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EDITED BY

Raona Williams,
Ministry of Education, United Arab Emirates

REVIEWED BY

Chase Samuel Sherwell,
The University of Queensland, Australia
Jana Groß Ophoff,
Pädagogische Hochschule Vorarlberg, Austria

*CORRESPONDENCE

Amélia Lopes
✉ amelia@fpce.up.pt

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Fostering humanization in education: a scoping review on mindfulness and teacher education

Filipa Soares^{1,2,3}, Amélia Lopes^{1,2*}, Carla Serrão^{3,4} and
Elisabete Ferreira^{1,2}

¹Faculty of Psychology and Educational Sciences, University of Porto, Porto, Portugal, ²Centre for Research and Intervention in Education (CIEE), University of Porto, Porto, Portugal, ³Centre for Research and Innovation in Education (inED), Polytechnic of Porto, Porto, Portugal, ⁴School of Education, Polytechnic of Porto, Porto, Portugal

The humanization of education is increasingly invoked as a counterpoint to the overly technical and instrumental view of education that has developed in recent decades. In this article, it is intended to contribute to identify ways toward education humanization through teacher education. As the research on humanization of education at the empirical level remains vague, studies on mindfulness in teacher education are taken as a first means of operationalizing research into the conditions of fostering reflection on the humanization of education in teacher education. As a step along this path a scoping review was conducted to map research on mindfulness in teacher education and its relationship with the humanization of education, guided by questions such as how MBAs have been conceptualized and their role in humanizing teacher education. The scoping review allowed the identification of 21 articles which were charted according to analytical frameworks regarding: the mindfulness conceptualization, chosen research paradigms, and the role given to mindfulness in teacher education. Findings suggest that the way mindfulness is conceptualized in research makes an essential difference in acknowledging its instrumental and/or transformative role in education. Transformative approaches may bring an added educational value, addressing the subjective, reflective, and critical dimensions of teacher education. From this point of view, mindfulness-based education practices could be a promising pathway to inform empirical research on the humanization of education through teacher education.

KEYWORDS

teacher education, humanization of education, mindfulness education practices, reflective teacher, scoping review

1 Introduction

Adapting education to the evolving technological and instrumental landscape is a societal challenge requiring comprehensive engagement. Educational institutions, including schools and universities, play a pivotal role in navigating this process. Central to this endeavor is humanization, defined as the process of achieving greater humanity in social, historical, and transformative contexts (Salazar, 2013). Esquirol (2021) asserts that humanization involves an awareness and reflexive movement toward becoming some(one) with some(body). This

process encompasses self-awareness, reflection, and a commitment to embodiment and integrity. Furthermore, humanization empowers students to actively engage with history, resisting dehumanizing aspects of neoliberal culture (Hyslop-Margison and Naseem, 2007). The question arises: how can we best support teachers in becoming more human and cultivating a more human environment within schools?

Advocating for the humanization of education within teacher education necessitates integrating various dimensions of teaching practice. This involves considering both subjective and objective aspects, recognizing its relational nature, and understanding socioecological dynamics. To address the depth and complexity of teacher development, explicit attention must be given to emotional, relational, and ethical/philosophical dimensions. Humanization is the overarching goal of education, comprising the articulation between qualification, subjectification, and socialization functions (Biesta, 2008, 2015). Qualification aims to provide students with the knowledge and skills to become professionals in a given field; subjectification raises awareness of the personal dimensions of education in relation to the process of being and becoming human (Biesta, 2015); and socialization, refers to “the many ways in which, through education, we become members of and part of particular social, cultural and political ‘orders’” (Biesta, 2008, p. 40).

The current educational landscape, dominated by competence-based models, tends to prioritize qualification, neglecting subjectification, and socialization functions, resulting in a fragmented educational experience (Biesta, 2008, 2015). These models have enabled the definition of concrete and measurable criteria of good teaching, informing policy recommendations and teacher education mostly based on performance, standards, and measurement (Collins, 2004). The results are extensive lists of competences that teachers must fulfill to become good practitioners, creating a norm of what good teaching should look like. The risk of a competency-based approach is the erosion of teacher agency, the creation of a disjointed curriculum based on the list of “things” the teacher should be competent in, as well as the creation of individual learning trajectories, centered on the development of the teacher’s own competencies, but neglecting the emotional, collective, and relational dimensions of the teacher’s work (Biesta, 2015; Ball, 2016; Sachs, 2016).

Humanistic-based approaches highlight that teachers are fundamentally individuals (Combs, 1979; Abraham, 1984; Palmer, 2007), recognizing personal dimensions of the teacher (emotional, bodily, cognitive, relational, biographical, and reflective) often overlooked in competence-based models (Lopes and Pereira, 2012). According to Meijer et al. (2009, p. 298), it reinforces the “importance of learning to know oneself better as a prerequisite of being a good teacher.”

This article explores a praxis for humanization of education, focusing on the integration of mindfulness-based approaches (MBAs) in teacher education. MBAs bring attention to internal and subjective dimensions, as well as to ethical and political aspects of becoming a teacher. Their practical, experiential, relational, and ethical nature, make them a valuable approach to empirical research on the humanization of education. Weare and Bethune (2020) situate the concept of mindfulness as follows:

“Mindfulness goes right to the heart of the human challenge, to help us reassess what we value and what makes us authentically and meaningfully happy, to understand ourselves more deeply, relate more

effectively to our own emotions and behaviors, and experience our inescapable connectedness with the social and ecological contexts in which we live” (Weare and Bethune, 2020, p. 3).

Based on a consultation with 28 experts in the field, Weare and Bethune (2020) recognize the need to go beyond the individual dimensions of MBA. They emphasize the ethical, critical, and social dimensions of these approaches, recognizing the role that mindfulness can play in reflecting on the purposes of education and its transformation in the face of the social, ecological, and global health challenges of today’s societies.

