

Education-based mindfulness: Evidence and outcomes

SUMMARY

Mindfulness programs are becoming increasingly popular in schools and educational settings worldwide, with a growing quantitative evidence base emerging from research studies. Most of the evidence is from controlled studies of discrete mindfulness-based interventions (MBIs).

Systematic reviews and meta-analyses on MBIs have shown a small to moderate positive impact on children and young people's:

- mental health
- social and emotional skills
- cognition and learning.

There is also emerging evidence for effects on general wellbeing, behaviour, and physical health. However, mindfulness in education is a young field, and there is still much to learn from research on effective delivery.

Mindfulness in schools is about introducing children to skills as early as possible to support their lifelong wellbeing. It has benefits for educators too, including stress regulation and reduction, increased self-compassion and teaching efficacy.

Outcomes for students

The following evidence is based on 13 published systematic reviews, including six meta-analyses:

The strongest evidence of at least a small to moderate impact

- **Mental health** - All 10 reviews that looked at mental health suggest that mindfulness shows small to moderate impacts on burnout, anxiety, depression*, and stress. There is smaller but emerging evidence for impacts on trauma, eating and sleep disorders.
- **Cognition and learning** - All 10 reviews that considered this found evidence of a small to moderate impact on the processes that underlie effective cognition and learning, including the overall capacity of executive function, and also self-regulation, attention and focus, metacognition, and cognitive flexibility. There is a small amount of emerging evidence of impacts on academic performance, results on standardised tests of achievement, and grade scores.

*Some more recent reviews and a recent large scale randomised control trial (MYRIAD) have found less evidence for impacts on mental wellbeing, including depression.

- **Social and emotional skills** - Social and emotional skills underlie mental health and are fundamental for all aspects of success in education and life. The 10 reviews that looked at this area all deduced small to moderate impacts on areas of social and emotional learning, including improving self-regulation, emotional regulation, resilience, motivation, persistence, self-concept, empathy, compassion, caring, kindness, and relationship skills.

Some positive findings, but fewer studies and/or lower levels of confidence

- **Wellbeing** - Of the six reviews that looked specifically at wellbeing, five concluded that mindfulness interventions reliably show small positive impacts, but one review did not. It would appear easier to improve negative psycho-social states than to enhance positive ones. Wellbeing is a composite concept and measured by constructed scales which include items areas such as positive mood, optimism, self-efficacy, resilience, empathy, sense of connectedness, sense of meaning, and happiness.
- **Behaviour** - Four reviews found a small amount of emerging evidence for demonstrable impacts on behaviour, including reducing aggression, hostility and symptoms of Attention Deficit Hyperactivity Disorder (ADHD).
- **Physical health** - There is a small amount of emerging evidence captured in four reviews on physical health, including heart rate, blood pressure, stress hormones such as cortisol, sleep quality, and days absent from school.

The field is growing rapidly and overall the evidence suggests that well-designed and conducted mindfulness interventions show small to moderate impacts on various outcomes for students. However, recent reviews with more and larger studies have been more cautious in their conclusions, particularly regarding depression.

Outcomes for teachers

While there are fewer studies, based on five systematic reviews (including two meta-analyses), the evidence regarding teachers is still positive and holds promise. The general positivity of findings on outcomes for teachers is supported by the wider evidence on the impacts of mindfulness on working adults.

Taken together the reviews suggest a consistent impact in the following:

- **Wellbeing**, including a sense of meaning and purpose, resilience, optimism, connectedness, self-care, self-compassion, self-agency, happiness, and fulfilment.
- **Mental health**, including reducing and helping prevent depression, stress, anxiety and burnout.

- **Social and emotional capacity**, including improved emotion regulation, self-regulation, and meta-cognition (standing back from passing thoughts and impulses), including when under stress.
- **Teaching effectiveness**, including improved ability to focus on concepts and processes rather than just content, and to set priorities, stay on task, be more present and resist distraction.
- **Classroom management and relationships**, including relating more effectively to pupils and with greater empathy, compassion, greater understanding of 'difficult' pupils and helping pupils manage their behaviour, creating calmer and more focused classroom environments.
- **Physical health** - There are indications from a few studies of impacts on physical health including lower heart rate, blood pressure and stress hormones, improved sleep quality, and fewer days absent from school.

CONCLUSION

The long-term cumulative evidence from a growing and promising body of international research carried out during the last 15 years across many different MBIs suggests that good-quality mindfulness is showing many tangible benefits for pupils and teachers.

ABOUT MINDFULNESS IN SCHOOLS PROJECT

Mindfulness in Schools Project (MiSP) is a charity and international community of mindfulness educators united in their commitment to the wellbeing of the next generation, as well as the adults caring for them.

MiSP strives to introduce mindfulness to as many schools and educational settings as possible, equipping today's young people with skills and techniques to support their lifelong wellbeing.

For more information, please contact Mindfulness in Schools Project (MiSP) via enquiries@mindfulnessinschools.org.