**ISSN 1577-7057**



**Printed in Spain**



Volume 26, number 2 June 2026
Volumen 26, número 2 Junio 2026

ISSN: 1577-7057

# IJP&PT

## International Journal of Psychology & Psychological Therapy



https://www.ijpsy.com

## *IJP&PT* IS INCLUDED IN THE FOLLOWING INDEXING AND DOCUMENTATION CENTERS:

Scopus · Web of Science™ (WoS) Journal Info · Google Scholar Metrics · PsycINFO · ProQuest PRISMA® Database · EBSCO Information Services · ROAD Directory of Open Access Scholarly Resources · CWTS Journal Indicators · CARE University Grants Commission · Embase · Dialnet métricas · CNKI www.cnki.net · DOAJ Directory of Open Access Journals · zpid PSYNDEX · Pub Psych · ERIC · Psicodoc · CABELLS Scholarly Analytics · Journal Scholar Metrics Arts, Humanities, and Social Sciences · DICE Difusión y Calidad Editorial de las Revistas Españolas de Humanidades y Ciencias Sociales y Jurídicas CSIC · IBECS · resh · Academic Search Complete · J4F Journals for Free · MIAR Matriz de Información para el Análisis de Revistas · crue

*International Journal of Psychology & Psychological Therapy*, 2026, 26, 2, 177-192


# A multiple-baseline design evaluation of the feasibility of a brief RNT-focused ACT intervention in health professionals experiencing burnout

**Andrea B. Criollo**
*Universidad de Valladolid, España*
**Paola A. Bernal González**
*Fundación Universitaria Konrad Lorenz, Bogotá, Colombia*
**Paula Odriozola González**
*Universidad de Cantabria, España*
**Francisco J. Ruiz***
*Fundación Universitaria Konrad Lorenz, Bogotá, Colombia*

## Abstract

Repetitive negative thinking (RNT) has been identified as a transdiagnostic process that may sustain burnout symptoms in healthcare professionals. This pilot study aimed to evaluate the feasibility and preliminary efficacy of a brief, three-session Acceptance and Commitment Therapy (ACT) protocol focused on RNT, delivered individually via videoconference, in healthcare professionals experiencing burnout. A randomized nonconcurrent multiple-baseline single-case experimental design across participants was employed, with baseline durations randomly assigned and a four-week follow-up phase. Three female healthcare professionals (aged 22-26 years) completed the intervention. Burnout symptoms, RNT, work-related psychological flexibility, valued actions, and emotional symptoms were assessed through daily ecological momentary measures and weekly self-report instruments, including the Maslach Burnout Inventory-General Survey, the Perseverative Thinking Questionnaire, and the Depression Anxiety and Stress Scale-21. Data were analyzed through visual inspection, the Tau-U nonparametric statistic, and a design-comparable standardized mean difference. Daily and weekly assessments showed slight discrepancies in some variables, particularly for one participant; however, clinically relevant improvements were observed across all participants, including reductions in emotional exhaustion, cynicism, RNT, and emotional distress. Effect sizes were large for burnout symptoms, RNT, and emotional symptoms. These findings provide preliminary evidence for the feasibility, acceptability, and potential efficacy of a brief RNT-focused ACT protocol in reducing burnout-related symptoms among healthcare professionals.
*Key words*: burnout, ACT, repetitive negative thinking, health professionals, psychological flexibility.

**How to cite**: Criollo AB, Bernal González PA, Odriozola González P, & Ruiz FJ (2026). A multiple-baseline design evaluation of the feasibility of a brief RNT-focused ACT intervention in health professionals experiencing burnout. *International Journal of Psychology & Psychological Therapy, 26, 2,* 177-192.

### *Novelty and Significance*

*What is already known about the topic?*

- Burnout is a common occupational problem among healthcare professionals associated with emotional exhaustion, cynicism, and emotional distress.
- ACT has shown beneficial effects in reducing burnout and stress-related problems in work settings.
- RNT, such as worry and rumination, contributes to the persistence of burnout and emotional problems.

*What this paper adds?*

- Evaluates a brief, three-session ACT intervention focused on RNT, delivered individually online to healthcare professionals.
- It uses a randomized multiple-baseline single-case design combined with ecological momentary and weekly assessments, allowing close monitoring of daily changes.
- Findings support the feasibility and potential usefulness of brief, accessible, and process-focused interventions for burnout in demanding healthcare contexts.

Burnout syndrome is a significant occupational health problem among healthcare workers. The World Health Organization (WHO, 2019) recognized it as an occupational phenomenon in the International Classification of Diseases (ICD-11), describing burnout

* *Correspondence*: Francisco J. Ruiz, Fundación Universitaria Konrad Lorenz, Bogotá, Colombia. Email: franciscoj.ruizj@konradlorenz.edu.co

as a reaction to persistent workplace stress that has not been successfully managed. According to the classic conceptualization by Maslach and Jackson (1981), the syndrome comprises three dimensions: emotional exhaustion, cynicism or depersonalization, and reduced professional effectiveness. The impact of burnout extends beyond individual suffering, affecting patient care quality, increasing absenteeism, raising healthcare costs, and, in the medium term, leading to the loss of healthcare professionals (Ávila Agreda, Ramírez Coronel, Mesa Cano, & Serrano Paredes, 2021; González Rodríguez, Peralta Beltrán, González Salas, & Navarrete Arboleda, 2023; Rueda Hernández, 2025).

In Latin America, burnout prevalence among healthcare professionals is notably high. A recent systematic review reported that burnout affects various professional groups, including physicians, nurses, and clinical psychologists, who work under conditions marked by long hours, limited resources, and constant emotional demands (Vinueza Solórzano et alii, 2023). Consistent with these findings, a study of Latin American orthopedic surgeons found that over 50% reported clinically significant burnout symptoms, with key risk factors including insufficient rest and difficulties balancing personal and professional life (Vaisman et alii, 2024). Taken together, these findings suggest that burnout is not an isolated issue but a structural problem within the region's healthcare systems.

In Colombia, a review by Arenas and Sierra (2019) on burnout in psychologists found that emotional exhaustion and cynicism are especially common among this professional group and directly affect the quality of the therapeutic relationship. These findings are consistent with international evidence indicating that burnout damages both professional well-being and the quality of care provided to clients (Mendoza Muñoz & Haro Zea, 2024).

The COVID-19 pandemic exacerbated this situation. A study conducted in Colombia during the critical phase of the health emergency reported that 45.8% of healthcare professionals experienced high emotional exhaustion and 88.9% experienced high depersonalization (Díaz Pérez et alii, 2024). Anesthesiologists and surgeons were the most affected groups, with main risk factors including anxiety, insomnia, and extreme fatigue.

Adding to this concerning picture, a systematic review of 34 international studies revealed a notable increase in suicidal thoughts and behaviors among healthcare professionals during the pandemic (García Iglesias et alii, 2022). Prevalence rates of suicidal ideation ranged from 2.4% to 21.7%, while suicide attempts ranged from 0.5% to 3.5%. Risk factors included depression, anxiety, insomnia, work overload, financial hardships, perceived discrimination, and burnout, whereas social support and resilience acted as protective factors. These findings underscore the unprecedented mental health impact of the pandemic on healthcare workers.

Beyond its clinical manifestations, understanding the psychological processes that sustain burnout is essential for guiding intervention strategies. Repetitive negative thinking (RNT) is one such process. RNT refers to the tendency to engage in recurring ruminations about past experiences and worries about future events perceived as threatening and has been conceptualized as a transdiagnostic process linked to anxiety, depression, and stress (Müller et alii, 2025). In healthcare professionals, RNT is associated with increased emotional exhaustion, difficulty recovering after demanding workdays, and a higher risk of emotional problems (Vandevala et alii, 2017).

