

The Impacts of a Regular Mindfulness Practice on Teachers: A Critical Review

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Teaching can be a highly stressful profession and educators have become increasingly concerned about their mental health and well-being since the beginning of the COVID-19 pandemic. Recently, mindfulness has emerged in the literature as an effective intervention to alleviate educators' stress levels and improve psychological difficulties. The purpose of this literature review was to examine the impacts of a regular mindfulness practice on educators. I synthesized 40 peer-reviewed studies that were published between 2010 and 2021 and included a sample of working K-12 educators. The most significant and consistent effects of a regular mindfulness practice were reported on educators' overall well-being on psychological measures of stress, anxiety, and depression, and on physical health outcomes. Findings also indicated strong effects on educators' emotion-regulation and levels of self-compassion. This review concludes by offering specific recommendations for teachers and other school-based personnel who are interested in cultivating a personal mindfulness practice.

Keywords: mindfulness, well-being, social and emotional competencies, emotion-regulation, prosocial values

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Within education, an emphasis on promoting the emotional and mental well-being of students has become an issue at the forefront for policy makers, school administrators, educators, and parents. While schools are an ideal setting for supporting the mental health of children and adolescents, on the frontline of the education system are teachers, whose wellness is often overlooked as a critical contributor to the mental, social, emotional, and academic well-being of the students in their classroom (Beshai et al., 2016). Teaching has long been considered one of the most demanding of the helping professions (Lomas et al., 2017), and perhaps, more so than ever before, educators and other school personnel are faced with unprecedented occupational

challenges and demands resulting from the current COVID-19 pandemic. In a recent Teacher Mental Health Check-In Survey conducted by the Canadian Teachers' Federation (CTF/FCE, 2020), 69% of respondents indicated that they are increasingly worried about their personal mental health, well-being, and ability to cope with heavy workloads. Additionally, teachers reported increased levels of unhappiness and frustration with their work conditions and environment. Although these findings are not surprising given the present circumstances, there remains a lack of policies, supports, funds, and resources in place to adequately meet the emotional and mental health needs of teachers.

To address this problem, *mindfulness* has emerged within educational settings as an effective tool for promoting social and emotional well-being, reducing psychological distress, and improving self-regulation skills among students and educators (Renshaw & Cook, 2017). The most cited definition of mindfulness in the literature is by Kabat-Zinn (2003), who describes it as “the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment” (p. 145). An alternative, more operational definition was proposed by Bishop et al. (2004) who outlined a two-component mindfulness framework that includes “the self-regulation of attention so that it is maintained on immediate experience ... [and] adopting a particular orientation towards one’s experiences in the present moment ... characterized by curiosity, openness, and acceptance” (p. 232). Both definitions, with their focus on present moment awareness, acceptance of experiences, and attention regulation, set the foundation for this review.

Drawing on the key principles of the interpretivist research paradigm, with its emphasis on knowledge as a social construct and understood in the context within which it occurs (Kivunja & Kuyini, 2017), the purpose of this traditional literature review is to examine the impact of mindfulness on outcomes related to educators, to extend and interpret the existing body of research, and to make recommendations for future practice. This review was guided by the following question: *What are the effects of a regular mindfulness practice on teachers?* Given the ongoing need for readily accessible mental health supports for educators and the growing literature on mindfulness in education, I felt that this was a timely issue that warranted further exploration. I approached this research through the lens of both an educator and a mindfulness practitioner. I began practicing mindfulness regularly to cope with symptoms related to panic and anxiety and I have since implemented mindfulness techniques with my second-grade students. My personal context has certainly influenced my research choice; however, I took a critical approach to examining the literature selected for this paper. This review begins by acknowledging the origin of the term mindfulness, outlines a theoretical framework, and provides a brief commentary on mindfulness-based interventions in current educational settings. This is followed by an examination of the effects of a regular mindfulness practice on teachers. I further aim to address a gap in the literature by providing recommendations for educators who are interested in cultivating a personal mindfulness practice.

