ACCEPTANCE AND COMMITMENT THERAPY FOCUSED ON REPETITIVE NEGATIVE THINKING FOR COMPLICATED BREAKUP GRIEF: A RANDOMIZED MULTIPLE-BASELINE EVALUATION

TERAPIA DE ACEPTACIÓN Y COMPROMISO CENTRADA EN EL PENSAMIENTO NEGATIVO REPETITIVO PARA EL DUELO POR RUPTURA COMPLICADA: UNA EVALUACIÓN ALEATORIA DE LÍNEAS DE BASE MULTIPLES

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Abstract

Romantic relationship breakups often cause important behavioral and emotional consequences that can lead to experiencing complicated grief. However, little empirical research has tested psychological interventions for this frequent problem. This preliminary study explored the efficacy of a three-session protocol of Acceptance and Commitment Therapy (ACT) focused on repetitive negative thinking (RNT) for the treatment of complicated breakup grief in three women. A nonconcurrent, across participant, randomized multiple-baseline design was conducted. The three participants showed very large decreases in breakup distress that surpassed the criteria for claiming clinically significant changes. Two participants showed clinically significant changes in emotional symptoms, and all of them attained significant changes in life satisfaction. All three participants showed clinically significant changes in repetitive negative thinking, experiential avoidance, cognitive fusion, and valued living. Effect sizes comparable across designs were very large and statistically significant for breakup distress (d = 7.11), emotional symptoms (d = 2.46), and life satisfaction (d = 1.25). In conclusion, RNT-focused ACT protocols might be efficacious in cases of complicated breakup grief.

Keywords: *acceptance and commitment therapy, repetitive negative thinking, couple relationship, breakup, grief*

Resumen

Las rupturas de relaciones románticas suelen provocar importantes consecuencias conductuales y emocionales que pueden llevar a experimentar un duelo complicado. Sin embargo, son pocas las investigaciones empíricas que han puesto a prueba intervenciones psicológicas para este problema tan frecuente. Este estudio preliminar exploró la eficacia de un protocolo de tres sesiones de Terapia de Aceptación y Compromiso (ACT) centrado en el pensamiento negativo repetitivo (PNR) para el tratamiento del duelo complicado por ruptura de pareja en tres mujeres. Se llevó a cabo un diseño de línea de base múltiple, aleatorio y no concurrente entre participantes. Las tres participantes mostraron disminuciones muy grandes en la angustia por la ruptura que superaron los criterios para afirmar la presencia de cambios clínicamente significativos. Dos participantes mostraron cambios clínicamente significativos en los síntomas emocionales, y todos ellos alcanzaron cambios significativos en la satisfacción vital. Las tres participantes mostraron cambios clínicamente significativos en pensamiento negativo repetitivo, evitación experiencial, fusión cognitiva y la vida valiosa. Los tamaños del efecto comparables entre diseños fueron muy grandes y estadísticamente significativos para la angustia de ruptura (d = 7.11), síntomas emocionales (d = 2.46) y satisfacción vital (d = 1.25). En conclusión, los protocolos de ACT centrados en PNR podrían ser eficaces en casos de duelo complicado por ruptura de pareja.

Palabras clave: *terapia de aceptación y compromiso, pensamiento negativo repetitivo, relación de pareja, ruptura, duelo*

Romantic relationship breakups are regarded as an important life event that can provoke challenging emotional reactions (e.g., Luhman et al., 2012). These emotional reactions can take the form of grief, with a high frequency of intrusive thoughts, feelings of loneliness and emptiness, sadness, lack of interest in personal activities, insomnia, compromised immune system, and the "broken heart syndrome" (Field, 2011, 2017). More specifically, when going through a breakup, it is common to experience reactions such as anger, distrusting others and ceasing to worry about them, feeling jealous of people who are not experiencing a breakup, feeling intense sadness when remembering the former partner, being attracted to places and objects related to the ex-partner, or avoiding situations associated with him/her (Field et al., 2009). The previous emotional reactions and feelings of love for the former partner tend to decrease over time. Contrarily, anger tends to increase after the couple dissolution (Murdock et al., 2014).