Integrating MBAs in teacher education, a burgeoning field, has shown moderate effects in reducing psychological symptoms associated with stress, anxiety, and depression, along with enhancing socio-emotional competences relevant to well-being and professional effectiveness (Emerson et al., 2017; Klingbeil et al., 2017).

McCaw (2019), in a critical review of the use of the concept of mindfulness in education, develops a conceptual distinction between “thin” and “thick” mindfulness based on their ontological, teleological, and ethical characteristics. While “thin” mindfulness focuses on personal development, “thick” mindfulness emphasizes ontological and ethical dimensions, viewing mindfulness as part of a transformative ethical education system (McCaw, 2019). In its “thin” version, mindfulness is described, in psychological terms, as a temporary human capacity or mental state utilized in a context of personal development. This is the starting point of different mindfulness-based programs (MBP) to promote mental health and well-being. Mindfulness-based stress reduction (MBSR) and mindfulness-based cognitive therapy (MBCT) are the first generation of programs that have emerged in the Western world. These programs include mindfulness practices to develop attention, awareness, and kindness with inner experience, as well as psycho-educational exercises to promote understanding and transformation of the mind–body relationship and mental habits. The operationalization of the concept of mindfulness in this “thinner” version has enabled the proliferation of scientific research, the theoretical and empirical development of mindfulness processes and mechanisms, and the implementation of MBP in diverse contexts (e.g.: hospitals, schools, universities, and other organizations). But they have been criticized for the historical and ethical decontextualization of mindfulness practice and its instrumental character (Hyland, 2015).

Otherwise, on the “thick” version of mindfulness the approaches seek to go beyond mindfulness training, taking mindfulness practice as part of a system of ethical education and seeing “the presence of mindfulness as in effect reminding us of who we are and what our values are” (Gethin, 2011, p. 270). Thick mindfulness definitions point to the role of mindfulness practices in personal and social transformation. Here, the practitioner is not a mere object of a mindfulness training to improve their wellbeing and professional efficacy, but a subject of reflective action, toward a more human collective becoming. Awareness, silence, stillness, and kindness are the gateways for recognizing impermanence and interdependence of experience as well as to go beyond the notion of an isolated and separate self. This ontological position brings the subject to a different relational place with themselves, the people and world around. This process is experienced in the ethical and dialogical space provided within a group of mindfulness practice. There is no dichotomy between “thin” and “thick” mindfulness. As McCaw (2019) clarifies, “thick mindfulness could be said to *transcend* but *contain* thin

mindfulness, in the manner of a smaller circle being contained within a larger circle” (p. 267). However, thinner versions of mindfulness are not enough to develop education humanization.

In this context, the primary focus of this article is on the thickness of the concepts and how the dialogue in the field of mindfulness relates to dialogues about the values and purpose of humanizing education in teacher education.

The scoping review conducted in this article aims to map research on mindfulness in teacher education and its relationship with the humanization of education, guided by questions such as how MBAs have been conceptualized and their role in humanizing teacher education.

2 Conceptual framework

In examining the intersection of mindfulness and education, this study relies on the theoretical perspectives of Biesta (2008), focusing on the functions of education (qualification, subjectification, and socialization), and Ergas (2019), emphasizing the role of mindfulness *in, as,* and *of* education (see Figure 1). Biesta and Ergas were selected to address the complementary aspects of instrumental, subjective, and ecological/relational dimensions within both educational and mindfulness practices, aligning with the overarching concept of humanization.

2.1 Mindfulness *in* education

The qualification function of education, emphasizing knowledge and skill development for professional competence (Biesta, 2008), has traditionally received significant attention. The incorporation of MBA into education is gaining momentum due to evidence supporting improvements in cognitive, emotional, and behavioral outcomes. This includes mindfulness, meta-cognition, executive function, and stress reduction (Zoogman et al., 2014; Klingbeil et al., 2017; Maynard et al., 2017; Albrecht, 2019; Dunning et al., 2019, 2022). Consequently, there is a growing interest in MBA to support learning, academic performance, and well-being in school settings. In this case, the use of

mindfulness *in* education emerges as an additional activity, which does not change existing structures, but supports the improvement of their functioning. The purpose of bringing mindfulness into education is externally determined. It has an instrumental character (Ergas, 2019): promoting competences and providing efficient responses to everyday school challenges such as stress and burnout, learning and academic achievement as well as classroom climate. Here, MBAs emerge as a tool and could be aligned with the values of a performative system.

2.2 Mindfulness *as* education

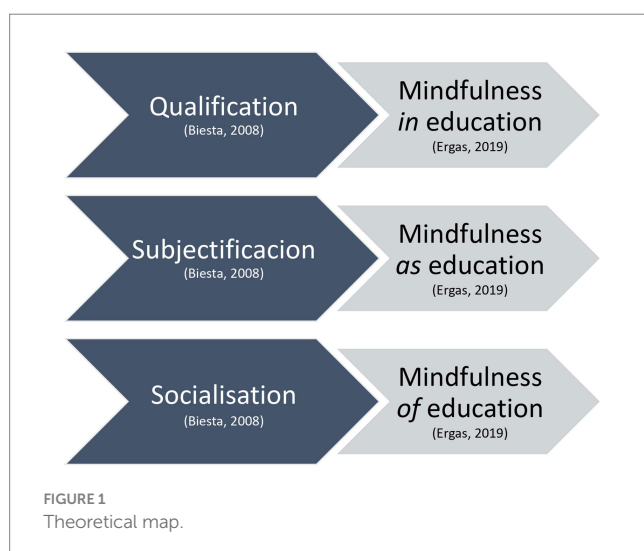
Viewing mindfulness *as* education involves a shift from considering MBAs as tools to recognizing them as paths (Ergas, 2019). This perspective emphasizes the internal experiences of individuals in the educational process, aligning with the subjectification function (Biesta, 2008). Subjectification focuses on developing individual consciousness, autonomy, and independence in thinking and acting. Mindfulness practices facilitate self-knowledge, reflection, and personal development, promoting personal and professional integrity, and fostering deeper reflexivity.

