

# EMOTIONAL CONNECTION: DEVELOPING A MOBILE INTERVENTION FOR SOCIAL AND EMOTIONAL DYSFUNCTION

## THE PROBLEM



Mental health issues cause relationship problems due to difficulties in **emotion perception**.

**Emotional distress** hinders **emotion perception** by causing people to ignore positive emotions in favor of negative ones.



**STUDY:** Can a **mindful breathing intervention** reduce distress to improve emotional perception?

## PROCEDURE

**Sample = 80 adults** (w/ emotion regulation issues)

**DAY 01**

**INTAKE SESSION (2-4 hrs)**  
Assessed for psychiatric diagnoses

**TRAINING SESSION (1.5 hrs)**

Randomly assigned; 3 conditions; stressor tasks (all)  
**HABITUATION** - tone if stress reduces  
**MINDFUL BREATHING INTERVENTION (MBI)** - practice skill during stressor; tone if stress reduces  
**CONTROL** - no tone

**DAY 08**

**TESTING PHASE (7 days)**  
Mobile prompts **6x** per day  
**MBI** - hear tone/practice skills if high distress

**DAY 15**

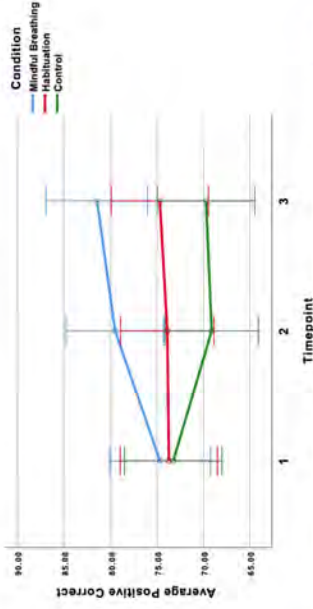
**ONLINE SURVEY (0.5-1 hrs)**  
Self-report measures & emotional perception tasks

## RESULTS

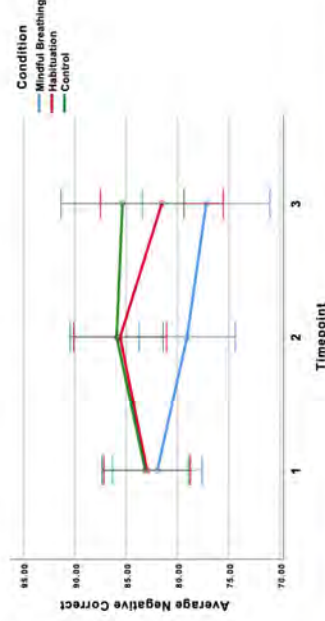
An **intervention** that combines in-person training of **mindful breathing** and **phone-based reminders** to practice those skills:

- ✓ **improves** perception of others' **positive** emotions
- ✓ **reduces** perception of others' **negative** emotions

In the training session, the MBI led to **higher** accuracy for perceiving **positive** emotions than the control condition.



The MBI also led to **lower** accuracy for **negative** emotions than the control during the training phase AND after the week of the testing phase.



Average percentage of correct scores for angry faces in the EPBT for each timepoint in training session by condition

## METHODS

### INTERVENTION (MBI)

**SKILL** REMINDER TESTING



breathe in for 4,  
out for 7



tone if skill  
reduces distress



phone plays tone if  
distressed

### OUTCOME

% of correct scores when perceiving happy/angry faces in emotional perception bias task

## DISCUSSION



Mindful breathing skills lead to **positive bias**



Results in a tendency to shift attention to positive social cues instead of negative ones

## MOVING FORWARD



Develop **entirely digital version**



Test, fix bugs, improve version



Disseminate intervention to community