

# The impact of mindfulness meditation

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Mindfulness meditation by origin is rooted in Buddhist traditional practice that has existed for centuries. Over centuries, with the flourishing of Buddhism across Asia, new approaches and methods of meditation evolved in various cultural contexts and historical periods. However, they seem to have remained within the larger framework of Buddhist soteriological teachings. The most new changes in methods to meditation, and mindfulness would seem to have occurred in the last decades when mindfulness became completely secularized and widely popularized across the Western world (Ditrich, 2017).

Mindfulness meditation is defined in many ways by scholars and Buddhist philosophers. However, most scholars have defined ‘mindfulness’ as an individual, state-level variable that enhances cognitive, psychological and physiological functioning in various ways (Patrick. K. Hyland, 2015). Although definitions differ, most conceptualization of mindfulness has three common elements. First, mindfulness is present-focused consciousness (Dane, 2011). Second, mindfulness involves paying close attention to both internal and external phenomena (Ryan, 2003). These encompass stimuli such as thoughts, feelings, bodily sensations as well as external stimuli such as sights, sounds, smells, and events occurring in one’s physical and social environment (Kabat-Zinn, 2005). Third, mindfulness involves paying attention to stimuli in an open and accepting way without imposing judgements, memories or other self-relevant cognitive manipulations on them (Andrew G. Miner, 2005).

Secular mindfulness training is relatively recent development. The current stride in the research and practice of secular mindfulness began with the

work of Jon Kabat-Zinn (Hyland et. al. 2015). Mindfulness as it is currently practiced and taught in secular Western culture is closely akin to traditional Buddhist mind training methods. In Buddhist practice, mindfulness is the act of seeing things as they truly are in the present moment (Gunaratana). Harvard Business School, Drucker Graduate School of Management, Stern School of Business at New York University, and Boalt Hall School of Law at University of California, Berkeley, represent just some of the graduate schools that have implemented formal mindfulness programs to support their students' success.

Mindfulness meditation has been also implemented in many other contexts, such as schools, workplace, wellness industries, focusing mainly on stress reduction and enhanced wellbeing. A twelve-week meditation program was conducted in one of the schools in Australia and a research was conducted after that program. In terms of general findings, all the students interviewed perceived meditation as a goal-oriented practice primarily aiming to control stressful situations, either at home or at schools. They also reported that meditation helped them to concentrate and focus on their study better, developed better self-discipline and increased calmness (Ditrich, 2017).

Mindfulness meditation can be practiced in many ways. The most widely followed practice is to observe the natural inhalation and exhalation of breath, as well as repeating mantra silently in between breaths. Mindfulness medication can also be practiced with body movement. For example, in walking, practitioners are required to focus attention on the movement of their leg in each step (Charoensukmongkol, 2013)

## Impact of mindfulness meditation

The power of mindfulness training has been realized in brain imaging studies indicating that, after participation in a Mindful Based Stress Reduction (MBSR) program, increased activity was measured in portions of the brain associated with positive mood (Richard J. Davidson, 2003). Furthermore, mindfulness training has been reported to enhance working memory capacity, a cognitive system that is integral to maintaining attentiveness and guiding behavior in the face of distraction, and to facilitate reappraisal of emotional reactivity under conditions of distress (Amishi P. Jha, 2010)

Such psychological benefits of mindfulness have cognitive roots and research has consistently found that mindful meditation practice significantly and positively impacts brain activity as well as the density of neural gray matter in the dorsal portions of the prefrontal cortex, the area of the brain responsible for key functional capabilities such learning, memory, affective processing, emotion regulation, perspective taking, and facilitating adaptive responses to stress (Britta K. Holzel, 2011).

Like any other parts of body, the mind also needs exercise. And the meditation is one way to exercise and relax the mind from the over-stimulation of daily activity, multi-tasking, and stress of the day are eliminated by focusing on something other than self in an attempt to reduce the haste of life (Helding 2012). (McGreevey, 2011) found that the overall mass of the brain increased as did the well-being and quality of life of those who practiced a form of sitting meditation daily. Research also suggests that MRI scans of the participants and a control group shows a difference in gray

matter density over the period of the meditation study ( (J. Cromie, 2006); McGreevey, 2011).

Similarly, (Amishi Jha, 2007) also found that such meditation increases activity in the anterior cingulate cortex region of the brain, an area responsible for self-regulation of attention. The effects of mindfulness have been illustrated to be enduring and wide reaching. Mindfulness training programs have evidenced sustained enhancement in a variety of fields, including physical, psychological, cognitive and conative realms (Hyland et. al. 2015). (L. Deci, 2000), states that mindfulness may be important in disengaging individuals from automatic thoughts, habits, and unhealthy behavior patterns and thus could play a key role in fostering informed and self-endorsed behavioral regulation, which has long been associated with well-being enhancement. On a broad level, mindfulness practice has been repeatedly evidenced to decrease global psychological distress and improve overall mental health (J. Mark. G. Williams, 2010).