Complicated breakup grief occurs when the emotional reaction persists for more than three months and is characterized by a progressive increase in anger and feelings of betrayal and mistrust of other people (Field et al., 2011). Experiencing complicated breakup grief is more likely when contact with the former partner persists, the ex-partner instigated the breakup, or the relationship ended due to an affair (Barber & Cooper, 2014; Perilloux & Buss, 2008; Sbarra & Emery, 2005). Coping strategies used by individuals displaying this complicated grief include rumination, attempts to take revenge and spy on the ex-partner, insisting on reconciliation, or avoiding other people (Cupach et al., 2011; Sánchez-Aragón & Martínez-Cruz, 2014; Tavares & Aassve, 2013). In extreme cases, complicated breakup grief might lead to exerting violence toward the ex-partner or even committing suicide (Heikkinen et al., 1993; Williams & Frieze, 2005).

Research on the efficacy of preventive or treatment interventions has been almost exclusively focused on grief due to the death of a loved one (e.g., Boelen et al., 2006; Wittouck et al., 2011). Some studies have analyzed the effect of expressive writing to manage breakup distress, obtaining mixed results (Lepore & Greenberg, 2002; Sbarr et al., 2013). Also, mindfulness training and relaxation did not show better results than the control condition in Falb study (2015). Thus, developing and testing psychological interventions for complicated breakup grief are needed.

Psychological interventions designed for complicated breakup grief should target the key psychological processes involved in its onset and maintenance. Following the literature on complicated bereavement, grief rumination seems to be an important candidate target (Eisma et al., 2014; Eisma & Stroebe, 2017; Palacio-González et al., 2016). Grief rumination in a breakup context entails "counterfactual thinking" about events leading up to the couple dissolution, ruminating about the unfairness and meaning of the loss, and one's and others' reactions to the breakup (Eisma & Stroebe, 2017). Grief rumination has been identified as an experiential avoidance strategy that is concurrently and longitudinally associated with emotional symptoms and complicated grief (e.g., Boelen et al., 2006; Eisma et al., 2013, 2014).

In the last few years, a version of Acceptance and Commitment Therapy (ACT; Hayes, et al., 1999) focused on disrupting unconstructive worry and rumination has been developed (Ruiz et al., 2016a). This approach has been called repetitive negative thinking-focused ACT (RNT-focused ACT). As usual in ACT interventions, RNT-focused ACT aims to foster psychological flexibility to produce changes in mental health, quality of life, and behavioral effectiveness. Psychological flexibility can be defined as the ability to nonjudgmentally contact private experiences and orient behavior toward valued directions. RNT-focused ACT highlights that RNT, in the form of worry and rumination, is a predominant experiential avoidance strategy that tends to be the first reaction to discomfiting thoughts and emotions. Therefore, focusing the intervention on RNT should enhance the efficacy of ACT because the cycle of experiential avoidance would be interrupted from the very beginning. Previous studies have shown that brief RNT-focused ACT protocols obtained very large effect sizes in the treatment of emotional disorders, including generalized anxiety disorder and depression (Ruiz et al., 2018, 2019, 2020a; 2020b; Salazar et al., 2020).

Due to the relevance of grief rumination, brief RNT-focused ACT protocols seem well-suited for treating complicated breakup grief. Accordingly, this study aims to explore the potential efficacy of a brief RNT-focused ACT protocol in complicated breakup grief. For this purpose, we conducted a nonconcurrent, randomized, multiple-baseline design on three females showing complicated breakup grief.

Method

Participants

Participants were recruited through advertisements on social media (i.e., Facebook, institutional webpage, etc.). The inclusion criteria were: (a) being 18 years or older; (b) having experienced complicated grief for at least three months due to the breakup of a romantic relationship that had lasted at least 12 months. The exclusion criteria were: (a) undergoing a current psychological or psychiatric treatment, (b) experiencing severe suicide ideation, (c) having a psychotic disorder, and (d) substance abuse.

A total of 72 individuals showed an interest in the research. However, only 3 participants met the inclusion criteria: 20 individuals had experienced breakup grief for less than three months, 16 had had relationships that lasted less than 12 months, 13 were receiving psychological or psychiatric interventions, 7 were in a cyclic relationship with their ex-partner, after the interview, 5 said that they did not have time to participate, 4 did not respond to the phone calls and emails, 2 got back together with the ex-partner, 1 showed suicide ideation, and 1 was living in another country.