Theoretical Framework

Rooted in early Buddhist traditions, mindfulness originated from the Pali language word “sati,” translating literally as “to remember,” although it more commonly signifies a state of conscious awareness and attention (Brown et al., 2007). Mindfulness is inherently a way of being that encompasses the following three elements: *intention*, understanding the goal for engaging in the practice; *attention*, focusing fully on the present moment; and *attitude*, the quality of one’s

attention during practice (Shapiro et al., 2016). Contrary to common assumption, the goal of engaging in a mindful practice is not to empty the mind of thoughts, but to learn to observe our thoughts as they arise. Mindfulness practices can be categorized as either formal or informal, and both practices are essential for supporting the other (Shapiro et al., 2016). *Formal practices*, such as focused breathing, body scan exercises, mindful meditation, yoga, and gratitude practices are intentional and involve the deliberate training of attention, while purposefully noticing and accepting thoughts, feelings, and emotions as they occur. *Informal practices* involve integrating mindful awareness into everyday life activities and routines. Regularly engaging in both formal and informal practices enhances the mindfulness capacities of practitioners.

Levels of individual mindfulness tend to vary and can be considered both a state and a trait (Kiken et al., 2015). *State* mindfulness refers to the state of awareness that occurs during formal practice, while *trait* mindfulness describes the relatively stable and intrinsic dispositional changes that occur with consistent practice (Kiken et al., 2015; Wheeler et al., 2017). Those who exhibit trait, or dispositional mindfulness, inhabit mindful characteristics beyond the scope of formal practice and can skillfully weave mindfulness into daily routines. The cultivation of a regular mindfulness practice contributes to increased state mindfulness, subsequently leading to the development of dispositional mindfulness over time (Kiken et al., 2015).

Interest in mindfulness as a secular practice has grown exponentially within western society over the last few decades, with the development of two empirically supported clinical interventions: mindfulness-based stress reduction (MBSR) and mindfulness-based cognitive therapy (MBCT) (Brown et al., 2007). Perhaps the most widely studied mindfulness intervention presented in the literature, MBSR was developed in 1979 by Jon Kabat-Zinn, as a group-based treatment for adults dealing with chronic pain. Its demonstrated clinical efficacy has been influential in the development of recent mindfulness interventions for adults (Cullen, 2011). One such program, mindfulness-based cognitive therapy (MBCT), created by Segal and colleagues in 2002, was originally designed to alleviate depressive symptoms and rate of depressive relapse in patients, but is currently used with a broad range of participants in various contexts (Alsubaie et al., 2017). This approach combines the elements of MBSR with those of cognitive behavioural therapy, a common psychological intervention that focuses on replacing pervasive negative thought patterns with more constructive ones (Lomas et al., 2017). Both MBSR and MBCT are eight weeks in duration and include various formal, informal, and daily at-home mindfulness practices. Empirical evidence supports the effectiveness of both interventions in reducing participants' chronic pain levels and somatic symptoms, decreasing stress, and improving psychological outcomes (e.g., Alsubaie et al., 2017; Cullen, 2011).

The promising findings established in the psychological literature has sparked an interest in the field of neuroscience to gain further insight into the effects of mindfulness training on the brain. In functional magnetic resonance imaging (fMRI) brain scan studies, experienced mindfulness practitioners showed greater cortical thickness and increased activation in the frontal lobe areas of the brain responsible for emotional and behavioural regulation, attention, memory, and executive functioning (EF) skills such as planning, problem solving, impulse control and cognitive flexibility (Meiklejohn et al., 2012). Additionally, the amygdala, the brain region responsible for signalling the presence of threat and responding to emotion-triggering stimuli, along with the sympathetic nervous system, which is responsible for the body's fight or flight physiological stress response, were both less activated among regular mindfulness practitioners (Meiklejohn et al., 2012; Tang et al., 2015). Interestingly, neural changes in the brain occurred almost immediately following the introduction of various mindfulness techniques

to beginning practitioners, suggesting that even minimal exposure to mindfulness can be effective in improving brain functioning (Wheeler et al., 2017). These changes can be attributed to the concept of *neuroplasticity*, a construct within neuroscience whereby the brain's structure and function can be altered and strengthened in response to repeated experiences, practice, and knowledge, leading to beneficial cognitive outcomes (Meiklejohn et al., 2012). Thus, as a mental skill, mindfulness can be developed, trained, and strengthened with consistent practice over time.

