions in adolescentes with BPD features, as Mentalization Based Therapy for Adolescents (MBT-A) (Jørgensen et al., 2021; Navarro-Haro et al., 2023). In Spanish adolescent population, a randomized controlled trial comparing DBT-A with treatment as usual plus group sessions (TAU+GS) (Santamarina-Perez et al., 2020) showed that DBT-A was superior in reducing self-harm and improving global functioning.

Skills training group is a key component of the DBT treatment. This modality is focused on teaching new strategies to manage emotions effectively. A systematic review (Valentine et al., 2015) found that a DBT skills group–only approach was effective and acceptable for use across a wide range of diagnoses and settings. Investigators have shown DBT skills group as a stand-alone treatment to be effective in adults diagnosed with depression (Blackford & Love, 2011; Feldman et al., 2009; Harley et al., 2008), BPD (Soler et al., 2009) and adolescents with oppositional defiant disorder (Nelson-Gray et al., 2006). In addition, skills training intervention has demonstrated to be effective in decreasing emotion dysregulation in adults with BPD (Neacsiu et al., 2010).

There is a trend to include relatives in the treatment of adolescents with BPD features (Hoffman et al., 2005; Miller & Skerven, 2017) and these interventions are poposed as a preventive approach that pretends to modify the invalidant environment where the adolescents live. Participation of parents in DBT-A groups fosters their children to practice and apply the skills learned in critical situactions in their real lives (Miller et al., 2006). Besides, some authors highlighted the role of parents ability to manage their own emocional responses as models of self-regulation strategies in their children (Cui et al., 2021). Emotional responses in parents shape their childrens managing with emotions (Buckholdt et al., 2014; Morelen et al., 2016). Holmqvist-Larsson et al. (2019) implemented skills groups of emotion regulation for adolescents with multiple diagnosis and their parents. Alter intervention, both adolescents and caregivers showed improvements in emotion regulation levels. Moreover, a recent study (Marco et al., 2023) supports the idea that DBT-A groups with caregivers only are effective to improve emotion regulation in adolescents, even they didn't participate in the intervention.

We implemented a pilot study to analyze the effect of a 12-week DBT skills group in adolescents with BPD features and their parents. The short duration of the intervention and the suppression of the other components of DBT (e.g. individual therapy, phone coaching, etc.) could be cost-effective and easier to implement in the Spanish national public health system. We applied the multifamily group intervention of DBT-A, in which adolescents and their parents attend to the group together. Studies of the effectiveness of DBT in adolescents are usually targeted to examine clinical symptoms as depression, self-harm and suicide attempts. Several authors have proposed that the ways that treatments operate are poorly understood and suggest the need to evaluate the influence of mechanisms of change of DBT in the clinical outcomes (Berk et al., 2020; Cook & Gorraiz, 2016; Mehlum et al., 2019). Our goal is to test whether this intervention can influence in the mechanisms that might be fostering BPD symptoms. The outcome variables proposed in this study are parenting styles and emotion regulation. These variables were chosen because of their relation with BPD according to the biosocial theory (Linehan, 1993; Lynch et al., 2006). In addition, emotion regulation has been identified as one of the mechanisms involved in improvements in symptoms after DBT-A (Asarnow et al., 2021; Dibaj et al., 2023; Gratz et al., 2015; Rudge et al., 2020). We evaluated the results of the interventions using three different indicators: pre-post group changes, effect size and Clinical Reliable Change (CRC).

Our objective was to determine whether a 12-week DBT multifamily group intervention (adolescents and parents) was effective at improving parenting styles and emotion dysregulation in adolescents with BPD features and their parents.

Hypothesis 1: Affectionate parenting style will be more common while Critical parenting style will be less common in adolescents with BPD features and their parents after intervention and at 6-month follow-up.

Hypothesis 2: Emotion dysregulation levels in adolescents with BPD features and their parents will be lower after intervention and 6-month follow-up.

Method

Procedure

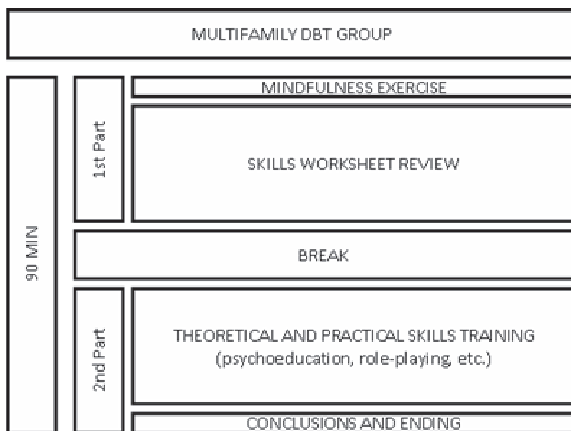
The intervention design was reviewed by Sant Joan de Déu Terres de Lleida Hospital (Lleida, Spain) ethical committee. Investigation

was carried out in accordance with the Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data and repealing Directive 95/46/EC (General Data Protection Regulation). We explained the purpose and methodology of the intervention and obtained the written informed consent of the participants and their parents before questionnaire completion.

We recruited participants from the mental health ambulatory services at Sant Joan de Déu Terres de Lleida Hospital. Participants were selected by clinical criterion of BPD symptoms and self-harm presentation. A clinical psychologist conducted an interview with participants and caregivers to get participation consent and socio-demographic data. After that, an interview with only children was made for clinical assessments. Adolescents and caregivers filled out questionnaires at home. Questtionaires were returned to the evaluator in a three-week period as a maximum. No monetary reimbursement was offered to participants.

We implemented a DBT skills multifamily group intervention in adolescents with BPD features and their parents. The aim of the intervention was to teach and practice the five skills modules proposed by Rathus & Miller (2015): Mindfulness, Distress Tolerance, Interpersonal Effectiveness, Emotion Regulation and Walking the Middle Path. Group therapy lasted 12 weekly sessions of 1.5-hour and was conducted by two trained clinical psychologists. Three groups were conducted and the size of each group was 4-5 families (8-10 individuals).

