## Evaluation Summary of a Low-Intensity Cognitive Behavioral Therapy Program



# 11/30/2022Uncommon GoodEvaluation by Julie K. Staples, Ph.D.

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#### UNCOMMON GOOD EVALUATION BY JULIE K. STAPLES, PH.D.

#### Participant Numbers, Demographics, and Number of Sessions Attended

Promotoras were trained to deliver Low-Intensity Cognitive Behavioral Therapy (LICBT) to community members. Seven promotoras provided LICBT to 20 community members ages 14 - 77. The average age was  $38.3 \pm 3.6$  (Mean  $\pm$  Standard Deviation (SD)). There were 16 females and 4 males. All were Latinx. Fifteen participants attended from 3 to 20 sessions each with the average number of sessions being  $8.2 \pm 1.2$  (Mean  $\pm$  SD). The number of sessions attended was missing for 5 participants. A table of the breakdown of number of sessions is shown below.

Number of Sessions Attended	Number of Participants	Percent of Participants	
3	2	13.3	
4	2 13.3	13.3	
5	1	6.7	
6	1	6.7	
7	1	6.7	
8	3	20.0	
10	2	13.3	
13	1	6.7	
14	1	6.7	
20	1	6.7	

There were two adolescent girls age 14. Of the adults who participated: 9 were single, 7 were married, and 1 was divorced/separated.

Half of the participants were asked "What was the reason for speaking with the promotora today?" They were given 5 choices: Anxiety, Stress, Depression, Trauma Symptoms and "Other". Four reported anxiety only; 1 reported trauma symptoms only, 1 reported stress only; 2 reported stress, anxiety, and depression, and 2 reported stress, anxiety, depression, and trauma symptoms. None reported the "other" category.

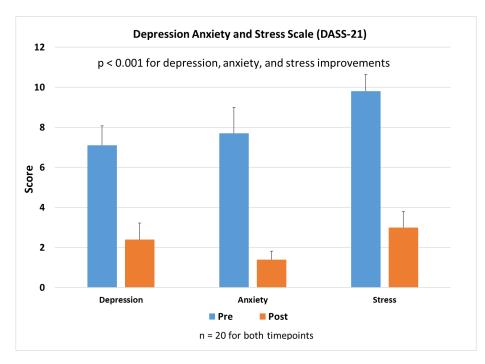
#### Measures

The Depression Anxiety and Stress Scale (DASS-21) was used to measure depression, anxiety, and stress symptoms and the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS) was used to measure well-being. These scales were administered before the first session and after the last LICBT session held by the promotoras for each participant.

#### **Statistics**

There were 4 individual answers to the questionnaires that were unanswered (3 for the DASS-21 and 1 for the WEMWBS). The data for these 4 questions were imputed using the Expectation/Maximization (EM) algorithm using SYSTAT version 12. Data analysis was performed using SPSS version 29. The MIXED procedure was used to run linear mixed models. Time was a fixed factor in all models. Additional models were run with the fixed factors of sex, marital status, number of sessions attended, and number of initial symptoms reported. The interaction of these factors with time was included to determine if results were different between men and women or marital status, or whether there was a difference in results based on the number of sessions attended or the initial number of symptoms reported. The Means and Standard Errors in the graphs below are the Estimated Marginal Means (EMM) and Standard Errors from these models.

#### Results

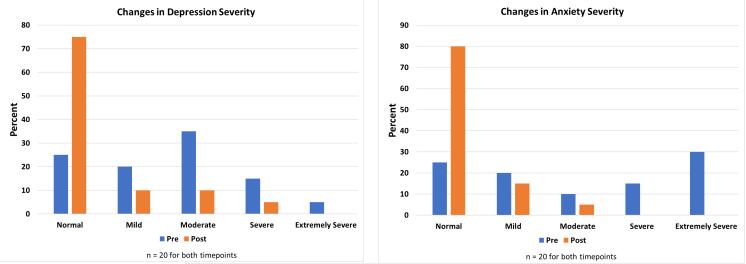


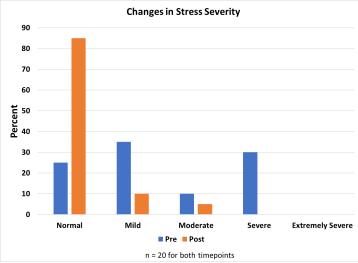
#### Depression, Anxiety, and Stress Scores

There was a statistically significant improvement in depression, anxiety, and stress symptoms following the last LICBT session. In addition, the change in scores for depression, anxiety and stress were all clinically meaningful.<sup>1</sup>

Among the adults, the 9 who were single had a significantly greater decrease in anxiety over time than the 7 who were married. This may be because these particular single people had higher levels of anxiety (average score of 8.7) before the first session than the married people (average score of 3.1) so there was more room for improvement in their scores. This result may be unique to these few individuals and cannot necessarily be extrapolated to a larger population of married vs single people due to the small number of participants in this evaluation.

