



Research Synopsis

Mindfulness & Climate Action



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Mindfulness Literature Synopsis

Mindfulness and Climate Action

Summary of Key Findings

There has been increasing academic interest in examining how mindfulness, defined as a state of present-moment awareness encompassing internal experiences such as bodily sensations, emotions, thoughts, as well as external stimuli, can play a significant role in addressing the psychological, emotional, behavioural, and even spiritual dimensions of climate-related distress and wellness. Thus far, research in this emerging field has been primarily observational, with a growing focus on psychoeducational interventions and mindfulness training programs in more recent years. Since 2018, empirical studies have explored mindfulness-based approaches, recognizing their potential to promote pro-environmental behaviour, strengthen individual support for climate initiatives, and improve resilience to climate distress. Searches conducted across databases including OMNI, Google Scholar, and ScienceDirect identified six relevant peer-reviewed articles examining the intersection of mindfulness, climate change, and environmental engagement. Accordingly, this review seeks to explore how mindfulness-based practices can facilitate climate engagement.

Mindfulness-based interventions (MBIs) have shown promising effects on fostering sustainable behaviours and encouraging active engagement in climate action. These interventions have been particularly effective in fostering inner capacities such as emotional regulation, agency, and care for the wellbeing of others. Psychoeducational interventions addressing climate distress frequently employ Mindfulness-Based Stress Reduction (MBSR) and Acceptance and Commitment Therapy (ACT) principles to cultivate emotional resilience, embrace challenging climate-related emotions, and motivate collective climate engagement rooted in value-aligned action. Empirical studies indicate that various mindfulness techniques, such as meditation, influence sustainable behaviour through cultivating qualities like openness, compassion, hope, and connectedness with nature. These qualities act as mediators for climate-related behaviours, suggesting that inner transformation plays a significant role in enabling outer, systemic change. Meditation that integrates mindful attention to bodily movement and direct engagement with the environment was reported as the most effective MBI in promoting climate related engagement.

In addition, a central finding of these studies is that mindfulness plays a key role in reducing climate distress while fostering a strong sense of self-efficacy, which serves as a prerequisite for engaging in environmentally friendly behaviours and sustainable practices. This self-efficacy is grounded in an enhanced connection with the environment, empowering individuals to take meaningful steps toward supporting climate mitigation and resilience efforts. Authors noted that mindfulness-based programs have been effective in reducing climate distress and psychological barriers to climate action, while increasing a sense of environmental self-identity, global community, and climate change risk concern. These interventions enabled individuals to align their values with action, bridging the gap between climate concern and response. Inner shifts with mindfulness have been correlated with structural and organizational outcomes, contributing to the integration of MBI's and climate action within the governmental sphere.

While evidence supports the use of MBIs to combat climate distress and promote climate action, several challenges remain. Many studies rely on small, homogenous samples, limiting generalizability of the

results. Additionally, the use of correlational and cross-sectional designs prevents causal inferences, and short treatment intervention periods may not allow enough time for participants to fully integrate the practices or experience lasting benefits, reducing the effectiveness of the intervention in addressing long-term climate distress. Further, majority of research has concentrated on individual-level change, often overlooking the larger systemic and cultural influences that shape climate behaviour and the barriers preventing individuals from taking action. Researchers consistently advocate for future studies to employ standardized methodologies, including improved control conditions, randomization, and longer intervention periods, to address these gaps. Beyond MBIs, other approaches within the fields of environmental studies and psychology include psychotherapeutic interventions, psychoeducation, and community-based interventions.

In conclusion, climate change presents a unique opportunity to explore the interconnectedness between environmental issues, broader social challenges, and our role within them. By recognizing the interdependence of all humans and our relationship with other living beings on Earth, these studies bring significant insight and optimism to the literature, encouraging proactive and collective approaches to navigating the current climate crisis.

