6 Mindfulness and Enjoying the Moment

Mindfulness is a psychological intervention, but for many people it is also a lifestyle transformative practice which helps personal growth and goal re-evaluation. In recent years, mindfulness has gained a significant evidence-base and has become recognised for its positive impact on mental health. At its core, mindfulness involves paying deliberate attention to the present moment, fostering a deep connection with your own thoughts, feelings, and surroundings. This practice encourages us to embrace the here and now, setting aside worries about the past or anxieties about the future. Mindfulness helps us develop greater self-awareness. Mindfulness allows us to have a better understanding of the patterns and triggers that influence our mental wellbeing. This heightened self-awareness allows for more effective management of stress, anxiety, and other emotional challenges. Moreover, mindfulness equips us with valuable coping mechanisms. Mindfulness promotes relaxation and reduces the physiological effects of stress and can therefore help us to cope with stress in our daily lives. Regular practice has been shown to lower blood pressure, improve sleep quality, and enhance overall physical health, all of which are associated with better mental wellbeing.

What Is Mindfulness?

Mindfulness is a mental state achieved by focusing our awareness on the present moment, while calmly acknowledging and accepting our feelings, thoughts, and bodily sensations. It involves deliberately paying attention to the sensations, emotions, and thoughts occurring in the present moment without judgement or reaction. Through mindfulness practices such as meditation, breathing exercises, or simply engaging fully in everyday activities, we can create a heightened sense of self-awareness and a deeper understanding of our own inner thoughts and feelings. While mindfulness was originally based on ancient contemplative traditions, more modern mindfulness interventions combine practices of relaxation and meditation as well as including some elements from cognitive behavioural therapy, where the aim is to reframe our negative thinking into more positive thoughts and feelings. Although the exact way in which mindfulness is used may differ, there is a focus on non-judgemental observation to help gain a state of mental stability. A key component of mindfulness is staying in the present and taking notice of the environment around you. We sometimes rush around and don't notice the beauty around us; often, focusing our attention on interesting and beautiful aspects, such as birds or flowers, in our environment can help us slow down and appreciate the world we live in. For example, when taking a break for a cup of tea or coffee, just take a moment to notice what is beautiful around you; this may be a plant in your back garden, or the birds or clouds outside your office window. Take some time to

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consider your feelings and how you could think about them in a positive way. Some of us may be lucky enough to live or work near parks; take 10 minutes to walk through slowly and notice the flowers and trees as you go or sit on a bench and appreciate their beauty.

How Does Mindfulness Improve Our Mental Health?

Structured meditation and mindfulness training have been shown to improve emotional regulation, reduce stress, anxiety, and depression, and prevent substance abuse (176). Indeed, several studies examining the available evidence over the last two decades have found that mindfulness practices were beneficial for mental health, including reduced stress, anxiety, and depression, increased subjective well-being, and better emotional regulation (177–180). The results from multiple studies have shown that mindfulness benefits can extend to physical health, for example by reducing the severity of cancer-related pain (181). The reason for this may be that mindfulness moderates the subjective feeling of pain severity, as well as taking attention away from the unpleasant symptom. Mindfulness training may also be useful during times of heightened stress. For example, one of our collaborative studies between the University of Cambridge and Fudan University showed that practising mindfulness during the COVID-19 pandemic significantly reduced feelings of depression and anxiety, but also pandemic-related stress (182). In addition, there is also evidence that these positive benefits are long lasting. Specifically, students who took

part in a 7-week mindfulness training intervention and were then offered biannual 1.5-hour booster sessions showed better mental health across the four-year follow-up period (183).