From a contextual-behavioral perspective, RNT can be conceptualized as a form of psychological inflexibility characterized by difficulty in distancing oneself from intrusive thoughts and responding in accordance with personal values. Within this framework, Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 1999; Wilson & Luciano, 2002) has emerged as a promising approach for promoting psychological flexibility, that is, the ability to be present, open to experience, and engaged in value-

consistent actions. From a relational frame theory perspective, psychological flexibility has been more specifically conceptualized as the ability to respond in hierarchy with a deictic I rather than in coordination with the immediate functions of private events (Luciano, 2017).

ACT proposes that reducing psychological distress is not about eliminating thoughts or emotions but about changing how individuals relate to them. Through processes such as cognitive defusion, individuals can notice their thoughts as transient verbal events rather than literal truths, thereby reducing the behavioral impact of RNT and facilitating engagement in value-consistent actions (Dereix Calonge, Ruiz, Sierra, Peña Vargas, & Ramírez, 2019). This skill is particularly relevant in healthcare settings, where occupational stressors are constant and often unavoidable.

Empirical evidence supports the efficacy of ACT in occupational and clinical settings. In a randomized controlled trial, Brinkborg, Michanek, Hesser, and Berglund (2011) reported significant reductions in burnout and stress among social workers after a group-based ACT intervention. Similarly, Otared, Moharrampour, Vojoudi, and Najafabadi (2021) found that group-based ACT delivered online decreased anxiety and depression and enhanced quality of life among healthcare professionals during the COVID-19 pandemic. More recently, Prudenzi, Capobianco, Pagnini, and Hayes (2022) showed that brief ACT interventions for healthcare staff reduced burnout symptoms and psychological distress. In Colombia, Nemojón Cárdenas (2020) implemented a group ACT intervention with emergency professionals and observed decreases in emotional exhaustion and cynicism, along with increases in professional efficacy.

Despite these promising findings, most ACT protocols developed to date have been group-based and lengthy, limiting their applicability in settings characterized by high workloads, limited time, and confidentiality concerns. Accordingly, there is a need to develop brief, individualized versions of ACT tailored to the working conditions of healthcare professionals.

A recent approach has explicitly integrated RNT and experiential avoidance within a therapeutic model called RNT-focused ACT (Ruiz, Riaño Hernández, Suárez Falcón, & Luciano, 2016; Ruiz, Luciano, Flórez, Suárez Falcón, & Cardona Betancourt, 2020a; Ruiz et alii, 2020b). This approach aims to provide ACT with a more in-depth focus on relational frame theory (RFT; Hayes, Barnes-Holmes, & Roche, 2001) by incorporating recent theoretical and empirical analyses of its clinical applications (Luciano, Törneke, & Ruiz, 2023; Törneke, Luciano, Barnes-Holmes, & Bond, 2016). Specifically, RNT-focused ACT includes: (a) the RFT conceptualization of psychological flexibility as responding in hierarchy with the deictic "I" rather than in coordination with the immediate functions of private events (Törneke et alii, 2016), (b) the conceptualization of values and triggers for RNT as hierarchical networks of positive and negative reinforcers (Gil Luciano, Calderón Hurtado, Tovar, Sebastián, & Ruiz, 2019), (c) a temporal specification of experiential avoidance cycles (Ruiz et alii, 2016), and (d) an RFT conceptualization of RNT as a predominant experiential avoidance strategy (Ruiz et alii, 2016).

More specifically, RNT, in the form of worry and rumination, is conceptualized as a predominant experiential avoidance strategy because it tends to be the first reaction to aversive private experiences, given humans' fluency in derived relational responding (Ruiz et alii, 2016). However, RNT has a paradoxical effect: it prolongs and amplifies negative affect because the thinking process is focused on negative content (Ehring & Watkins, 2008; Newman & Llera, 2011). The prolonged negative affect often leads the individual to engage in additional experiential avoidance strategies, such as thought suppression, distraction, or substance use, to reduce discomfort (Nolen-Hoeksema, Stice, Wade, & Bohon, 2007). The repetition of this cycle creates an inflexible pattern of behavior that undermines the time and effort invested in valued actions. Following this

analysis, RNT-focused ACT protocols aim to disrupt unconstructive RNT in response to hierarchical triggers and redirect behavior toward values. Brief RNT-focused ACT protocols have shown high efficacy in treating emotional disorders (Ruiz et alii, 2016, 2018, 2020a, 2020b) and have been successfully applied to diverse clinical populations, including patients with fibromyalgia (López Palomo, Vargas Nieto, & Ruiz, 2022) and individuals with interpersonal problems (González Cifuentes et alii, 2025).

Within this framework, the present pilot study aimed to evaluate the feasibility and preliminary effects of a brief, three-session RNT-focused ACT protocol delivered individually via videoconference to healthcare professionals experiencing burnout symptoms. A randomized, multiple-baseline design across participants was employed to assess changes in burnout symptoms, emotional symptoms, and RNT.

## METHOD

### *Participants*

Participants were recruited through social media advertisements. Inclusion criteria included: (a) at least six months in their current job without significant changes in role or responsibilities, (b) age between 20 and 50 years, (c) at least three months of work-related emotional distress, (d) working at least 30 hours per week, and (e) clinically significant scores on the Maslach Burnout Inventory-General Survey (MBI-GS), with cut-off points of Emotional Exhaustion ≥13, Cynicism ≥10, and Professional Efficacy ≤26. Exclusion criteria included: (a) current psychological or psychiatric treatment, (b) scheduled contract termination within the next three months, (c) planned vacations during the intervention or follow-up period, (d) high risk of suicide, (e) reported substance abuse, and (f) chronic pain or fatigue.

Five female healthcare professionals met the inclusion criteria (named as P1 to P5). However, during baseline data collection, one participant (P4) experienced an unexpected change in her work situation. Due to this methodological constraint, the intervention was administered for ethical reasons, but her results are not reported. Another participant (P5) withdrew from the study during baseline due to increased work demands that prevented her from receiving the intervention. Consequently, three participants completed the study.

Table 1 presents the sociodemographic data, occupational characteristics, and diagnostic information of the participants based on the MINI interview. All three participants met criteria for at least one anxiety or mood disorder at baseline.

### *Design and Variables*

*Table 1*. Demographic Data, Work Characteristics, and Diagnoses According to the MINI-DSM.

| P | Age | Study | Employ | Type of employment contract | Wwh | Diagnostic categories |
|---|---|---|---|---|---|---|
| P1 | 26 | Postgraduate | Clinical Psychologist | Service contract | 40 | GAD, A, PD. |
| P2 | 22 | Technical | Nursing Assistant | *Permanent contract* | 52 | D, PD, SPh, GAD. |
| P3 | 24 | Undergraduate | Psychologist | Service contract | 72 | GAD |

*Note*: A= Agoraphobia; D= Depression; GAD= Generalized Anxiety Disorder; PD= Panic Disorder; SPh= Social Phobia; Wwh= Weekly working hours.

A randomized, nonconcurrent, multiple-baseline single-case experimental design across participants was implemented. The independent variable was a brief RNT-focused ACT protocol comprising three individual 60-minute sessions delivered via videoconference. Dependent variables were categorized into primary and secondary outcomes. Primary

outcomes were burnout symptoms. Secondary outcomes included emotional symptoms, RNT, work-related psychological flexibility, and valued actions. Daily and weekly assessment instruments were administered throughout the baseline, intervention, and follow-up phases. Daily assessments were administered only on working days.

### *Instruments and Measures*

The following instruments and measures were administered in this study. A diagnostic interview was conducted at the screening stage, and self-report measures were administered at the daily and weekly levels throughout baseline, intervention, and follow-up phases. The specific administration frequency (daily vs. weekly) is indicated in the description of each measure.