Participant 1 (P1) was a 23-year-old woman who had experienced the breakup of a 5-year romantic relationship two years before recruitment. Participant 2 (P2)

was also a 23-year-old woman who had been married for five years. The breakup was due to her ex-husband's infidelity six months before recruitment. Participant 3 (P3) was a 32-year-old woman who had maintained an engagement for one year. She terminated it eight months before recruitment when she realized that her ex-boyfriend was losing interest in her.

Design and Variables

A nonconcurrent, randomized, multiple-baseline design across participants was implemented. The independent variable of the study was the staggered introduction of a 3-session, RNT-focused ACT protocol. Participants were randomly assigned to receive the intervention after collecting baseline data between 3 to 5 weeks. The protocol was implemented weekly. Afterward, an 8-week follow-up was conducted. Dependent variables were divided into primary, secondary, and process outcome measures. The primary outcome measure was breakup distress, which includes both emotional symptoms and behavioral inflexibility in response to private experiences related to the breakup. Secondary outcome measures were scores on emotional symptoms and life satisfaction. Lastly, process outcomes were measures of RNT, experiential avoidance, cognitive fusion, and valued living. These measures were selected as process outcomes because they are the main putative processes in the ACT model to promote mental health, quality of life, and behavioral effectiveness. Blinding procedures were not implemented because the study only involved one intervention, and the dependent measures were taken through automatic emails on the Internet.

Primary Outcomes Measure

Breakup Distress Scale (BDS; Field et al., 2009). The BDS is a 16-item, 4-point Likert-type scale (4 = *almost always*, 1 = *almost never*) that measures the frequency with which the individual experiences breakup-related distress, both in the form of emotional symptoms and inflexible behavior in response to private events related to the breakup. The BDS showed an alpha of .91 and a one-factor structure in its original validation. The method described in Muñiz et al. (2013) was used to translate the BDS into Spanish.

Secondary outcome measures

Depression, Anxiety, and Stress Scales – 21 (DASS-21; S. H. Lovibond y P. F. Lovibond, 1995; Spanish version by Ruiz et al., 2017). The DASS-21 is a 21-item, 4-point Likert-type scale (3 = *applied to me very much*; 0 = *did not apply to me at all*) that measures the negative emotional states experienced last week. The DASS-21 showed excellent internal consistency and a hierarchical factor structure that justifies computing an overall indicator of emotional symptoms (i.e., DASS-Total).

Satisfaction with Life Scale (SWLS; Diener et al., 1985; Spanish version by Ruiz et al., 2019). The SWLS is a 5-item, 7-point Likert-type scale (7 = *strongly*

agree, 1 = *strongly disagree*) that measures self-perceived well-being. It showed a one-factor structure and an alpha of .89.

Process Outcomes

Perseverative Thinking Questionnaire (PTQ; Ehring et al., 2011; Spanish version by Ruiz et al., submitted). The PTQ is a 15-item, 5-point Likert (4 = *almost always*; 0 = *never*) self-report instrument. It is a content-independent self-report of RNT in response to negative events. The Spanish version of the PTQ has shown excellent internal consistency and a one-factor structure.

Acceptance and Action Questionnaire – II (AAQ-II; Bond et al., 2011; Spanish version by Ruiz et al., 2016b). The AAQ-II is a 7-item, 7-point Likert-type scale (7 = *always true*; 1 = *never true*) that measures experiential avoidance as averaged across contexts. The Spanish version of the AAQ-II has good internal consistency and a one-factor structure.

Cognitive Fusion Questionnaire (Gillanders et al., 2014; Spanish version by Ruiz et al., 2017). The CFQ is a 7-item, 7-point Likert-type scale (7 = *always*; 1 = *never true*) that measures cognitive fusion as averaged across contexts. The Spanish version of the CFQ has shown excellent internal consistency and a one-factor structure.

Valuing Questionnaire (VQ; Smout, Davies, Burns, & Christie, 2014; Spanish version by Ruiz et al., 2022). The VQ is a 10-item, 7-point Likert (6 = *completely true*; 0 = *not at all true*) self-report instrument that assesses valued living averaged across life areas during the past week. It comprises two subscales: Progress and Obstruction. The Spanish version of the VQ has shown good internal consistency and a two-factor structure.

