Chapter 2
Looking for a Broad Framework for the Integration of Mindfulness-Based Interventions in the Educational System

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Abstract Today, there is a crucial need for well-being to be a priority in the educational curriculum. 21st-century schools not only provide a broad set of academic skills, but they also promote the healthy development and mental health of children and adolescents through strengths-based education and the cultivation of socio-emotional and behavioral skills. Some of the evidence-based interventions that may address these requirements include mindfulness- and compassion-based programs (MBIs and CBIs). Nevertheless, there are still several open questions concerning the implementation of mindfulness in the educational system. In this chapter, our concern is how mindfulness may be integrated in a more comprehensive way in order to help ensure its sustainability in schools as well as in institutions embedded in specific socio-cultural contexts. Particularly, we suggest that a common, shared meaning in

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the educational system (i.e. individual and institutional level) may result in a network where mindfulness could be supported more sustainably. A shared meaning about why and for what ends adolescents should practice mindfulness may consider not solely a personal perspective but also a social and ecological one. In this context, MBIs would play a relevant role by mediating the multiple requirements introduced by a new mental health promotion paradigm in schools.

Keywords Compassion · Mental problems · Community development · Mindfulness · Educational curriculum

2.1 The Current State of Mental Health in Children and Adolescents

During the last decade, the mental health of young people has continued to worsen. From 2007 to 2017, the number of young people who persistently feel sadness or despair, and who consider suicide, has increased. In addition, the percentage of young people who attempt suicide has remained stable (Kann et al., 2018).

Although these are USA data, the worldwide prevalence of mental disorders during childhood and adolescence is high, with the most common issues being depression, anxiety, attention deficit hyperactivity disorder (ADHD), and behavioral problems (Polanczyk, Salum, Sugaya, Caye, & Rohde, 2015). It is noteworthy that 50% of the mental problems in a person's life emerge before the age of 15, and that 75% do so before the age of 24 (Kessler, Amminger, et al., 2007). In fact, most of the serious mental problems in adulthood are usually secondary conditions to mental problems that emerged early in childhood and adolescence, and these are usually not treated until years after their first appearance (Kessler, Angermeyer, et al., 2007). In addition, a large part of the mental problems that emerge in childhood and adolescence are treated mainly with pharmacological treatment, as evidenced by the increased use of antidepressants and antipsychotics in childhood and adolescence (Bachmann et al., 2016; Hálfdánarson et al., 2017), despite the fact that some recent meta-analyses point to the need to use them with caution due to an increase in adverse effects (Sharma, Guski, Freund, & Gøtzsche, 2016).

The development of mental health problems entails a high personal, social, and economic cost. For example, at a social level, in the United Kingdom, the annual economic cost of mental health problems has been estimated at £105 billion (Centre for Mental Health, 2010; Collins et al., 2011). At the individual level, children and adolescents experience a reduction in their quality of life and worse levels of social and occupational functioning (e.g., worse academic performance, more family and school problems, worse physical health) (Goodyer, Herbert, Tamplin, Secher, & Pearson, 1997). Unfortunately, the increase in early mental problems could continue following the same trend in the next few years, or at least remain unchanged, if, as some authors point out, current lifestyles may be favoring their early appearance and diminishing the psychological well-being of children and young people

(Twenge et al., 2018a). Young people's increased engagement in activities involving electronic devices with screens may be related to the greater occurrence of mental problems (Suchert, Hanewinkel, & Isensee, 2015). In addition, non-screen activities are becoming less common among young people (e.g. in-person social interaction) (Twenge et al., 2018a) and trust in others has dropped (Twenge, Campbell, & Carter, 2014). Some studies point out that the current social model that prioritizes extrinsic goals, such as wealth, materialism, or status, to the detriment of more intrinsic goals, such as life meaning, affiliation, or community development, may account for the early increase in mental problems in adolescence (Twenge et al., 2018b; Twenge, 2013). For all these reasons, the need for evidence-based programs that promote mental health during childhood and adolescence is absolutely critical.