Figure 1. Structure of the multifamily group sessions.



Participants

Fourteen adolescents with BDP features and their parents participated in this intervention. All participants were between 12 and 17 years old. Stable living with one of their parents was also a criterion for all of them. Participants with intellectual disability (IQ<70) or difficulties in Spanish were excluded. Inclusion criteria were: meeting three criteria for BPD (e.g. impulsiveness and risky behaviour, emotional instability, feelings of emptiness, etc.), a history of suicide attempts or self-harm in the last 6 months and to be attending a mental health service. Three participants did not complete the intervention so we excluded them. The remaining participants (81.82% female) ranged in age from 14 to 17 (M= 15.55, SD= .82). Caregivers of the remaining participants were 10 mothers and one father. Ages of caregivers were between 28 and 52 years old (M= 39.5; SD= 7.74). Only one caregiver by participant participated in the intervention. The selection of the caregiver was made taking into account: stable living with the child, avalibility to attend the intervention and a good relationship with the child. The caregiver attending to the group must be always the same for all the sessions.

Measures

BPD features in adolescents were evaluated using the Spanish version of the Structured Clinical Interview for DSM-IV Axis II Personality Disorders (SCID-II) (First et al., 1997) module for BPD. This interview is valid in measuring Personality Disorders in adolescents (Salbach-Andrae, Bürger et al., 2008) and no adaptations were made. Axis I diagnoses were assessed in adolescents using the Spanish version of the Kiddie Schedule for Affective Disorders and Schizophrenia Present and Lifetime Version (K-SADS-PL) (Kaufman et al., 1997; Ulloa et al., 2006). A trained clinical psychologist administered the clinical interviews.

Parenting styles were measured by the Affect Scale (Fuentes et al., 1999). The Affect Scale is a self-report measure composed by 20 items and rated by a Likert Scale, from 1 (never) to 5 (always) composed by two subscales: the affect-communication scale and the criticism-rejection scale. This scale has two versions, one for parents and another for children. Measures were assessed in adolescents and caregivers. The affection-communication scale measures the level of warmth and communication of parents in their relationship with the children; the criticism-rejection scale assesses the level of hostility and criticism of parents in their relationship with the children. The validation studies (Bersabé et al., 2001) of the subscales showed Cronbach's α levels of between .60 and .90.

To assess *emotion dysregulation*, we used the Spanish version of the Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004; Hervás & Jódar, 2008). In the Spanish version, the questionnaire is composed by 28 items rated in a Likert scale, from 1 (almost never) to 5 (almost always). It evaluates the ability to manage emotions with 5 subscales: Nonacceptance of emotional responses, difficulty engaging in goal-directed behavior, impulse control difficulties, lack of emotional awareness, and lack of emotional clarity. The questionnaire was completed by parents and adolescents. Lower levels in the subscales indicate improvements in the skills. The Spanish validation of the test (Hervás & Jódar, 2008) showed a Cronbach's α from .73 to .93 and yielded five subscales (i.e., all subscales except limited access to emotion regulation strategies). The scale has been also validated in a Spanish adolescent sample, with Cronchach's α from .60 to .88 (Gómez-Simón et al., 2014).

We assessed *acceptability of the intervention* using the Client Satisfaction Questionnaire (CSQ-8) (Roberts et al., 1984). This is a self-reported measure which consisted of eight items rated from 1 to 4. Results could be calculated by the total score or the mean of the 8 items. The Cronbach's α of the Spanish validation was .90. We invited participants to complete this questionnaire anonymously to encourage honest responses. Acceptability was evaluated in both parents and adolescents.

Statistical Analyses

Analyses were conducted using SPSS statistics 24 software package for Windows (IBM Corp. Released 2016. IBM SPSS Statistics for Windows, Version 24.0. Armonk, NY: IBM Corp.). We calculated differences after intervention using non-parametric measures (Wilcoxon test). To assess the magnitude of possible differences we estimated an effect size indicator using $\eta 2$ (Pallant, 2007; cited in Martinez-Arias,

Table 1. Means and standard deviations of outcomes variables at each time of the assessment.

	T1		T2		T3	
	Mean	*SD*	*Mean*	*SD*	*Mean*	*SD*
Adolescents Measures						
Affection	31.09	4.21	34.60	12.09	36	12.75
Criticism	29.18	7.95	29.30	6.52	25.29	11.07
Nonacceptance	25.18	6.15	22.80	10.56	22.43	8.22
Difficulty in goal	15.55	3.45	16.90	3.11	17	3.46
Lack of awareness	11.45	2.38	13.20	4.10	11.43	4.72
Lack of clarity	13.18	2.71	11.60	3.69	10.29	4.23
Lack of impulse control	36.27	6.26	34.60	9.47	32.71	7.59
Caregivers Measures						
Affection	31.36	2.01	42.64	5.07	41.14	7.24
Criticism	30.64	2.98	23.18	2.96	27.57	2.64
Nonacceptance	16.45	3.33	17	7.50	14.86	4.88
Difficulty in goal	8.27	3.23	9.20	2.53	10.14	1.86
Lack of awareness	11.91	2.34	13.45	3.83	14.71	4.15
Lack of clarity	9.45	3.01	8.64	1.21	10.14	2.85
Lack of Impulse control	18.82	5.46	18.27	5.93	19	4.32

Note: SD= Standard Deviation; Affection= Affect Scale (parenting styles); Criticism= Criticism Scale (parenting styles); Nonacceptance: nonacceptance subscale of DERS; Difficulty in goal= difficulty engaging in goal-directed behavior subscale of DERS; Lack of awareness= lack of emotional awareness subscale of DERS; Lack of clarity= lack of emotional clarity subscale of DERS; Lack of impulse control= impulse control difficulties subscale of DERS.

Table 2. Pre-post, pre-follow up and post-follow up comparisons for each variable. In bold when effect size $\eta^2 \geq .3$.