2.3 Mindfulness *of* education

Transitioning from mindfulness *as* education to mindfulness *of* education involves a shift in pedagogical ethos (Ergas, 2019b) toward ontological expansion and epistemological enrichment (Palmer et al., 2010). Mindfulness here is seen as a form of inquiry that goes beyond cognitive dimensions, starting from the body as a field of inquiry. It encourages a reflective, critical, and dialogical investigation in which “one moves away from the thoughts one has, the schemes that bring them about, and the power that these have on our formation, views, and ways of critique. This process opens us to novel perspectives and can lead to insights into the nature of experience” (Ergas, 2019b, p. 20). The ethical space provided by a MBA, fosters this dialogue on the common humanity and professionalism of being a teacher. The teacher’s practice thus becomes aligned with the purpose of education: to create humanity (Palmer et al., 2010), contributing to social, cultural, and political orders (Biesta, 2008). Therefore, the relationship between mindfulness and education becomes more robust, as “it not only supports students to overcome exam stress and work overload, but also becomes part of the development of their character, morality, and ways of thinking, acting and being, as expected from this formative stage of their lives” (Ergas and Hadar, 2021, pp. 362–363).

3 Methods

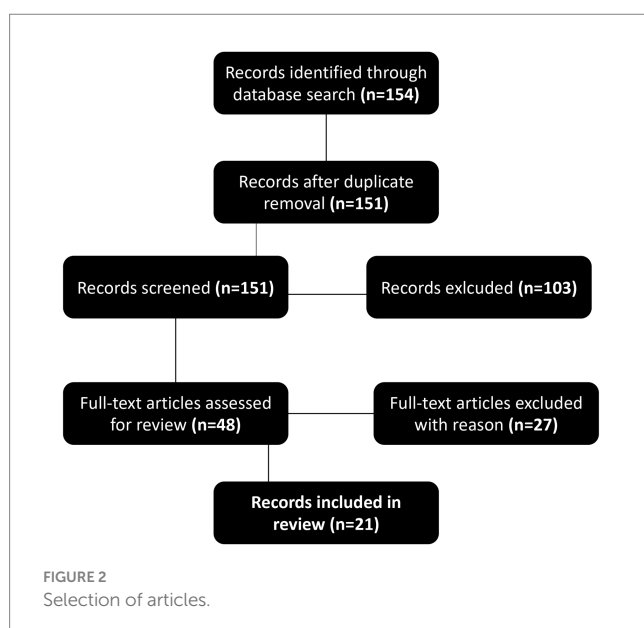
A scoping review was chosen to map relevant literature on the relationship between the humanization of education and MBA, as it is a novel topic. Scoping reviews allow for the selection of broader topics with different study designs, providing comprehensive coverage of research activity. This review followed the five-step process proposed by Arksey and O’Malley (2005). The first stage involved identifying the research question: How have MBAs been conceptualized in teacher education? (2) What is the role of MBAs in humanizing



teacher education? To identify relevant studies for stage 2, an electronic database search was conducted, in May 2021, including the following databases: Academic Search Ultimate, Education Source, ERIC, Fonte Académica, and Teacher Reference Center. To expand the search for relevant literature in this review, we selected the following research terms for the scoping review:

- Education humanization AND teacher training OR teacher education OR professional development OR in-service training OR coaching.
- Contemplative education AND teacher training OR teacher education OR professional development OR in-service training OR coaching.
- Mindfulness AND teacher training OR teacher education OR professional development OR in-service training OR coaching AND higher education.

The search involved identifying articles that contained any of these specific terms in their title, abstract, keywords, and full text. Only articles published after 2010 and with full text available were considered. A total of 154 articles were initially selected, and 151 remained after removing duplicates (see Figure 2). To select the studies for the review (stage 3), titles and abstracts were screened according to the inclusion criteria: (a) population: teachers (pre-service, in-service, and university teachers); (b) phenomena of interest: humanization, MBA, and contemplative education; and (c) context: higher education, teacher education organizations. The study employed exclusion criteria to select articles for analysis. A total of 151 articles did not meet the inclusion criteria and were excluded. After applying the exclusion criteria, 48 articles remained for full-text reading. The articles were read by two authors. After conducting a thorough analysis and initial topic coding (Richards, 2005), the authors made the decision to limit the sample to empirical studies, while excluding literature reviews. A total of 21 pieces from 10 different countries were ultimately selected for review (refer to Figure 2).



The researchers read the full-text articles, and data were charted (stage 4) to identify the country, study setting, sampling approach, research design, and MBA, with the support of the database program Excel (Table 1). The charting approach used the analytical frameworks of (a) mindfulness *in*, *as*, and *of* education (Ergas, 2019b); (b) the “thin” or “thick” (McCaw, 2019) mindfulness definitions; and (c) the research paradigm (post-positivist; constructivist; advocacy/participatory or pragmatic; Creswell, 2003). According to Arksey and O’Malley (2005, p. 26), this “‘descriptive-analytical’ method within the narrative tradition, which involves applying a common analytical framework to all the primary research reports and collecting standard information on each study, stands more chance of being useful.” Data charting was conducted by two of the authors. Peer checking with all the authors was employed throughout the process.

The stage 5 of the review: collating, summarizing, and reporting results (Arksey and O’Malley, 2005) will be presented below according to the initial research questions.

4 Results

4.1 How have MBAs been conceptualized in teacher education?

The way mindfulness is conceptualized in research can significantly impact its transformative potential and role in education. Various research paradigms offer different perspectives on the role of mindfulness in humanizing education. Post-positivist research involves observing and measuring selected variables to explain research outcomes. Constructivist research is an inductive process in which participants construct meaning from their relational experiences, bringing a plurality of views. Advocacy/participatory research is a collaborative process that engages participants in personal and social change. Pragmatic research is focused on finding practical solutions to problems, using a variety of methods, procedures, and philosophical strands as appropriate to the context and problem at hand. The review’s findings will be presented based on the classification of the theoretical framework of mindfulness *in*, *as*, and *of* education (Ergas, 2019b) and a rhizomatic group that includes all three strands of mindfulness *in* education, mindfulness *as* education, and mindfulness *of* education. In each strand, the analytical framework will use the mindfulness conceptualization (“thin” or “thick”) and the research paradigm (post-positivist, constructivist, advocacy/participatory, and pragmatic) to better understand how MBAs have been used in education and the role of MBA in the humanization of education.