Knowledge Synthesis

- 1. Bayle-Cordier, J., Berger, L., Elatmani, R., & Tavoni, M. (2023). Breath, love, walk? The impact of mindfulness interventions on climate policy support and environmental attitudes. *Sustainability*, 15(13), 10491. <https://doi.org/10.3390/su151310491>**

Bayle-Cordier et al. (2023) perform a randomized controlled experiment comparing the effectiveness of three mindfulness-based interventions (Loving-Kindness Meditation, Breath Meditation, and Walking Meditation) on climate policy support and pro-environmental behaviour (PEB). In an online survey of 1,000 participants, Walking Meditation was found to directly increase individual's intentions to act sustainably and their support for climate policy initiatives, making it the most effective intervention in promoting environmental action through enhanced connectedness with nature (CWN). Across all three conditions, the interventions were found to indirectly promote pro-environmental behaviour through mediating variables such as openness to new experiences, compassion, and connectedness with nature. CWN was shown to have the strongest correlation with sustainable behaviours.

The findings of this study suggest that individuals with higher levels of mindfulness are more likely to support climate change mitigation policies and exhibit greater willingness to engage in environmentally conscious behaviours. However, the authors note that the effects of short term

MBIs are often temporary and emphasize the importance of building a regular practice to sustain benefits. To address the widely recognized ‘intention-behaviour gap’ issues prevalent in the literature, the study introduced an incentivized measure of PEB, focusing on the assessment of individuals actual behaviour toward sustainability rather than just their intentions to act. The authors advocate for future studies to explore the implementation of MBIs at the organizational and group levels, rather than focusing solely on individual interventions. They also highlight that cross-sectional designs are limited in their ability to account for lifestyle factors and other unmeasured variables that may influence the relationship between mindfulness and climate engagement. Finally, the authors propose that integrating elements of the natural environment into mindfulness practices may positively impact environment-related outcomes.

2. Epel, E., Mishra, J., Ekman, E., Ogunseitan, C., Fromer, E., Kho, L., Grialou, J., & Goldin, P. (2025). Effects of a novel Psychosocial Climate Resilience Course on climate Distress, Self-Efficacy, and Mental Health in young adults. *Sustainability*, 17(7), 3139. <https://doi.org/10.3390/su17073139>

Epel et al. (2025) developed a 10-week psycho-educational Climate Resilience (CR) course to assess climate distress and self-efficacy among students across eight University of California (UC) campuses. The training course integrated academic lectures, guided mindfulness and resilience practices, and group climate projects. Quantitative data were collected through surveys administered at baseline, immediately post-course, and five months later to evaluate the course’s impact on primary outcomes such as climate distress, mental health, and climate self-efficacy. The authors also conducted a semi-structured course evaluation interview one month after course completion, which demonstrated strong inter-rater reliability.

The results found significant reductions in climate distress, depression, and anxiety, alongside increased climate self-efficacy. Post-course evaluations revealed improved emotional coping, greater engagement in climate action, community belonging, collective local involvement, altruistic participation in environmental causes, and reduced climate-related loneliness. A five-month follow-up showed that improvements for the primary outcomes were largely sustained. Though positive changes in climate self confidence were observed, there was no significant improvement in participants perceived ability to influence government policy or drive global change, possibly due to the larger systemic nature of these issues being seen as beyond individual

control. The authors suggest that future research should replicate these findings and expand the CR course across diverse educational and cultural settings to enhance youth engagement in climate action. Future studies should also explore adaptations of the course for both student and non-student populations.

- 3. Ramstetter, L., Rupprecht, S., Mundaca, L., Osika, W., Stenfors, C. U., Klackl, J., & Wamsler, C. (2023). Fostering collective climate action and leadership: Insights from a pilot experiment involving mindfulness and compassion. *iScience*, 26(3), 106191. <https://doi.org/10.1016/j.isci.2023.106191>**

Ramstetter et al. (2023) address a critical gap in current climate approaches by highlighting how both external-technological solutions and inner mental states, such as climate anxiety, materialism, greed, and cognitive biases, create barriers to effective climate action. The authors recognize that in addressing environmental challenges, it is critical to evaluate how inner dimensions (such as mindfulness and compassion) and inner capacities (cognitive, emotional, and relational) function as intermediary factors that can help foster climate leadership and support. To address this gap, researchers conducted a 10-week experimental pilot training program called the EU Climate Leadership Program, targeting high-level decision makers from various sustainability-focused organizations. The objective of the study was to evaluate whether mindfulness and compassion-based interventions could encourage pro-environmental attitudes and engagement. The program consisted of seven structured modules incorporating MBIs, guided nature walks, journaling, habit change exercises, and group activities.

