Benefits of Mindfulness and Related Practices for Adults and Children – Summary of the Research Nov 2008

Introduction:

Various research studies show potential benefits from various types of training that help focus attention, develop self-regulation, change habitual patters of thought, and build both compassion and emotional resilience.

One of the core underlying concepts is that in our day-to-day life we spend much of our time on 'autopilot,' missing out on experiences while lost in mental distraction and acting out of habit when managing our emotions or relating to the world around us. Learning to focus attention is seen as a skill all its own that also can help us become aware of these habitual thoughts and patterns of behavior.

These tools are not particularly mysterious and are not inherently religious or spiritual in nature, although they often involve meditation, yoga or similar practices. There is no goal of reaching a different plane or state of being, only of living with more awareness. Developing stronger traits of 'mindfulness' – such as not living on autopilot, not being reactive, and having an ability to label internal mental states – appears to increase well being and self-compassion regardless of how you work at it.

Often, the most basic skill taught is that of focusing our attention - on breathing, the body, sound or other sensations. This style of meditation is called 'mindfulness' or 'insight' meditation. Other related approaches likely have similar benefits, such as yoga or tai chi. For children, educational activities may promote emotional awareness, impulse control and social skills, and sometimes incorporate age-appropriate breathing techniques and physical activities.

Several decades of research suggest these simple practices have both physical and mental benefits. Few of the quoted studies are of monks or people who meditate extraordinary amounts of time. They refer instead to people who meditate as little as half an hour daily for several weeks.

Physical benefits:

- Participants of an eight-week mindfulness based stress reduction class (MBSR) report improvement in medical problems including chronic pain, hypertension, asthma and psoriasis.
- MSBR participants also have an improved immune response (measured directly) and clinically report fewer colds and related illnesses.
- Brain imaging studies show continued thinning of the frontal cortex as people age. People who meditate did not show this thinning of brain matter in one study.
- In EEG studies (which look at patterns of electrical firing in the brain), synchronized patterns of firing occur during times when there is a sense of well being. Meditation may lead to more synchronized patters of firing. Functional imaging studies of the brain after meditating show increased activity in regions that fire when people feel happier and more compassionate.

Emotional and mental health benefits:

- Multiple studies show a better sense of well being and a better ability to handle stress in people who have completed MBSR or similar programs.
- Several studies demonstrate decreased recurrence rates for issues such as anxiety, obsessive-compulsive disorder, and depression.
- One recent study showed decreased anxiety after only one week for people who meditated a half hour daily.
- Mindfulness meditation may enhance the ability to read non-verbal cues and to understand the internal state of other people.
- One pilot study demonstrated improved behavior in children with autism after their parents completed an MBSR class.

Complete references are available on the attached pages.

Benefits for building executive function and attention:

'Executive function' skills help control our impulses, monitor our behavior and performance, organize, plan and manage time. Problems with executive function are perhaps the core deficit in attention deficit hyperactivity disorder (ADHD). They also occur with other mental health conditions.

- Meditation appears to benefit executive function in adults with ADHD. In contrast, medication has been shown to improve core symptoms such as hyperactivity, impulsivity, focus, and distractibility, with less of an effect on executive function.
- Imaging studies show growth in the areas of the brain (the prefrontal cortex) responsible for executive function and impulse control in people who meditate.
- Meditation improves the brain's capacity to shift focus in adults. People with ADHD do not only have a short attention span, they can become 'over-focused' and have difficulty moving their attention away from particularly engaging activities. This also may prove to have benefits for children in classrooms, although attention shifting has not been studied in classrooms.

Classroom benefits:

Classroom programs teach skills of self-regulation, social intelligence, and emotional resilience. Children are introduced to simple calming and breathing exercises, and guided in play and other teaching activities. Activities are often integrated into classroom time throughout the school day. In most programs, teachers are introduced to stress management and mindfulness techniques themselves.

- Improvement is shown in self-regulatory (executive function tasks) such as impulse control, working memory, and cognitive flexibility.
- Across a group of studies evaluating academic outcomes, students in social-emotional learning programs scored eleven percentile points higher on standardized achievement tests relative to other peers.
- Children in schools and classrooms that employee these models may have fewer conduct problems and lower levels of emotional distress (i.e. stress or depression).
- In schools with programs that build social-emotional competence, rates of bullying decrease.

Further information can be found in many places including the web sites and books of Dr. Dan Siegel, Dr. Jon Kabat Zinn, Dr. Sara Lazar, Dr. Richard Davidson, Dr. Adele Diamond and others. An updated bibliography is also maintained at www.marc.ucla.edu.

For comments, additions, or corrections please contact:

Mark Bertin, M.D. mbertin@developmentaldoctor.com

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