*Mini International Neuropsychiatric Interview* (MINI; Sheehan *et alii*, 1998; Spanish version by Ferrando, Bobes, Gibert, Soto, & Soto, 2000). The MINI is a structured diagnostic interview designed to assess the main psychiatric disorders according to DSM criteria. It covers diagnostic categories including major depressive episode, suicide risk, (hypo) manic episode, panic disorder, agoraphobia, generalized anxiety disorder, and substance use disorders, among others. The MINI has demonstrated adequate inter-rater reliability, with kappa values greater than 0.75 (Sheehan *et alii*, 1998).

*Burnout-Ecological Momentary Assessment* (B-EMA; Criollo, Odriozola González, & Ruiz, 2026b). The B-EMA is a nine-item instrument designed to assess daily fluctuations in burnout symptoms. Items are rated on a 5-point Likert scale (0= not at all; 4= all day) and distributed across three subscales: Emotional Exhaustion, Cynicism, and Professional Efficacy, each comprising three items. The scale has demonstrated adequate internal consistency, a stable three-factor structure, longitudinal factorial invariance, and convergent validity.

*Daily Version of the Patient Health Questionnaire-4* (PHQ-4; Kroenke, Spitzer, Williams, & Löwe, 2009). The PHQ-4 is a four-item screening tool for depression and anxiety. In the daily version employed in this study, responses are given on a 5-point Likert scale (0= not at all; 4= all day). Research on this daily version has shown good internal consistency, a hierarchical factor structure with two first-order factors (Depression and Anxiety) and a second-order factor representing general emotional symptoms, longitudinal factorial invariance, and convergent validity (Bautista, Ruiz, & Suárez Falcón, 2023; González Cifuentes *et alii*, 2025).

*Workplace Repetitive Negative Thinking-Ecological Momentary Assessment* (WRNT-EMA; Criollo, Odriozola González, Ruiz, & Duarte, 2026a). The WRNT-EMA is a three-item instrument designed to assess daily workplace RNT levels. Items are rated on a 5-point Likert scale (0= not at all; 4= all day). The scale has demonstrated adequate internal consistency, a one-factor structure, longitudinal factorial invariance, and evidence of convergent validity.

*Maslach Burnout Inventory-General Survey* (MBI-GS; Maslach, Jackson, & Leiter, 1996; Spanish version by Moreno-Jiménez, Rodríguez Carvajal, & Escobar Redonda, 2001). The MBI-GS is the most widely used self-report measure for assessing burnout. It comprises 16 items rated on a 7-point Likert scale (0= never; 6= every day) and includes three subscales: Emotional Exhaustion, Cynicism, and Professional Efficacy. The instrument was validated in Colombia by Bravo, Suárez Falcón, Bianchi, Segura Vargas, and Ruiz (2021), demonstrating adequate internal consistency ($\alpha$= .72 to .86), the expected three-factor structure, measurement invariance across gender, group, and socioeconomic status, and convergent validity.

*Depression Anxiety and Stress Scale-21* (DASS-21; Lovibond & Lovibond, 1995; Spanish version by Daza, Novy, Stanley, & Averill, 2002). The DASS-21 is an instrument designed to assess emotional symptoms across three subscales: Depression, Anxiety, and Stress. It consists of 21 items that evaluate symptoms over the past week, rated on a 4-point Likert scale (0= did not apply to me at all; 3= applied to me very much or most of the time). The DASS-21 has demonstrated excellent internal consistency ($\alpha$= .93) and a hierarchical factor structure composed of a general second-order factor and

three specific first-order factors, one for each subscale (Ruiz, García Martín, Suárez Falcón, & Odriozola González, 2017).

*Perseverative Thinking Questionnaire* (PTQ; Ehring et alii, 2011; Spanish version by Bianchi *et alii*, 2026). The PTQ assesses the tendency to engage in RNT. It consists of 15 items rated on a 5-point Likert scale (0= never; 4= almost always), with higher scores indicating greater RNT. The PTQ has demonstrated excellent internal consistency, a one-factor structure, and convergent validity in Colombian samples.

### *Procedure*

This study was conducted in accordance with the ethical principles outlined in the Declaration of Helsinki. All participants provided informed consent prior to participation and were informed of their right to withdraw at any time. The authors declare no conflicts of interest. This research received no external funding.

Participants were recruited via social media advertisements and screened via an online survey (Microsoft Forms) using predefined inclusion and exclusion criteria (e.g., age, employment status, work hours, symptom duration, and absence of ongoing psychological treatment). Eligible individuals were invited for a second screening interview during which the MINI was administered to identify comorbidities and exclude those with high suicide risk or substance abuse. Informed consent was obtained from those who qualified; those who did not meet the inclusion criteria received appropriate guidance and referral.

Baseline data were collected over 4 to 7 weeks using daily and weekly digital self-report instruments administered via the m-path app (www.m-path.io). Participants were trained in the app's use and randomly assigned to different baseline durations using an online randomization tool (www.randomizer.org). Following baseline, the RNT-focused ACT protocol was implemented in three weekly 60-minute videoconference sessions. Post-treatment assessments were conducted one week after the final session, followed by a four-week follow-up period with continued daily and weekly monitoring. The study concluded with a debriefing session.

The psychologist implementing the intervention received training through two sessions involving protocol review and role-play exercises. She had prior academic training in ACT, including coursework and supervised practice, as well as experience applying RNT-focused ACT protocols during her undergraduate research.

### *Intervention*

The intervention protocol consisted of three 60-minute RNT-focused ACT sessions adapted from previous studies (Bautista *et alii*, 2023; Ruiz *et alii*, 2016, 2020a, 2020b) for application in occupational settings and delivered via videoconference. The protocol focused on identifying work-related RNT triggers, practicing defusion exercises, clarifying values, and promoting value-consistent actions. A summary of the protocol is provided in Table 2.

Session 1 established the intervention context, explored work-related stressors that triggered RNT, and identified additional experiential avoidance strategies. The consequences of these strategies were then explored through an experiential exercise, and the session concluded with the introduction of a defusion exercise aimed at helping the participant discriminate the chain of thoughts characteristic of RNT episodes and take psychological distance from this process.

Session 2 reviewed progress in noticing RNT engagement and distancing from triggers and RNT-related thoughts. Multiple defusion exercises were practiced, followed by a values clarification exercise.

Session 3 revisited progress in RNT identification, defusion, and engagement in

*Table 2*. Summary of the RNT-focused ACT Protocol for Burnout.

| | Therapeutic interactions |
|---|---|
| Session 1 | Establishment of the intervention context<br>Functional analysis using the "car metaphor"<br>Identification of RNT triggers<br>Identification of experiential avoidance strategies and their consequences<br>Defusion training through the "Concert Exercise" and a similar exercise based on a recent work-related issue<br>Assignment of homework (listening to Audio 1: "The Theater Play Exercise" and Audio 2: an exercise adapted to a work-related situation)<br>Session closure |
| Session 2 | Review of progress in identifying RNT and achieving cognitive distancing<br>Defusion practice through the "Balloon Exercise" and the "Transmilenio Exercise"<br>Identification of values and establishment of committed actions using the "Garden Metaphor," incorporating the role of work life<br>Session closure with commitments (listening to Audio 3: "Balloon Exercise" and Audio 4: "Transmilenio Exercise") |
| Session 3 | Review of progress made<br>Experiential exercises for perspective-taking, RNT discrimination, and engagement in committed actions (Report Exercise and "Where's Wally?" Exercise)<br>Identification of potential obstacles for the upcoming week using the "car metaphor"<br>Establishment of committed actions<br>Introduction of homework commitments (listening to Audio 5: "Free Association Exercise" and Audio 6: "Fantasy and Entanglement Awareness Exercise")<br>Closure of the intervention |

valued actions. Additional experiential defusion exercises were conducted to reinforce skills in detecting and distancing from RNT. The intervention concluded with a discussion of potential barriers the participant might encounter in the coming weeks as they pursue valued actions.