RNT-focused ACT protocol

The protocol consisted of three face-to-face, individual sessions. The first session lasted approximately 90 minutes, and the second and third sessions lasted about 60 minutes. The protocol was based on the one used in Ruiz et al. (2019, 2020). It aimed at developing the ability to discriminate ongoing triggers for RNT, take distance from them, and redirect attention to valued actions. A summary of the protocol is presented in Table 1. A detailed description of the protocol can be accessed at https://bit.ly/39uZiDI.

Table 1
Contents of the RNT-focused Protocol

	Aims	Therapeutic interactions
S1	1. Presentation of the intervention rationale	• Work proposal: developing the skill to identify entanglement with our thoughts and learn to focus on what is important in our lives (with a special focus on the couple relationship). • Hierarchical relations between the self and thoughts/emotions (remembering thoughts in different life moments and observing the flow of thoughts). • Dike metaphor: Thoughts are like leaves on a stream, but we can choose to build a dike to stop the leaves and analyze them to the point of creating whirlpools of thoughts. • Cards exercise: Write down ongoing thoughts, observe them, and choose to build a dike or let them pass.
	2. Identification of the main triggers to initiate worry/rumination and other experiential avoidance strategies related to them	• Worry begins when fear of a future event appears: "What is the fear that is the "daddy" of all your fears?" • Rumination begins when one needs an explanation about something that happened: "What is the explanation you need that is the "daddy" of all?" • Explore the consequences of worry/rumination and experiential avoidance strategies connected to them. • Socratic dialogue: (a) In which direction are you going when you worry/ruminate and try to avoid/control your thoughts? (b) Are they helpful in the short term? (c) And in the long term? and (d) Are the thoughts even stronger than before?
	3. Promoting the discrimination of the counterproductive effect of engaging in worry/rumination and other experiential avoidance strategies	• Physical metaphor: "Pushing triggers away." The experimenter writes the participant's triggers on a piece of paper and puts them near the participant's face. When participants begin to push the piece of paper away with their hands, the experimenter resists. • Questions: (a) How much strength do your thoughts have when you push? (b) Can you do something important while pushing? (c) How much stronger would they be if you pushed 1 more year? (d) And 5 more years?
	4. Identification of the RNT process and defusion training	• Go around exercise: While reading a book, the therapist shows a trigger for RNT on a card, and the participant stops reading and begins the RNT process by going around a chair in circles. Every time the participant makes a loop, she says the next thought of the chain and chooses to make another loop (the same process is repeated 10 times). Then, the participant is invited to read again and choose just to observe the triggers for RNT and go back to reading without entangling with them.

	Aims	Therapeutic interactions
S2	1. Review	• Exploration of RNT and valued actions during the last week.
	2. Multiple-exemplar training in identifying triggers for RNT and defusion exercises	• Defusion exercise: focusing on breathing and the surrounding noises while noticing who chooses to do that. Then, practice putting ongoing thoughts on balloons and letting them be. Lastly, practice with two situations in which triggers for RNT surfaced. • Free association exercise: The therapist reads 12 words separated by 7 s. The participant has to notice what thought comes to her mind and chooses between entangling herself with it or putting on a balloon and letting it be. • Daydreaming and worrying exercise: The participant was invited to daydream for 2 minutes. Each 20 s, the therapist asked the participant to notice what she was thinking and how she was able to choose between following or stopping the process. The same process was repeated with worry. • Exercise of alternating RNT and defusing from thoughts in a conversation with the therapist. • Pink elephant exercise (based on Hayes et al., 1999): The participant was invited to avoid thinking about a pink elephant.
	3. Identification of valued actions	• The therapist asked the participant to list some valued actions that she could do instead of being entangled with her thoughts ("things that make her proud at the end of the day").
S3	1. Review	• Exploration of RNT and valued actions during the last week.
	2. Values and defusion exercises	• Observer exercise (modified to identify triggers of worry/rumination and contact with values). • Garden metaphor (Wilson & Luciano, 2002): Summary of the information gathered during the previous exercises and planning committed actions. • Clarification of values and identification of valued actions. Garden metaphor.
	3. Establishing committed actions	• Identifying possibilities to behave inflexibly and flexibly and values-oriented in a typical day.
	4. Closing the protocol	• Summary of the intervention and commitment to respond to the follow-up assessments.

