





CALMA, a Mobile Health Application, as an Accessory to Therapy for Reduction of Suicidal and Non-Suicidal Self-Injured Behaviors: A Pilot Cluster Randomized Controlled Trial

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ABSTRACT

The present study was aimed to evaluate the acceptability and preliminary effectiveness of a mobile-health application, CALMA, based on dialectical behavioral therapy skills. CALMA was proposed as an adjunct to therapy for the reduction of non-suicidal and suicidal self-injury behaviors. A parallel design was used to compare the intervention group (DBT+CALMA) and the comparison group (DBT). Patients were randomized based on their groups following a randomized cluster design. After treatment, patients completed a follow-up assessment four weeks later. Each cluster was represented by a different DBT Skills Training Group offered weekly at FORO Foundation for Mental Health. Six DBT Skills Training groups were randomized to the intervention or comparison group. Twenty-one individuals met inclusion criteria and eighteen were included in the analysis. Acceptability was measured with the User Experience Questionnaire short version (UEQ-s) and preliminary efficacy with the Self-injurious thoughts and behaviors interview (SITBI). CALMA shows good acceptability to be used as an adjunct to therapy specific to the reduction of suicidal and non-suicidal self-directed violence. Evidence for preliminary efficacy included a high probability of decreased in more behaviors evaluated with the SITBI pre- and post-intervention for the group that received CALMA as compared to the comparison group. Our study provides initial evidence for the effectiveness and acceptability of CALMA. Future studies scaling up this intervention in a larger number of participants are necessary. CALMA may be especially useful in low and middle-income Latin American countries to improve access to evidence-based interventions openly available in Spanish and free to download.

KEYWORDS

Dialectical behavioral therapy; mobile health application; suicide prevention

HIGHLIGHTS

- CALMA is a DBT-based app aimed to reduce non-suicidal and suicidal self-directed violence.
- The app showed good acceptability by users
- A high probability of decrease in suicidal ideation, suicidal plan, suicidal gesture, thoughts about NSSI and NSSI pre- and post-intervention was observed