2.2 Development and Mental Health in School

Childhood and adolescence are periods characterized by constant and profound changes in development (Giedd et al., 1999). Neuroplasticity during childhood and adolescence is greater than at any later stage of life (Paus, 2005). Therefore, from a neurodevelopmental perspective, these vital stages can be seen as a window of opportunity to implement interventions that support the development of brain regions involved in psychological processes and behavioral skills that are central to healthy development (Fuhrmann, Knoll, & Blakemore, 2015; Spear, 2013). Since the difficulties in attentional and emotional regulation, as well as those affecting social skills, underlie many childhood and adolescent mental health problems (Ehrenreich-May & Chu, 2013; White, Jarrett, & Ollendick, 2013), carrying out interventions that promote cognitive, emotional, and social development can help prevent the early onset of mental health problems and enhance well-being (Hawkins, Catalano, Kosterman, Abbott, & Hill, 1999; Werner-Seidler, Perry, Calear, Newby, & Christensen, 2017).

During childhood and adolescence, schools are active agents of development (Vygotsky, 1978). Children and adolescents spend much of their time at school, and the experiences they have there are crucial for their mental health and development (Waenerlund et al., 2016). Due to their wide scope and central role in family life, schools are presented as a primary context in which to conduct universal interventions for the prevention of mental health and promotion of well-being (Durlak & Wells, 1997). Although selective school interventions (i.e. only delivered to adolescents considered at risk of later mental health problems) and targeted school interventions (i.e. provided only to students identified as having mental health problems) have been shown to be effective in reducing mental health problems (Sanchez et al., 2018), universal school-based interventions reduce the stigma that children and adolescents attach to mental health treatment (Bulanda, Bruhn, Byro-Johnson, & Zentmyer, 2014) and are a more cost-effective alternative since they involve no screening costs. In addition, universal school-based interventions are accessible to all students, including those who have lower risk profiles at the time of intervention but whose risk profile may change later. Numerous recent studies show that, compared to control groups,

universal school-based interventions are effective in reducing depressive symptoms, internalizing problems, externalizing problems, and general psychological distress (Dray et al., 2017). Interestingly, in addition to improving mental health, universal school-based interventions have been found to be effective in promoting well-being and improving relevant outcomes for healthy development, such as self-efficacy, optimism, or self-esteem (Shoshani & Steinmetz, 2014). Therefore, universal school-based interventions are suited to the competencies of 21st-century schools (Skills, 2017).

Today, there is a crucial need for well-being to be a priority in the educational curriculum (Langford et al., 2014). 21st-century schools not only provide a broad set of academic skills (e.g. math, reading, writing, and science), but they also promote the healthy development and mental health of children and adolescents through strengths-based education and the cultivation of socio-emotional and behavioral skills. In addition, 21st century schools are making a transition in their conception of human beings and well-being, moving from a deficit-based model to a strength-based model (Climie & Henley, 2016), and thus aligning with the definition of health issued by the World Health Organization (WHO, 2004), according to which health is "*a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity*". In this regard, Greenberg et al. (2003, p., 466) states that "*a comprehensive mission for schools is to educate students to be knowledgeable, responsible, socially skilled, healthy, caring, and contributing citizens*", while the Mind & Life Education Research Network (2012) point out that the schools of this century are responsible for cultivating a set of mental skills and socio-emotional dispositions that underlie positive development. Specifically, they refer to attentional and emotional self-regulation skills, the ability to handle stress, self-awareness to be able to transcend habits and self-representations understood as fixed, and the acquisition of prosocial dispositions such as empathy and compassion. Already in the 3rd century B.C., Aristotle pointed out that "*educating the mind without educating the heart is not to educate at all*".

In this context, as previously noted, it is crucial to devote all our efforts to implement evidence-based interventions at schools, which fit students' new skills and especially the new paradigm of mental health promotion that is required. Some of the evidence-based interventions that may address these requirements include mindfulness- and compassion-based programs (MBIs and CBIs). MBIs in school settings have been extensively studied in the last decade. Nowadays, it is clearer that mindfulness is feasible to applied in school settings and MBIs are valued by pupils and educational staff (e.g. Dariotis et al., 2016). Recent meta-analyses and systematic reviews have shown small to moderate significant results in the cognitive, emotional, and behavioral domains (Carsley, Khoury, & Heath, 2018; Felver, Celis-de Hoyos, Tezanos, & Singh, 2016) (Additionally see Chaps. 8 and 9 in this book). Nevertheless, there are still several open questions concerning the implementation of mindfulness in the educational system beyond limited research studies. In this chapter, our concern is how mindfulness may be integrated in a more comprehensive way, in order to help ensure its sustainability in schools as well as in institutions embedded in specific socio-cultural contexts. Thus, we would like to

highlight some elements which may support the implementation of MBIs in a fluid and ecological way.