Given the growing body of empirical evidence supporting its positive effects on adult practitioners, there has been increased enthusiasm in applying mindfulness with children in educational settings, leading to the introduction of *mindfulness-based interventions (MBIs)* in schools (Renshaw & Cook, 2017). Defined as “any technique that activates mindfulness processes for the purposes of improving some targeted outcome” (Renshaw & Cook, 2017, p. 5), MBIs often vary in format but most include elements designed to strengthen self-regulation and the awareness of thoughts and feelings (Lomas et al., 2017). Various mindfulness curricula have been developed for use across K-12 classrooms, and several mindfulness-based organizations have been established to train teachers and other school-based personnel in implementing these techniques with students (Renshaw & Cook, 2017). Recently, MBIs created specifically for teachers, such as CARE (cultivating awareness and resilience in education) and SMART (stress managements and relaxation techniques) have been developed, yielding positive results on measures related to teacher stress and well-being (Meiklejohn et al., 2012). Although the research on mindfulness in education is quickly advancing, more work is required to examine the direct impacts of mindfulness practices on educator-related outcomes.

Method

A comprehensive literature search was conducted using four electronic databases: ERIC, Google Scholar, PsycINFO, and the University of Calgary Online Library. Key search terms included: (a) *mindfulness* and related terms: meditation, mindfulness intervention, mindfulness training, regulation, and (b) *teachers* and related terms: teaching, educator, instructor. Inclusion criteria included peer-reviewed, full text articles that were published in English between 2010 and 2021 and included a sample of working educators in kindergarten through grade 12. Participants varied in age, gender, and years of teaching experience. Due to the limited research available on MBIs for teachers, I chose to keep the intervention criteria broad, but most included components or adaptations of MBSR or MBCT. I determined a *regular practice* to include the completion of a secular mindfulness training program or intervention at least eight weeks or 25 hours in duration, or the demonstration of strong dispositional mindfulness, as determined by a mindfulness measurement scale. All chosen articles met the criterion for a regular practice. Literature that exclusively included samples of preschool educators, university instructors, or pre-service teachers, and articles published prior to 2010 were excluded from this review.

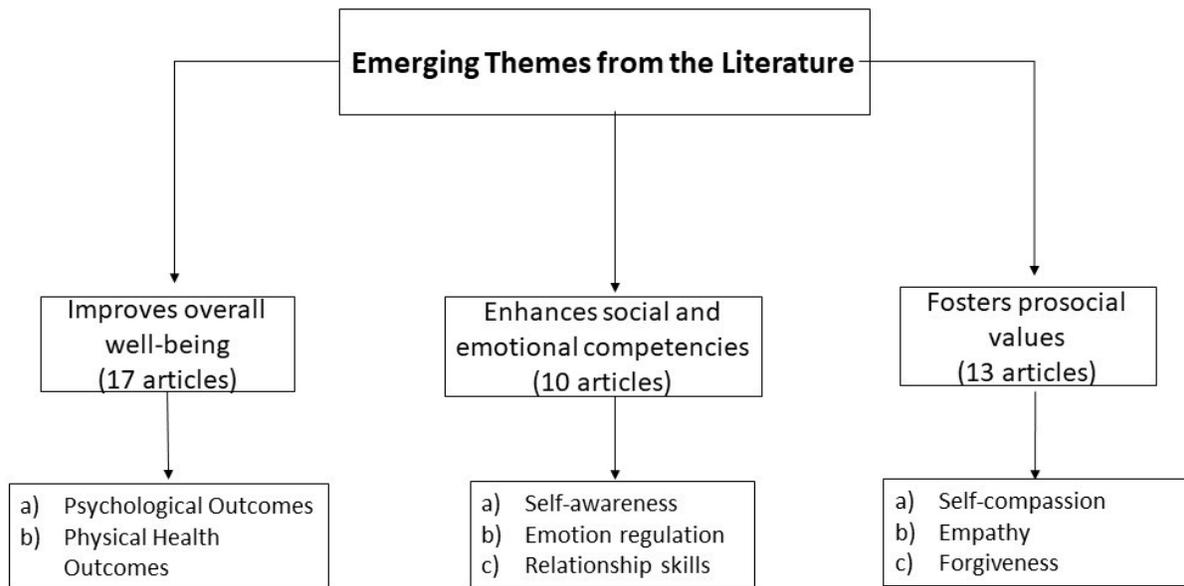
Articles were chosen after a preliminary reading of the abstract, method, and discussion sections and were then stored and organized in subfolders using the electronic reference manager, Zotero. Forty articles fit all inclusion criteria and are included in this critical review. While most of the studies are quantitative, three are qualitative, and six included a mixed methods design. Self-report measures, questionnaires, and surveys were used as the primary tool for data collection, and several studies collected physiological data from participants. The selected articles included empirical reviews, meta-analysis, randomized controlled and non-