4.1.1 Mindfulness *in* education

Research in the “mindfulness *in* education strand” (Table 2) includes nine studies framed in a post-positivist (Garner et al., 2018; Tarrasch, 2019; Dewhirst and Goldman, 2020), constructivist (Burrows, 2017; Hartigan, 2017), or pragmatic paradigm (Jennings et al., 2011; Newsome et al., 2012; Hue and Lau, 2015), according to Creswell’s (2003) classification, with a predominance of quantitative and mixed-methods approaches integrating experimental designs (Jennings et al., 2011; Newsome et al., 2012; Hue and Lau, 2015; Kerr et al., 2017; Garner et al., 2018; Tarrasch, 2019; Dewhirst and Goldman, 2020), a case study (Hartigan, 2017) or a phenomenological

TABLE 1 Overview articles for review.

Articles (N = 21)	Country	Study setting	Sampling approach	Data collection	Mindfulness approach
Bernay (2014)	New Zealand	This study explores the experience of beginning teachers using mindfulness during their first year of teaching. Teachers were introduced to mindfulness during their initial teacher education program.	43 primary school teacher education students, after having their first teaching position.	Fortnightly journals and interviews.	Non-formal curriculum in a long-term (3 years) intervention period. Mindfulness practices were added at the beginning of regular classes (1/week +lunchtime); informal practices were encouraged; one day retreat.
Burrows (2017)	Australia/United States	This study explores the mindfulness experiences of college students and their teachers.	13 students and 15 teachers were involved in courses that incorporated mindfulness meditation.	Three-phase phenomenological study; interviews (face-to-face and email interviewing).	Courses that incorporated mindfulness meditation.
Deckman and Ohito (2020)	United States	This article describes the embodied process of duoethnographic collaboration for theorizing and operationalizing humanization in social justice teacher education.	Two black social justice-oriented teacher educators and researchers.	The duoethnographers share stories and artifacts from their lived experiences. These conversations are recorded and transcribed.	None.
Dewhirst and Goldman (2020)	United States	Investigating a mindfulness-based intervention in an early childhood education teacher preparation course.	20 early childhood preservice teachers. Undergraduate students enrolled in a social-emotional learning course were invited to participate.	Data were collected at three-time points via surveys and questionnaires.	Mindfulness & Social Emotional Learning (SEL); introducing mindfulness to children.
Dorman (2015)	United States	This article reports on the process of a 3-year action research project of integrating mindfulness and contemplative practices into the author's pre-service and master's level education courses to develop teachers' social-emotional competence.	149 of the author's teacher education students.	Open-ended survey; field notes, observations, and reflections from researcher; lesson plans.	Non-formal curriculum: mindful silence and centering at the beginning of lessons.
Draper-Clarke (2020)	South Africa	This article explores the implications of mindfulness training on student teachers in South Africa.	14 racially diverse student teachers enrolled in the Post Graduate Certificate in Education.	In-depth interviews.	Adapted from the Mindfulness Based Living Course (MBLC) (Nairn, 2009) and condensed into 6 weeks; it includes explicit compassion practices.
Ek and Latta (2013)	United States	This article describes the process of a yearlong conversation between a prospective teacher and a teacher educator (authors) about curricular physicality and materiality. Pedagogical and relational dimensions of teaching/learning are explored.	One prospective teacher and one teacher-educator (authors).	Written narrative interchanges reflecting teaching practice; intersections with the research literature; and artifacts from teaching practices, such as lesson plans, statements of teaching philosophy, and curricular design and resource documents.	None.

(Continued)

TABLE 1 (Continued)

Articles (N = 21)	Country	Study setting	Sampling approach	Data collection	Mindfulness approach
Ergas (2017)	Israel	The article describes and demonstrates the implementation of a mindfulness approach in a teacher education course to investigate the self as an explicit curriculum.	Students from the elective course “Education, mindfulness, and self” at several higher education institutions.	Interpreting students’ final projects.	Elective course “Education, mindfulness, and self”; Core curricular-pedagogical approach.
Garner et al. (2018)	United States	This study explored whether a brief small-scaled MBP can improve preservice teachers’ mindfulness, emotional competence, and perceptions of student misbehavior.	87 (out of the 96) enrolled students (age range 19–26 years) participated in the study. Participants were randomly assigned to either the intervention (n = 44) or the control group (n = 43).	Pre/post-test scales (mindfulness; emotional competence; emotional display rules; challenging child behavior).	Six-week MBP and SEL intervention (one session mindfulness practices + five sessions SEL).
Griggs and Tidwell (2015)	United States	This article tells the story of a 2-year self-study partnership between the authors, two teacher educators from different institutions, about the experiences of one of the authors in integrating mindfulness into his instruction. The research question, “How has mindfulness affected my teaching graduate multicultural education courses at my institution?” was explored.	First author teaching experience in an online section of a graduate course in multicultural education for in-service teachers in a school of teacher education in a university in the western United States.	Self-study (content and organization of the course materials; author’s responses to students’ postings in online discussion board); critical friend discussion of research material.	Teacher personal practice.
Hartigan (2017)	United States	This study explores a constructivist approach to learning mindfulness in teacher candidates’ first graduate ‘early childhood special education classes’ and asks these pre-service teachers to infuse mindfulness and mindfulness-based stress reduction techniques (MBSR) into their classrooms.	29 teacher candidates of diverse races, gender, and socioeconomic backgrounds, enrolled in their first master of arts in early childhood education/special education course.	Teacher candidates’ pre- and post-program reflections; teacher candidates’ anonymous pre- and post-semester questionnaires.	Practices from MBSR, Learning to BREATHE, and from The MindUp Curriculum were added to the early childhood/special education curriculum at the beginning of the lessons; homework: reading about MBP; reflecting on their school days and recording occasions when they practice mindfulness and/or MBSR; mindfulness journal; introducing mindfulness activities to children.
Hue and Lau (2015)	Hong Kong	This study investigated the effects of a 6-week mindfulness-based program with pre-service teachers in Hong Kong.	70 pre-service teachers.	Pre- and post-intervention questionnaire surveys with intervention and the control groups; focus groups interviews. Written feedback form; home practice form.	Six-week mindfulness program, which was modified and adapted from the MBSR program.