	T1-T2			T1-T3			T2-T3		
	z	p	η^2	z	p	η^2	z	p	η^2
Adolescent measures									
Affection	-1.17	.24	.26	-1.35	.18	**.36**	-.25	.80	.07
Criticism	-.15	8.88	.03	-.32	.75	.08	-1.44	.15	**.38**
Nonacceptance	-.97	.33	.22	-1.48	.14	**.40**	-.11	.92	.03
Difficulty in goal	-1.68	.92	**.38**	-1.19	.24	.32	-1.09	.28	.29
Lack of awareness	-1.38	.17	.29	-.31	.75	.08	-.51	.61	.14
Lack of clarity	-.92	.36	.21	-1.28	.2	**.34**	-.60	.55	.16
Lack of impulse control	-.51	.61	.11	-1.59	.11	**.43**	-.59	.55	.16
Caregiver measures									
Affection	-2.81	.005*	**.60**	-2.2	.28	**.59**	-1.51	.89	**.40**
Criticism	-2.93	.003*	**.63**	-1.05	.29	.28	-2.38	.02	**.63**
Nonacceptance	-.05	.96	.01	-1.58	.11	**.42**	-.54	.59	**.41**
Difficulty in goal	-1.24	.22	.28	-1.59	.11	**.43**	0	1	0
Lack of awareness	-1.07	.28	.23	-1.36	.17	**.36**	0	1	0
Lack of clarity	-1.27	.2	.27	-1.08	.28	.29	-1.13	.25	.30
Lack of impulse control	-.54	.59	.11	-1.16	.25	**.31**	-.14	.89	.04

*Note: Affection= Affect Scale (parenting styles); Criticism= Criticism Scale (parenting styles); Nonacceptance: nonacceptance subscale of DERS; Difficulty in goal= difficulty engaging in goal-directed behavior subscale of DERS; Lack of awareness= lack of emotional awareness subscale of DERS; Lack of clarity= lack of emotional clarity subscale of DERS; Lack of impulse control= impulse control difficulties subscale of DERS; *p = < .05; ** p= < .01;*

2015). To determine CRC after intervention (Jacobson & Truax, 1991) we calculated clinical significance using the Excel tool proposed by Zahra (2014).

Results

Means and standard deviations at each assessment were calculated and are shown in Table 1.

Group results of intervention

To assess possible changes after the intervention we conducted Wilcoxon tests and calculated effect size. Results are shown in Table 2.

We found improvements in Affection and Criticism parenting subscales in adolescents and caregivers. In caregivers, these changes were present at postreatment, meanwhile in adolescents changes appeared 6 months after treatment. In DERS measures, adolescents showed improvements in Nonacceptance, but these changes did not remain at 6 months follow-up. Adolescents improved measures in Lack of clarity and Lack of impulse control 6 months after treatment. However, Lack of awareness and Difficulty in Goal measures in adolescents were worse after intervention. Almost all the DERS measures in caregivers showed deterioration. Only Nonacceptance improved at 6 months follow-up.

Clinical Reliable Change

Clinical Reliable Change (CRC) data is shown in percentages of improvement after intervention and 6 months follow-up. Results are shown in Table 3.

The most remarkable CRC in adolescents was in Affectionate parenting style (63.64%). In caregivers' measures, CRC in parenting styles (Affectionate 90.91%; Critical 63.64%) was the most remarkable. Percentage of CRC in DERS subscales was low in adolescents and caregivers. The only variable that did not show the CRC in adolescents or caregivers was the Difficulties in engaging goal-directed behavior subscale of DERS.

Acceptability

Levels of satisfaction of the intervention were measured with the mean of the 8 items in the CSQ-8, on a scale from 1 to 4. Adolescents reported levels of satisfaction between 3 and 4 (*Mean*= 3.72; *SD*= .29), while caregivers reported scores between 3.13 and 4 (*Mean*= 3.71; *SD*= .30).

Discussion

The purpose of the intervention was to determine if a 12-session multifamily DBT-A skills group would improve parenting styles and emotion regulation levels in adolescents with BPD features and their parents. The treatment seemed to modify partially the processes tested. Parenting styles experienced an improvement in adolescents and parents; results in emotion regulation were mixed.

Adolescents

Adolescents experienced an improvement in parenting styles at 6 months follow-up. Their perception of their parent's communica-

Table 3. CRC at post treatment.