Procedure

The study was conducted in the Clinical Psychology laboratory of a Colombian university. An Internal Ethics Committee approved the procedures of the study. Participants who showed interest in the research were invited to an assessment and informative session led by the first author. The presence of severe suicide ideation, psychotic disorder, and substance abuse was assessed with the Mini-International Neuropsychiatric Interview (MINI; Sheehan et al., 1998). If individuals were eligible, the procedure was presented, and all informed consents were signed (all individuals agreed to participate). Lastly, the first baseline evaluation was conducted. Afterward, participants provided baseline data weekly. The recruitment process was prolonged for three months, but the study began for the participants as soon as they attended the informative session and signed the informed consent.

The protocol was implemented weekly in an individual, face-to-face format.

During the intervention and follow-up period, participants were also assessed every week. The first author was the therapist in all cases. She was a master's degree student who had received about 50 h of formal training in ACT during the last two years (approximately 30 hours in the general ACT model and 30 h of training in RNT-focused ACT protocols). The second author, who is an experienced ACT researcher and has acted as a therapist in multiple clinical studies, trained and supervised the therapist.

Data Analysis

Raw data of this study can be accessed at https://bit.ly/39uZiDI. Visual analyses were conducted to analyze the results of each participant according to the guidelines provided by Lane and Gast (2014). The data were analyzed at the individual and group levels. The nonparametric Tau-U test (Parker et al., 2011) was computed to perform within-participant analysis using the calculator http://singlecaseresearch.org/calculators/tau-u. This test provides a nonoverlapping effect size between baseline and intervention data and computes a *p*-value that determines the presence of a statistically significant intervention effect. Tau-U values range from -1 and 1 and indicate the percentage of data that improve through the baseline and intervention phases. For the sake of clarity, we present all effect sizes in favor of the intervention phase as positive, regardless of whether its scores should decrease or increase.

The achievement of clinically significant changes was analyzed through the guidelines presented by Ruiz et al. (2018). The criteria to obtain a clinically significant change required: (a) the Tau-U value to be statistically significant in favor of the intervention phase, and (b) to show a score at the 8-week follow-up closer to the mean of the nonclinical than the clinical population. To test the latter criterion, we consulted descriptive data obtained from scale validation studies (see Ruiz et al., 2018).

Overall estimations of the intervention effect sizes were conducted with the standardized mean difference developed for single-case experimental designs by Hedges et al. (2013), which accounts for the autocorrelation typically seen in these designs. This analysis yields an overall estimate of the effect size that shares the same metric as Cohen's *d* used in group designs. The analysis was computed using the R package scdhlm.

Results

Within-Participant Results

Figure 1 shows the scores' evolution of primary and secondary outcomes. Participants showed high scores on breakup distress (i.e., BDS), moderate to severe scores on emotional symptoms (i.e., DASS-Total), and scores slightly below the average in life satisfaction (i.e., SWLS). Visual inspection shows that the RNT-focused ACT protocol was very efficacious in decreasing the BDS scores, with large

and immediate effects. During the follow-up, the scores on the BDS remained at the minimum level of the scale. The treatment effect was more gradual in the case of emotional symptoms and life satisfaction, but the effects were also clearly visible. During the follow-up, the DASS-Total scores reached minimum levels, and the SWLS scores indicated high life satisfaction.

Figure 1

Participants' Evolution in Breakup Distress (BDS), Emotional Symptoms (DASS-21), and Life Satisfaction (SWLS). The x-axes Represent Weekly Assessments

