



# Clinically significant change based on clinician-rated measures after the self-applied transdiagnostic online program **Learn to Manage your Emotions (AMtE)** for the treatment of emotional disorders in adolescents: A randomized controlled trial

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## INTRODUCTION

- ❖ The **COVID-19** pandemic had an impact on **symptoms of anxiety and depression in young people**.
- ❖ **Transdiagnostic cognitive behavioral therapy (T-CBT)** has been suggested as an alternative to classical CBT treatment for emotional disorders because it targets comorbidity by treating common symptoms and risk and maintaining factors between disorders.
- ❖ **Learn to Manage your Emotions [Aprende a Manejar tus Emociones, AMtE]** is the first transdiagnostic, internet-delivered intervention program designed to manage anxiety and depressive symptoms in adolescents.

## OBJECTIVE

- ❖ Examine the efficacy of AMtE compared to an active control group (*Unified Protocol for Transdiagnostic Treatment of Emotional Disorders in Adolescents, UP-A*, applied face-to-face via telehealth) in a sample of adolescents with with an anxiety and/or depressive disorder diagnosis

## METHOD

- ❖ A two-armed randomized controlled trial was conducted.
- ❖ **58 adolescents** (82% females, age range: 12–18 years,  $M_{age} = 14.93$ ,  $SD_{age} = 1.83$ ) met the diagnostic criteria and participated in this study.
  - AMtE  $n = 30$     UP-A  $n = 28$
- ❖ **Inclusion criteria:**
  - 12-18 years of age and meeting diagnostic criteria for an anxiety and/or mood disorder based on the MINI at pre-assessment
  - Having an e-mail address and daily access to the Internet through a computer or electronic tablet
  - Stability of psychotropic medication for at least 3 months
  - Spanish proficiency
- ❖ **The most common** primary diagnosis was **social phobia** ( $n = 18$ , 31%), and **more than half** of the participants ( $n = 31$ , 53.4%) had at least one **comorbid diagnosis**.
- ❖ **Assessment:**
  - PRE-POST** A structured clinical interview (MINI-KID; Sheehan et al., 1998; Spanish version by Colón-Soto et al., 2005).
  - PRE-POST-3M FU** Clinical Global Impression Scale-Severity (CGI-S; Guy, 1976). Clinician-rated anxiety and depressive disorder symptom severity. Based on the CGI-S, participants were classified as responders ( $\geq 2$  points decrease compared to pre-treatment or a CGI-S score of  $\leq 3$ ) or non-responders.

### AMtE

**Table 1. Main characteristics of AMtE**

- Module 1:** Building motivation (*motivation enhancement*)
- Module 2:** Getting to know your emotions (*psychoeducation*)
- Module 3:** Enjoy positive activities (*behavioral activation*)
- Module 4:** Awareness of your emotional experiences (*mindfulness*)
- Module 5:** Learn to be flexible in your thinking (*cognitive restructuring*)
- Module 6:** Cope with your body sensations (*exposure*)
- Module 7:** Cope with emotional situations (*exposure*)
- Module 8:** Maintain your gains (*relapse prevention*)

- **Parents log in** to a separate section of the platform and have access to a summary of each module.
- The therapists log in to a **therapist section** where they can monitor the progress of each adolescent in the treatment and see the adolescent's answers to the home learning assignments.
- Adolescents and parents receive a **weekly telephone call** from their therapist.

INTERVENTIONS

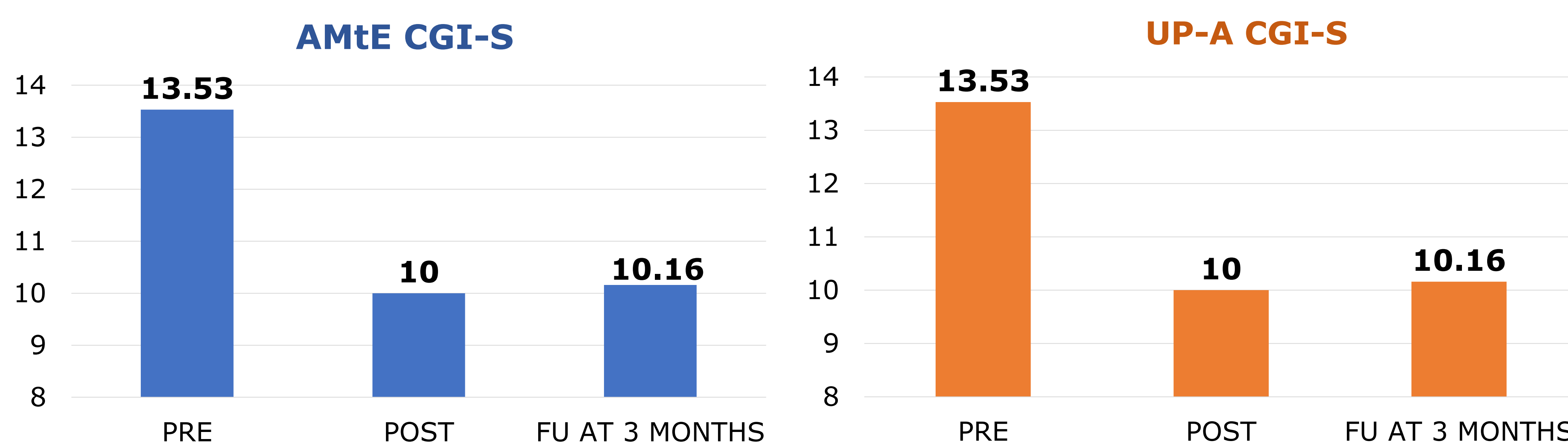
Delivered through weekly individual therapy sessions via TEAMS ( $M = 12.73$ ;  $SD = 1.71$ ; sessions' range = 11-17).