### *Data Analysis*

Statistical tests were selected based on visual analysis of data patterns in the primary outcomes (i.e., daily burnout symptoms). Baseline data exhibited considerable variability among participants: P1 and P2 showed relatively stable baselines without notable trends of improvement or decline, whereas P3 showed a deterioration trend in emotional exhaustion and cynicism. This visual evaluation was supported by nonparametric trend analysis as suggested by Parker, Vannest, and Davis (2011), conducted using the R package *scan* (Wilbert, 2025). Given the observed overlap in scores between baseline and intervention phases across participants, non-overlap effect sizes were deemed appropriate for analyzing daily data (Parker & Vannest, 2014).

For the within-case analysis, we deemed the nonoverlap *Tau-U* effect size as the most suitable method (Parker et alii, 2011). This approach provides both an effect size and a *p*-value, which help identify differences between the baseline and intervention phases. The *Tau-U* statistics comprise a series of indices intended to assess nonoverlap between the baseline and intervention phases while accounting for trends within each phase. *Tau-U* offers several significant benefits, including resilience against autocorrelation, control of the Type I error rate, and adequate power to detect the intervention's effects. Moreover, it enhances visual analyses and aids in clinical decision-making (Alresheed & Machalicek, 2023; Giannakakos & Lanovaz, 2023; Parker *et alii*, 2011; Wolfe, Barton, & Meadan, 2019). We used the R package *scan* to compute the $Tau\text{-}U_{A\ vs.\ B}$ statistic using the "b" approach, as suggested by Brossart, Laird, and Armstrong (2018) and Wilbert (2025).

For between-case analyses, the design-comparable standardized mean difference (DC-SMD) introduced by Hedges, Pustejovsky, and Shadish (2013) was employed. This

effect size provides a robust estimate of intervention effects in SCED, analogous to Hedges' *g* used in group designs. The DC-SMD is specifically designed to assess level changes in SCED and demonstrates resilience to small sample sizes while accounting for serial dependence in the data via an autoregressive factor ($AR_1$). The R package *scdhlm* was used to compute this statistic (Pustejovsky, Chen, Hamilton, & Grekov, 2023).

## RESULTS

Within-case results for the daily measures are presented first. Figure 1 shows the results for all daily measures for each participant. Visual analysis revealed that P1 showed limited improvement across the dependent variables, except for a reduction in

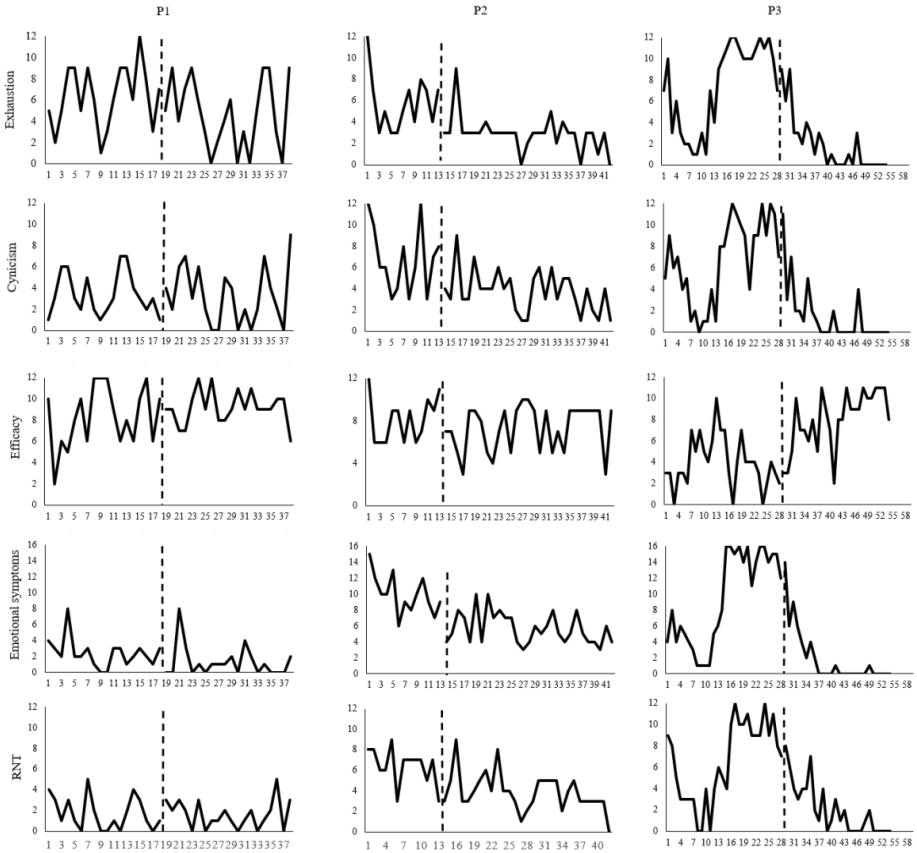


*Figure 1.* Evolution of scores on daily measures for all participants.

emotional symptoms. P2 showed reductions in all variables. P3 showed reductions in exhaustion, cynicism, emotional symptoms, and RNT, along with an increase in efficacy.

Table 3 presents the results of $Tau\text{-}U_{A\ vs.\ B}$. The results were consistent with the visual analyses. Specifically, P1 only showed a statistically significant change in emotional symptoms. P2 and P3 showed significant reductions in exhaustion, cynicism, emotional symptoms, and RNT. Only P3 showed a significant increase in efficacy.

Regarding the weekly measures, Figure 2 shows the weekly measure scores for

*Table 3*. Results of *Tau-U*$_{A\ vs.\ B}$ in daily measures.

| | | P1 | P2 | P3 |
|---|---|---|---|---|
| B-EMA-Exhaustion | *Tau-U* | -0.30 | -0.78 | -0.77 |
| | *SE* | 0.20 | 0.20 | 0.16 |
| | *p* | .14 | <.001 | <.001 |
| B-EMA- Cynicism | *Tau-U* | -0.07 | -0.58 | -0.75 |
| | *SE* | 0.21 | 0.20 | 0.16 |
| | *p* | .72 | <.001 | <.001 |
| B-EMA- Efficacy | *Tau-U* | 0.16 | -0.20 | 0.74 |
| | *SE* | 0.20 | 0.21 | 0.16 |
| | *p* | .44 | .32 | <.001 |
| PHQ-4 | *Tau-U* | -0.51 | -0.85 | -0.80 |
| | *SE* | 0.20 | 0.20 | 0.16 |
| | *p* | <0.05 | <.001 | <.001 |
| WRNT-EMA | *Tau-U* | -0.02 | -0.68 | -0.69 |
| | *SE* | 0.24 | 0.20 | 0.16 |
| | *p* | .93 | <.001 | <.001 |

each participant. Visual analyses revealed improvements in all dependent variables for P1 and P3. P2 showed improvements in exhaustion, cynicism, emotional symptoms, and RNT; however, she also showed a slight decrease in efficacy.

Table 4 shows that the results of *Tau-U*$_{A\ vs.\ B}$ were similar to the visual analyses. P1 showed statistically significant improvements in all dependent variables. P2 and P3 showed significant improvements across all dependent variables except efficacy. Notably, P2 showed a marginally significant decrease in efficacy.