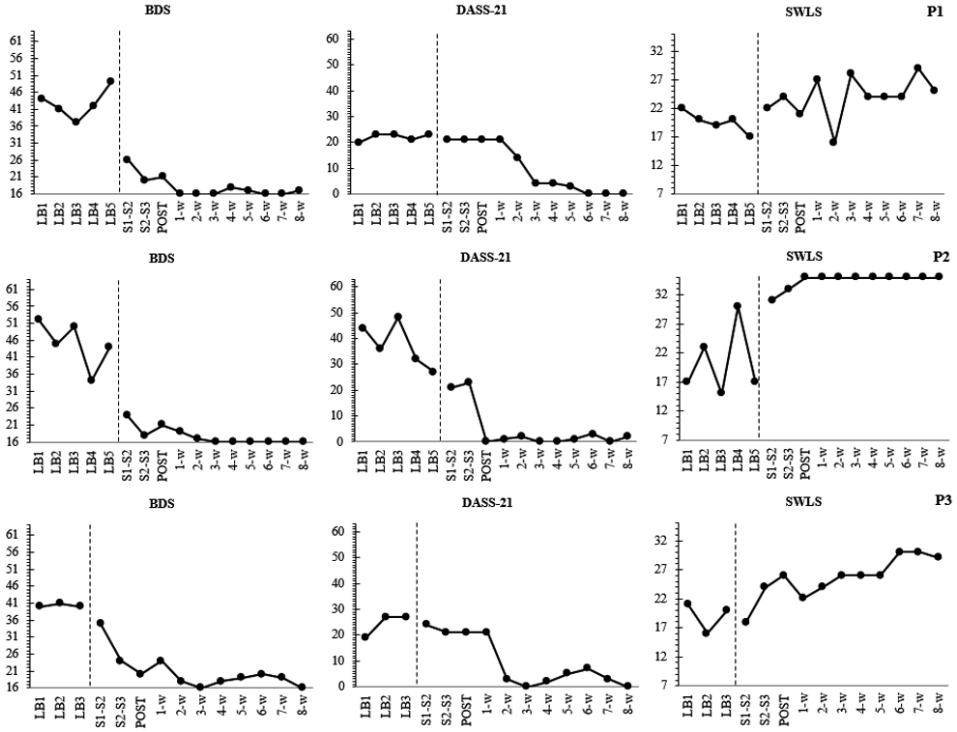

Table 2 presents the results on Tau-U and the analysis of the presence of clinically significant changes. All three participants showed *Tau-U* values of 1.00 on breakup distress (i.e., BDS scores), reaching clinically significant changes. Regarding emotional symptoms, P1 and P2 showed statistically significant *Tau-U* values and reached clinically significant changes. P3 did not obtain a clinically significant change because her *Tau-U* effect size was marginally statistically significant because the change in emotional symptoms was not immediate after introducing the intervention. However, her emotional symptom level was extremely low during the follow-up. Lastly, all three participants showed statistically significant *Tau-U* values on life satisfaction and obtained clinically significant changes in this outcome.

Table 2
Tau-U Results and Clinically Significant Chang

		P1	P2	P3
BDS (breakup distress)	*Tau-U*	1.00	1.00	1.00
	SE	0.32	0.32	0.39
	p	.002	.002	.010
	CSC	YES	YES	YES
DASS – Total (emotional symptoms)	*Tau-U*	0.78	1.00	0.76
	SE	0.32	0.32	0.39
	p	.015	.002	.052
	CSC	YES	YES	NO
SWLS (life satisfaction)	*Tau-U*	0.76	1.00	0.88
	SE	0.32	0.32	0.39
	p	.017	.002	.024
	CSC	YES	YES	YES
PTQ (repetitive negative thinking)	*Tau-U*	1.00	1.00	0.94
	SE	0.32	0.32	0.39
	p	.002	.002	.016
	CSC	YES	YES	YES
AAQ-II (experiential avoidance)	*Tau-U*	1.00	1.00	1.00
	SE	0.32	0.32	0.39
	p	.002	.002	.010
	CSC	YES	YES	YES
CFQ (cognitive fusion)	*Tau-U*	1.00	1.00	1.00
	SE	0.32	0.32	0.39
	p	.002	.002	.010
	CSC	YES	YES	YES
VQ – Progress (values progress)	*Tau-U*	0.82	1.00	1.00
	SE	0.32	0.32	0.39
	p	.011	.002	.010
	CSC	YES	YES	YES
VQ – Obstruction (values obstruction)	*Tau-U*	0.96	1.00	1.00
	SE	0.32	0.32	0.39
	p	.003	.002	.010
	CSC	YES	YES	YES

Note. AAQ-II = Acceptance and Action Questionnaire – II; BDS = Breakup Distress Scale; CSC = Clinically significant change, CFQ = Cognitive Fusion Questionnaire, DASS = Depression, Anxiety and Stress Scale, PTQ = Perseverative Thinking Questionnaire, SE = standard error, VQ = Valuing Questionnaire.