## RESULTS

- ❖ After the intervention, **no significant differences** were found between conditions neither in the number of **participants who no longer had a diagnosis** [ $\chi^2(1) = .28$ ,  $p = .600$ ], being 54.3% of the cases in AMtE and 61.5% in the UP-A group, nor in the **number of comorbid diagnoses** [ $\chi^2(1) = .01$ ,  $p = .999$ ].

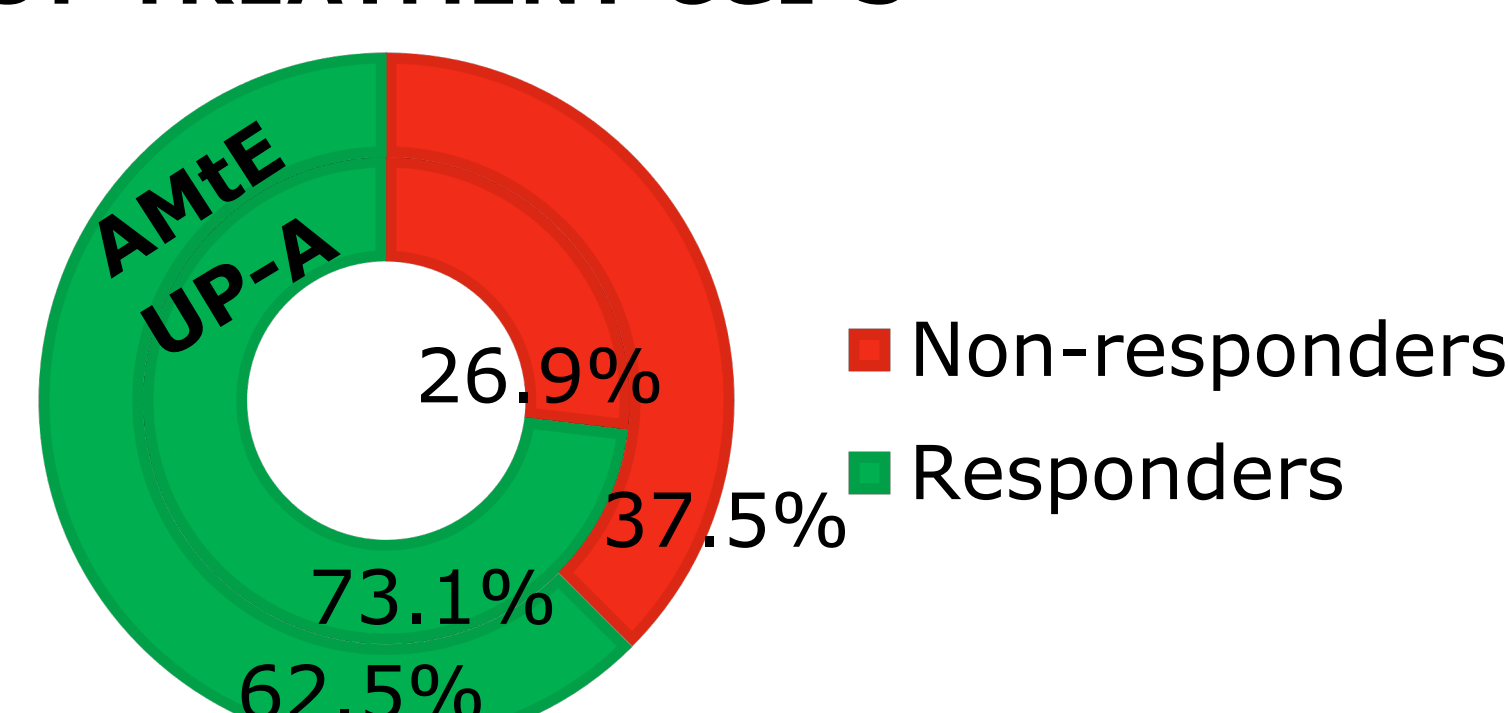
Mean scores across time for clinician-rated anxiety and depressive disorder symptom severity (CGI-S) in AMtE and UP-A groups