Taken together, the within-case analyses in Table 5 summarize the intervention

*Table 4* Results of *Tau-U*$_{A\ vs.\ B}$ in weekly measures.

| | | P1 | P2 | P3 |
|---|---|---|---|---|
| B-EMA – Exhaustion | *Tau-U* | -0.87 | -0.84 | -0.87 |
| | *SE* | 0.37 | 0.40 | 0.37 |
| | *p* | <.05 | <.05 | <.001 |
| B-EMA – Cynicism | *Tau-U* | -0.87 | -0.84 | -0.94 |
| | *SE* | 0.37 | 0.40 | 0.33 |
| | *p* | <.05 | <.05 | <.001 |
| B-EMA – Efficacy | *Tau-U* | 0.78 | -0.79 | 0.53 |
| | *SE* | 0.38 | 0.40 | 0.34 |
| | *p* | <.05 | .05 | .12 |
| DASS-Total | *Tau-U* | -0.79 | -0.81 | -0.80 |
| | *SE* | 0.37 | 0.41 | 0.33 |
| | *p* | <.05 | <.05 | <.05 |
| PTQ | *Tau-U* | -0.94 | -0.89 | -0.76 |
| | *SE* | 0.36 | 0.41 | 0.33 |
| | *p* | <.05 | <.05 | <.05 |

effects across all dependent variables. Daily and weekly measures showed almost perfect agreement for P2 and P3. However, P1 showed statistically significant changes in emotional symptoms only in daily assessments, whereas weekly assessments indicated improvements across all variables. When both assessment modalities were considered simultaneously, the intervention produced significant effects on all dependent variables, except efficacy in P2.

Turning to the between-case analyses, Table 6 summarizes intervention effects

*Table 5*. Summary of the *Tau-U*$_{A\ vs.\ B}$ results.

| | Exhaustion | | | Cynicism | | | Efficacy | | | Emotional symptoms | | | RNT | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | D | W | Ov | D | W | Ov | D | W | Ov | D | W | Ov | D | W | Ov |
| P1 | = | √ | √ | = | √ | √ | = | √ | √ | √ | √ | √ | = | √ | √ |
| P2 | √ | √ | √ | √ | √ | √ | = | = | = | √ | √ | √ | √ | √ | √ |
| P3 | √ | √ | √ | √ | √ | √ | √ | = | √ | √ | √ | √ | √ | √ | √ |

*Notes*: D= Daily measures; Ov= Overall evaluation; W= Weekly measures; √= Significant change.

according to the DC-SMD. For daily measures, the intervention produced large and statistically significant effect sizes for exhaustion ($g$= -1.20), cynicism ($g$= -0.91), and

*Table 6*. Results of the Design Comparable Standardized Mean Difference for Daily Weekly Measures.

| | | DC-SMD | SE | 95% CI lower | 95% CI upper | Au correl |
|---|---|---|---|---|---|---|
| Daily measures | Exhaustion | -1.20 | 0.33 | -1.88 | -0.53 | 0. |
| | Cynicism | -0.91 | 0.28 | -1.47 | -0.35 | 0. |
| | Efficacy | 0.48 | 0.23 | 0.01 | 0.94 | 0. |
| | Emotional symptoms | -0.89 | 0.40 | -1.78 | -0.01 | 0. |
| | RNT | -0.78 | 0.32 | -1.46 | -0.10 | 0. |
| Weekly measures | Exhaustion | -1.98 | 0.60 | -3.25 | -0.71 | 0. |
| | Cynicism | -1.15 | 0.55 | -2.53 | 0.23 | 0. |
| | Efficacy | 0.12 | 0.24 | -0.65 | 0.88 | 0. |
| | Emotional symptoms | -1.31 | 0.56 | -2.50 | -0.11 | 0. |
| | RNT | -1.61 | 0.57 | -2.83 | -0.40 | 0. |

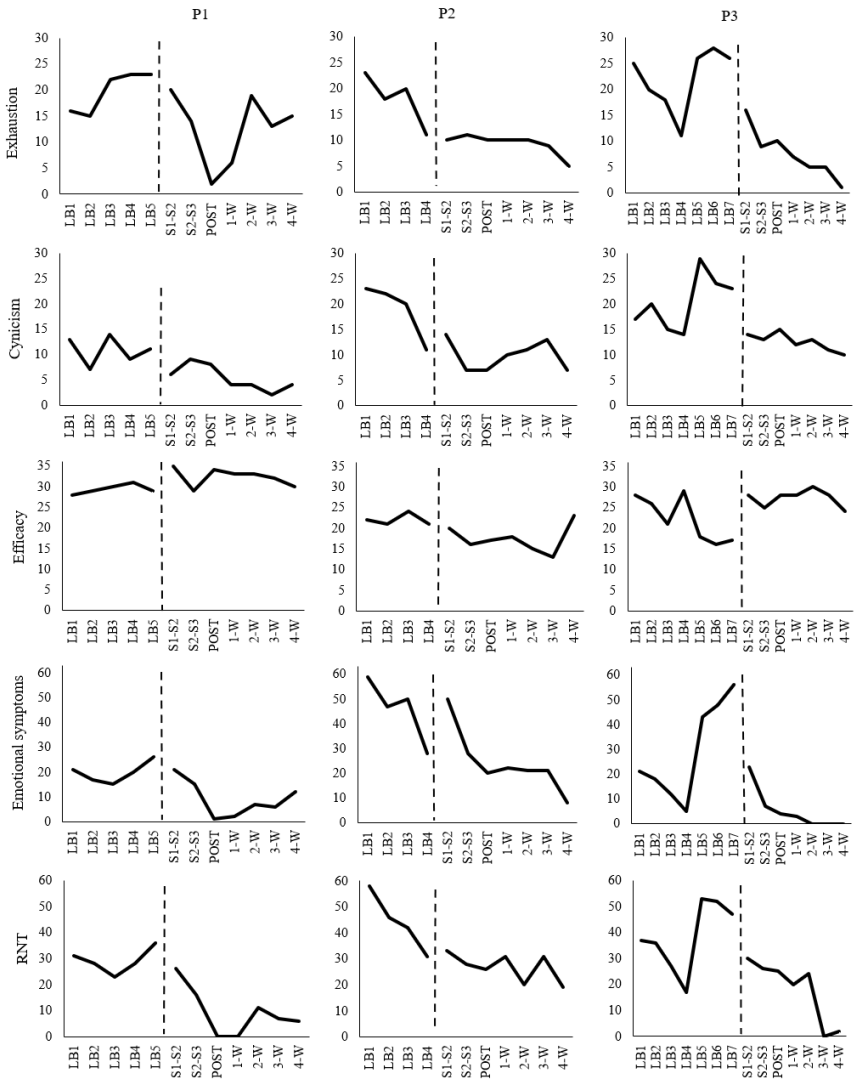


*Figure 2*. Evolution of scores on weekly measures for all participants.

emotional symptoms ($g$= -0.89). The effect size for RNT was medium-to-large ($g$= -0.78), and the effect size for efficacy was smaller but still statistically significant ($g$= 0.48). Autocorrelation values ranged from moderate (efficacy: 0.30) to large (emotional symptoms: 0.71).

For weekly measures, effect sizes were larger for exhaustion ($g$= -1.98), cynicism ($g$= -1.15), emotional symptoms ($g$= -1.31), and RNT ($g$= -1.61), but smaller for efficacy ($g$= 0.12). However, due to lower measurement intensity in weekly assessments, the effect size for cynicism did not reach statistical significance.

## Discussion

The aim of this pilot study was to examine the feasibility and preliminary effects of a brief, three-session RNT-focused ACT protocol in healthcare professionals experiencing burnout symptoms. Across participants, the intervention produced improvements in burnout symptoms, emotional distress, and RNT, suggesting that brief interventions targeting RNT may constitute a viable option for healthcare professionals who experience high levels of occupational stress and have limited time for traditional psychological treatments.