2.3 Basic Elements of Mindfulness

Mindfulness can be understood as a trait (dispositional mindfulness) and as a practice, which is cultivated through a variety of programs (MBIs). Mindfulness is a 2500-year-old Buddhist practice traditionally understood as part of the process of "awakening" (Gethin, 1998, 2011). Many teachers describe mindfulness as a process that involves an increase in bodily awareness of internal or external stimuli and emotional states (Davis and Thompson, 2015). According to Kabat-Zinn (1996), Mindfulness is based on two canonical source texts of the Theravāda Buddhist tradition (Pāli Nikāyas.), the Ānāpanasati-sutta and the Mahāsatipaṭṭhāna-sutta. Both of them consist in a discourse attributed to the Buddha.

Commonly, the scientific literature indicates that "mindfulness" is a translation of the Pāli term sati. The Pāli texts employ sati to refer to everything from "minding" one's livestock (MN.I.117) to "minding" one's meditation object in practices such as loving-kindness (Sn.26) (Davis & Thompson, 2015). Tibetan Buddhists usually complement this practice with ethical ones such as reflecting on the inevitability of death (maraṇasati), lovingkindness, or literally friendliness (mettā), practices aimed simply at cultivating a settled and unified state of mind (samādhi) through concentration on a sensory or mental object. In these forms of meditation, practitioners counteract mind-wandering by repeatedly bringing the mind back to the object of meditation. Mindfulness in this sense consists in certain practices and attitudes that practitioners put into play in the social world.

The most common definition of mindfulness found in psychology and mental health literature is: "*the practice of paying attention in a particular way: on purpose, in the present moment, and non-judgmentally*" (Kabat-Zinn, 1994: p. 4) or more recently: "*Mindfulness can be thought of as moment-to-moment, non-judgmental awareness, cultivated by paying attention in a specific way, that is, in the present moment, and as non-reactively, as non-judgmentally, and as openheartedly as possible. When it is cultivated intentionally, it is sometimes referred to as deliberate mindfulness*" (Kabat-Zinn, 2005).

Based on all the proposed definitions (see Chaps. 8 and 9), it is possible to note at least two aspects of mindfulness: attentive orientation towards what is present and openness, curiosity, and acceptance as an expression of a particularly successful instance of current emotional regulation. What are the determinants of mindfulness? Attention to inner and outer processes, action based on this very consciousness, openness for experiences, accepting and non-judgmental attitude, intention not to react and not to focus, empathetic understanding, and relative calmness towards current thoughts (Bergomi, Tschacher, & Kupper, 2013).

Scientific investigation of Mindfulness training has thus far focused on how various forms of attention training alter cognitive and affective processes (see Lutz,

Slagter, Dunne, & Davidson, 2008 for a review). According to this, attentional skills can change the quality of our own behavior and promote an improvement in the practitioner's health and well-being (Chiesa and Malinowski, 2011; Malinowski, 2013; Wallace and Shapiro, 2006). Moreover, an often overlooked aspect is that Buddhist teachings include many other mind training methods. For example, moral discussion can be seen as a means for protecting oneself from unhealthy states, such as greed or hatred. Thus, some Buddhist schools consider this not only a complement but rather an essential element of the practice.

Several models of how mindfulness works have been proposed. One of the most integrative is the *Liverpool Mindfulness Model*, whose aims are to determine and integrate the more prominent events and structures involved in mindfulness practice and provide a framework for directing future research (Malinowski, 2013). Accordingly, and in line with the conceptualizations advanced above, the model is based on the predominance of attentional skills (Hölzel et al., 2011; Lutz et al., 2008; Tang and Posner, 2009; Slagter, Davidson, & Lutz, 2011; Wallace and Shapiro, 2006).

The model comprises the following interrelated levels:

(1) Driving motivational factors.
(2) If and how the individual engages in mind training.
(3) Regularity in the engagement in mindfulness practice based on the refinement of attentional capacities that facilitate regulatory processes of emotions.
(4) Changed and more balanced mental stance or attitude.
(5) Positive outcome in terms of physical and mental well-being and behavior quality.