controlled designs, pilot studies, and a case study. Seventeen of the articles included research conducted outside of North America.

A hard copy of selected articles was printed and organized in a research binder according to emerging themes. Notes were taken for each paper summarizing the main findings, sample size and demographic, design and methods used, intervention details, and strengths and weaknesses of the study. Emerging themes and patterns were highlighted using a color-coded system and organized in an excel document. I initially extracted several themes from the literature which, after consultation with my academic instructor, were later modified to be more cohesive. In the end, three main themes and eight related subthemes emerged in the literature regarding the effects of a regular mindfulness practice on teachers (as shown in figure 1).

Figure 1

Emerging Themes from the Literature on Mindfulness for Teachers



Note: This figure outlines the three key themes and eight related sub-themes that emerged from the literature on the impacts of mindfulness on teachers. Number of articles used per theme is also outlined.

Findings

Improves Overall Well-Being

Psychological Outcomes (stress, burnout, anxiety, and depression)

Well-being encompasses three main components: an absence of emotional distress, the presence of positive emotions, and high levels of subjective well-being—the emotional and cognitive evaluation of one’s life (Lee Duckworth et al., 2005). Recent reviews examining the impact of MBIs have consistently demonstrated positive effects on teachers’ overall well-being, and mental health related outcomes (e.g., Lomas et al., 2017; Klingbeil & Renshaw, 2018). Specifically, mindfulness has been shown to significantly reduce teachers’ psychological distress and burnout rate (Flook et al., 2013), improve symptoms of depression and anxiety (Gold et al., 2010; Todd et al., 2018), and decrease perceived stress levels (Hwang et al., 2019a). In a study examining the impact of a mindfulness training program with secondary teachers, Franco et al. (2010) reported reduced levels of psychological distress, with the most dramatic improvements demonstrated on measures of somatization (the physical expression of emotion), hostility, depression, and anxiety. Furthermore, these results remained stable at a four-month follow-up, indicating that the mindfulness training produced sustained benefits well after the completion of the initial intervention. In contrast, Frank et al. (2015) found no significant intervention effects on measures of somatization, anxiety, or depression, although it remains unclear if this was the result of participants’ higher levels of functioning at pre-intervention, or whether other factors were at play.

Chronic, unmanaged stress and psychological distress can lead to increasing rates of educator burnout. *Burnout* is the inability to cope with stressors over time and involves emotional exhaustion, depersonalisation, and feelings of inadequacy (Jennings & Greenberg, 2009). Studies have found that higher dispositional mindfulness—cultivated through a regular practice—protected against emotional exhaustion, depersonalisation, and the sense of low personal accomplishment, thereby reducing educators’ burnout levels (Abenavoli et al., 2013; Ma et al., 2021). However, in an investigation on the effects of a mindfulness intervention with teachers from two middle class schools in Israel, Tarrasch et al. (2020) reported no significant differences in burnout rates. The researchers suggested that this finding may have occurred because most of the participants in their study were young teachers working in newer, middle-class schools, potentially contributing to lower levels of self-reported burnout symptoms at baseline. Future mindfulness studies should aim to provide more insight into how teachers’ educational context and demographics impact their likelihood of experiencing burnout.

Described as the presence of positive and absence of negative emotional experiences in the work environment (Braun et al., 2020b), occupational well-being is another crucial contributor to teachers’ mental health. In an investigation of the effects of mindfulness on teachers’ stress and burnout in a work-related context, Braun et al. (2020b) reported improvements in primary teachers’ personal and professional outcomes, including overall well-being (e.g., mental health and life satisfaction) and occupational health (e.g., professional accomplishment and work fulfillment). Interestingly, although mindfulness was associated with decreasing educators’ occupational stress and burnout, it was not shown in Roeser et al. (2013) to significantly improve the number of stress-related work absences. Future studies aimed at

determining how mindfulness mitigates occupational stress levels could provide valuable information for school leaders who hope to reduce the rate of absences among teachers.

