ACT vs. Active Control (NDT) for Emotional Symptoms in University Students: An Ideographic Randomized Trial.

Weekly repeated-measures analysis

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INTRO

Up to 50% of university students report symptoms of anxiety, depression, or other mental health problems (WHO, 2022; UNESCO-IESALC, 2024). In Uruguay, suicide is the 2nd leading cause of death among 15-29-year-olds, and the regional mental health treatment gap exceeds 77.9% (MSP, 2023; PAHO, 2024). Acceptance and Commitment Therapy (ACT) is a transdiagnostic intervention aimed at increasing psychological flexibility, but few studies have compared it with an active group control using intensive assessments in Latin American university students.

METHODS

Is group ACT effective compared to an active control?

1. Randomized trial: 35 university students (19 ACT, 16 NDT) with moderate-to-high emotional symptoms (PHQ-9/GAD-7 ≥10)
2. Five 90-minute group sessions of ACT or non-directive therapy (active control); weekly measures (PHQ-4, RNT-3, CCFI) analyzed with Bayesian hierarchical models (brms)

RESULTS

Outcome	ACT (BC-SMD)	NDT (BC-SMD)	ACT – NDT	Evidence (ER)
Emotional symptoms (PHQ-4)	−0.82	0.14	−0.94	Strong (16.1)
Repetitive negative thinking (RNT-3)	−0.69	0.42	−1.11	Very strong (44.2)
Psychological flexibility (CCFI)	−0.28	−0.51	0.24	Unreliable (1.8)
% with reliable individual effect (ER>10)	15/19 (79%)	0/16 (0%)	—	—
Analyzed sample	n = 35 (19 ACT, 16 NDT)	476 weekly obs.	5 group sessions, 90 min each	

DISCUSSION

If these effects replicate in larger samples, group ACT could be a brief, cost-effective alternative to active controls for reducing emotional symptoms and repetitive negative thinking in university students - though overall psychological flexibility showed no reliable effect, possibly due to a pre-existing upward baseline trend in both groups.

ACT worked where the control didn't: **15 of 19 students** showed a reliable improvement in emotional symptoms and/or repetitive negative thinking, compared with 0 of 16 in the control group (non-directive therapy).

Group	% with reliable improvement
ACT	79% (15/19)
NDT (control)	0% (0/16)

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Table 3. *Participant-level integrated treatment effects for the three weekly outcomes (BC-SMD, D2).*

Participant	Condition	PHQ-4 BC-SMD (ER)	RNT BC-SMD (ER)	Total flex. BC-SMD (ER)
ACT (n = 19)				
P1	ACT	−0.65 (5.8)	−0.53 (4.5)	0.14 (1.4)
P2	ACT	−0.52 (3.8)	−0.20 (1.7)	−0.34 (0.4)
P3	ACT	**−1.03 (20.1) ***	0.02 (0.9)	0.38 (2.5)
P4	ACT	**−0.98 (17.7) ***	**−0.78 (10.3) ***	−0.40 (0.4)
P5	ACT	−0.71 (6.7)	**−0.83 (11.5) ***	−0.47 (0.3)
P6	ACT	**−1.11 (28.5) ***	−0.67 (6.6)	−0.85 (0.1)
P7	ACT	**−1.25 (44.4) ***	**−1.17 (42.7) ***	0.09 (1.2)
P8	ACT	**−0.93 (13.7) ***	−0.79 (9.8)	−0.95 (0.1)
P9	ACT	**−0.85 (10.6) ***	**−0.86 (13.0) ***	0.44 (2.9)
P10	ACT	**−0.97 (15.9) ***	−0.64 (6.2)	−1.07 (0.1)
P11	ACT	−0.65 (5.6)	**−1.49 (171.0) ***	0.22 (1.7)
P12	ACT	**−1.04 (21.1) ***	−0.39 (2.9)	−0.04 (0.9)
P14	ACT	−0.42 (2.9)	−0.69 (6.6)	−0.80 (0.1)
P15	ACT	**−0.88 (11.7) ***	−0.49 (4.1)	−1.00 (0.1)
P16	ACT	**−1.02 (19.6) ***	−0.34 (2.5)	−0.09 (0.8)
P17	ACT	−0.47 (3.4)	**−0.90 (15.7) ***	−0.03 (0.9)
P18	ACT	−0.72 (7.0)	**−1.04 (25.0) ***	−0.03 (0.9)
P19	ACT	−0.28 (2.1)	−0.54 (4.6)	−0.82 (0.1)
P20	ACT	**−1.26 (45.9) ***	**−1.15 (39.8) ***	0.36 (2.4)

Participant	Condition	PHQ-4 BC-SMD (ER)	RNT BC-SMD (ER)	Total flex. BC-SMD (ER)
NDT (n = 16)				
P22	NDT	0.04 (0.9)	0.88 (0.1)	−0.50 (0.3)
P23	NDT	0.14 (0.7)	1.08 (0.0)	−1.36 (0.0)
P24	NDT	0.50 (0.3)	−0.61 (5.9)	−0.21 (0.6)
P25	NDT	−0.56 (4.7)	−0.30 (2.4)	0.49 (3.4)
P26	NDT	0.16 (0.6)	0.61 (0.2)	−0.05 (0.9)
P27	NDT	−0.15 (1.5)	0.23 (0.5)	−0.91 (0.1)
P28	NDT	1.61 (0.0)	2.10 (0.0)	−1.66 (0.0)
P29	NDT	0.22 (0.5)	0.70 (0.1)	−0.66 (0.2)
P30	NDT	0.34 (0.4)	0.34 (0.4)	−0.88 (0.1)
P31	NDT	0.43 (0.3)	0.81 (0.1)	−0.38 (0.4)
P32	NDT	0.18 (0.6)	0.19 (0.6)	−0.20 (0.6)
P33	NDT	0.03 (0.9)	0.21 (0.5)	−0.63 (0.2)
P34	NDT	−0.38 (2.8)	−0.31 (2.4)	0.17 (1.5)
P35	NDT	−0.44 (3.4)	−0.11 (1.4)	−0.23 (0.6)
P36	NDT	0.04 (0.9)	0.42 (0.3)	−0.32 (0.5)
P37	NDT	0.23 (0.6)	1.19 (0.0)	−1.01 (0.1)

Note. Each entry is the posterior median BC-SMD with its Evidence Ratio in parentheses. Bold entries with an asterisk mark a reliable effect (ER > 10). For PHQ-4 and RNT, negative values denote symptom reduction; for total psychological flexibility, positive values denote improvement.