Measures	Reliability	CRC	1	2	3	4	5	6	7	8	9	10	11	Total %
Adolescents														
Affection	.9	T1-T2	12.75*	2.66*	-6.91	4.25*	1.06	1.59	9.03*	-9.56	3.72*	2.66*	3.19*	63.64%
		T1-T3	13.28*	6.38*	-10.1	.53	1.59	0	1.59	-1.59	1.06	5.84*	2.13*	36.36%
Criticsm	.83	T1-T2	-1.08	-2.84*	5.39	-2.8*	1.29	.43	-2.8*	3.67	-.65	-1.73	1.51	27.27%
		T1-T3	-4.31*	-4.31*	6.69	-.22	.65	.86	-.43	-.22	0	-4.1*	.43	27.27%
Nonacceptance	.72	T1-T2	-.87	-.87	.65	-1.52	1.3	.87	2.83	-1.74	-.65	-2.39*	-.65	9.1%
		T1-T3	0	0	.65	-.87	-1.96	1.09	-.44	-.65	-1.74	-.87	-.44	0%
Difficulty in goal	.69	T1-T2	.74	.37	0	.74	0	.37	1.1	2.58	1.84	.37	.74	0%
		T1-T3	-.37	1.84	0	.74	.37	1.1	-.37	.74	2.21	.37	-.37	0%
Lack of awareness	.49	T1-T2	2.91	1.25	2.91	1.66	-.42	-.42	1.25	-.42	-.42	-2.5*	.83	9.1%
		T1-T3	1.66	-.42	-3.74*	.42	-.83	-.42	-.83	-.42	-1.25	0	3.33	9.1%
Lack of clarity	.71	T1-T2	-.49	-1.45	-1.94	-2.42*	1.94	-.97	3.39	.49	-1.94	-.97	-.97	9.1%
		T1-T3	-1.45	-2.42*	-3.88*	-1.45	2.42	-.97	3.39	-.49	-1.45	-1.45	-.97	18.18%
Lack of impulse control	.46	T1-T2	-.46	-1.08	-.31	.77	.31	-.31	2.15	.62	-.46	-1.69	-1.23	0%
		T1-T3	-1.23	.46	0	.46	-1.23	-.62	.46	.15	-.31	-1.23	-.31	0%
Caregivers														
Affection	.78	T1-T2	11.25*	6.75*	0	6*	12*	10.5*	12*	6.75*	11.25*	9.75*	6.75*	90.91%
		T1-T3	11.25*	6.75*	-4.5	1.5	11.25*	1.5	0	-0.75	9.75*	10.5*	6*	54.55%
Criticsm	.66	T1-T2	-1.62	-.81	-.81	-3.26*	-4.07*	-3.66*	-5.7*	-2.85*	-5.7*	-4.48*	-.41	63.64%
		T1-T3	1.22	-.41	0	-.41	-1.22	-.81	-.81	1.22	-3.26*	-3.66*	.81	18.18%
Nonacceptance	.72	T1-T2	0	-2.01*	-1.2	4.82	-2.01*	4.01	4.01	-.4	-2.01*	.8	-4.01*	36.36%
		T1-T3	.4	-2.01*	0	.4	-1.61	1.2	-.4	.8	-2.41*	-2.41*	.4	27.27%
Difficulty in goal	.69	T1-T2	0	1.57	-1.18	-.79	1.97	-.79	1.57	-.79	1.18	-.79	1.57	0%
		T1-T3	.34	1.57	0	-.79	1.18	-1.18	.79	0	1.18	-1.18	1.57	0%
Lack of awareness	.49	T1-T2	.85	1.69	0	1.69	3.39	-2.96*	-1.69	1.27	3.81	-.85	0	9.1%
		T1-T3	-.42	1.69	-.42	-.42	3.39	-.42	-.85	.42	3.81	-.42	1.27	0%
Lack of clarity	.71	T1-T2	-.87	0	-1.75	.87	-.87	0	.44	.44	-.44	-1.75	0	0%
		T1-T3	-.87	0	-1.75	0	-1.31	.44	0	.44	0	.87	.44	0%
Lack of impulse control	.46	T1-T2	0	0	-1.94	1.06	-.18	1.41	-.18	-.35	-.18	1.41	-2.12*	9.1%
		T1-T3	-.35	0	-1.06	.35	.35	.71	-.18	-.71	-.18	.18	-1.94	0%

*Note: Affection= Affect Scale (parenting styles); Criticism= Criticism Scale (parenting styles); Nonacceptance: nonacceptance subscale of DERS; Difficulty in goal= difficulty engaging in goal-directed behavior subscale of DERS; Lack of awareness= lack of emotional awareness subscale of DERS; Lack of clarity= lack of emotional clarity subscale of DERS; Lack of impulse control= impulse control difficulties subscale of DERS. *= Clinical Reliable Change in the variable.*

tion style was warmer and less hostile 6 months after intervention. It could mean that the parent's parenting style experienced a real change that could be perceived by the adolescents, or that the adolescent's interpretation of their parent's style had changed. A perception of a warmer and less critical family environment could influence the emotional status of adolescents and prevent the establishment of a chronic emotion dysregulation (Linehan, 1993).

Improvements in emotion regulation could be a potential mediator of results of DBT (Kramer et al., 2020; Rudge et al., 2020). Adolescents showed better levels of emotional clarity, acceptance and impulse control after intervention. They could understand, accept and react to their emotions more skillfully. However, two emotional regulation processes deteriorated after intervention: difficulty in goal directed behavior and emotional awareness. Adolescents were less skillfull in identifying their emotions and they interfered more in the daily life after the treatment. These results did not agree with other studies as Neasciu et al. (2010), who found that a skills training intervention was effective for decreasing emotion dysregulation. A possible explanation is that adolescents turned more critical about their emotional awareness and control after treatment. However, it could also be that the short length of the intervention could not be enough to promote changes in these processes.

Caregivers

Caregivers experienced changes in both affectionate and critical parenting styles. After intervention, they perceived their parenting as warmer, closer, more validating and less hostile and punitive. Improvements at follow-up were maintained only in affectionate parenting style. Participation of family members in skills training helped to improve parenting styles that can influence in potentially invalidating environments and promote the generalization of skills in their natural environment (Klein & Miller, 2011; Koerner, 2013).

Emotion regulation in caregivers experienced deterioration after treatment. These unexpected results are against previous literature, which demonstrate that the inclusion of parents in skills groups might improve their own emotion regulation skills (Berk et al., 2020; Woodberry & Popenoe, 2008). Research with families of BPD adults showed similar benefits (Ekdahl et al., 2014; Hoffman et al., 1999; Rajalin et al., 2009). A possible explanation of the results is that caregivers become more aware about their regulation difficulties and evaluated their responses more critically. However, it is possible that the intervention did not last enough to improve emotion regulation skills in parents. In our study, parents only improved in their ability to accept emotional responses. After intervention, parents could be more compassionate

with their emotions; even they perceived a worse ability to cope with them. Zalewski et al. (2018) proposed a relation between emotion regulation and parenting. They expected that a better regulation of emotions in parents would improve their parenting skills. However, our results didn't confirm this idea. Parents in our study improve their parenting styles even they deteriorate their emotion regulation skills. These results encourage researchers to investigate other mechanisms that may be involved in parenting apart from emotion regulation.

