



## Pilot Studies and Unpublished Clinical Evaluations

### The EBT Program Improves Employee Health

An emerging need in mental healthcare is to provide a brain-based, progressive training that is aimed at raising the brain's set point. The set point of default physiological state reflects "allostatic load" and the risk of morbidity, accelerated aging, and death. The EBT program was designed to promote achieving that outcome and is based on neurophysiology and neuroplasticity, which have evolved over the last 30 years. Whereas CBT has been studied for 70 years and is considered "evidence-based," it was only in the last decade that neuroscience research showed that the proposed mechanism of action of CBT was faulty. The conceptual basis of CBT is that thoughts change emotions and behavior. Research has shown that cognitive methods do not switch off stress reactivity at today's stress levels, which is the neurophysiological correlate of maladaptive emotions, thoughts, and behaviors.

Meanwhile, a [crisis in mental health](#) due to the COVID-pandemic and the overall [failure of medications](#) to impact mental health problems optimally has sparked more interest in new approaches to mental healthcare. As physical healthcare has become increasingly science-based, mental healthcare has found it challenging to do the same. Tom Insel, former director of NIMH, wrote, "Whatever we've been doing for five decades, it ain't working . . . when I look at the numbers – the number of suicides, the number of disabilities, the mortality data – it's abysmal, and it's not getting any better. [Maybe we just need to rethink this whole approach.](#)"

EBT is a new approach to mental healthcare. It can be used as a self-study program or with peer-to-peer support and group support facilitated by a health professional trained in the method ("Certified EBT Provider"). The program is manualized, online, and includes an app based on the EBT 5-Point System of Emotional and Behavioral Regulation.

There are eight courses, each with daily activities for 30 days, one basic course and seven advanced courses. The same app and skill set are used for self-regulation (use for an immediate change of physiological state) and reconsolidation (use for change of physiological state with the goal of rewiring allostatic reactive circuits and fear memories encoded during adverse childhood experiences and later episodes of stress overload, including trauma). It was designed

for participants whose set point is in the allostatic range (Brain States 3, 4, or 5) to raise the brain's set point from allostatic to homeostatic. This is consistent with the overall goal of psychotherapy, which is neural integration and acquired secure attachment.

The EBT Program has been available to the public for more than 20 years. The courses have been updated as science and the practice of EBT evolved, with the most recent iteration published in 2021. Formal evaluation of the program has been limited, as funding for long-term training has not been available. However, five studies, two published in peer-reviewed journals and three informal, unpublished reports, are available. The present report reflects data collected informally for internal evaluation as part of the delivery of EBT to employees.

### **Methods**

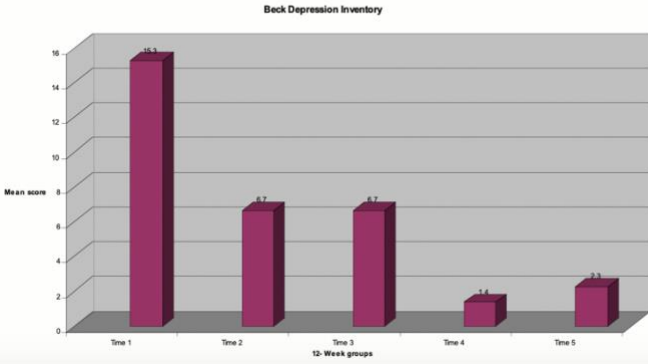
The EBT Program was delivered as part of worksite wellness for employee stress as a weekly group program over 15 months. The intervention was based on a manualized program and provided by a trained EBT clinician.

## **EBT Worksite Wellness Study**

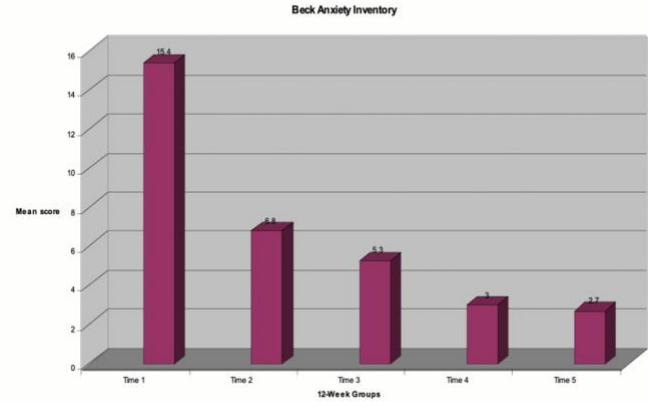
- **Participants were employees (clinical or administrative roles) in a health facility**
- **N = 16 Age range 39 to 57**
  - Females = 13**
  - Males = 3**
- **Intervention: The EBT Program with weekly small group sessions**
- **Repeated measures of anxiety, depression, and self-concept quarterly for 15 months**

In response to an announcement of the program's offering, 16 participants enrolled in the program, the only criteria for enrollment being employed by the clinic and having an intention to be treated. Three measures of psychological functioning were used: depression (Beck Depression Inventory), anxiety (Beck Anxiety Inventory), and self-concept (Tennessee Self-Concept Scale). Evaluation results were mean scores for participants during the 15-month intervention period.

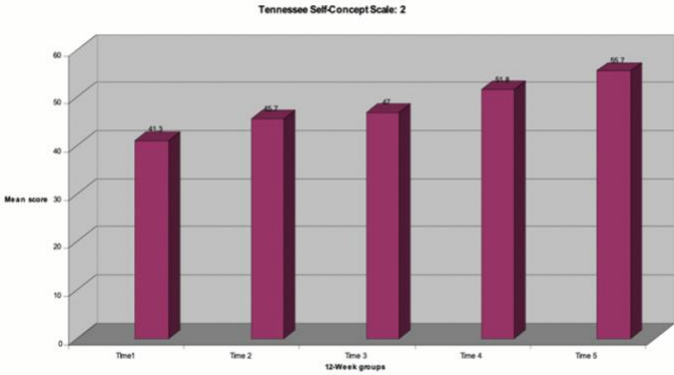
# EBT Worksite Wellness Study: Depression



# Anxiety



# Self-Concept



## **Results**

The data were collected, and the instruments were scored. Results for all three of the measures showed trends toward improvement over time. Depression decreased markedly during the first three months of treatment, and improvements were maintained or increased during the next year of treatment. Similarly, anxiety decreased during the first three months of treatment and continued to improve throughout treatment. The pattern of improvement was less marked for self-concept. However, improvements were maintained and increased over time.

## **Discussion**

This report showed improvements in depression, anxiety, and self-concept that were sustained over 15 months. The small sample size and absence of a control group significantly reduced the generalizability of the findings. However, all three psychological measures are challenging to change and maintain over time. This is the first report of a measure of self-concept in an EBT study. Previous studies had shown improvements in depression which are consistent with the findings in the current report, both the two- and six-year follow-up studies. Although perceived stress has been measured in EBT research, this is also the first report of changes in anxiety in the EBT Program.

The changes observed in this study are consistent with the conceptual basis of EBT, that by progressively training the brain for stress resilience changes in stress-related health indices improve.

## **Conclusions**

The study supports the EBT Program's feasibility for employee health and suggested that additional study of the program is warranted. Future research with larger sample sizes and a control condition would provide more information about the program's effectiveness. This report was consistent with the results of two other evaluations of the EBT Program, in showing improved health outcomes initially that were sustained over the long term.