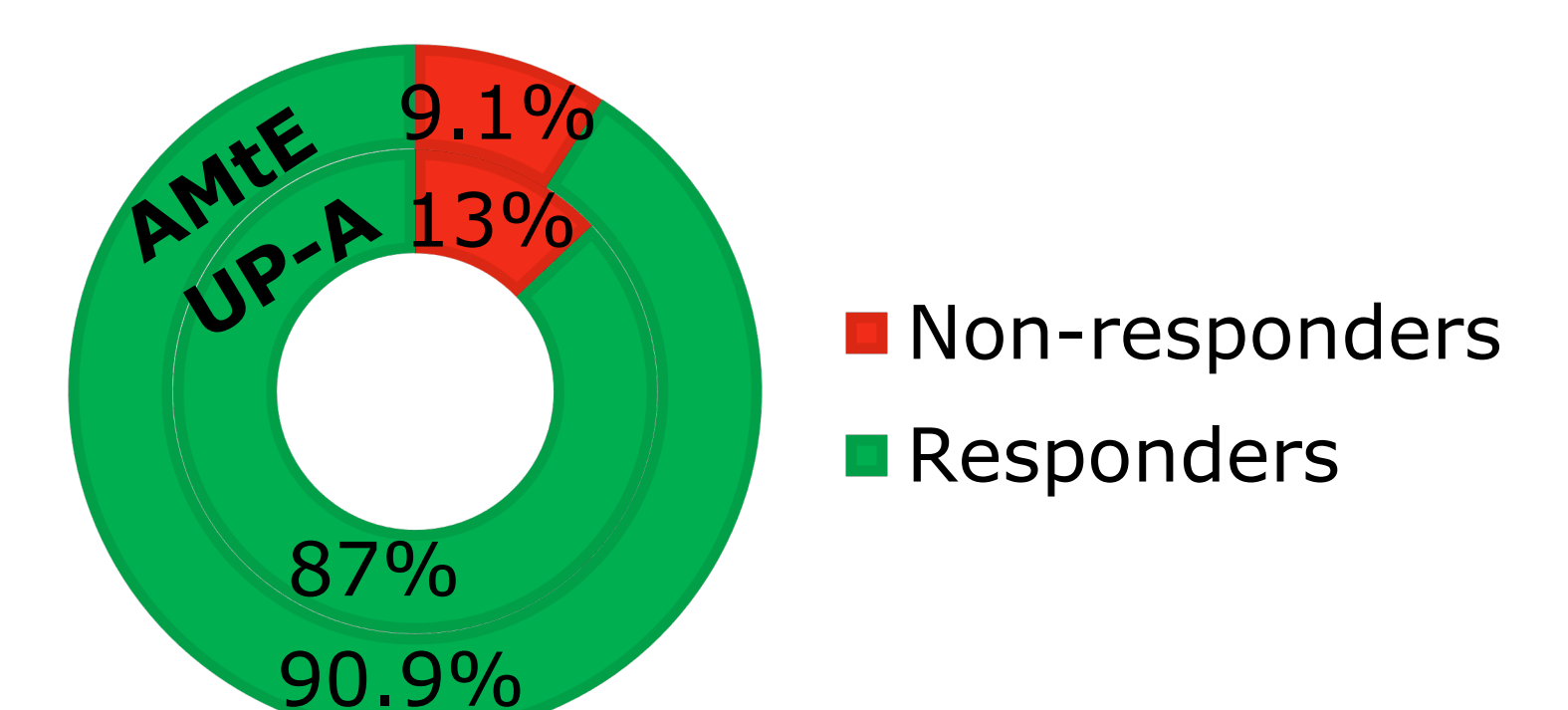
- ❖ Intention-to-treat analyses (ANOVAs) revealed significant overall **improvements in clinician-rated anxiety and depressive disorder symptom severity between the time points in both conditions** [AMtE:  $F(2, 54) = 28.31$ ,  $p < .001$ ; UP-A:  $F(2, 58) = 44.75$ ,  $p < .001$ ] with large effect sizes [AMtE:  $\eta_p^2 = .51$ ; UP-A:  $\eta_p^2 = .61$ ].
- ❖ Within-group comparisons (applying Bonferroni tests) indicated significant pre-post and pre-follow-up reductions with large effect sizes in both groups [AMtE:  $d = 1.22-1.87$ ; UP-A:  $d = 1.54-1.70$ ].

Percentages of responders and non-responders for clinician-rated anxiety and depressive disorder symptom severity scores (CGI-S) in **AMtE (outer circle)** and **UP-A (inner circle)** groups

POST-TREATMENT CGI-S



FOLLOW-UP AT 3 MONTHS CGI-S



- ❖ Regarding treatment response, non-significant differences were observed between both conditions [ $\chi^2(1) = .64$ ,  $p = .423$ ]. At follow-up, these differences remained non-significant [ $\chi^2(1) = .18$ ,  $p = .673$ ].

## DISCUSSION

- ❖ **AMtE can lead to clinically significant changes in adolescents with anxiety and depressive disorders.**
- ❖ Transdiagnostic self-applied online programs such as AMtE could represent important **progress in the field of youth psychopathology** as many researchers have found evidence that **comorbidity is predictive of poorer response** to interventions.
- ❖ This randomized controlled trial has important **limitations** such as a small sample size or a relatively short follow-up assessment.