Treatment acceptability

Caregivers and adolescents showed considerable levels of satisfaction with the intervention. Levels of acceptance reported by participants were remarkable and treatment retention was high. DBT-A skills group as a stand-alone intervention was accepted between participants as it occurs in a wide range of diagnoses and settings (Hollenbaugh & Lenz, 2018; Valentine et al., 2015). These results are in line with other studies that also found that DBT-A was well-accepted in adolescents and caregivers, based on patient satisfaction and treatment completion (Groves et al., 2012; Tørmoen et al., 2016). Other studies have demonstrated the long-term duration of short DBT interventions in adolescents (Fleischhaker et al., 2011; Mehlum et al., 2016; Mehlum et al., 2019) and it could improve treatment adherence. Participation of family members could be useful to reinforce treatment compliance (MacPherson et al., 2013).

Limitations

This was a pilot intervention and its conclusions must be taken carefully. The total sample of the intervention could be insufficient to extend conclusions to the adolescent population with BPD features. The reduced sample size could also interfere in the significance of the group results of the intervention. Gender of sample was majority female, as in most of studies with adolescents with BPD (McCauley et al., 2018; Mehlum et al., 2014; Santamarina-Perez et al., 2020).

Another limitation was the lack of a control group. Results of the intervention could not be compared with treatment as usual, and confounding variables could be influencing the results. It means that we cannot conclude specific effectiveness of DBT as other non-controlled factors could be responsible for the changes found. In fact, we cannot guarantee that participation in the DBT skills group is the cause of the improvements experienced by the participants.

Clinical implications and future directions

This study evaluates the effectiveness and acceptability of a DBT multifamily group intervention in a Spanish sample including caregivers of adolescents with BPD features. The study results partially support the utility of DBT skills multifamily group for improving mechanisms related to BPD features in adolescents as a stand-alone intervention. Recent research has proposed the interest in understanding the mediational processes of DBT outcomes and has highlighted the role of emotion regulation (Kramer et al., 2020; Rudge et al., 2020). An intensive intervention of 12-week DBT skills group seems to be enough to modify parenting styles related to BPD features in adolescents. DBT skills group is an attractive option to clinicians because it could be pragmatic in community settings, cost-effective and accepted by participants. The relevance of this early intervention based on DBT skills group is that it can have long-term consequences on some processes that could help to prevent the establishment of BPD.

Future research should replicate the study in a larger sample to gather more valid outcome data. Measures of clinical symptoms such as self-harm or BPD features could clarify if changes in these mechanisms are related to improvements in symptoms. Future studies might compare DBT skills group with a control group to understand the specific influence of DBT in improvements after treatment. Longitudinal studies might determine if short DBT skills group interventions in adolescence prevent the development of BPD in adulthood. Future research should study the transactional effects between emotion regulation in parents and adolescents, testing the relationships between emotion regulation and parenting, and if improvements in emotion regulation in parents could influence in emotion regulation skills in aolescents.

Disclosure statement

The authors declare that they have no competing interests.

Funding

This study was supported by the Spanish Ministry of Science and Innovation, Instituto de Salud Carlos III (PI17/00997), co-financed by ERDF Funds from the European Commission, "A way of making Europe", CIBERSAM, Madrid Regional Government (B2017/BMD-3740 AGES-CM-2), European Union Structural Funds, European Union Seventh Framework Program, European Union H2020 Program, Fundación Familia Alonso, and Fundación Alicia Koplowitz. This study was also supported by a grant of the Spanish Ministry of Science, Innovation and Universities (RTI2018-100689-B-I00).

References

Asarnow, J. R., Berk, M. S., Bedics, J., Adrian, M., Gallop, R., Cohen, J., Korslund, K., Hughes, J., Avina, C., Linehan, M. M., & McCauley, E. (2021). Dialectical Behavior Therapy for Suicidal Self-Harming Youth: Emotion Regulation, Mechanisms, and Mediators. *Journal of the American Academy of Child and Adolescent Psychiatry*, *60*(9), 1105–1115.e4. https://doi.org/10.1016/j.jaac.2021.01.016

Berk, M. S., Starace, N. K., Black, V. P., & Avina, C. (2020). Implementation of Dialectical Behavior Therapy with Suicidal and Self-Harming Adolescents in a Community Clinic. *Archives of suicide research: official journal of the International Academy for Suicide Research*, *24*(1), 64–81. https://doi.org/10.1080/13811118.2018.1509750

Blackford, J. U., & Love, R. (2011). Dialectical behavior therapy group skills training in a community mental health setting: a pilot study. *International Journal of Group Psychotherapy*, *61*(4), 645–657. https://doi.org/10.1521/ijgp.2011.61.4.645

Buckholdt, K. E., Parra, G. R., & Jobe-Shields, L. (2010). Emotion dysregulation as a mechanism through which parental magnification of sadness increases risk for binge eating and limited control of eating behaviors. *Eating Behaviors*, *11*(2), 122–126. https://doi.org/10.1016/j.eatbeh.2009.10.003

Chen, S. Y., Cheng, Y., Zhao, W. W., & Zhang, Y. H. (2021). Effects of dialectical behaviour therapy on reducing self-harming behaviours and negative emotions in patients with borderline personality disorder: A meta-analysis. *Journal of Psychiatric and Mental Health Nursing*, *28*(6), 1128–1139. https://doi.org/10.1111/jpm.12797

Cheung, R. Y. M., Chan, L. Y., & Chung, K. K. H. (2020). Emotion dysregulation between mothers, fathers, and adolescents: Implications for adolescents' internalizing problems. *Journal of Adolescence*, *83*, 62–71. https://doi.org/10.1016/j.adolescence.2020.07.001

Cook, N. E., & Gorraiz, M. (2016). Dialectical behavior therapy for nonsuicidal self-injury and depression among adolescents: preliminary meta-analytic evidence. *Child and Adolescent Mental Health*, *21*(2), 81–89. https://doi.org/10.1111/camh.12112

Cristea, I. A., Gentili, C., Cotet, C. D., Palomba, D., Barbui, C., & Cuijpers, P. (2017). Efficacy of Psychotherapies for Borderline Personality Disorder: A Systematic Review and Meta-analysis. *JAMA psychiatry*, *74*(4), 319–328. https://doi.org/10.1001/jamapsychiatry.2016.4287

Cuevas-Yust, C., & López-Pérez, G. (2012). Intervenciones psicológicas eficaces para el tratamiento del trastorno límite de la personalidad. *International Journal of Psychology and Psychological Therapy, 12*, 97-114.