In schools, mindfulness has also been shown to have benefits. Sixth-form students, aged between 16 and 18, who participated in an 8-week mindfulness course had significantly lower depression and anxiety, but also achieved better results at school (184). In another large study, in schools in the UK, teachers were given personalised mindfulness training for 8 weeks, and then some of these teachers were selected to give mindfulness training to students. The results showed that mindfulness improved school culture and had some effect on reducing teacher burnout, but seemed less effective on mental health measures in students (185). Mindfulness has been shown to significantly reduce anxiety, depression, psychological distress, stress levels, and even burnout in healthcare professionals, suggesting that these techniques can also be useful in high-stress environments (186). However, mindfulness is a good technique in any job as studies have also shown that it is beneficial in working environments and improves job satisfaction (187). Similarly, a large study in over 2,000 participants showed that mindfulness reduced perceived stress and also increased engagement at work (188). Interestingly, mindfulness has also been associated with innovative thinking (189) and increased creativity (190). This likely results from brain changes, including in areas related to mind-wandering and creativity. Both creativity and innovative thinking are vital in solving complex problems, fostering economic growth, and advancing society. They drive progress by generating fresh ideas, products,

and processes. These qualities spark inspiration, improve efficiency, and promote adaptability, making them essential for success in a rapidly evolving world.

Mindfulness has also been shown to improve our sleep, and we know from previous chapters how important sleep is for our physical health, mental health, cognition, and wellbeing. One recent article examining data from a number of studies showed that mindfulness improved sleep quality in healthy people (191). A further article assessing many studies showed that mindfulness reduced anxiety and depression and improved sleep quality in individuals with insomnia (192).

How Does Mindfulness Impact Our Cognitive Performance?

How is mindfulness beneficial for cognition? Several studies have shown that intensive meditation had benefits for executive function (193), attentional control (194), and sustained attention (195). Attentional control requires successful switching of attention between different items, whereas sustained attention or concentration requires prolonged attention to the same thing. Less intensive, but more long-term, mindfulness training has also been shown to affect cognition. For example, one study showed that both emotional and attentional regulation were improved following 6 weeks of mindfulness training (196). Similarly, college students participating in one semester of mindfulness training showed improved cognitive performance following the training (197). One interesting study by Jha and colleagues (198)

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showed that mindfulness training may improve the amount of information we can keep in our minds at any one time during times of high stress. They recruited military personnel who were about to be deployed, a time which is highly stressful for them. One group received 8 weeks of mindfulness training and one group did not. In this high-stress environment, working memory decreased in the control group who had no mindfulness training. In those who received the mindfulness training, particularly those who practised for longer, working memory remained stable. This suggested that mindfulness training may be protective of cognitive function during periods of high stress. Similarly, longer mindfulness practice time was associated with reduced negative and more positive effects. Other studies have suggested that mindfulness training may build cognitive reserve and be protective of cognitive functioning in ageing or in mild cognitive impairment (199, 200). It seems that mindfulness may do this by strengthening the ability to attend and concentrate. It could also indirectly enhance cognitive reserve by reducing stress and improving immune function (200). Mindfulness training has also been demonstrated to have beneficial effects for mental health and cognition in a number of neurological and neuropsychiatric disorders, including Parkinson's disease (201), multiple sclerosis (202), and major depressive disorder (203, 204). Specifically for depression, van Vugt and colleagues (204) showed that mindfulness training reduced negative biases and improved positive biases in terms of attention to the environment around the participants. This is an interesting finding, as patients with depression often have negative attentional biases, where they will focus

on only the negative features around them. For example, as you are walking down the street, you will likely focus on all the smiling people, whereas someone with depression will focus on one person who looks sad or upset. One of the proposed strategies for reducing depressive symptoms is to change the negative biases back towards a more positive bias, as in healthy people (14). Therefore, the improvement in positive bias following mindfulness training in patients with depression (204) is an important process to help overcome their condition.

How Does Mindfulness Change Our Brains?