(Continued)

TABLE 1 (Continued)

Articles (N = 21)	Country	Study setting	Sampling approach	Data collection	Mindfulness approach
Jennings et al. (2011)	United States	Two pilot studies examined program feasibility and attractiveness and preliminary evidence of efficacy for the CARE program.	Study 1: two cohorts of educators ($n=15$; $n=16$) from four low-performing elementary schools in a high-poverty urban setting working. Study 2: 21 student teachers and 10 of their mentors working in a suburban/semi-rural setting ($n=43$).	Pre-post classroom observation using CLASS (measure for classroom climate); pre/post-test scales for well-being (PANAS; Depression; Time Urgency; Daily physical symptoms); motivation/efficacy (problems in schools questionnaire; teacher sense of efficacy); and mindfulness (FFMQ; IMT) (interpersonal mindfulness in teaching); focus group.	Formal Curriculum: Cultivating Awareness and Resilience in Education (CARE).
Kerr et al. (2017)	United States	This study investigated the effects of mindfulness training on 23 pre-service teachers.	23 pre-service teachers: 10 in Learning to Breathe (L2B) and 13 in the control group. Participants were undergraduate students majoring in education at West Chester University of Pennsylvania (WCU).	Pre/post-test questionnaires (PSS; DERS) (emotion regulation); PANAS; KIMS (mindfulness); SCS-LF (self-compassion).	Mindfulness-based program: Learning to BREATHE (L2B).
Newsome et al. (2012)	United States	This study examined the effects of a 6-week mindfulness group on 31 college students intending to enter helping professions (e.g., nursing, social work, counseling, psychology, and teaching).	31 students ($n=15$; $n=16$) were training for careers in helping professions at a university in the Southwest.	Pre/post-test scales (stress; mindfulness; self-compassion); written reflections.	MBSR (not clear if 6 or 8 weeks); 90-min sessions.
Pereira and Feldmann (2020)	Brazil	The study analyzes the supervised curricular internship in non-school areas and its contributions to the educators' initial training.	30 teachers in formation and five coordinator teachers of the supervised internship. All from the Pedagogy course from UNEB (University of Bahia).	Literature review; observation and interviews.	None.
Phusopha et al. (2015)	Thailand	This study investigated inner wisdom development programs with Buddhist doctrines.	508 educational students and 104 lecturers.	Wisdom test, short diary notes, interview, and observation.	Inner Wisdom Program.
Strean (2016)	Canada	This personal reflection describes a community of practice about mindfulness on a university campus.	A community of practice included faculty teachers, graduate students, and staff.	Self-narrative and testimonials of participants.	Mindfulness community of practice.

(Continued)

TABLE 1 (Continued)

Articles (N = 21)	Country	Study setting	Sampling approach	Data collection	Mindfulness approach
Tarrasch (2019)	Israel	This study investigated the effects of integrating a mindfulness training program into the curriculum for graduate students in educational counseling and special education programs.	45 graduate students at Tel Aviv University's School of Education, Israel. 22 were from an Educational Counseling Master's degree program, and 23 were from a Special Education Master's degree program. The mindfulness group enrolled in the "Meditation: Theory, Research, and Practice" practicum course. The control group participated in another practicum course. The comparison group practicum was chosen randomly from the other eight options in the students' curriculum.	Pre/post-test questionnaire. The questionnaire included seven scales that measured: mindfulness, perceived stress, rumination and reflection, life satisfaction, depression, state anxiety, and sleep disturbance.	Practicum classes "Meditation: Theory, Research, and Practice"; 13 90-min lessons; 1 day retreat; fieldwork—teaching mindfulness to children.
Trube, 2017	USA	This article presents findings from a study on mindful peer mentoring and information about teaching and mentoring teacher candidates in mindfulness practices. As members of a learning community, teacher candidates are encouraged to engage in and reflect upon mindfulness practices during their junior- and senior-level courses and in feedback-reflection sessions for clinical-field experiences and professional internships.	30 teacher candidates enrolled in the early childhood methods course.	Survey	Integrating mindfulness practices in a peer-mentoring community of practice
Walker, 2017	UK	This article explores how a university Foundation Degree program supports early years undergraduate students in developing critical thinking, mindfulness, and self-actualization through their lived personal and professional experiences.	Six students from the cohort group (N = 18) students that participated in the Foundation Degree (Early childhood).	Focus group	University program for professional development: foundation degree (includes reflective practice and small-scale practice-based inquiry)

study (Burrows, 2017). The MBA used included mindfulness programs and mindfulness practices in social and emotional learning courses or other curricular options. The length of the interventions varied from 6 weeks to a year, although in one case it was not specified. All the studies included a "thin" definition of mindfulness (McCaw, 2019), based on a secular approach and focusing on the ability to focus attention and develop present-moment mind-body awareness in a non-judgmental way to develop self-regulation skills.

4.1.2 Mindfulness as education

The "mindfulness as education strand" includes one case study, in a pragmatic paradigm (Creswell, 2003) with a mixed-methods approach (Phusopha et al., 2015). The MBA was an elective course in a teacher education program. A "thick" definition of mindfulness (McCaw, 2019) was used, highlighting the ethical purpose of an MBA and its importance as a form of self-inquiry, as well as its contemplative roots.