Cui, L., Zhang, X., & Han, Z. R. (2021). Perceived Child Difficultness, Emotion Dysregulation, and Emotion-Related Parenting among Chinese Parents. *Family Process*, *60*(4), 1403–1417. https://doi.org/10.1111/famp.12638

Dibaj, I. S., Tørmoen, A. J., Klungsøyr, O., Haga, E. & Mehlum, L. (2023). Trajectories and Predictors of Change in Emotion Dysregulation and Deliberate Self-Harm Amongst Adolescents with Borderline Features. *Clinical child psychology and psychiatry,* 13591045231177374. Advance online publication. https://doi.org/10.1177/13591045231177374.

Ekdahl, S., Idvall, E., & Perseius, K. I. (2014). Family skills training in dialectical behaviour therapy: the experience of the significant others. *Archives of Psychiatric Nursing*, *28*(4), 235–241. https://doi.org/10.1016/j.apnu.2014.03 2

Feldman, G., Harley, R., Kerrigan, M., Jacobo, M., & Fava, M. (2009). Change in emotional processing during a dialectical behavior therapy-based skills group for major depressive disorder. *Behaviour Research and Therapy*, *47*(4), 316–321. https://doi.org/10.1016/j.brat.2009.01 5

Fischer, S., & Peterson, C. (2015). Dialectical behavior therapy for adolescent binge eating, purging, suicidal behavior, and non-suicidal self-injury: a pilot study. *Psychotherapy, 52*(1), 78–92. https://doi.org/10.1037/a0036065

Fleischhaker, C., Böhme, R., Sixt, B., Brück, C., Schneider, C., & Schulz, E. (2011). Dialectical Behavioral Therapy for Adolescents (DBT-A): a clinical Trial for Patients with suicidal and self-injurious Behavior and Borderline Symptoms with a one-year Follow-up. *Child and Adolescent Psychiatry and Mental Health*, *5*(1), 3. https://doi.org/10.1186/1753-2000-5-3

Flynn, D., Kells, M., Joyce, M., Corcoran, P., Gillespie, C., Suarez, C., Swales, M., & Arensman, E. (2019). Innovations in Practice: Dialectical behaviour therapy for adolescents: multisite implementation and evaluation of a 16-week programme in a public community mental health setting. *Child and Adolescent Mental Health*, *24*(1), 76–83. https://doi.org/10.1111/camh.12298

Fuentes, M. J., Motrico, E., & Bersabé, R.M. (1999). *Escala de Afecto (EA) y Escala de Normas y Exigencias (ENE): versión hijos y versión padres*. Universidad de Málaga.

Gasol, X., Navarro-Haro, M. V., Fernández-Felipe, I., García-Palacios, A., Suso-Ribera, C., & Gasol-Colomina, M. (2022). Preventing Emotional Dysregulation: Acceptability and Preliminary Effectiveness of a DBT Skills Training Program for Adolescents in the Spanish School System. *International Journal of Environmental Research and Public Health*, *19*(1), 494. https://doi.org/10.3390/ijerph19010494

Gratz, K. L., Bardeen, J. R., Levy, R., Dixon-Gordon, K. L., & Tull, M. T. (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. https://doi.org/10.1016/j.brat.2014.12.005

Groves, S., Backer, H. S., Van den Bosch, W., & Miller, A. (2012). Review: Dialectical behaviour therapy with adolescents. *Child and Adolescent Mental Health, 17*(2),: 65–75. https://doi.org/10.1111/j.1475-3588.2011 611.x

Harley, R., Sprich, S., Safren, S., Jacobo, M., & Fava, M. (2008). Adaptation of dialectical behavior therapy skills training group for treatment-resistant depression. *The Journal of Nervous and Mental Disease*, *196*(2), 136–143. https://doi.org/10.1097/NMD.0b013e318162aa3f

Hervas, G. & Jódar, R. (2008). Adaptación al castellano de la Escala de Dificultades en la Regulación Emocional. *Clínica y Salud*, *19*(2), 139-156.

Hoffman, P. D., Fruzzetti, A. E., & Swenson, C. R. (1999). Dialectical behavior therapy-family skills training. *Family Process*, *38*(4), 399–414. https://doi.org/10.1111/j.1545-5300.1999 399.x

Hoffman, P. D., Fruzzetti, A. E., Buteau, E., Neiditch, E. R., Penney, D., Bruce, M. L., Hellman, F., & Struening, E. (2005). Family connections: a program for relatives of persons with borderline personality disorder. *Family Process*, *44*(2), 217–225. https://doi.org/10.1111/j.1545-5300.2005.00055.x

Hollenbaugh, K., & Lenz, A. (2018). Preliminary Evidence for the Effectiveness of Dialectical Behavior Therapy for Adolescents. *Journal of Counseling and Development. 96*, 119-131. https://doi.org/10.1002/jcad.12186.

