An Overview of Published Studies



SuperBetter is a mental framework that uses the psychology of game play to overcome obstacles in everyday life. The SuperBetter methodology is evidence-based and integrates techniques from cognitive behavioral therapy, positive psychology and health behavior change best practices.

REDUCES DEPRESSION & ANXIETY

In a University of Pennsylvania randomized controlled trial, using the SuperBetter app for 30 days significantly reduced depression & anxiety.

In a randomized controlled trial conducted by Harvard Medical School, et al, college students using the SuperBetter app had significant long-term reductions in depression/anxiety at 3-months and 6-months.

A small clinical trial in Australia found that using the SuperBetter app can be effective in reducing symptoms of anxiety & depression during the COVID-19 pandemic, with positive results maintained at 6-months.

SuperBetter had the greatest effect size for reducing symptoms of depression among 22 apps included in the first meta-analysis of randomized controlled trials evaluating smartphone apps for depression (2017). In a follow up meta-analysis, SuperBetter had the #3 effect size among 54 apps (2019). SuperBetter also had the #1 effect size among 6 apps in a meta-analysis evaluating trials where depression was the primary outcome.

SuperBetter had the greatest effect size for reducing symptoms of anxiety among 9 apps included in the first meta-analysis of randomized controlled trials evaluating smartphone apps for anxiety (2017). In a follow up meta-analysis, SuperBetter had the #8 effect size among 39 apps (2019).

BUILDS RESILIENCE

Resilience is the ability to stay strong, motivated and optimistic even in the face of change and difficult challenges. Higher resilience is associated with increased academic success, higher graduation rates, better workplace performance, improved mental health and thriving in life.

Participants in SuperBetter studies improved six mental, emotional and social measures scientifically linked to higher resilience. All of these improvements were statistically significant.

SuperBetter increased four protective factors that are known to increase resilience:

- Greater optimism
- More perceived social support from friends and family
- Higher self-efficacy (confidence in one's ability to solve their own problems)
- Higher life satisfaction

SuperBetter reduced two known primary obstacles to resilience:

- Less anxiety
- · Fewer symptoms of depression

A MENTAL FRAMEWORK FOR CAREER SUCCESS

A British Journal of Guidance & Counseling article proposes that considering one's career life from the perspective of a game – and in particular SuperBetter -- can provide a new perspective for one's career narrative and foster wellbeing, proactive behaviors, coping strategies & success.

IMPROVES SELF-EFFICACY

A randomized controlled trial conducted by Collegium Humanum in Poland shows that workplace managers who learned the SuperBetter methodology (without the app) had significant increases in self-efficacy.

REDUCES CONCUSSION SYMPTOMS

In an NIH-funded clinical trial at The Ohio State University Wexner Medical Center and Cincinnati Children's Hospital, teens recovering from persistent concussion who used the SuperBetter app for 3-6 weeks in conjunction with medical care had significantly greater reductions in concussion symptoms and increases in optimism compared to patients receiving standard medical treatment only.

INCLUDES BEST PRACTICES FOR CHRONIC PAIN SELF MANAGEMENT

In an evaluation of 19 apps for people with chronic pain SuperBetter is among three apps to receive the highest mark for including best practices for pain self-management.

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SUPPORTS PEDIATRIC PATIENTS

An article published in Journal of Pediatric Psychology used SuperBetter as the case study to demonstrate the application of a practical, empirically guided framework to help psychologists select appropriate mental health apps for pediatric populations.

INCORPORATES PROVEN BEHAVIOR CHANGE PRACTICES

In an analysis of 52 exercise and physical activity game apps for inclusion of Health Behavior Theory (HBT) principles, SuperBetter received by far the highest score (76 out of 100). The average score across all game apps evaluated was 15.

PUBLICATIONS

Randomized Controlled Trial (RCT) evaluating SuperBetter conducted by University of Pennsylvania (2015): Games for Health Journal.

Evaluation of health behavior theory practices in physical activity game apps (2015): <u>Journal of Medical Internet Research Serious Games</u>.

NIH-funded Clinical Trial evaluating SuperBetter conducted at The Ohio State University Wexner Medical Center (2017): Brain Injury.

Meta-Analysis of RCTs evaluating the efficacy of smart-phone based interventions for depression (2017): World Psychiatry.

Meta-Analysis of RCTs evaluating the efficacy of smart-phone based interventions for anxiety (2017): Journal of Affective Disorders.

Meta-Analysis of RCTs evaluating smartphone interventions for mental health problems (2019): World Psychiatry.

Meta-Analysis of RCTs evaluating smartphone apps for mental health as the primary outcome (2019): Nature.

Evaluation of self-management support functions in apps for people with persistent pain (2019): Journal of Medical Internet Research mHealth.

Identifying credible mobile health apps for pediatric populations during a pandemic & beyond (2020): Journal of Pediatric Psychology.

Career life as a game: An overlooked metaphor for successful career transitions (2021): British Journal of Guidance & Counseling.

Clinical Trial evaluating the effectiveness of popular mental health apps for anxiety & depression during COVID-19 (2021): Frontiers in Psychology.

Meta-Analysis of RCTs evaluating smartphone app interventions for reducing depression (2022): Journal of Medical Internet Research mHealth

RCT evaluating the impact of learning SuperBetter on self-efficacy among workplace managers (2023): <u>Journal of Applied Economic Sciences</u>

RCT evaluating SuperBetter among university students conducted by Harvard Medical School et al (2024): Behaviour Research and Therapy