Educators who demonstrate resilience are also shown to be better protected against negative psychological and emotional health outcomes (Roeser et al., 2013). In short, the term *resilience* refers to an individual's ability to recover after a challenging situation (Southwick & Charney, 2012). Regular mindfulness practices strengthen educators' adaptive and resilient stress responses by improving affect, cognitive reappraisal, and psychological functioning (Beshai et al., 2016). In the first known investigation of the effects of an MBI for teachers impacted by the COVID-19 pandemic, Matiz et al. (2020) conducted a quantitative analysis with a sample of female educators following the lockdown in Italy. Participants were divided into a low or high resilience group based on responses to pre-intervention questionnaires, and engaged in an 8-week intervention, conducted primarily online. At post-intervention, teachers reported significant improvements in anxiety and depression symptomology, and a reduction in emotional exhaustion, with those in the low-resilience group experiencing the greatest benefits. This study highlights some of the current challenges associated with teaching in a global pandemic and suggests that MBIs administered online have the potential to be as effective for strengthening resilience as those delivered in-person, an important consideration in our increasingly digital world.

Physical Health Outcomes

Ongoing stress and psychological difficulties can lead to negative long-term physical health outcomes, such as cardiovascular disease and impaired immune system functioning (Katz et al., 2016). Recent research supports mindfulness as an efficacious practice for improving teachers' physiological regulation of blood pressure and cortisol levels (Harris et al., 2016) and in significantly reducing the number and intensity of adverse daily physical symptoms (Jennings et al., 2013). In their study examining the physiological impacts of a meditation and emotion regulation intervention for teachers, Kemeny et al. (2012) reported improved cognitive processes and affect among program participants at post-intervention, with the most significant impacts on physiological indicators of well-being. Following an emotion-triggering experiential event manufactured by the researchers, teachers in the intervention group demonstrated faster nervous system responses and lower blood pressure levels, with positive effects maintained at 5-month follow-up. These results indicate that a regular mindfulness practice can improve physical health outcomes and prevent stress-related illnesses among educators.

In addition, participation in MBIs has also been implicated in regulating sleep patterns by enhancing both sleep quality and duration, and reducing levels of daytime sleepiness (Crain et al., 2017; Frank et al., 2015). In a quantitative study examining the impacts of a MBSR intervention with a sample of high school teachers, Frank et al. (2015) found significant benefits on measures of sleep quality. Additionally, the researchers reported that all teachers who were taking medication to help them fall asleep prior to the intervention no longer relied on this measure after program completion. Although encouraging, this finding represented a small number of participants and is inconsistent with results from another study that reported no significant effects of mindfulness on educators' sleep outcomes (Harris et al., 2016). Given that sleep plays an important role in supporting overall physical and emotional health (Southwick & Charney, 2012), it would behoove educational researchers to further investigate whether poor sleep and the use of sleep medication is common among teachers, while exploring the role that

mindfulness plays in improving sleep quality and, subsequently, reducing the need for medicinal sleeping aids.

Enhances Social and Emotional Competencies

Self-awareness, emotional regulation, and relationship skills

Teachers who demonstrate strong social and emotional competence (SEC) are better able to cope with the challenges that inevitably arise in a busy classroom environment (Emerson et al., 2017). Social emotional competence falls under the umbrella of social and emotional learning and involves the ability to recognize and regulate emotions, demonstrate self-awareness, and to appreciate the perspective of others (Collaborative for Academic, Social, and Emotional Learning, 2020). Mindfulness participation allows teachers to slow down and cultivate present-moment awareness and acceptance, thereby strengthening their capacity for emotion regulation and non-reactivity (Berkovich-Ohana et al., 2020; Mackenzie et al., 2020; Reiser & McCarthy, 2018). *Emotion regulation* is the ability to observe, evaluate, and manage one's emotional reactions to experiences (Emerson et al., 2017). Teachers who struggle in this area are more likely to experience stress and burnout, while those who demonstrate high emotional regulation are better able to recognize their thoughts, behaviours, and emotions and can skillfully regulate them in different contexts and situations (Jennings & Greenberg, 2009).