Roughly speaking, the practice of Mindfulness meditation starts with a meditator focusing on a relevant meditation object (usually the bodily sensation of breathing). After a variable time period (dependent on the ability of the practitioner), the mind loses the focus on the object and mind wandering occurs. Sooner or later the practitioner will identify the mind wandering and lets go of the distracting train of thought by means of attentional disengagement. Finally, the meditator returns to the meditation object by shifting back his or her focus. All the timing in this process depends on the expertise of the practitioner (Wallace, 2006). Two forms of training are usually described in the literature: Focused Attention (FA) and Open Monitoring (OM) meditation practices (Lutz et al., 2008). They can be considered interdependent to some extent because a practitioner will initially engage in FA to develop attentional stability, clarity, and awareness of the present moment (mental state); only then will he or she be able to deploy moment-by-moment attentiveness to anything that occurs in his/her experience, to finally be able to maintain the OM state even without focusing on an explicit object with a non-judgmental attitude (Bishop et al., 2004; Chiesa & Malinowski, 2011; Malinowski, 2013; Shapiro, Carlson, Astin, & Freedman, 2006).

As the discussion about basic approaches in mindfulness research shows, effects are mostly interpreted as the result of a top-down process whereby the cognitive system is able to control the emotional system through practice and routine. So far, little attention has been paid to the fact that, especially in mindfulness promotion exercises, the bottom-up process might be important: physical processes influence the

emotional system and thus also affect cognitive processes (Guendelman, Medeiros, & Rampes, 2017, cf. also the contribution by Steinebach and colleagues in this volume). Mindfulness has a variety of positive effects on human behavior and experience. It is connected with increased empathy and a differentiated perception of one's own experience and the environment. Non-judgmental perception leads to greater well-being and resilience (e.g. Tan & Martin, 2016), a benefit mostly resulting from the fact that it facilitates dealing with stress. Greater empathy promotes helpfulness, self-esteem, and self-efficacy. Mindful people perceive their social environment in a more differentiated way and can thus also better activate social resources. For their part, social resources strengthen self-esteem and self-efficacy regarding one's sense of attitude to mindfulness and skills for acting mindfulness.

2.4 Framework for Mindfulness-Based Interventions

2.4.1 Institutional Level: Toward a Shared Meaning of Mindfulness

Interventions to promote mindfulness have long since gained a foothold in counseling and therapy services for young people as well as in schools. These interventions are recommended to prevent stress disorders and increase pupils' ability to concentrate, but also to encourage teachers to be mindful when there is a threat of burnout. Mindfulness should thus also become a characteristic of the organizational culture of a "mindful school". Mindfulness becomes a strength of the young people, the professionals, and the organization itself. If we distinguish between neurochemical, neuromuscular, emotional, and cognitive systems in the bio-psycho-social model of human development, this offers us the possibility of making more a differentiated assessment of the effects of mindfulness-related interventions (Steinebach, Schrenk, Steinebach, & Brendtro, 2018). We can also assume that mindful attitudes are reflected in the social system of the organization and in characteristics of its physical environment. Therefore, any intervention to promote mindfulness in schools should include team development, a revision of the curriculum, parent education, and a redesign of classrooms and the school building (Willard, 2014). In addition, considering that MBIs may appear threatening in some way, it is crucial to incorporate the evaluation of the socio-cultural features of both the territory where the school is located and its students. For instance, a recent study by Langer et al. (under review) shows that some adolescents from a school with a low-mid percentage of social vulnerability, after the first sessions of a MBI, were uncomfortable with the resulting sensation of relaxation and therefore decided to withdraw from the intervention. Probably, these students interpreted feeling relaxed as a sign of personal vulnerability ("If I relax I am less alert, and therefore more vulnerable to others"). Thus, it is relevant to consider the function that some behaviors could have for adolescents in specific contexts; however, establishing how to change these behaviors requires a systemic

program capable of providing understanding and meaning beyond the mindfulness workshop itself. Special attention should be paid to ethnic minorities, sexual diversity, migrant populations, and socially vulnerable students in general. Tailoring the narrative associated to MBIs may help overcome barriers for their implementation.