All three showed clear decreases in this variable, though for P1 the improvement was evident only in the weekly measurements. Both daily and weekly assessments captured this pattern in P2 and P3, with significant improvements as indicated by *Tau-U* analyses. These findings are consistent with prior research showing that ACT-based interventions effectively reduce burnout and stress-related outcomes among healthcare personnel (Prudenzi *et alii*, 2021; Towey-Swift, Lauvrud, & Whittington, 2023). The concurrent improvements in anxiety and stress symptoms, as reflected in DASS-21 and PHQ-4 scores, further indicate that the protocol produced broader effects on emotional functioning.

The reduction in RNT was one of the most consistent findings across participants. All three showed clear decreases in this variable in both daily and weekly assessments, though for P1 the improvement was evident only in the weekly measurements. Given that RNT is conceptualized as a transdiagnostic process that maintains and exacerbates depression, anxiety, and stress (Moulds & McEvoy, 2025), its reduction likely contributed to the observed decreases in burnout and emotional distress. These findings are consistent with previous research showing that brief ACT protocols targeting RNT produce rapid, clinically meaningful changes (Ruiz *et alii*, 2016, 2020a, 2020b) and support the rationale for addressing RNT as a central therapeutic target.

Changes in work-related psychological flexibility and valued actions were more heterogeneous. Although some improvements were observed, effect sizes were smaller than those obtained for burnout and emotional symptoms. This pattern is consistent with research suggesting that psychological flexibility and valued action often shift more gradually and may require longer follow-up periods to consolidate (Gloster *et alii*, 2017). Additionally, because the intervention primarily focused on the work domain, effects on valued actions, assessed only weekly, may have been more difficult to detect. The unexpected decrease in daily flexibility scores observed in P2, despite her active engagement with the intervention, may reflect a temporary increase in awareness of her own behavioral rigidity as the therapeutic process unfolded. This phenomenon has been described in process-based approaches, where initial increases in awareness can precede behavioral change (Hayes, Hofmann, & Ciarrochi, 2020).

Across participants, visual analyses, Tau-U statistics, and design-comparable standardized mean differences showed consistent results. In the between-case analysis, large effect sizes were obtained for exhaustion, cynicism, emotional symptoms, and RNT in both daily and weekly measurements, whereas efficacy showed smaller and

less consistent effects. This pattern suggests that the intervention had its strongest impact on the emotional and cognitive processes directly targeted by the RNT-focused ACT protocol, whereas professional efficacy, which may depend on broader workplace contextual factors, was less responsive to this brief intervention.

These findings have practical implications for the delivery of psychological interventions to healthcare professionals. High dropout rates in psychological treatments are frequently attributed to limited availability, emotional fatigue, and demanding work schedules (Karekla, Constantinou, Ioannou, Gloster, & Kareklas, 2019; Kullgard, Holmqvist, & Andersson, 2022). The fact that all three participants completed the protocol and showed clinically meaningful improvements suggests that brief, process-based interventions may help overcome common barriers to psychological care in this population. This is particularly relevant in Latin American contexts, where public health systems have emphasized the need for accessible and evidence-based mental health interventions for healthcare workers facing significant time constraints and limited resources (Muñoz Ortega *et alii*, 2024).

Several limitations should be acknowledged. First, although multiple-baseline designs provide experimental control with small samples, the reduced number of participants limits the generalizability of the findings. The loss of two participants during baseline further reduced the sample, highlighting the challenges of conducting research with healthcare professionals facing high work demands. Second, the absence of an active control condition precludes conclusions about the specific effects of RNT-focused ACT components versus nonspecific therapeutic factors. Third, the repeated daily assessments may have produced reactive effects, potentially contributing to symptom improvement independent of the intervention. Future research should address these limitations by expanding sample sizes, incorporating active control conditions, and examining potential differences across healthcare professions. Including structured diagnostic interviews at post-treatment and follow-up would help capture clinically relevant changes that complement self-report data. Additionally, assessing work-related variables such as job satisfaction could provide a more comprehensive understanding of how brief ACT interventions affect occupational functioning.

Despite these limitations, the present study provides preliminary evidence supporting the feasibility and potential efficacy of a brief RNT-focused ACT protocol for healthcare workers experiencing burnout. The intervention produced substantial reductions in burnout symptoms, emotional distress, and RNT, with large effect sizes across most variables. These findings support the continued development of brief, process-based interventions adapted to the demands of healthcare settings and contribute to the growing literature on process-based ACT approaches in occupational health.

## REFERENCES

Alresheed F & Machalicek W (2023). A systematic comparison of non-overlap metrics and visual analysis in single-case experimental design. *Evidence-Based Communication Assessment and Intervention, 17*, 59-77. Doi: 10.1080/17489539.2023.2200813

Arenas Y & Sierra M (2019). *Impacto del burnout del psicólogo en la relación terapéutica*. Undergraduate thesis, Universidad Católica de Pereira.

Ávila-Agreda GC, Ramírez-Coronel AA, Mesa-Cano IC, & Serrano-Paredes KL (2021). Síndrome de burnout en los profesionales de salud: revisión sistemática. *Pro Sciences: Revista De Producción, Ciencias E Investigación, 5*, 254-271. Doi: 10.29018/issn.2588-1000vol5iss40.2021pp254-271

Bautista B, Ruiz FJ, & Suárez-Falcón JC (2023). Acceptance and commitment therapy in parents of children with cancer at psychosocial risk: A randomized multiple baseline evaluation. *Journal of Contextual Behavioral Science, 29*, 109-121. Doi: 10.1016/j.jcbs.2023.06.004

Bravo DM, Suárez-Falcón JC, Bianchi JM, Segura-Vargas MA, & Ruiz FJ (2021). Psychometric Properties and Measurement Invariance of the Maslach Burnout Inventory-General Survey in Colombia. *International Journal of Environmental Research and Public Health, 18*, 5118. Doi: 10.3390/ijerph18105118

Bianchi JM, Vélez-Ocampo CH, Vargas-Nieto JC, Gaitán-Camelo MI, Valencia-Granados CL, Ehring T, & Ruiz FJ (2026). *Psychometric properties of the Perseverative Thinking Questionnaire (PTQ) and its short form (PTQ-9) in a Colombian sample* [Unpublished manuscript].

Brinkborg H, Michanek J, Hesser H, & Berglund G (2011). Acceptance and Commitment Therapy for the treatment of stress among social workers: A randomized controlled trial. *Behaviour Research and Therapy, 49*, 389-398. Doi: 10.1016/j.brat.2011.03.009

Brossart DF, Laird VC, & Armstrong TW (2018). Interpreting Kendall's Tau and Tau-U for single-case experimental designs. *Cogent Psychology, 5*. Doi: 10.1080/23311908.2018.1518687

Criollo AB, Odriozola-González P, Ruiz FJ, & Duarte RJ (2026a). *Psychometric properties of ecological momentary measures of psychological flexibility and repetitive negative thinking in Colombian workers* [Unpublished manuscript].

Criollo AB, Odriozola-González P, & Ruiz FJ (2026b). *Psychometric properties of ecological momentary measures of burnout and job satisfaction in Colombian workers* [Unpublished manuscript].