In a mixed-methods study examining the impact of an MBSR training on teachers' self-regulation, Rupperecht et al. (2017) found significant improvements on educators' stress management, emotion regulation, and self-efficacy. Surprisingly, levels of work-related engagement decreased after the intervention. The researchers speculated that participating in a regular mindfulness practice may have increased teachers' self-regulation to the extent that they became more selective of the work demands on which they chose to expend their energy. However, given that teacher engagement is crucial for effective instruction, job satisfaction, and enhancing the classroom environment (Zarate et al., 2019), more research is needed to determine how mindfulness directly impacts educators' level of work engagement and if this finding can be replicated in future studies.

Although the relationship between educators' levels of mindfulness and emotional regulation has been established in the literature, there remains little information about how this practice impacts teachers who experience chronic and extreme life stress in addition to the daily demands of the occupation. In a qualitative study examining the impact of a two-year mindfulness training program with teachers living in a high conflict zone in Israel, Litvak-Hirsch & Lazar (2020) reported increased regulation of fear responses, improved application of effective coping skills, and enhanced classroom environments among participants. Although it is unclear how much time participants devoted to practicing mindfulness outside of the formal sessions, this study indicates that engaging in a long-term mindfulness practice not only enhances educators' ability to regulate strong emotions such as fear, but also provides the skills needed to successfully cope in high-stress environments.

Developing positive and supportive relationships through effective communication, boundary-setting, acceptance, and perspective-taking is an essential competency for successful teaching and was shown to be strengthened through a regular mindfulness practice (Gouda et al., 2016; Schnaider-Levi et al., 2017). In a large randomized controlled trial of kindergarten to fifth grade teachers working in low socio-economic schools, Jennings et al. (2017) found that,

although no noticeable differences were reported on measures of teacher self-efficacy, those in the mindfulness intervention group demonstrated higher levels of emotional supportiveness, awareness, and responsiveness to their students' needs as measured through classroom observations. Similarly, Hwang et al. (2019b) reported improved person-centered teaching, enhanced student-teacher relationships, and improved student outcomes among educators following mindfulness training.

Positive effects have also been found on teachers' relationships with colleagues (Matsuba & Williams, 2020). In the first known publication examining the impact of an MBI on teachers in a developing country, Matsuba & Williams reported improvements in relationship skills, greater levels of emotional supportiveness, and increased friendship among a sample of Northern Ugandan middle school educators. The authors hypothesized that these findings may be due to the group-setting nature of the intervention which allowed teachers to speak freely and openly with like-minded peers about their emotions and challenges. Because teaching can be an isolating profession, with much of the day spent within the confines of the classroom, implementing MBIs with groups of educators, rather than individually, may contribute to the overall success of the intervention.

Fosters Prosocial Values

Self-compassion, empathy, and forgiveness

Mindfulness practices have been shown to foster educators' prosocial values, including self-compassion, empathy, and forgiveness. Jennings (2015) describes *prosocial* as the ability to promote positive social and emotional experiences within ourselves and among others. Empirical studies have established the relationship between mindfulness and educators' levels of self-compassion (Emerson et al., 2017; Beshai et al., 2016; Flook et al., 2013). Conceptualized as the ability to empathize with one's suffering with an attitude of warmth, acceptance, and understanding (Shapiro et al., 2016), self-compassion can be strengthened by engaging in self-care. Mindfulness has been shown to strengthen educators' awareness of their physical and emotional needs, allowing them to recognize and give themselves permission to practice self-care when needed (Schussler et al., 2016; Taylor et al., 2016).