In this regard, one of the barriers reported in the implementation of mindfulness training (MT) across seven high schools in UK was *perceptions*, "highlighting the importance of members of the school community, sharing an understanding of what MT is and why it is being introduced in school context" (Wilde et al., 2019). We argued that, as a new field, mindfulness should be able to define how it will be integrated with the other school subjects. In other words, how will this subject *talk* with the others? For instance, this concerns how body awareness may be related to physical education, how a non-judgmental approach could be introduced as an excellent way to learn about different religions or cultures, or how the economy could be understood from a collaborative perspective (see Chap. 17). In this way, the practice of mindfulness could be embodied in a network of shared meaning for both students and staff of each school, thus enabling them to shift from individual to social resilience (for more details see Chap. 1).

2.4.2 Individual Level: How to Improve the Continuity of Mindfulness Practice

Young people are often not interested in taking special courses or doing exercises. How can we motivate them to get involved? We can assume that young people deem a given intervention to be attractive if they consider that it addresses their basic needs. This is first and foremost about autonomy, belonging, and experiencing competence (Ryan & Deci, 2000). But how do we bring basic needs and mindfulness together? Compassion appears to be key in this regard. Compassion has been proposed as a working mechanism that underlies the MBIs on youths (Van der Gucht, Takano, Raes, & Kuppens, 2018). This is what we call feelings of concern or compassion and willingness to improve the well-being of others (Singer & Klimecki, 2014). As current neurophysiological research shows, compassion activates specific areas of the brain. Compassion means empathy connected to the desire to reduce the suffering of others, which is linked to the fact that the suffering of others is perceived consciously. Emotionally compassionate empathy supports a person's intent to reduce this suffering and, on the behavioral level, strengthens his or her willingness to actually do something to help those suffering (Jinpa, 2010; Miller, 2018; Roeser & Eccles, 2015). Current neurophysiological research shows that compassion results in the activation of areas of the brain different from those that become active as a result of sympathetic empathy. "Empathic distress" is connected with clear negative feelings and can lead to avoidance and the renunciation of prosocial behavior (Singer & Klimecki, 2014). Compassion is closely related to generosity. Empathy, generosity, and compassion are demanded wherever young people are called upon to stand up for their peers

in the classroom or other people in the community. Therefore, it seems obvious to enhance empathy, generosity, and compassion when doing "service learning" or when promoting a positive peer culture (PPC) (Steinebach et al., 2018).

PPC is an intervention model for strengthening resilience in children and adolescents and could help answer another relevant question: How to improve the continuity of mindfulness practice over time, considering that its effects are linked to the practice (Kuyken et al., 2013), which tends to decrease over time (Worthen & Luiselli, 2017). Specifically, PPC is based on peer-managed group dynamics in which adults participate as facilitators, seeking to increase the group's ability to manage and solve its problems. One of the main elements of PPC is Generosity, which basically involves answering the question "how can I help solve someone else's problem in the best way that I can?". This is quite close to compassion, but based on a socio-cognitive paradigm where relational rather that individual practices are encouraged (for a proposal of relational mindfulness see Chap. 13). Thus, PPC could strengthen the implementation of more stable mindfulness practices thanks to peer management. For instance, after a MBI, peers could lead the mindfulness practices and help others if they struggle with them.

This would also be conceivable within the framework of teaching modules focused on social emotional learning (Felver et al., 2016). These interventions can be supplemented by exercises to promote social emotional skills (e.g. Petermann, Petermann, & Nitkowski, 2016). For children and adolescents in particular, there are multiple opportunities to promote social skills in order to boost self-worth and reduce aggressive behavior. It may be that all these interventions again follow the usual top-down arguments: cognitions help to control emotions; cognitions help to recognize and name emotions. Accordingly, for example, instructions on physical activities can promote self-awareness and well-being (cf. Springer, 2013). With these exercises, it becomes clear how physical activity can be connected with emotional experience and social interaction.