The results of the study demonstrate that participants in the intervention group experienced significant increases in three key transformative qualities: mindfulness, connectedness with nature, and self-compassion. These inner capacities were associated with reduced climate-related anxiety, stronger environmental self-identity, and a notable increase in environmentally conscious behaviours. Additionally, the intervention contributed to meaningful organizational shifts, including greater integration of climate policies through changes in budget allocation and strategic planning. Grounded in a framework of inner-outer transformation, the program emphasized five interconnected dimensions of sustainability: awareness, connection, insight, purpose, and agency.

The authors suggest that future research should involve larger, more representative samples to improve generalizability of the findings.

4. Scafuto, F. (2021). Individual and social-psychological factors to explain climate change efficacy: The role of mindfulness, sense of global community, and egalitarianism. *Journal of Community Psychology*, 49(6), 2003– 2022. <https://doi.org/10.1002/jcop.22576>

Scafuto (2021) conducted a correlational study on the individual and psychological determinants of climate change response efficacy (CCRE), evaluating the predictive role of mindfulness, risk concern, objective climate knowledge, and a psychological sense of global community (PSGC). An online survey was administered to 277 college students who lacked knowledge and positive attitudes about climate change. Mindfulness was assessed using a standardized measurement tool, the Five Facet Mindfulness Questionnaire (FFMQ). Among the five subdimensions of mindfulness, two were associated with CCRE: observing, which involves paying close attention to internal and external experiences such as sensations, thoughts, and emotions, and describing, the ability to articulate these internal experiences. Mindfulness, particularly the observing aspect, may help foster a sense of connection to humanity, which in turn may enhance one's sense of empowerment and self-agency to take climate action. Observing was also shown to predict response efficacy both directly and through the mediating roles of risk concern and sense of global community.

This study proposed a nuanced and integrative model incorporating several sociopsychological variables that predict climate action efficacy. Sense of global community and egalitarian values emerged as powerful predictors, alongside climate concern and knowledge. These results suggest that mindfulness has potential to promote a stronger sense of personal agency and motivation to engage in collective climate action. Risk concern also mediated the relationship between mindfulness and efficacy: the more an individual develops attentional awareness of their environment through conscious observation, the more their sense of self-agency and efficacy increases. The authors recommend future research employ experimental pre- and posttest designs to verify whether mindfulness training increases the sense of global community, risk concern, and response efficacy, such as through a knowns group approach. Future work should also refine

measurements of climate efficacy by distinguishing between self- and response efficacy, while considering contextual variables such as income, race, and exposure to environmental injustice.

5. Wang, C., Geng, L., & Casallas, J. D. R. (2022). Mindfulness to climate change inaction: The role of awe, “Dragons of inaction” psychological barriers and nature connectedness. *Journal of Environmental Psychology*, 84, 101912. <https://doi.org/10.1016/j.jenvp.2022.101912>

Wang and Casallas (2022) conducted a cross-sectional, correlational study to examine how mindfulness and awe relate to climate change inaction, while exploring the mediating roles of nature connectedness and psychological barriers known as the “dragons of inaction” (DIPB). The study involved a self-questionnaire that was administered to 1,961 university students across China and evaluated the following measures: mindfulness, awe, DIPB, nature connectedness, climate change inaction, climate change belief. The results showed that both mindfulness and awe were associated with lower climate change inaction, and this relationship was partially mediated by a reduction in psychological barriers (DIPB), followed by an increase in nature connectedness. The researchers constructed a two-pathway theoretical model to describe the relationship between mindfulness and climate inaction, proposing that mindfulness serves as a precursor to awe. The “weakening” pathway suggests that mindfulness reduces inaction by increasing feelings of awe, which subsequently lowers the impact of psychological barriers. The second “strengthening” pathway indicates that mindfulness fosters awe, which in turn deepens nature connectedness and further reduces climate inaction. The authors argue that integrating mindfulness and awe into climate education may help mitigate climate inaction, proposing a program called Mindfulness Awe Inaction Reduction (MAIR) aimed at increasing climate action awareness and developing mindfulness skills. This study did not examine the five dimensions of the DIPB individually. Future research should investigate each dimension separately to gain a more robust understanding of the psychological processes underscoring the relationship between mindfulness, awe, and climate change inaction.