The enhanced sense of self-compassion following mindfulness participation has also been associated with improving teachers' perceived personal and professional accomplishments (Yuan et al., 2020), enhancing work-related conscientiousness (Fabbro et al., 2020), strengthening occupational self-compassion within the workplace (Roeser et al., 2013), and increasing positive emotions and supportiveness towards others (de Carvalho et al., 2017). However, notable inconsistencies on outcomes related to compassion for others were reported in the literature. Although high levels of self-compassion and a decreased tendency for over-identification with feelings of inadequacy were reported by Mihić et al. (2020), participants' level of compassion for others remained the same at post-test but improved at 6-month follow up. Furthermore, Sharp & Jennings (2016) found that teachers demonstrated greater perspective-taking abilities and compassion towards their students after completing an MBI, whereas Taylor et al. (2016) reported no significant effects on teachers' compassionate attitudes towards others. A possible explanation for these inconsistencies posited in the literature is that developing compassion for oneself may be a precursor for expressing authentic compassion towards others (Mihić et al.,

2020). However, more insight is needed to determine how mindfulness directly influences teachers' compassionate mind-sets towards themselves and, in turn, towards others.

A more consistent finding reported in the literature is that a regular mindfulness practice increases teachers' ability to express feelings of empathy towards students, parents, and colleagues (Benn et al., 2012; Mackenzie et al., 2020). An investigation of the impacts of a mindfulness training program for teachers of students with special needs found that those in the intervention group experienced greater levels of mindfulness, self-compassion, and empathy, leading to a reduction in stress, increased sense of self-efficacy, and an improved classroom climate (Benn et al., 2012). These findings position mindfulness as a particularly beneficial practice for special education teachers, allowing them to skillfully address the diverse cognitive and behavioural needs of the students in their classroom. In addition to empathy, an educator's ability to cultivate the capacity for forgiveness is essential for establishing a healthy and supportive classroom environment. An emotionally complex, multi-faceted process, forgiveness can be strengthened through a regular mindfulness practice (Braun et al., 2020a). In an exploration of the effects of a mindfulness-based emotional balance (MBEB) intervention on teachers' forgiveness, Braun et al. (2020a) found significant increases on all measures of forgiveness, including the ability to forgive colleagues and students, tendency to forgive, and context-specific forgiveness. Moreover, all effects were maintained at follow-up, except for teachers' tendency to forgive students. The researchers suggested that this points to the lack of long-term transferability of forgiveness skills within the classroom context. Recognizing that forgiveness is important for establishing positive teacher-student connections, this finding warrants further investigation in future studies.

Research Implications and Future Directions

The research in this review overwhelmingly supports mindfulness as a beneficial practice for improving educator-related outcomes, with the strongest effects on measures of stress, anxiety, depression, physical health outcomes, emotion regulation and self-compassion. However, there are several limitations and gaps in the literature that are worth noting. Primarily, most studies used in this review included small, homogenous, and predominantly or exclusively female participants. Only one reported on implications of mindfulness for teachers in a developing country (Matsuba & Williams, 2020) and one included a sample of teachers working with children with special needs (Benn et al., 2012). To increase the generalizability of results, future studies should aim to be more inclusive of teachers from diverse ethnic and cultural backgrounds and who come from various personal and professional contexts. Additionally, more randomized controlled trials and longitudinal studies are necessary to determine whether MBIs are effective in the long-term and if participants continue a personal mindfulness practice after completion of the intervention.

Future research should also attempt to determine what specific mindfulness techniques are most effective and whether MBIs designed specifically for teachers yield stronger outcomes. It could also examine how mindfulness skills transfer from the intervention into educators' personal and professional lives and if this transferability is a natural result of a regular practice. Furthermore, determining the appropriate mindfulness dosage necessary for optimal results warrants further exploration. Although studies included in this review incorporated interventions of at least eight hours long, recent research suggests that even a brief six-hour intervention produced positive effects on teachers' stress and burnout levels (Taylor et al., 2021). This may be particularly

encouraging for educators who are interested in cultivating a mindfulness practice but are concerned about the time required to do so.

Given the increasing occupational challenges caused by the COVID-19 pandemic and the fact that attrition rates among Canadian educators have been steadily rising over the last several years (Clandinin et al., 2015), more insight is needed into how mindfulness impacts educators' level of engagement, job satisfaction, instructional practices, and work-related self-efficacy. Finally, further research should seek to deepen understanding of the relationship between levels of educator mindfulness and its subsequent impact on student outcomes. Enhanced teacher well-being is crucial for student achievement and educators who are better able to manage their stress and regulate their emotions are more likely to establish positive classrooms and, in turn, increase the potential for student success (Zarate et al., 2019). This is a potentially significant implication for school districts and educational leaders who see the value in supporting teachers' well-being as a means of advocating for the well-being of students.