Figure 2 presents the score's evolution in process outcomes. Visual analyses reveal that the three participants showed decreases in RNT, experiential avoidance, cognitive fusion, and obstruction in values. Similarly, all participants showed increases in progress in valued living. Table 2 also shows that all Tau-U values were statistically significant and that all participants obtained clinically significant changes in all process measures.

Between-Participant Results

Table 3 shows that the standardized mean difference for SCED showed that the treatment effect was statistically significant for all variables. Specifically, the effect size for the primary outcome (i.e., breakup distress) was extremely large (d = 7.11). Likewise, the effect sizes for the secondary outcomes were very large, although more modest (DASS-Total: d = 2.46; SWLS: d = 1.25). Lastly, the effect sizes for process measures were very large in all cases (PTQ: d = 4.06; AAQ-II: d = 4.43; CFQ: d = 5.37; VQ-Progress: d = 1.59; and VQ-Obstruction: d = 2.09).

Table 3
Design-Comparable Standardized Mean Differences

Measure	*BC-SMD*	*SE*	*95% CI* (lower)	*95% CI* (upper)
BDS	7.11	1.17	5.11	9.56
DASS-Total	2.46	0.74	1.19	3.98
SWLS	1.25	0.63	0.49	2.54
PTQ	4.06	0.70	2.84	5.53
AAQ-II	4.43	0.75	3.12	5.99
CFQ	5.37	0.87	3.85	7.19
VQ-Progress	1.59	1.11	0.56	3.72
VQ-Obstruction	2.09	0.79	0.97	3.75

Note. AAQ-II = Acceptance and Action Questionnaire – II; BDS = Breakup Distress Scale; CFQ = Cognitive Fusion Questionnaire, DASS = Depression, Anxiety and Stress Scale, PTQ = Perseverative Thinking Questionnaire, SE = standard error, VQ = Valuing Questionnaire.

Anecdotal comments by the participants revealed that, after the intervention, they engaged in more social activities and had fewer arguments with people close to them. Participants also undertook and maintained valued plans, and they abandoned spying through social media. Lastly, participants experienced a decrease in health issues and improved sleep quality.

Discussion

This study aimed to preliminarily analyze the efficacy of a brief RNT-focused ACT protocol in three participants experiencing complicated breakup grief. This type of protocol was considered promising for intervening in complicated breakup grief, given the essential role played by the persistent rumination in response to