2.5 Connecting the Dots

In this context, the incorporation of a multilevel perspective for the generation of psychosocial interventions in school contexts—that is, one that considers not only individual and group variables, but also organizational and community-related ones—is strongly recommended. We argue for the inclusion of the specific socio-cultural characteristics of each educational establishment where MFIs would be implemented. Likewise, we consider that planning psychosocial interventions in school contexts from a multilevel perspective is highly relevant in heterogeneous sociocultural realities. Thus, a shared meaning of mindfulness in specific contexts could help overcome barriers to the implementation of mindfulness. As we have pointed out, mindfulness practice depends on driving motivational factors and on how the individual engages in the practice. According to the Husserlian idea of "Intentionality" (Husserl, 1999), our mind is always making sense (intending) of the world. In concordance

with this idea, the shared intentionality between practitioners (mindfulness instructors/practitioners) yields a broad meaning of what mindfulness is.

A shared meaning about why and for what ends adolescents should practice mindfulness may consider not solely a personal perspective (e.g. improving concentration and reducing anxiety or stress) but also a social and ecological one. In this regard, we believe that mindfulness needs to be understood as a way to change not only how we relate to our own thoughts and reduce unhealthy feelings but also how we relate with our world. Specifically, we propose the following paths:

a. To connect mindfulness practice with a broad sense of benefits and implications. This means answering the questions *Does the practice of mindfulness have an impact beyond myself?* And if so, *what is it?* One of these potential external effects is the promotion of the satisfaction of non-material needs, which directly and indirectly influences the adoption of sustainable behaviors for protecting nature. In fact, being more aware of how my behavior impacts on others and on the environment could help self-regulation (e.g. Langer, Schmidt, & Krogh, 2017). In this regard, mindfulness practice may yield benefits from both an individual and an interconnected and relational perspective.
b. To connect mindfulness practice with the intention to help others and actions directed toward this goal. This could be done under the model of compassion-based interventions or specific compassion sessions in MBIs. Additionally, we suggest that strengthening a positive peer culture (PPC) in mindfulness practice may give room to explicitly resolve the problem of one member of the group and to feeling competent as a supportive group member. Thus, it may give a more interpersonal perspective where mindfulness practice may help with basic needs while also helping develop a sense of generosity by pondering the question *how can I give the best of me to contribute to well-being of my peers?*

MBIs could improve the socio-emotional and behavioral skills of young people by making sense of the education process and basically by making explicit through multiple methodologies (see for example Chap. 12) how this process could help them *learn to be* and *to live together* (Delors, 1996). In our view, new insights at an individual and institutional level may play a role in the sustainability of MBIs through a realistic integration of mindfulness in the educational curriculum as a whole. It is necessary for all the educational staff to attain an overall conceptual and practical understanding of mindfulness. In this vein, it is important to carry out studies with the purpose of identifying socio-demographical and cultural targets for the application of this approach. This requires the efforts of the whole educational system; however, there has been little systemic research on this topic so far. Figure 2.1 outlines the multiple variables and the assumed interactions which should be considered.

From which theoretical perspective do we select the most important elements of our model? We assume that the behavior of young people is determined not only by social conditions such as social norms, but also by individual factors such as needs. In addition to these "soft" factors, physical characteristics of the environment are also important. Characteristics of the physical and social environment can directly and indirectly influence human development. These influences can be positive or