TABLE 2 Classification of studies according to analytical framework.

Articles (N = 21)	Paradigm	Approach and research design	Mindfulness definition	Theoretical map
Bernay (2014)	Constructivist paradigm	Qualitative; hermeneutic phenomenological study.	Thick	Mindfulness <i>in, as and of</i> education
Burrows (2017)	Constructivist paradigm	Qualitative; phenomenological study.	Thin	Mindfulness <i>in</i> education
Deckman and Ohito (2020)	Advocacy/participatory paradigm	Qualitative; duoethnography.	--	Humanizing research
Dewhirst and Goldman (2020)	Post-positivist paradigm	Mixed-methods; single-case experimental design.	Thin	Mindfulness <i>in</i> education
Dorman (2015)	Constructivist paradigm	Qualitative; longitudinal action research study.	Thin	Mindfulness <i>in and as</i> education
Draper-Clarke (2020)	Constructivist paradigm	Qualitative; case study.	Thick	Mindfulness <i>as and of</i> education
Ek and Latta (2013)	Advocacy/participatory paradigm	Qualitative; case study.	--	Humanizing research
Ergas (2017)	Constructivist paradigm	Qualitative; case study.	Thick	Mindfulness <i>as and of</i> education
Garner et al. (2018)	Post-positivist paradigm	Quantitative; experimental design.	Thin	Mindfulness <i>in</i> education
Griggs and Tidwell (2015)	Advocacy/participatory paradigm	Qualitative; self-study.	Thick	Mindfulness <i>of</i> education
Hartigan (2017)	Constructivist paradigm	Qualitative; case study.	Thin	Mindfulness <i>in</i> education
Hue and Lau (2015)	Pragmatic paradigm	Mixed-methods; pre/post-test experimental design; controlled trial.	Thin	Mindfulness <i>in</i> education
Jennings et al. (2011)	Pragmatic paradigm	Mixed-methods; pre/post-test; experimental design; controlled trial.	Thin	Mindfulness <i>in</i> education
Kerr et al. (2017)	Post-positivist paradigm	Quantitative; experimental design with the control group.	Thin	Mindfulness <i>in</i> education
Newsome et al. (2012)	Pragmatic paradigm	Mixed-methods; pre-post test experimental design; controlled trial.	Thin	Mindfulness <i>in</i> education
Pereira and Feldmann (2020)	Constructivist paradigm	Qualitative; case study.	--	Humanizing research
Phusopha et al. (2015)	Pragmatic paradigm	Mixed-methods; case study.	Thick	Mindfulness <i>as</i> education
Strean (2016)	Advocacy/participatory paradigm	Qualitative; personal reflection.	Thick	Mindfulness <i>of</i> education
Tarrasch (2019)	Post-positivist paradigm	Quantitative; experimental design with the control group.	Thin	Mindfulness <i>in</i> education
Trube (2017)	Advocacy/participatory paradigm	Qualitative; case study.	Thick	Mindfulness <i>as and of</i> education
Walker (2017)	Advocacy/participatory paradigm	Qualitative; case study.	Thick	Mindfulness <i>as and of</i> education

4.1.3 Mindfulness of education

The “mindfulness of education strand” includes five qualitative studies, four of which are in an advocacy/participatory paradigm (Ek and Latta, 2013; Griggs and Tidwell, 2015; Strean, 2016; Deckman and Ohito, 2020) and one (Pereira and Feldmann, 2020) in a constructivist paradigm (Creswell, 2003). Only in two of the studies (Griggs and Tidwell, 2015; Strean, 2016) were MBA referred to, in one case describing a community of practice (Strean, 2016), where university

teachers gathered for mindfulness practices and shared ideas about its pedagogical applications, and, in the other case, the role of the teacher’s personal mindfulness practice and its integration into becoming a mindful teacher (Griggs and Tidwell, 2015). The other studies did not include any MBA, focusing mostly on the humanizing and reflexive role of research in teacher education: in one case describing the humanizing space of a supervised curricular internship in a non-school environment (Pereira and Feldmann, 2020); in the

other two studies reporting the dialogic process of reflection between a student teacher and a teacher educator, and between two university teachers (Griggs and Tidwell, 2015; Deckman and Ohito, 2020). This diversity is due to the inclusion in the selection criteria of either “humanization,” “MBA,” or “contemplative education.” The use of self-study, self-reflection, and duoethnography as research designs focuses on the importance of the subjective, experiential, and participatory role of the researcher in the process of knowledge production.

4.1.4 Mindfulness *in/as/of* education

In the rhizomatic area in between the strands of *in*, *as* and *of* education, there are six studies in constructivist or advocacy/participatory paradigms with a qualitative approach. All except one (Dorman, 2015) include a “thick” definition of mindfulness (McCaw, 2019), enhancing its transformative role and potential to support critical thinking and human flourishing. The MBA included mainly non-formal curricula that added mindfulness practices in other curricular activities (Bernay, 2014; Dorman, 2015; Walker, 2017), a community of practice (Trube, 2017), and an elective course in a teacher education course (Ergas, 2017). One study used a 6-week formal curriculum (Draper-Clarke, 2020). The other studies (Bernay, 2014; Dorman, 2015; Ergas, 2017; Trube, 2017; Walker, 2017) have a longitudinal approach from 1 to 3 years.