Recommendations for Practice

The choice to cultivate mindfulness should be made willingly and involves a personal commitment to ongoing practice. Based on the predominately positive findings on the effects of mindfulness on improving educators' overall well-being, enhancing social emotional competencies, and strengthening prosocial values, I propose the following five key recommendations for teachers who are interested in cultivating a regular personal mindfulness practice:

1. Begin by learning more about mindfulness by accessing online resources, websites, podcasts, and books written by experts in the field. The following resources may offer a good starting point:
 - *Wherever You Go There You Are: Mindfulness Meditation in Everyday Life* (Kabat-Zinn, 1994)
 - *Mindfulness for Teachers: Simple Skills for Peace and Productivity in the Classroom* (Jennings, 2015)
 - *Mindful: Healthy Mind, Healthy Life* (www.mindful.org) is an online resource that offers mindfulness advice, practices, and videos tailored to those of all experiences and is especially useful for new practitioners.
2. Engage in a daily formal practice. A general recommendation is to begin with just five minutes a day and increase this time to 20 minutes over several weeks; however, consistency and frequency are more important than the length of time spent in formal practice (Eva & Thayer, 2017). The following strategies can help support consistency:
 - Set aside a specific time during the day and create an inviting space dedicated to formal practice.
 - Access various guided meditations or mindfulness practices online or through readily available free apps such as Insight Timer (<http://insighttimer.com>) and Headspace (www.headspace.com)
3. Cultivate an attitude of self-compassion and self-care. Four personal development domains that are enhanced through self-care include: physical, emotional, spiritual, and cognitive (Jennings, 2015). These areas can be supported by making time for physical activity, getting out into nature, eating well, reading a book, interacting with friends and family, and

allowing for rest when needed. Simply being aware of what the body needs and responding to this need is a meaningful way of practicing self-care.

4. Intentionally weave mindful moments into the day:
 - Set an intention in the morning, envisioning the feelings, attitudes, and behaviours that will set the tone for the day.
 - Practice self-awareness and reflection: pay attention to the thoughts, feelings and physical sensations that arise during routine activities (e.g., eating breakfast, taking a walk, driving to work).
 - Use cues in the environment as a reminder to pause and take a few deep breaths (e.g., every time the school bell rings).
5. Enroll in an evidence-based mindfulness intervention or training program to further strengthen skills. In-person training can help foster a sense of community and offer valuable support from mindfulness facilitators. However, online mindfulness training programs, either with or without facilitator involvement have also been shown to produce positive effects (Fish et al., 2016; Matiz et al., 2020). Two resources that offer evidence-based mindfulness training and intervention programs through an exclusively online format are Mindful Schools (www.mindfulschools.org) and the Centre for Mindfulness Studies (www.mindfulnessstudies.com).

Conclusion

The purpose of this study was to examine the current research on the impacts of a regular mindfulness practice on teacher-related outcomes. After critically synthesizing 40 peer-reviewed studies, the most significant impacts were found on measures of educators' overall well-being, social and emotional competencies, and prosocial values. The research strongly indicated that developing a regular mindfulness practice can provide educators with the tools needed to skillfully navigate the challenges related to the ever-evolving and complex nature of the COVID-19 pandemic and the increasing occupational demands associated with the profession. This review extends the current literature by providing a contextual overview of mindfulness, describing the main effects of a regular practice, and recommending strategies for establishing a personal mindfulness practice. By doing so, I hope that educators and other school-based personnel will see the value in incorporating mindfulness in both their personal and professional lives and that the recommendations provided will allow them to feel confident in beginning this practice whenever they are ready.

The many benefits that result from a regular mindfulness practice have a strong potential to extend far beyond just improving educator-related outcomes. Teachers who attend to their own mental and emotional needs, are better able to address the needs of their students which, in turn, creates sustainable impacts on the entire school system. It would, therefore, benefit district leaders to consider incorporating mindfulness training within the school setting as an easily accessible, low-stigma, and cost-effective prevention and intervention tool to support the mental and emotional health needs of educators and other school-based workers.

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* Indicates articles included in the literature review.