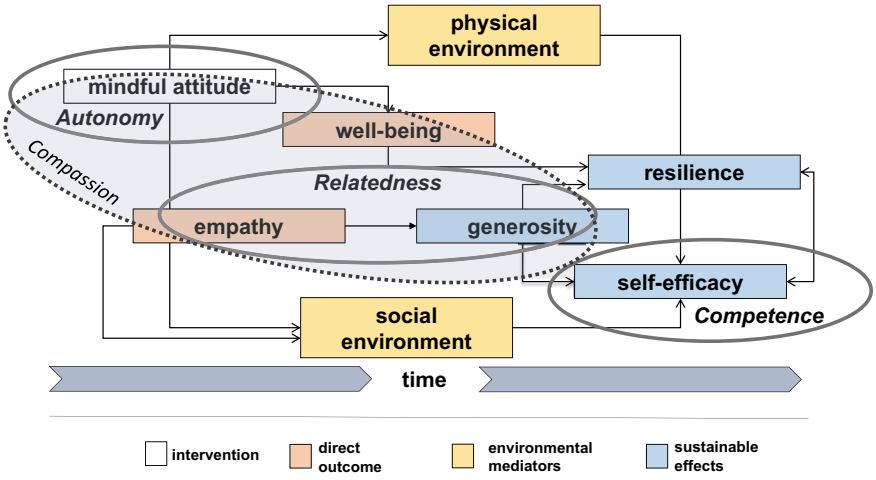

Fig. 2.1 Model of mindfulness-related interventions in positive environments

negative. We assume that early negative influences will show their effects directly or later in the life course. Negative developments can then be observed not only in the individual, but also in the social environment. Preventive measures are necessary to avert such negative developments. We also try to remedy disorders at an early stage with therapeutic interventions. Here, cognitions, emotions, and behaviors become the object of interventions. However, we also attempt to shape the physical environment in such a way that it has a positive influence on development. Interventions are particularly sustainable if the measures address basic human needs. In addition, it makes sense not only to target deficits but also to build up strengths. Individual environmental strengths and resources offer the opportunity to compensate for existing deficits. All this is intended to ensure that young people master their current problems through a learning and development process in which new and relevant competences are acquired.

The consideration of basic needs seems important to us because they help to bridge the gap between motivation and behavior (i.e. motivation for practicing mindfulness). Friends of the same age have a great influence on young people's behavior; therefore, it is necessary to involve peers when designing interventions. The circle of friends or peers thus becomes a place of mutual help. Mutual support can help to build self-efficacy and strengthen self-esteem. However, this requires that one can empathize with others. Mindfulness and empathy are therefore important prerequisites for a positive social togetherness.

Which basic needs have to be differentiated? With a view to current research on this topic, belonging, experiencing competence, and autonomy seem to be central basic needs. In the Circle of Courage (see the article on Generosity in this book), these three are supplemented by generosity. Generosity is an important need and a

personal strength of character that ensures that young people will be inclined to help others selflessly.

Physical and social environment: In our model, we distinguish the physical and social environment. In adolescence, friends of the same age are important aspects of the social environment, and so are the family, classroom climate, or the school as an organization. In addition, we assume that the physical environment influences the attitudes not only of young people, but also those of teachers and parents. Environmental characteristics are important, first because they directly influence the behavior and experience of those involved, and second because they can indirectly support the effects of interventions.

Mindfulness, well-being, and empathy: We believe that mindfulness training programs enhance the ability to empathize with others and support others in their search for solutions to problems. There is now ample evidence of the positive effects of mindfulness on well-being, with the latter being closely related to resilience.

Compassion: In our model, the term "compassion" includes the concepts of generosity, empathy, and mindfulness, all of which are related to well-being. Here it also becomes clear that lived compassion "feels good" and thus contributes to well-being.

Resilience, generosity, and self-efficacy: The connections between self-efficacy and resilience are well documented. Experiencing generosity means having been able to feel what it is like to help others. These are experiences in which self-efficacy is the basis for help. But being able to help others also makes it possible to attribute positive results to oneself, which promotes self-efficacy as well. It is therefore necessary to create interventions in which young people experience generosity and in which they experience themselves to be self-effective, which will promote their resilience. Young people's willingness to be generous will depend to a large extent on their empathy. Therefore, we also expect the promotion of mindfulness to promote generosity and, ultimately, resilience.

Hypotheses: So, which central hypotheses can be based on this model?

1. We assume that mindfulness promotes individual well-being. Well-being is thus the cognitive and emotional bridge to resilience.
2. Strengthening mindfulness promotes the ability to empathize with others and thus the willingness to be generous toward others.
3. Acts of generosity and compassion strengthen self-esteem and self-efficacy.
4. Growing self-efficacy also strengthens resilience.
5. The physical environment (including nature) can promote mindfulness. This means that there are places where young people can meet, where they feel safe, and where they promote a positive togetherness.
6. Mindfulness-based interventions promote the positive aspects of the social environment in a special way. They support the growth of personality, especially in the sense of increasing generosity, self-efficacy, and resilience. In addition, they promote mutual helpfulness as a characteristic of school culture.

We expect that this model will help to highlight the relevance of promoting psychological well-being in children and young people through interventions that increase resilience, compassion, and emotional regulation, among other aspects. Particularly,

we suggest that a common, shared meaning in the educational system (i.e. individual and institutional level) may result in a network where mindfulness could be supported more sustainably. In this context, MBIs would play a relevant role by mediating the multiple requirements introduced by a new mental health promotion paradigm in schools.

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