6. Wamsler, C., & Brink, E. (2018). Mindsets for Sustainability: Exploring the Link Between Mindfulness and Sustainable Climate Adaptation. *Ecological Economics*, 151, 55–61. <https://doi.org/10.1016/j.ecolecon.2018.04.029>

Wamsler and Brink (2018) empirically investigate the link between intrinsic mindfulness, opposed to external MBIs, and pro-environmental behaviour in regard to climate change adaptation and resilience. The study is part of a larger, structured survey involving 217 households in a coastal region of Sweden at risk of severe climate conditions. Mindfulness disposition was assessed using the Five Facet Mindfulness Questionnaire (FFMQ). The results demonstrate that individual mindfulness is positively correlated with greater motivation to support or take climate adaptation actions, particularly those motivated by social and pro-environmental factors (e.g., reducing the risk for others). Specifically, higher mindfulness scores were strongly correlated with a higher overall motivation to take adaptation action. Additionally, more mindful respondents were less likely to deny climate change, and were also less likely to exhibit fatalistic attitudes, such as finding individual climate action 'pointless.' In particular, those with higher mindfulness scores, particularly in the dimensions of non-judging and acting with awareness, were negatively correlated with fatalism. This suggests that those who are more mindful are less likely to criticize themselves for experiencing climate-related emotions.

The authors highlight that mindfulness fosters climate engagement by helping individuals connect with their inner core values and transformative qualities, such as hope and compassion. These qualities may help counter fatalistic and passive attitudes, as well as feelings of helplessness replacing them with an 'other-focused' mindset that promotes pro-environmental actions. By cultivating these inner strengths, mindfulness empowers individuals to drive cultural and systemic change, enhancing their ability to implement practices that support sustainable climate adaptation. The findings have positive implications for collective social action, as well as for climate adaptation governance, planning, and policy. While the study provides valuable insights, the authors note that it is limited in scope (due to the number of participants) and depth (due to minimal measurement tools used). Further research should examine how mindfulness and other inner dimensions relate to sustainable climate adaptation across diverse socio-cultural contexts, as well as investigate the causal relationships between mindfulness and underlying worldviews (e.g., traditional vs. modern) that encompass human-nature interconnectedness.

Author, Year, Country	Population	Sample Size	Intervention Types	Duration	Study Design	Key Findings	Conclusion	Limitations
Bayle-Cordier et al. (2023), France & Italy	Adults	1000	Mindfulness-oriented meditation	Varies	Quasi-experimental	MBIs improve environmental behaviour and climate action	First large-scale mindfulness-sustainability study comparing different meditation types on sustainability	Unable to rule out third variables, reliance on self-report, short-term interventions
Epel et al. (2025), USA	Young adults	190	MSBR, Acceptance & Commitment Therapy (ACT)	10 weeks	Mixed methods quasi-experimental study	MBIs reduce climate distress. Improvements in climate self-efficacy	Environmental psychoeducation supports young adults' resilience to climate change; improvements in mental health	Lack of a control group receiving mindfulness training
Ramstetter et al. (2023), Germany	EU professionals	71	MBI modules, compassion-based practices	10 weeks	Quasi-experimental mixed methods pilot study	Positive effects in mindfulness, CWN, self-compassion	Addresses research gaps showing improvements in participants' 'inner-outer transformation'	Small sample size, subject to sampling bias
Scafuto (2021), USA	College students	277	Mindfulness measured via FFMQ	Varies	Cross-sectional	PSGC, and egalitarianism primary predictors of CCRE, mindfulness associated with CCRE	Training mindfulness skills could improve climate change efficacy	Non-representative sample, limited generalizability
Wang et al., (2022), China	University students	1961	Mindfulness measured via FFMQ	23 months	Correlational	MBIs help lower climate change inaction, reduce psychological barriers	MBIs, including training programs, could help reduce climate change inaction	Limited population sample, requiring improved validity
Wamster & Brink (2018), Sweden	Households in climate vulnerable areas	217	Survey based assessment of mindfulness	Varies	Correlational	Higher individual mindfulness positively correlated with greater motivation to take climate action	Mindfulness shows promising effects in sustainable climate adaptation	Limited sample size, need for exploring cross-cultural differences