Many of the benefits of mindfulness we have discussed for mental health and cognition may be due to the way in which mindfulness changes our brains. Studies have shown brain changes in long-term mindfulness users (205) and more recent studies have found a number of specific regions that show differences in long-term mindfulness users. These include the prefrontal cortex, which may be related to enhanced awareness of your own thought processes and the ability to rethink and reinterpret a situation or emotional response and your feelings about it. Also included are the sensory cortices and the insula, which may be related to body awareness, the hippocampus, which is related to memory processes, and the cingulate cortex, which is related to self and emotion regulation (206, 207). However, long-term mindfulness is not necessarily required for these changes in the brain to occur: studies have also shown that there are structural and functional brain changes following only

8 weeks of mindfulness training, specifically in the prefrontal cortex, insula, cingulate cortex, and hippocampus (208). In fact, these changes are similar to the results from longer-term mindfulness. In addition, this article combining the results from many studies found changes in the amygdala, which is the region of the brain involved in emotional responding. They showed that the amygdala activates for a shorter period of time in response to emotional material – in other words, faster recovery, allowing you to be in control of your emotions faster (208). A review of the neuroscience of mindfulness proposed several brain mechanisms through which mindfulness training may relate to the mental health and cognitive benefits (209). The anterior cingulate cortex has consistently shown functional and structural changes with mindfulness meditation and this region is strongly associated with attention; therefore, these brain changes in response to mindfulness may provide an explanation for how mindfulness improves attention. Similarly, the fronto-limbic networks are frequently activated in mindfulness meditation and these networks play a role in emotion regulation and coping with stress. A further key network known as the 'default mode network' (Figure 4.2), including regions of the prefrontal cortex and posterior cingulate cortex, has been found to be altered by mindfulness training (210). The 'default mode network' is involved in the awareness of your own thought processes and may suggest a mechanism through which mindfulness improves processing thoughts and feelings about yourself and present moment awareness (209). This ability allows us to better regulate our emotions and understand and enjoy the world around us. The

activation of the 'default mode network' in mindfulness may improve our cognition, as it has been shown to be involved in the global functional integration of information and has a central role in higher cognitive processing (211). This may also improve our creativity, as the default mode network has been shown to be involved in creative thinking (212).

Making the Most of the Here and Now through Mindfulness

In summary, mindfulness is a powerful and accessible means of improving mental health and cognition, and promoting positivity in learning and work environments. By grounding us in the present, promoting self-awareness, and fostering effective coping strategies, it equips us to navigate life's challenges with greater resilience and wellbeing. Embracing mindfulness as a regular practice can lead to profound and lasting improvements in mental health and overall quality of life. Mindfulness can be used in many ways, including to reduce stress, improve sleep, enjoy work and socialising more, and even to be more creative and innovative. If we focus on natural beauty or man-made art in the present, or activities with friends and family, we derive more pleasure. It also stops us from dwelling on mistakes made in the past or future concerns and worries. It is great to learn from past errors, but not to ruminate over things that cannot be changed. It is better to set positive, new goals for the present that will guide us to a happier and more successful future. Improving our sleep, through mindfulness practice, will also have substantial benefits for our physical and mental health

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and wellbeing. Focusing on the present has the advantage that we can have mastery over our lives and will promote resilience for the future. Reducing stress and enjoying the present moment will also help us build a positive store of memories, which not only provides pleasure when reminiscing, but also builds resilience. Having resilience in times of stress will help us cope with challenging situations at home or work and will also give us better outcomes following illnesses. Getting more out of school, university, or work through mindfulness can help us feel a greater sense of wellbeing and social bonding, and the cognitive benefits can help us problem-solve, as well as be more creative and innovative in the workplace.

Dos

- Remember to stay in the now. It is important to enjoy and appreciate nature and the beauty around us and to have positive feelings about the world around us.
- If you notice that you become stressed or negative, use mindfulness to reframe your negative thinking into more positive thoughts and feelings. Don't let negative thoughts and feelings build up: it is better to use mindfulness regularly to promote your wellbeing.
- Using mindfulness allows us to build up our resilience against future stressful events.