Research

Nervous system response to body scan meditation

Although MBSR has been studied extensively as a program and shown to have multiple benefits for both physical and mental health, body scan meditation has been studied less as it is only a tool used within the MBSR program.

Generally, research studies of mindfulness include the entire program (Grossman et al., 2004).

There have been a few studies that attempted to specifically examine the effects of body scan meditation. The purpose of these studies was to clarify the benefits of specific practices within the MBSR model and show the effectiveness of standalone practices.

One such study compared body scan meditations with three conditions: PMR, sitting quietly for 20 minutes, and a control group. They found that after four weeks of a daily 20-minute practice, the group of body scan meditators had a significantly greater increase in parasympathetic activity (Ditto, Eclache, & Goldman, 2006).

When we are stressed and our body is in fight-or-flight mode, this is an activation of the sympathetic nervous system. Ditto et al. (2006) found that regular body scan meditations mediated that response, allowing the participants' bodies to spend less time in fight or flight (sympathetic) and more time in rest and digest (parasympathetic).

Body scan meditation for managing anxiety

In one study examining the effects of MBSR on mental wellbeing, the researchers could assess the benefits of body scan meditation alone by correlating practice time with outcomes (Carmody & Baer, 2008). They found body scan practice time was positively and significantly correlated with decreased anxiety and increased non-reactivity.

Another study that correlated body scan practice time with outcomes in breast cancer survivors found similar results. Body scan practice time correlated with significant improvements in anxiety, depression, and stress (Lengacher et al., 2009).

Finally, in a study examining the effects of various relaxation techniques during a smoking cessation program, researchers found that participants in the body scan group experienced less irritability, restlessness, and

tension while quitting smoking than groups using other relaxation techniques (Ussher, Cropley, Playle, Mohidin, & West, 2009).

Can body scan help with sleep?

Considering the relaxing effects that body scan meditation has shown on the nervous system (Ditto et al., 2006), it is logical to conclude that it would aid in sleep, and research seems to support this conclusion.

One study examined the effects of mindfulness practices as part of a cognitive-behavioral treatment for insomnia (CBTI) in adolescents. Researchers wanted to see if mindfulness practices had any discernible increase in benefit. All the teenagers received CBTI, but only half of the group performed body scan meditations (de Bruin, Meijer, & Bögels, 2020).

Results showed that while all the participants experienced significant improvements in sleep, the body scan group showed better sleep quality and less irritability than the non-meditation group (de Bruin et al., 2020).

Similar to the smoking cessation study, where participants in both groups showed improvements overall, the body scan meditation seems to help with subjective feelings of reactivity, stress, and irritability (de Bruin et al., 2020; Ussher et al., 2009).