4.2 What is the role of MBAs in humanizing teacher education?

4.2.1 Mindfulness *in* education

The role of MBA in the mindfulness *in* education studies was to address the social–emotional context of the teaching profession and promoting teachers’ social–emotional competences. The need for an MBA in the educational field is most commonly associated with teaching as a stressful occupation (Jennings et al., 2011; Newsome et al., 2012; Bernay, 2014; Dorman, 2015; Hue and Lau, 2015; Hartigan, 2017; Kerr et al., 2017; Trube, 2017; Garner et al., 2018; Tarrasch, 2019; Dewhirst and Goldman, 2020; Draper-Clarke, 2020). The heavy workload (Dorman, 2015; Hue and Lau, 2015; Dewhirst and Goldman, 2020), new policies and education reforms (Dorman, 2015; Hue and Lau, 2015), the urban or low-income settings (Dorman, 2015), low wages (Hue and Lau, 2015; Dewhirst and Goldman, 2020), student misbehavior, and classroom climate (Jennings et al., 2011; Hue and Lau, 2015; Hartigan, 2017; Garner et al., 2018; Dewhirst and Goldman, 2020) as well as difficulties with parents (Hartigan, 2017), are the contextual conditions that feed this stress cycle. Teacher attrition can result in resignations from the profession, teacher turnover, and physical and mental health issues such as burnout, depression, compassion fatigue, and even suicide (Jennings et al., 2011; Newsome et al., 2012; Hue and Lau, 2015; Kerr et al., 2017; Garner et al., 2018; Tarrasch, 2019; Dewhirst and Goldman, 2020; Draper-Clarke, 2020). This pressure can create an unstable school environment and affect the quality and effectiveness of educational work (Hue and Lau, 2015; Draper-Clarke, 2020). Teachers’ social–emotional competence has been linked to their well-being, engagement, and effectiveness, as well as with job satisfaction, relational quality, and conceptions of classroom management (Jennings et al., 2011; Griggs and Tidwell, 2015; Hue and Lau, 2015; Garner et al., 2018; Dewhirst and Goldman, 2020). However, according to Garner et al. (2018), teachers have

reported feeling insecure about their emotional abilities to handle school-related emotions. Research has shown that MBA is a promising approach to developing social–emotional competence. The evidence on stress reduction, mental health, and well-being, as well as on self-awareness, interpersonal awareness, emotional regulation, and self-compassion, support the integration of these interventions in educational settings (Jennings et al., 2011; Newsome et al., 2012; Hue and Lau, 2015; Kerr et al., 2017; Trube, 2017; Garner et al., 2018; Tarrasch, 2019; Dewhirst and Goldman, 2020). Combining MBA with social–emotional learning is a recommended strategy for addressing the socio-emotional context of teaching and developing the social–emotional competencies needed to thrive in these contexts (Jennings et al., 2011; Dewhirst and Goldman, 2020). The two approaches are complementary in developing social–emotional competence and can be easily integrated (Garner et al., 2018). Integrating MBA in teacher training is considered a feasible and beneficial approach to preparing teachers for a long-term commitment to the profession as well as for promoting high-quality academic instruction and emotionally balanced teachers (Jennings et al., 2011; Hue and Lau, 2015; Kerr et al., 2017; Trube, 2017; Garner et al., 2018; Tarrasch, 2019; Dewhirst and Goldman, 2020). Moreover, it is a cost-effective self-care strategy for stress management that can be integrated into regular teacher training curricula and professional development training (Jennings et al., 2011; Newsome et al., 2012; Hue and Lau, 2015; Kerr et al., 2017; Tarrasch, 2019). However, this is still a nascent field of intervention with limited studies and a wide range of intervention protocols (Hue and Lau, 2015; Tarrasch, 2019).

4.2.2 Mindfulness *as* education

The main focus of the “mindfulness *as* education strand” in MBA is the development of the teacher’s self. Integrating self-knowledge into the curricular-pedagogical approaches of teacher education is a way to move beyond the standardization and technology of teaching. This includes making self-knowledge a part of the explicit curriculum (Ergas, 2017). Raising awareness of the teacher’s self involves addressing and challenging their belief systems, as well as acknowledging personal issues and expectations that teachers bring to their interactions (Griggs and Tidwell, 2015; Ergas, 2017; Deckman and Ohito, 2020). Furthermore, it enables the development of personal qualities and internal dispositions, such as presence, awareness, acceptance, receptivity, connectedness, authenticity, and autonomy, which are essential for the teaching profession (Ergas, 2017). MBA refers to the strategies for incorporating the self into the explicit curriculum of teacher education, addressing the affective dimensions of the teaching profession. These long-term approaches aim to develop mindfulness and reflective practices to support teachers in becoming reflexive practitioners (Dorman, 2015; Griggs and Tidwell, 2015; Ergas, 2017). This process fosters the development of personal integrity and professional identity (Trube, 2017; Walker, 2017). Self-awareness, self-acceptance, self-management, trust, and confidence provide the ground for mindful teachers to emerge as engaging, creative, friendly, authentic, and authoritative (Bernay, 2014; Dorman, 2015; Trube, 2017; Walker, 2017). MBA allows for deep inquiry and understanding of the teacher experience, contributing to teacher resilience and self-actualization (Bernay, 2014; Dorman, 2015). These approaches typically involve direct curricular offers and peer mentoring, but rarely incorporate journaling or written

reflection as a means of exploring and integrating knowledge and experience (Ergas, 2017; Trube, 2017).

4.2.3 Mindfulness of education

The research on the “mindfulness of education strand” emphasizes reflective processes through humanizing research methods, which allow for the inclusion of the researcher’s lived experiences. Humanizing research refers to the culture of deep and critical inquiry in teacher education (Ek and Latta, 2013; Walker, 2017; Draper-Clarke, 2020). Bernay (2014) uses MBA as a research object in itself in a hermeneutic phenomenological study (Bernay, 2014); other research uses humanization as research object using duoethnography (Draper-Clarke, 2020), the dialogic narrative approach (Ek and Latta, 2013), personal reflection (Stean, 2016), and self-study (Griggs and Tidwell, 2015). Knowledge is created through dialogue in a humanizing space of embodied engagement (Draper-Clarke, 2020). This promotes awareness, trust and relationships of care and dignity (Draper-Clarke, 2020) as well as professional knowledge and development (Ek and Latta, 2013). Examining epistemological and ontological questions about knowledge and the purpose and meaning of teaching, and exploring them in an inquiry-based setting, enables the creation of curricular practices that result from a process of objective reflection on learning outcomes, products, strategies, and standards, as well as subjective reflection on context, individuals, and subject matter (Ek and Latta, 2013; Griggs and Tidwell, 2015).