#### Depression, Anxiety, and Stress Severity Levels





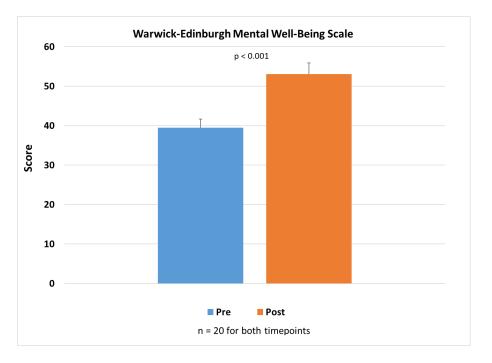
The DASS-21 manual has cut-off scores for the following categories of symptoms: normal, mild, moderate, severe, and extremely severe.<sup>2</sup> The graphs above show the changes in the severity levels of depression anxiety and stress.

For depression anxiety and stress, 25% of participants were in the normal range before the LICBT. After the last session, those in the normal range were: 75% for depression, 80% for anxiety, and 85% for stress. For depression, those in the severe range before the LICBT were in the normal to moderate range after the LICBT. For anxiety, those in the extremely severe range before the LICBT were in the normal to moderate range after the LICBT. For stress, participants in the severe range before the LICBT were in the normal range after the LICBT. For stress, participants in the severe range before the LICBT were in the mild to normal range after the last session.

The improvement in the DASS-21 scores were better in this LICBT program than for other CBT therapies in the literature for populations that had similar baseline levels of depression, anxiety, and stress as our program as shown in the table below. This table shows the change in depression, anxiety and stress scores on the DASS-21 in three studies. Smaller numbers indicate a smaller change. The average change scores in the cited studies are less than our average change scores of 4.7 for depression, 6.3 for anxiety, and 6.8 for stress.

Study	Change in Depression Score	Change in Anxiety Score	Change in Stress Score
1. 30 adults injured in a motor vehicle crash receiving 10 weeks of CBT <sup>3</sup>	1.8	2.2	2.4
<ol> <li>11 adults with Parkinson's Disease with depression and/or anxiety receiving 8 weeks of group CBT<sup>4</sup></li> </ol>	3.3	2.9	1.8
<ol> <li>Internet-delivered 8-week CBT program for university students for depression (31 students), anxiety (52 students) or stress (19 students)<sup>5</sup></li> </ol>	2.5	2.5	1.9
Uncommon Good's LICBT Program	4.7	6.3	6.8

#### Well-Being



There was a statistically significant improvement in well-being following the last LICBT session. According to the Warwick-Edinburgh Mental Well-Being manual,<sup>6</sup> a change in 3 points correlated with clinically significant improvements in the context of a counseling service and the change in the LICBT program was 13.6 points, indicating a very large improvement. At the end of the LICBT sessions, participants had scores that similar to norms for people with high perceived health status, high incomes, and good employment. <sup>6</sup>

#### Summary

The participants of the LICBT program offered by the promotoras had a clinically significant reductions in depression, anxiety, and stress scores following their last session. They also had a significant improvement in well-being. The improvements in depression, anxiety, and stress were larger than those seen in the literature for other CBT programs and the average well-being scores at the end of the last sessions indicated a high levels of well-being. These results indicate the program was highly successful for these 20 participants and demonstrate that this program is an effective way to provide low-cost CBT services to a Latinx community that can be administered by lay-people trained in delivering LICBT.

#### Citations

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- 6. Taggart, F, Stewart-Brown S, Parkinson J. *Warwick-Edinburgh Mental Well-Being Scale* (*WEMWBS*) User Guide (Version 2). The University of Warwick. NHS Health Scotland; 2016.