Daza P, Novy DM, Stanley MA, & Averill P (2002). The Depression Anxiety Stress Scale-21: Spanish translation and validation with a Hispanic sample. *Journal of Psychopathology and Behavioral Assessment, 24*, 195-205. Doi: 10.1023/a:1016014818163

Dereix-Calonge I, Ruiz FJ, Sierra MA, Peña-Vargas A, & Ramírez ES (2019). Acceptance and commitment training focused on repetitive negative thinking for clinical psychology trainees: A randomized controlled trial. *Journal of Contextual Behavioral Science, 12*, 81-88. Doi: 10.1016/j.jcbs.2019.02.005

Díaz-Pérez A, Zarate González LM, Morón Mejía JJ, Hernández Almanza OE, Castilla Bayona YE, & Carrilo Suarez I (2024). Impacto de la pandemia de COVID-19 en el Síndrome de Burnout: un análisis de los factores de riesgo en profesionales del área quirúrgica. Colombia. *Gaceta Medica de Caracas, 132*, 991-1002. Doi: 10.47307/gmc.2024.132.4.11

Ehring T & Watkins ER (2008). Repetitive negative thinking as a transdiagnostic process. *International Journal of Cognitive Therapy, 1*, 192-205. Doi: 10.1521/ijct.2008.1.3.192

Ehring T, Zetsche U, Weidacker K, Wahl K, Schönfeld S, & Ehlers A (2011). The Perseverative Thinking Questionnaire (PTQ): Validation of a content-independent measure of repetitive negative thinking. *Journal of Behavior Therapy and Experimental Psychiatry, 42*, 225-232. Doi: 10.1016/j.jbtep.2010.12.003

Ferrando L, Bobes J, Gibert J, Soto M, & Soto O (2000). *MINI. Entrevista Neuropsiquiátrica Internacional. Versión en Español 5.0.0. DSM-IV*. Madrid: Instituto IAP.

García-Iglesias JJ, Gómez-Salgado J, Fernández-Carrasco FJ, Rodríguez-Díaz L, Vázquez-Lara JM, Prieto-Callejero B, & Allande-Cussó R (2022). Suicidal ideation and suicide attempt in healthcare professionals during the COVID-19 pandemic: A systematic review. *Frontiers in Public Health, 10*, 1043216. Doi: 10.3389/fpubh.2022.1043216

Giannakakos AR & Lanovaz MJ (2023). Using AB Designs with Nonoverlap Effect Size Measures to Support Clinical Decision-Making: A Monte Carlo Validation. *Behavior Modification, 47*, 1407-1422. Doi: 10.1177/01454455519860219

Gil-Luciano B, Calderón-Hurtado T, Tovar D, Sebastián B, & Ruiz FJ (2019). How are triggers for repetitive negative thinking organized? A relational frame analysis. *Psicothema, 31*, 53-59. Doi: 10.7334/psicothema2018.315

Gloster AT, Klotsche J, Ciarrochi J, Eifert G, Sonntag R, Wittchen HU, & Hoyer J (2017). Increasing valued behaviors precedes reduction in suffering: Findings from a randomized controlled trial using ACT. *Behaviour Research and Therapy, 91*, 64-71. Doi: 10.1016/j.brat.2017.01.013

González-Cifuentes CE, Ruiz FJ, Bernal-Manrique KN, Hernández-Bernal X, Otálora DM, Peña-Vargas A, Toquica-Orjuela DJ, & Pérez-Nieves KT (2025). Efficacy of a brief ACT intervention in reducing interpersonal problems and fostering interpersonal flourishing: A randomized multiple-baseline evaluation. *The Psychological Record, 75*, 265-290. Doi: 10.1007/s40732-025-00634-3

González-Rodríguez L, Peralta-Beltrán ÁR, González-Salas R, & Navarrete-Arboleda ED (2023). Incidencia de síndrome de burnout como causa de ausentismo laboral. *Revista Arbitrada Interdisciplinaria De*

*Ciencias De La Salud. Salud Y Vida, 7*, 739-746. Doi: 10.35381/s.v.v7i2.3418

Hayes SC, Barnes-Holmes D, & Roche B (2001). *Relational Frame Theory: A Post-Skinnerian Account of Human Language and Cognition*. New York: Kluwer Academic/Plenum Publishers.

Hayes SC, Hofmann SG, & Ciarrochi J (2020). A process-based approach to psychological diagnosis and treatment: The conceptual and treatment utility of an extended evolutionary meta model. *Clinical Psychology Review, 82*, 101908. Doi: 10.1016/j.cpr.2020.101908

Hayes SC, Strosahl KD, & Wilson KG (1999). *Acceptance and Commitment Therapy: An Experiential Approach to Behavior Change*. New York: Guilford Press.

Hedges LV, Pustejovsky JE, & Shadish WR (2013). A standardized mean difference effect size for multiple baseline designs across individuals. *Research Synthesis Methods, 4*, 324-341. Doi: 10.1002/jrsm.1086

Karekla M, Constantinou P, Ioannou M, Gloster AT, & Kareklas I (2019). The phenomenon of treatment dropout, reasons and moderators in Acceptance and Commitment Therapy and other active treatments: A meta-analytic review. *Clinical Psychology in Europe, 1*. Doi: 10.32872/cpe.v1i3.33058

Kroenke K, Spitzer RL, Williams JB, & Löwe B (2009). An ultra-brief screening scale for anxiety and depression: the PHQ-4. *Psychosomatics, 50*, 613-621. Doi: 10.1176/appi.psy.50.6.613

Kullgard N, Holmqvist R, & Andersson G (2022). Premature dropout from psychotherapy: Prevalence, perceived reasons and consequences as rated by clinicians. *Clinical Psychology in Europe, 4*, e6695. Doi: 10.32872/cpe.6695

López-Palomo LE, Vargas-Nieto JC, & Ruiz FJ (2022). Eficacia de la terapia de aceptación y compromiso centrada en pensamiento negativo repetitivo en fibromialgia: Un diseño de línea base múltiple aleatorizado. *Revista de Psicoterapia, 33*, 85-104. Doi: 10.33898/rdp.v33i122.1150

Lovibond PF & Lovibond SH (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy, 33*, 335-343. Doi: 10.1016/0005-7967(94)00075-U

Luciano C (2017). The self and responding to the own's behavior. Implications of coherence and hierarchical framing. *International Journal of Psychology and Psychological Therapy, 17*, 267-275.

Luciano C, Törneke N, & Ruiz FJ (2023). Clinical behavior analysis and RFT: Conceptualizing psychopathology and its treatment. In MP Twohig, ME Levin, & JM Petersen (Eds.), *Oxford Handbook of Acceptance and Commitment Therapy* (pp. 109-141). Oxford: Oxford University Press.

Maslach C & Jackson SE (1981). The measurement of experienced burnout. *Journal of Occupational Behavior, 2*, 99-113. Doi: 10.1002/job.4030020205

Maslach C, Jackson SE, & Leiter MP (1996). *Maslach Burnout Inventory: Manual* (3rd ed.). Palo Alto: Consulting Psychologists Press.

Mendoza-Muñoz JA & Haro-Zea KL (2024). Burnout y su impacto en el desempeño laboral del personal de salud, una revisión sistemática. *Impulso, Revista de Administración, 4*, 167-184. Doi: 10.59659/impulso.v.4i7.41

Moreno-Jiménez B, Rodríguez Carvajal R, & Escobar Redonda E (2001). La evaluación del burnout profesional. Factorialización del MBI-GS. Un análisis preliminar. *Ansiedad y Estrés, 7*, 69-77.

Moulds ML & McEvoy PM (2025). Repetitive negative thinking as a transdiagnostic cognitive process. *Nature Reviews Psychology, 4*, 127-141. Doi: 10.1038/s44159-024-00399-6

Müller CL, Rosenkranz T, Schiller A, Takano K, Watkins ER, Mühlberger A, Funk J, & Ehring T (2025). Repetitive negative thinking in daily life predicts psychopathology: Further validation of an ecological momentary assessment paradigm. *Behaviour Research and Therapy, 193*, 104830. Doi: 10.1016/j.brat.2025.104830

Muñoz-Ortega S, Santamaría-Guayaquil D, Pluas-Borja J, Alvarado-Villa G, Sandoval V, Alvarado R, Cherrez-Ojeda I, & Faytong-Haro M (2024). Mental health in healthcare workers post-COVID-19: A Latin American review and insights into personalized management strategies. *Journal of Personalized Medicine, 14*, 680. Doi: 10.3390/jpm14070680

Nemojón Cárdenas A (2020). *Efecto de la Terapia de Aceptación y Compromiso (ACT) en formato breve y grupal sobre los índices del síndrome de burnout y la flexibilidad psicológica en personal asistencial del área de urgencias de una clínica de cuarto nivel de la ciudad de Bogotá*. Master's thesis, Fundación Universitaria Konrad Lorenz.