Using mindful meditation, Valerie noted that she was aware of the tension in her body, the children’s behavior, as well as the discrepancy between how she was teaching and her personal philosophy of teaching. From that point, during meditation, she often focused on this group, and then began to teach the science concepts through story and art which she preferred and so did the students; she engaged with the children and found she no longer had to “fix” their behavior. The tension in her body was gone, and the children were actually learning the science material (Valerie, as cited in Bernay, 2014, p. 64).

This is a process of reminding ourselves about the meaning of teaching and acting meaningfully with the groups we teach (Ek and Latta, 2013; Griggs and Tidwell, 2015). It involves a transformative learning process, where the frames of reference gain new shapes and find new borders (Trube, 2017). Additionally, it is a step toward social-ethical living (Ergas, 2017), addressing the ethical complexities of being in relation (Ek and Latta, 2013). Furthermore, it establishes the groundwork for developing critical thinking skills and supports the process of reflective thinking and action, enabling individuals to make decisions to address complex problems (Walker, 2017). Walker (2017) refers to this as reflective activism, which involves a shift from self-awareness to relational and social awareness. MBAs can play a crucial role in this process by providing tools for awareness, non-reactivity, trust, and collaboration.

5 Discussion

This scoping review examines the relationship between MBA and education humanization in teacher education. The “mindfulness in education strand” brings an instrumental view of the use of

mindfulness. A “thin” (McCaw, 2019) version of mindfulness was used in all the studies, focusing on the development of socio-emotional competences to promote teacher wellbeing and efficacy. The research aimed to provide evidence for the feasibility of using MBP and measuring the effects of mindfulness practice in different dimensions. The MBAs in this strand typically adopt a competence-based approach, prioritizing short-term interventions within a psychological framework, where mindfulness serves as a tool for stress reduction and well-being. Programs such as the CARE for Teachers (Jennings et al., 2011), the Learning to Breathe (Kerr et al., 2017), MBSR adaptations (Newsome et al., 2012) as well as the use practices from other mindfulness programs (Hartigan, 2017) offer interventions to equip teachers with tools for improving educational environments, learning conditions, and mental health. This is aligned with the qualification function of education proposed by Biesta (2008), as teachers become more competent in classroom management and in dealing with the challenges of the profession. However, the predominant quantitative focus on the effects of mindfulness practices in research tends to overlook the subjective and processual dimensions experienced by individuals. This reinforces an instrumental view of MBAs, providing a limited understanding of the transformative potential these interventions can trigger. Addressing the socio-emotional dimension of the teaching profession contributes to education humanization, enabling teachers to resist the dehumanizing aspects of school education and associated mental health challenges.

The perspective of mindfulness *as* and/or *of* education is less common in the scientific literature (Ergas and Hadar, 2019; Ergas, 2019b). However, this review suggests an equal number of studies in the mindfulness in education strand (nine studies) and the combination of other strands (nine studies), which may indicate a different trend in recent research. These strands (*as* and/or *of* education) acknowledge the subjective and relational dimensions of the teacher, focusing on teacher self-knowledge, self-reflection, and the creation of ethical space for participants (McCown, 2016). The integration of MBAs into initial teacher education is identified as a priority by the Mindfulness Initiative’s policy document (Weare and Bethune, 2020). Approaches that utilize “thick” mindfulness aligned with constructivist and participatory paradigms contribute to understanding the meaning of these approaches for teachers and to exploring personal transformation at ontological and holistic levels (Antunes and Oliveira, 2015).

These studies contribute to the interest in how beginning teachers think about themselves and undergo personal transformations as they become teachers. Korthagen (2004) notes this question’s importance in valuing the educational aspect of mindfulness practice and its transformative potential. MBA appear to be therefore as promising pathway to reinforce the subjectification function (Biesta, 2008) in teacher education and support a transition to more humanist-based approaches. The incorporation of communities of practice, elective university courses, personal teacher practices, and non-formal curricula in MBAs, with a focus on longitudinal approaches, highlights their potential for sustained transformation. It is important to recognize that not all studies view MBA as the sole strategy for humanization. Therefore, it is crucial to emphasize the significance of diverse approaches to promote reflection, transformation, and personal growth. These approaches aim to humanize education by empowering teachers and integrating the subjective dimensions and social engagement of teacher work.

The limitations of this review include the exclusive reliance on database research, which excludes literature published through other means. In future research, it is recommended to consider mindfulness as a part of education strands within advocacy/participatory paradigms, with explicit protocols on mindfulness approaches and professional training. Empirical studies should adopt longitudinal and flexible approaches, such as communities of practice, to better understand the role of mindfulness as a collective praxis for humanization.

6 Conclusion

Mindfulness plays a critical role in education from three perspectives: mindfulness *in* education, mindfulness *as* education, and mindfulness *of* education. This scoping review raises important questions that are essential for the development of comprehensive frameworks aimed at humanizing teacher education. The integration of the MBA into teacher education is very diverse. There are various approaches to mindfulness in education, ranging from structured programs such as CARE for Teachers and Learning to Breathe, to more flexible approaches that integrate teachers' mindfulness practices into existing curricular units or create communities of practice. The goal of creating a humanized educational space can be achieved in different ways. Whether through MBAs or humanized research strategies such as narrative approaches, the main goal is to develop socio-emotional competencies and habits of reflection and transformation. The MBA is as a promising way to both facilitate and study the subjective, reflective, and transformative dimensions of teacher education, and then to contribute to the overall humanization of education.

Author contributions

FS: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Validation, Writing – original

draft, Writing – review & editing. AL: Conceptualization, Funding acquisition, Investigation, Methodology, Supervision, Validation, Writing – review & editing. CS: Conceptualization, Funding acquisition, Methodology, Supervision, Writing – review & editing, Validation. EF: Conceptualization, Investigation, Methodology, Supervision, Validation, Writing – review & editing.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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