Holmqvist Larsson, K., Andersson, G., Stern, H., & Zetterqvist, M. (2020). Emotion regulation group skills training for adolescents and parents: A pilot study of an add-on treatment in a clinical setting. *Clinical Child Psychology and Psychiatry*, *25*(1), 141–155. https://doi.org/10.1177/1359104519869782

Jacobson, N. S., & Truax, P. (1991). Clinical significance: a statistical approach to defining meaningful change in psychotherapy research. *Journal of Consulting and Clinical Psychology*, *59*(1), 12–19. https://doi.org/10.1037//0022-006x.59.1.12

Jørgensen, M. S., Storebø, O. J., Poulsen, S., & Simonsen, E. (2021). Burden and Treatment Satisfaction among Caregivers of Adolescents with Borderline Personality Disorder. *Family process*, *60*(3), 772–787. https://doi.org/10.1111/famp.12593

Klein, D. A., & Miller, A. L. (2011). Dialectical behavior therapy for suicidal adolescents with borderline personality disorder. *Child and Adolescent Psychiatric Clinics of North America*, *20*(2), 205–216. https://doi.org/10.1016/j.chc.2011.01 1

Kramer, U., Grandjean, L., Beuchat, H., Kolly, S., Conus, P., de Roten, Y., Draganski, B., & Despland, J. N. (2020). Mechanisms of change in brief treatments for borderline personality disorder: a protocol of a randomized controlled trial. *Trials*, *21*(1), 335. https://doi.org/10.1186/s13063-020-4229-z

Koerner, K. (2013). What must you know and do to get good outcomes with DBT? *Behavior Therapy*, *44*(4), 568–579. https://doi.org/10.1016/j.beth.2013.03 5

Lang, C. M., Edwards, A. J., Mittler, M. A., & Bonavitacola, L. (2018). Dialectical Behavior Therapy With Prolonged Exposure for Adolescents: Rationale and Review of the Research. *Cognitive and Behavioral Practice, 25*, (3); 416-426. https://doi.org/10.1016/j.cbpra.2017.12 5.

Linehan, M. M. (1993). Cognitive Behavioral Treatment of Borderline Personality Disorder (1ª Ed.). The Guilford Press.

Lynch, T. R, Chapman, A.L., Rosenthal, M.Z., Kuo, J.R., & Linehan M. M. (2006). Mechanisms of change in dialectical behavior therapy: theoretical and empirical observations. *Journal of Clinical Psychology; 62*, 459 – 80.

MacPherson, H.A., Cheavens, J.S., & Fristad, M.A. (2013). Dialectical behavior therapy for adolescents: Theory, treatment adaptations, and empirical outcomes. *Clinical Child and Family Psychology Review, 16*, 59–80. http://dx.doi.org/10.1007/s10567-012-0126-7

Marco, S., Mayoral, M., & Hervás, G. (2023). Dialectical Behavioral Skills Group Therapy for Parents of Adolescents With Borderline Personality Disorder: A Pilot Study. *Clinical Child Psychology and Psychiatry*, 13591045231177329. Advance online publication. https://doi.org/10.1177/13591045231177329

Martinez-Arias, R., Castellanos-López, M. A., & Chacon-Gomez, J. C. (2015). *Análisis de datos en psicología y ciencias de la salud. Volumen II: Inferencia estadística.* Editorial EOS.

Mayoral, M., Valencia, F., Calvo, A., Roldan, L., Espliego, A., Rodriguez-Toscano, E., Kehrmann, L., Arango, C., & Delgado, C. (2020). Development of an early intervention programme for adolescents with emotion dysregulation and their families: Actions for the treatment of adolescent personality (ATraPA). *Early Intervention in Psychiatry*, *14*(5), 619–624. https://doi.org/10.1111/eip.12934

McCauley, E., Berk, M. S., Asarnow, J. R., Adrian, M., Cohen, J., et al. (2018). Efficacy of Dialectical Behavior Therapy for Adolescents at High Risk for Suicide: A Randomized Clinical Trial. *JAMA psychiatry*, *75*(8), 777–785. https://doi.org/10.1001/jamapsychiatry.2018.1109

Mehlum, L., Tørmoen, A. J., Ramberg, M., Haga, E., Diep, L. M., Laberg, S., Larsson, B. S., Stanley, B. H., Miller, A. L., Sund, A. M., & Grøholt, B. (2014). Dialectical behavior therapy for adolescents with repeated suicidal and self-harming behavior: a randomized trial. *Journal of the American Academy of Child and Adolescent Psychiatry*, *53*(10), 1082–1091. https://doi.org/10.1016/j.jaac.2014.07.003

Mehlum, L., Ramberg, M., Tørmoen, A. J., Haga, E., Diep, L. M., Stanley, B. H., Miller, A. L., Sund, A. M., & Grøholt, B. (2016). Dialectical Behavior Therapy Compared With Enhanced Usual Care for Adolescents With Repeated Suicidal and Self-Harming Behavior: Outcomes Over a One-Year Follow-Up. *Journal of the American Academy of Child and Adolescent Psychiatry*, *55*(4), 295- 300. https://doi.org/10.1016/j.jaac.2016.01.005

Mehlum, L., Ramleth, R. K., Tørmoen, A. J., Haga, E., Diep, L. M., Stanley, B. H., Miller, A. L., Larsson, B., Sund, A. M., & Grøholt, B. (2019). Long term effectiveness of dialectical behavior therapy versus enhanced usual care for adolescents with self-harming and suicidal behavior. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, *60*(10), 1112–1122. https://doi.org/10.1111/jcpp.13077

Miller A. L. (1999). Dialectical behavior therapy: a new treatment approach for suicidal adolescents. *American Journal of Psychotherapy*, *53*(3), 413–417. https://doi.org/10.1176/appi.psychotherapy.1999.53.3.413

Miller, A. L., Glinski J., Woodberry, K., Mitchell, A. G., & Indik, J. (2002). Family therapy and dialectical behavior therapy with adolescents: Proposing a clinical synthesis. *American Journal of Psychotherapy, 56*, 568-584. https://doi.org/10.1176/appi.psychotherapy.2002.56.4.568

Miller, A. L., Rathus, J.H., & Linehan, M. M. (2006). *Dialectical behavior therapy with suicidal adolescents*. The Guilford Press.

Miller, M.L., & Skerven, K. (2017). Family Skills: A Naturalistic Pilot Study of a Family-Oriented Dialectical Behavior Therapy Program. *Couple and Family Psychology: Research and Practice, 6*, 79–93.