Newman MG & Llera SJ (2011). A novel theory of experiential avoidance in generalized anxiety disorder:

A review and synthesis of research supporting a contrast avoidance model of worry. *Clinical Psychology Review, 31*, 371-382. Doi: 10.1016/j.cpr.2011.01.008

Nolen-Hoeksema S, Stice E, Wade E, & Bohon C (2007). Reciprocal relations between rumination and bulimic, substance abuse, and depressive symptoms in female adolescents. *Journal of Abnormal Psychology, 116*, 198-207. Doi: 10.1037/0021-843X.116.1.198

Otared N, Moharrampour NG, Vojoudi B, & Najafabadi AJ (2021). A group-based online Acceptance and Commitment Therapy treatment for depression, anxiety symptoms and quality of life in healthcare workers during COVID-19 pandemic: A randomized controlled trial. *International Journal of Psychology and Psychological Therapy, 21*, 399-411.

Parker RI, Vannest KJ, & Davis JL (2011). Effect size in single-case research: A review of nine nonoverlap techniques. *Behavior Modification, 35*, 303-322. Doi: 10.1177/0145445511399147

Parker RI & Vannest KJ (2014). Non-overlap analysis for single-case research. In TR Kratochwill & JR Levin (Eds.), *Single-Case Intervention Research: Methodological and Statistical Advances* (pp. 127-151). Washington: American Psychological Association.

Prudenzi A, Capobianco L, Pagnini F, & Hayes SC (2022). Brief acceptance and commitment therapy interventions for healthcare providers: A randomized controlled trial. *Journal of Contextual Behavioral Science, 25*, 104-113. Doi: 10.1016/j.jcbs.2022.01.002

Prudenzi A, Graham CD, Clancy F, Hill D, O'Driscoll R, Day F, & O'Connor DB (2021). Group-based Acceptance and Commitment Therapy interventions for improving general distress and work-related distress in healthcare professionals: A systematic review and meta-analysis. *Journal of Affective Disorders, 295*, 192-202. Doi: 10.1016/j.jad.2021.07.084

Pustejovsky JE, Chen M, Hamilton B, & Grekov P (2023). *scdhlm: A web-based calculator for between-case standardized mean differences* (Version 0.7.2) [Web application]. Shiny apps. https://jepusto.shinyapps.io/scdhlm/

Rueda Hernández DM (2025). Deserción laboral: un fenómeno multicausal, ecosistémico y social. Revisión sistemática de la literatura. *Aglala, 16*, 64-85.

Ruiz FJ, Flórez CL, García-Martín MB, Monroy-Cifuentes A, Barreto-Montero K, García-Beltrán DM, Riaño-Hernández D, Sierra MA, Suárez-Falcón JC, Cardona-Betancourt V, & Gil-Luciano B (2018). A multiple-baseline evaluation of a brief acceptance and commitment therapy protocol focused on repetitive negative thinking for moderate emotional disorders. *Journal of Contextual Behavioral Science, 9*, 1-14. Doi: 10.1016/j.jcbs.2018.04.004

Ruiz FJ, García-Martín MB, Suárez-Falcón JC, & Odriozola-González P (2017). The hierarchical factor structure of the Spanish version of Depression Anxiety and Stress Scale-21. *International Journal of Psychology and Psychological Therapy, 17*, 97-105.

Ruiz FJ, Luciano C, Flórez CL, Suárez-Falcón JC, & Cardona-Betancourt V (2020a). A Multiple-Baseline Evaluation of Acceptance and Commitment Therapy Focused on Repetitive Negative Thinking for Comorbid Generalized Anxiety Disorder and Depression. *Frontiers in Psychology, 11*, 356. Doi: 10.3389/fpsyg.2020.00356

Ruiz FJ, Peña-Vargas A, Ramírez ES, Suárez-Falcón JC, García-Martín MB, García-Beltrán DM, Henao ÁM, Monroy-Cifuentes A, & Sánchez PD (2020b). Efficacy of a two-session repetitive negative thinking-focused acceptance and commitment therapy (ACT) protocol for depression and generalized anxiety disorder: A randomized waitlist control trial. *Psychotherapy, 57*, 444-456. Doi: 10.1037/pst0000273

Ruiz FJ, Riaño Hernández D, Suárez Falcón JC, & Luciano C (2016). Effect of a one-session ACT protocol in disrupting repetitive negative thinking: A randomized multiple-baseline design. *International Journal of Psychology & Psychological Therapy, 16*, 213-233.

Sheehan DV, Lecrubier Y, Sheehan KH, Amorim P, Janavs J, Weiller E, Hergueta T, Baker R, & Dunbar GC (1998). The Mini-International Neuropsychiatric Interview (M.I.N.I.): The development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. *Journal of Clinical Psychiatry, 59*(Suppl 20), 22-57.

Törneke N, Luciano C, Barnes-Holmes Y, & Bond FW (2016). RFT for clinical practice: Three core strategies in understanding and treating human suffering. In RD Zettle, SC Hayes, D Barnes-Holmes, & A Biglan (Eds.), *The Wiley Handbook of Contextual Behavioral Science* (pp. 254-272). Chichester: Wiley-Blackwell.

Towey-Swift KD, Lauvrud C, & Whittington R (2023). Acceptance and commitment therapy (ACT) for professional staff burnout: a systematic review and narrative synthesis of controlled trials. *Journal of Mental Health, 32*, 452-464. Doi: 10.1080/09638237.2021.2022628

Vaisman A, Guiloff R, Contreras M, Casas-Cordero JP, Calvo R, & Figueroa D (2024). Over 50% of self-reported burnout among Latin American orthopaedic surgeons: A cross-sectional survey on prevalence and risk factors. *Journal of ISAKOS: Joint Disorders & Orthopaedic Sports Medicine, 9*, 128-134. Doi: 10.1016/j.jisako.2023.11.008

Vandevala T, Pavey L, Chelidoni O, Chang NF, Creagh-Brown B, & Cox A (2017). Psychological rumination and recovery from work in intensive care professionals: Associations with burnout, depression and health. *Journal of Intensive Care, 5*, 16. Doi: 10.1186/s40560-017-0209-0

Vinueza-Solórzano AM, Almansa JFF, Basso C, Ávila GZ, Bento IDJ, Burgos FJB, Hutz CS, & Vazquez ACS (2023). A systematic review of burnout among healthcare professionals in Latin America. *Revista Psicologia Organizações e Trabalho, 23*, 2616-2624. Doi: 10.5935/rpot/2023.3.24803

Wilbert J (2025). *Analyzing single-case data with R and scan*. Bookdown. https://jazznbass.github.io/scan-Book/

Wilson KG & Luciano C (2002). *Terapia de aceptación y compromiso. Un tratamiento conductual orientado a los valores*. Madrid: Pirámide.

Wolfe K, Barton EE, & Meadan H (2019). Systematic Protocols for the Visual Analysis of Single-Case Research Data. *Behavior Analysis in Practice, 12*, 491-502. Doi: 10.1007/s40617-019-00336-7

World Health Organization (2019). *Burnout an "occupational phenomenon": International Classification of Diseases*. World Health Organization. https://www.who.int/news/item/28-05-2019-burn-out-an-occupational-phenomenon-international-classification-of-diseases.

Received, February 13, 2026
Acceptance, April 19, 2026