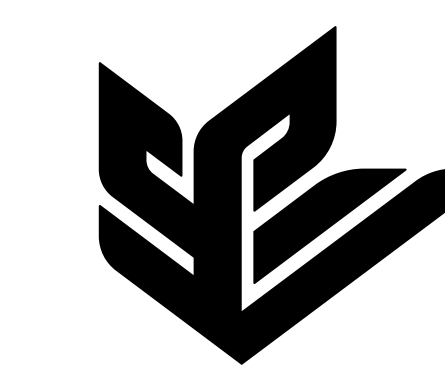


# Are Telehealth Interventions Efficacious in Reducing Symptoms of Depression and Anxiety?



Mario R. Gaspar de Alba & Megan E. Hoback

## ABSTRACT

This study aims to explore the efficacy of therapeutic interventions via telehealth on reducing depression and anxiety symptoms. The focus will be on individuals living in the United States diagnosed with Major Depressive Disorder (MDD) and/or Generalized Anxiety Disorder (GAD). Subjects will participate in 12 individual telehealth sessions conducted across three months with a pre-test, immediate post-test, and 3-month follow up including completion of the Patient Health Questionnaire (PHQ-9), Generalized Anxiety Disorder Screener (GAD-7), and the Telehealth Satisfaction Questionnaire (TSQ) to measure efficacy. We hypothesize therapeutic interventions via telehealth will be effective in reducing symptoms of depression and anxiety.

## INTRODUCTION

- Current research in the field of telehealth therapy services have shown the effectiveness in remote treatment as comparable to in-person therapy (Luxton et al., 2016; McCord et al., 2022; Rowen et al., 2022).
- Recent research into telehealth services has also indicated some client improvement in reducing symptoms of anxiety, depression, distress, and post-traumatic stress disorder through the use of telehealth services (Interian et al., 2023; Latendresse et al., 2023; McCord et al., 2022; Perez et al., 2021).
- Telehealth services have been shown to decrease common barriers to treatment as a result of life obligations, limited opportunity, and post-pandemic-related stress (Latendresse et al., 2023; Tsai et al., 2019; Villalobos et al., 2023; Yuen et al., 2015).
- Given the limited scope of research into the topic of telehealth, more evidence is needed to support the claim that telehealth services are efficacious in treating anxiety and depressive disorders.
- Given the similarities between the current research on electronically assisted distance therapy services and our hypothesis, we believe telehealth therapy will be effective in reducing symptoms of anxiety and depression, and support clients who require alternative options for mental health care.

## PRIMARY AIM AND HYPOTHESES

- Research Question:** Are therapeutic interventions via telehealth effective in reducing symptoms of generalized anxiety disorder and major depressive disorder?
- Hypothesis:** We hypothesize that therapeutic interventions via telehealth will reduce symptoms of generalized anxiety disorder and major depressive disorder.

## METHODS

### Participants

- (60) university age students (ages 18-24)
- The sample will be taken from a pool of students from local universities who are currently seeking out university counseling services and will be offered to participate in the alternative telehealth option.
- Participants will be selected if they meet the criteria for generalized anxiety disorder and/or major depressive disorder determined through the GAD-7 and PHQ-9 assessments.

### Procedures

- GAD-7 and PHQ-9 will simultaneously be used as screening material for research participants and as the official pre-test assessment.
- Post-test will be offered immediately following the final telehealth session and will consist of the GAD-7, PHQ-9, and Telehealth Satisfaction Questionnaire (TSQ).
- 3-month follow-up will consist of the same measures used during pre-test (GAD-7 and PHQ-9).
- Responses to the assessments completed by the research participants will be collected and organized online.
- Therapeutic interventions will include the use of behavior-focused therapy (e.g., Cognitive-Behavioral Therapy, Mindfulness-Based Cognitive Therapy).

## MEASURES

- We will compare the mean scores from the GAD-7 and PHQ-9 assessments which will be administered during the pre-test before the first session, the post-test immediately following the final session, and at the 3-month follow up.
- The PHQ-9 (Kroenke et al., 2001) is a brief, Likert-type (4-point scale) instrument, for the use of screening, diagnosing, monitoring, and measuring the severity of depression.
- The GAD-7 (Spitzer et al., 2006) is a 1-2 minute, Likert-type (4-point scale) assessment that is used to measure and assess the severity of generalized anxiety disorder.
- The TSQ or Telehealth Satisfaction Questionnaire (from Villalobos et al., 2023) is a 5-minute, Likert-type (5-point scale) assessment, administered verbally after treatment has commenced to measure client satisfaction with mental health services offered. The TSQ will be slightly modified for individuals and to be administered with an online survey sent out immediately after the final session.

## RESULTS

**Research Question:** Are therapeutic interventions via telehealth effective in reducing symptoms of generalized anxiety disorder and major depressive disorder?

- An ANOVA test will be used to compare and analyze the mean scores collected from the participants on the GAD-7 and PHQ-9 during the pre-test, post-test, and 3-month follow up. We expect the results from the ANOVA test will show a decrease in symptoms of depression and anxiety in the post-test and 3-month follow up as compared to pre-test results.

### Assessment of Client Satisfaction with Telehealth:

- We will run descriptive statistics on the results from the TSQ, which will be used to measure client satisfaction with telehealth services provided throughout the course of treatment.

## Discussion

### Clinical Implications:

- This study aims to determine if therapeutic interventions provided over telehealth are effective in reducing symptoms of depression and anxiety which will further help increase access to mental health services. If this study is successful, our work will provide further support and direction for the implications and use of telehealth services in the field of mental health. If successful, our results will show that telehealth is an effective means for therapy and effective in reducing symptoms of depression and anxiety. Current research has identified the barriers to in-person treatment and thus shows the need for more telehealth options. Our results will provide more data on the effectiveness in reducing symptoms of depression and anxiety specifically for those who have been previously diagnosed with MDD and/or GAD

### Social Implications:

- Therapy via telehealth increases access to a variety of care options for clients. This includes more opportunities to find more diverse therapists or treatment options, increasing access to therapeutic treatment by bypassing some common barriers to in-person treatment (e.g., lack of transportation, difficulty finding childcare, living further away from in-person treatment, etc.). Telehealth therapy can potentially be more cost effective since it reduces costs related to areas like transportation or childcare.

### Implications for Future Research:

- Further research on the topic of therapy via telehealth could look more into comparing different models of therapy delivered via telehealth, or if there are specific therapy models or interventions that work best over telehealth. Future research studies could also look into comparing in-person therapy treatment with telehealth therapy treatment of the same model to further compare the efficacy of therapeutic interventions offered via telehealth. Another limitation of our proposed research is the need for more studies to account for the need of diverse clientele who seek out similarly diverse therapist options. It would be important for future research to account for diversity in their participants and diversity in location of the clients. Further research into other barriers to in-person treatment, including clients who might be unable to supply their own private space, would also be beneficial. Moreover, future studies could look into whether the number of telehealth sessions has any impact on results of treatment compared to in-person treatment.