

SECTION 3

Interventions with potential to improve behavioral health

Mindfulness-based programs and interventions

Research on the effectiveness of “mindfulness” based programs has increased dramatically over the last ten years. Mindfulness-based interventions are a type of mind-body practice that can help improve health and wellbeing through self-regulation and attention to the present moment. Mindfulness is a technique that typically involves breathing and meditation and being aware of what is happening in the present moment without judging the thoughts and feelings that may occur. Mindfulness may also involve yoga or other body awareness techniques. The goal is to become more aware of thoughts and feelings so they can be managed instead of being overwhelming.

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PCORI has supported mindfulness research for condition-specific and population subgroups, including for chronic pain, anxiety, and substance use disorder among adults, seniors, children, and people with autism. Some studies compare a well-defined mindfulness intervention with a similar intervention like yoga or compare intervention lengths or with pharmaceutical treatments, or in addition to pharmaceutical treatments.

Evidence for mindfulness practice interventions

Systematic reviews of the highest quality mindfulness studies find a modest positive impact on outcomes measured in various trials, which include levels of anxiety, cravings, sleep quality, and attention or distraction, for example. Increasingly, researchers are including brain scanning and biomarkers that may change during the practice of mindfulness, suggesting brain pathways or regions that are affected by some mindfulness interventions.

Trials that measured improvements in self-reported wellbeing after mindfulness interventions also have showed positive results, suggesting mindfulness programs may have a protective or preventive effect on mental health.

A good study design should have a standardized intervention, and many mindfulness studies evaluate Mindfulness-based Stress Reduction (MBSR), an eight-week program developed by Jon Kabat-Zinn. However, the MBSR program might be too time demanding for some people. One challenge of evaluating any intervention is that participants may drop out before finishing the trial process, and the remaining participants may differ from those who dropped out in ways that bias the study results.

In a PCORI-sponsored study that looked at whether a mindfulness intervention could improve overall feelings of wellbeing (as opposed to improving a specific behavioral health condition), researchers compared two mindfulness interventions with different time commitments: one involved an eight week commitment and in-person sessions, while the other was virtual and only lasted three weeks. Results (based on a standardized questionnaire measuring wellbeing) suggest the shorter version of mindfulness training was associated with improvement in wellbeing and the results were “non-inferior” to the improvement measured in the longer program. A non-inferiority study tests whether a treatment (in this case, a shorter and web-based mindfulness program) is not materially worse than the active treatment it is being compared to).

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