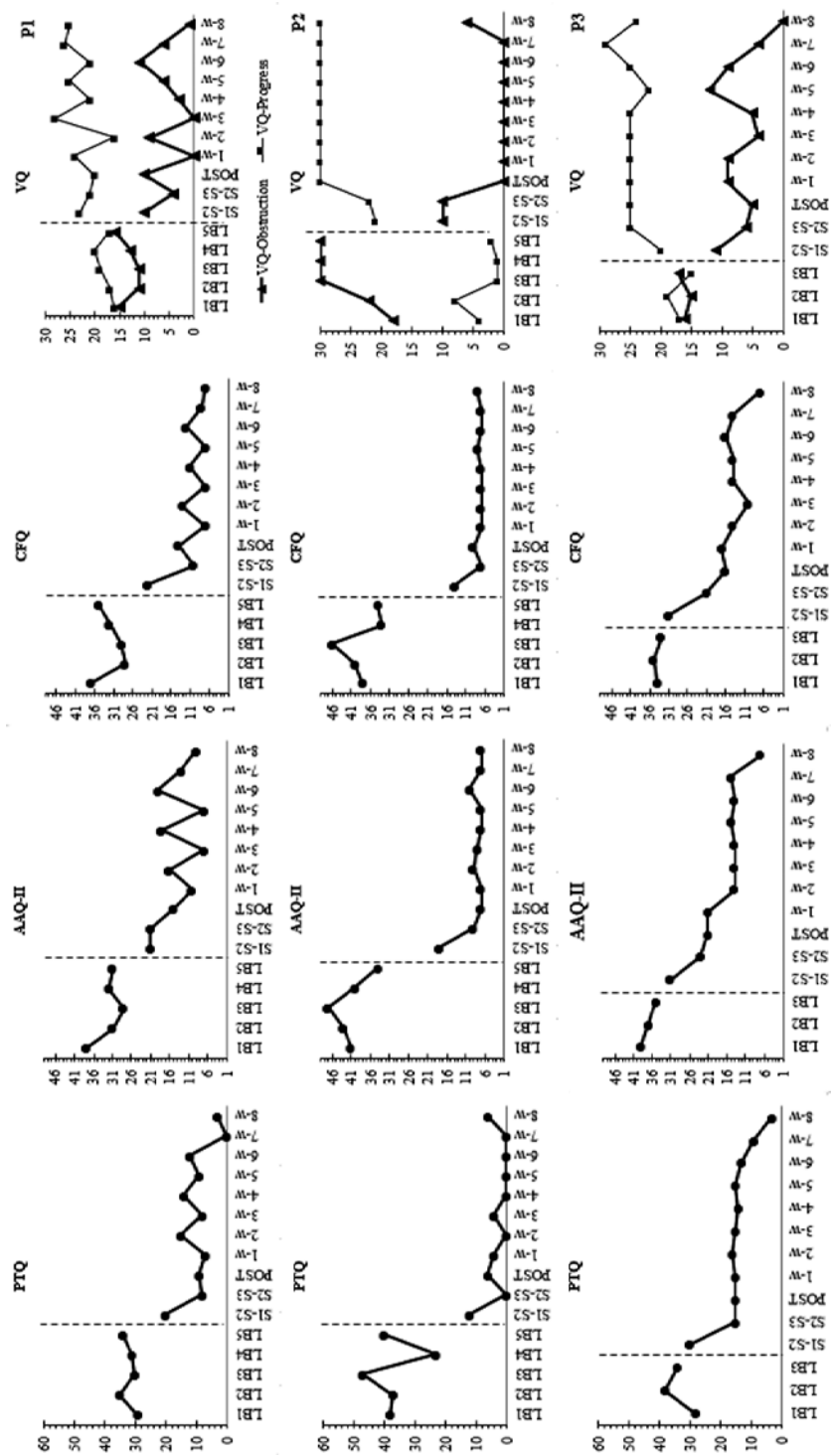

Figure 2
Participants' Evolution in Repetitive Negative Thinking (PTQ), Experiential Avoidance (AAQ-II), Cognitive Fusion (CFQ), and Valued Living (VQ). The X-Axes Represent Weekly Assessments

intrusive thoughts and memories related to the romantic relationship and the engagement in additional experiential avoidance strategies (Field et al., 2009; Luhman et al., 2012; Murdock et al., 2014; Sbarra & Emery, 2005).

The results showed that the three participants experienced very large improvements in breakup distress, which reached a zero level at the end of the 8-week follow-up. The improvement in emotional symptoms was also very large, but the change was produced more gradually. A similar pattern followed the variable life satisfaction, in which all participants reached high scores at the end of the follow-up. All the effect sizes were very large and statistically significant. The intervention was also efficacious in all process outcomes. Specifically, we observed reductions in RNT, experiential avoidance, cognitive fusion, and values obstruction, and increases in values progress.

Some limitations of this study are worth noting. Firstly, nonconcurrent multiple-baseline designs cannot control for history or maturation effects that might coincide with the application of the intervention (Harvey et al. 2004). This design was chosen because of the difficulty of recruiting participants. Secondly, the minimum number of participants recommended for conducting a multiple-baseline design is three. Although the effect of the intervention was evident in this study, these findings should be replicated in other studies with a larger sample. Thirdly, dependent variables were measured exclusively through self-reports. Further studies might include data from observers or self-registers. Lastly, the design of this study did not allow analyzing the potential mediators of the intervention. For this purpose, it would be necessary to conduct a more intensive assessment (e.g., ecological momentary assessment).

In conclusion, this study preliminarily indicates that RNT-focused ACT protocols might be efficacious for treating complicated breakup grief. Subsequent studies should replicate these findings with more participants or extend them by conducting a randomized controlled trial comparing the effect of these protocols with a waitlist control condition or a psychological placebo.

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