### Stress and Meditation

One of the primary objectives and also one of the main impacts of meditation is that it reduces anxiety and increases peace and calmness. In the field of education, (McLean, 2001) examined the impact of meditation on particular categories of learning in a qualitative manner. She noted that meditation served to calm students physically (reducing incidences of out-of-turn speaking and increasing students' abilities to sit still) as well as improved their abilities to cast aside external distractions (student

disruptions and the noise impact of an outside storm). McLean (2001) also noted an increase in the creativity in student writing.

(Bisht, 2014), believes that stress is a natural human response to pressure when encountered with challenging and often precarious situations. He further states that such unpleasant situation may lead to sign and symptoms of anxiety which may include feelings of shame, grief or loneliness; difficulty in concentrating or an ability to learn new details, increased breathing, and pulse rate, sleeplessness and problems with eating, social apprehension, isolation or withdrawal from society, self and surroundings and even irritability or unusual level of aggression. It is found that stress is a major factor in up to 80% of all work related injuries and 40% of work place turnovers as reported by the American Institute of Stress (Atkinson, 2004).

For many youths, major changes in their lives take place during the period of their transition from high schools to universities. The increased demands of academic performance, along with adjusting to a new living and social environment, offer students with opportunities and experiences of psychosocial development (Tao, Dong, Pratt, Hunsberger, & Prancer, 2000). This transition to college life often estranges the youth adults from families and friends who previously provided social and emotional support. Reduced support in turn affects one's ability to handle external stressors and may lead to increased psychological distress and decreased academic performance (L. Cummings, 2001).

A number of researchers have attributed higher levels of trait mindfulness to decreases in stress and anxiety as well as improvements in attention and

mood (Anderson et al., 2007; Brown & Ryan, 2003; (A, 2009) In addition, mindfulness training has been evidenced to lessen the negative effects of anxiety on physical and psychological health, significantly reducing anxiety and depression (Diane K. Reibel, 2001). The study also proved that increased mindfulness could prevent the reallocation of white matter resources to anxious thoughts, and enable attention to be shifted from task-related stressors to task-related information needed to complete the activity at hand (Altairi, 2014).

In a study carried out by the University of Wisconsin, participants engaging in an 8- week meditation practice were evaluated for generalized feelings of well-being and given brain scans prior to their training, immediately following, and again 4 months later. Not only did researchers find that participants self-reported more positive emotions following the treatment, but they also maintained that positive shift four months following the treatment. Based upon their findings, the authors commented that even small, limited exposures to meditation could have dramatic and long-lasting effects on participant anxiety (Davidson et al. 2003). Additionally, it was found that individuals participating in a meditative practice showed (a) increased self-esteem and decreased anxiety, (b) increased positive and decreased negative self-endorsement, (c) increased activity in a brain network related to attention regulation, and (d) reduced activity in brain systems implicated in conceptual-linguistic self-view (Gross, Effects of Mindfulness Meditation Training on the Neural Bases of Emotion Regulation in Social Anxiety Disorder, 2009). While some degree of stress is deemed helpful to enhance academic performance, too much can inhibit cognitive

faculties that are crucial to learning and to demonstrations of it, for instance examinations (Shauna L. Shapiro, 2008).

The demands of learning new, sometimes complex material, and often under time pressures imposed by the competing demands of full course loads and part-time jobs, can result in considerable stress and adversely affect psychological well-being in undergraduate, graduate and professional students (Shapiro et. al. 2008). Not only did the various researches find the positive impacts of mindfulness meditation on both psychological and physical wellbeing, it is also found that it has an impact on students' academic performance.

In line with the impact of mindfulness meditation on academic performance, (Hall, 1999), conducted a study. He randomly assigned 56 undergraduates to two study groups, one of which included concentration-based meditation. The meditation intervention included a one-hour session of meditation instruction twice a week for the academic semester, which included guidance in a simple attentional focusing and in relaxation exercises. Meditation was practiced for 10 minutes at the start and conclusion of each one-hour study group session, and this group was instructed to meditate at home and before exams. The control group also met for one hour of study a week but was not introduced to meditation. The groups did not differ in grade point average (GPA) at the beginning of the study, but at the end of the Spring academic semester after the Fall semester training, the treatment group had significantly higher GPA scores compared to the control group.