Morelen, D., Shaffer, A., & Suveg, C. (2016). Maternal Emotion Regulation: Links to Emotion Parenting and Child Emotion Regulation. *Journal of Family Issues, 37*(13), 1891–1916. https://doi.org/10.1177/0192513X14546720

Navarro-Haro, M. V., Mozota-Chaudrón, P., & García-Palacios, A. (2023). Revisión de revisiones sobre la eficacia de los tratamientos psicológicos para adolescentes con trastorno de la personalidad límite. *Revista de Psicología Clínica Con Niños y Adolescentes, 10*, 91-98. https://doi.org/10.21134/rpcna.2023.10.8.

Neacsiu, A. D., Rizvi, S. L., & Linehan, M. M. (2010). Dialectical behavior therapy skills use as a mediator and outcome of treatment for borderline personality disorder. *Behaviour Research and Therapy*, *48*(9), 832–839. https://doi.org/10.1016/j.brat.2010.05.017

Nelson-Gray, R. O., Keane, S. P., Hurst, R. M., Mitchell, J. T., Warburton, J. B., et al. (2006). A modified DBT skills training program for oppositional defiant adolescents: promising preliminary findings. *Behaviour Research and Therapy*, *44*(12), 1811–1820. https://doi.org/10.1016/j.brat.2006.01 4

Pallant, J. (2007). *SPSS survival manual. A step by step guide to data analysis using SPSS for windows* (3rd ed.). Open University Press.

Panos, P. T., Jackson, J. W., Hasan, O., & Panos, A. (2014). Meta-Analysis and Systematic Review Assessing the Efficacy of Dialectical Behavior Therapy (DBT). *Research on Social Work Practice*, *24*(2), 213–223. https://doi.org/10.1177/1049731513503047

Rajalin, M., Wickholm-Pethrus, L., Hursti, T., & Jokinen, J. (2009). Dialectical behavior therapy-based skills training for family members of suicide attempters. *Archives of Suicide Research*, *13*(3), 257–263. https://doi.org/10.1080/13811110903044401

Rathus J. H., & Miller A. L. (2002). Dialectical behavior therapy adapted for suicidal adolescents. *Suicide and Life- Threatening Behaviors, 32*,146-157. https://doi.org/10.1521/suli.32.2.146.24399

Rathus, J. H., & Miller, A. L. (2015). *DBT Skills Training for Adolescents*. The Guilford Press.

Roberts, R. E., Attkinsson, C. C., & Mendias, R. M. (1984) Assessing the client satisfaction questionnaire in English and Spanish. *Hispanic Journal of Behavioral Sciences, 6*(4), 385-95. https://doi.org/10.1177/07399863840064004

Rudge, S., Feigenbaum, J. D., & Fonagy, P. (2020). Mechanisms of change in dialectical behaviour therapy and cognitive behaviour therapy for borderline personality disorder: a critical review of the literature. *Journal of Mental Health 29*(1), 92–102. https://doi.org/10.1080/09638237.2017.1322185

Salbach-Andrae, H., Bohnekamp, I., Pfeiffer, E., Lehmkuhl, U., & Miller, A. L. (2008). Dialectical behavior therapy of anorexia and bulimia nervosa among adolescents: A case series. *Cognitive and Behavioral Practice, 15*, 415–425. https://doi.org/10.1016/j.cbpra.2008.04.001

Salbach-Andrae, H., Bürger, A., Klinkowski, N., Lenz, K., Pfeiffer, E., Fydrich, T., & Lehmkuhl, U. (2008). Diagnostik von Persönlichkeitsstörungen im Jugendalter nach SKID-II [Diagnostic of personality disorders in adolescence according to SCID-II]. *Zeitschrift fur Kinder- und Jugendpsychiatrie und Psychotherapie*, *36*(2), 117–125. https://doi.org/10.1024/1422-4917.36.2.117

Santamarina-Perez, P., Mendez, I., Singh, M. K., Berk, M., Picado, M., Font, E., Moreno, E., Martínez, E., Morer, A., Borràs, R., Cosi, A., & Romero, S. (2020). Adapted Dialectical Behavior Therapy for Adolescents with a High Risk of Suicide in a Community Clinic: A Pragmatic Randomized Controlled Trial. *Suicide & life-threatening behavior*, *50*(3), 652–667. https://doi.org/10.1111/sltb.12612

Soler, J., Pascual, J. C., Tiana, T., Cebrià, A., Barrachina, J., Campins, M. J., Gich, I., Alvarez, E., & 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. https://doi.org/10.1016/j.brat.2009.01.013

Tørmoen, A. J., Grøholt, B., Haga, E., Brager-Larsen, A., Miller, A., Walby, F., Stanley, B., & Mehlum, L. (2014). Feasibility of dialectical behavior therapy with suicidal and self-harming adolescents with multi-problems: training, adherence, and retention. *Archives of suicide research: official journal of the International Academy for Suicide Research*, *18*(4), 432–444. https://doi.org/10.1080/13811118.2013.826156

Valentine, S. E., Bankoff, S. M., Poulin, R. M., Reidler, E. B., & Pantalone, D. W. (2015). The use of dialectical behavior therapy skills training as stand-alone treatment: a systematic review of the treatment outcome literature. *Journal of Clinical Psychology*, *71*(1), 1–20. https://doi.org/10.1002/jclp.22114

Woodberry, K. A., & Popenoe, E. J. (2008). Implementing dialectical behavior therapy with adolescents and their families in a community outpatient clinic. *Cognitive and Behavioral Practice, 15*, 277–286. https://doi.org/10.1016/j.cbpra.2007.08.004

Zahra, D., & Hedge, C. (2010). The Reliable Change Index: Why Isn't It More Popular in Academic Psychology? *The Psychologist Quarterly, 76*, 14-19.

Zalewski, M., Lewis, J. K., & Martin, C. G. (2018). Identifying novel applications of dialectical behavior therapy: considering emotion regulation and parenting. *Current Opinion in Psychology*, *21*, 122–126. https://doi.org/10.1016/j.copsyc.2018.02.013