

Introduction to the special section: Mindfulness in me and in you—Measurement, development, and implications for adolescents' emotional and academic resilience

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Abstract

An introduction to the special section titled 'Mindfulness in me and in you—Measurement, development, and implications for adolescents' emotional and academic resilience'.

Keywords

Emotion regulation, mindfulness, school environment, teacher-student relationships, methodology

In this special section of the *International Journal of Behavioral Development*, the topic is mindfulness in the lives of older children and adolescents. Kabat-Zinn (2003) described mindfulness as “the awareness that emerges through paying attention, on purpose, in the present moment, and non-judgmentally, to the unfolding of experience moment to moment” (p. 145). More briefly, it has been described as “a sustained and receptive awareness of the present moment” (Abujaradeh, Colaianne, Roeser, Tsukayama, & Galla, 2020, p. 20; Analayo, 2003). Despite the variety of definitions and descriptions, mindfulness has become a general term used to refer to many practices, human traits, processes, or features that involve, for example, attention, acceptance, emotionality, and self-awareness (van Dam et al., 2018). Research related to the study of mindfulness has exploded in recent years within the social and health sciences, with more than 12,000 papers found when doing a basic search of PsycInfo on the single term “mindfulness” (18 September 2019). In the past decade, a growing number of these scientific publications has focused on mindfulness in children and adolescents, with the vast majority studies of intervention or positive youth development programs implemented in schools, communities, health centers, or clinical settings (Emerson, Nabinger De Diaz, Sherwood, Waters, & Farrell, 2020; Schonert-Reichl & Roeser, 2016).

There are many reasons for this explosion of interest, including the evidence that mindfulness can have substantial psychological and physical health benefits (see Cheang, Gillions, & Sparkes, 2019; Rau & Williams, 2016; Šouláková, Kasal, Butzer, & Winkler, 2019; van Dam et al., 2018), leading some to describe it as an individual characteristic that promotes resilience (Cortazar & Calvete, 2019). Similarly, when the focus is on children and adolescents, one critical influence has been the research, and resulting media attention, on how mindfulness meditation and attention training can improve children's well-being and behavior at school (e.g., Rhodes, 2015). However, there has still been little research that helps us to conclude that there is *naturally occurring* mindfulness

(i.e., untrained mindfulness features) that can be measured in adolescents with good reliability and validity. In particular, it is not known whether adult mindfulness conceptualizations and measures can be extended down to younger age groups with little modification. Moreover, other questions remain that are relevant to developmental science, such as (1) do aspects of mindfulness develop naturally with increased age, and (2) are all dimensions of mindfulness positive for well-being for all adolescents? Sometimes it feels as if the field is moving more quickly to assuming benefits and implementing interventions and educational programs without the considerable efforts needed to consider these questions first.

Fortunately, the above ideas and questions motivated the aims of the six empirical research papers in this special section. Each paper addresses one or more of these topics: the measurement of mindfulness (Abujaradeh et al. 2020; Rickert, Roeser, & Skinner, 2020), the development of mindfulness (Colaianne, Galla, & Roeser, 2020; Warren, Shubert, & Wray-Lake, 2020), contextual correlates (Clear, Zimmer-Gembeck, Duffy, & Barber, 2020; Colaianne et al., 2020; Warren et al., 2020), mindfulness as a mediator explaining more positive functioning at school (Colaianne et al., 2020), and mindfulness as a stress buffer (Clear et al., 2020). Across all these papers, the focus is on the school context and relationships at school with other students or with teachers and, although most papers focus exclusively on personal trait level mindfulness as reported by the adolescents themselves, some investigations extend this to also examine the effects of mindfulness as observed in teachers

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(Colaianne et al., 2020; Rickert et al., 2020). Thus, we focus on both *mindfulness in me* and *mindfulness in you*. This special issue ends by coming full circle back to the training of mindfulness, with a review and critique of the design and implementation of mindfulness-based programs in the schools (Emerson et al., 2020).

The authors of the first two papers (Rickert et al. and Abujaradeh et al.) tackle the design, development, and psychometrics of mindfulness in the self and/or as observed in others. First, Rickert et al. (paper 1) argued that mindfulness measures may benefit from closer links to the context under consideration and that there are observable qualities of mindfulness for others to report. This places a lens more directly on specific behaviors that may be practiced or expressed when one is more or less mindful. They proposed a unique set of six dimensions that directly gather students' reports of the expression of mindfulness in the classroom by teachers. In a measure designed to have the same subscales (but not with directly parallel items), teachers also reported their mindful experiences and expressions of calmness, clearness, and kindness in the classroom when interacting with students and their displays of behaviors that can interfere with the experience of mindfulness and its expression (i.e., exhibiting reactive, distracted, and critical behaviors). Collecting data over multiple time points as part of a mindfulness training program for teachers, the authors investigated the psychometric properties of the measures and the convergence of the measures with each other and with a range of established measures of mindfulness, teacher well-being, student engagement and well-being, and observations in the classroom. This research provides a new approach to thinking about how mindfulness might be experienced and expressed in day-to-day interactions. Further, the ideas and findings presented raise the intriguing possibility that experience and expression of mindfulness may not be consistent within a person. As Warren et al. (2020) write, "Mindful individuals sometimes behave mindlessly, and even the most mindless individuals occasionally exhibit high levels of mindfulness" (p. 31).

Abujaradeh et al. (paper 2) directly confronted apprehension about using a very popular adult-focused multidimensional measure of mindfulness (Cortazar, Calvete, Fernández-González, & Orue, 2019; Goldberg et al., 2016), the Five Facet Mindfulness Questionnaire (FFMQ), in adolescents. The FFMQ is widely used and increasingly has been used with younger age groups. Although there are now more than 10 measures of mindfulness available (Rau & Williams, 2016), the FFMQ captures as many or more dimensions than most, namely acting with awareness, engaging in non-judgment of experience, nonreactivity to inner experience, observing of present-moment experience, and describing experiences. What adds most substantially to the previous research here is the testing of multiple item structures, and measurement invariance by age and sex, while also examining measurement convergence with self-compassion, and discriminant and predictive validity by focusing on change in adolescents' well-being over time. The evidence looks good for using a short-form of the FFMQ to measure mindfulness dimensions in adolescents. Yet, a next step is to examine whether the interpretation and understanding of specific items on the FFMQ (as well as other self-report mindfulness measures) change with age, whether the item structure depends on particular experience (e.g., mediation training) rather than age, and whether self-report trait mindfulness converges with observed behavior (e.g., mindful calmness, clarity and kindness as measured in Rickert et al., 2020).

The next two papers in this special section, authored by Warren et al. (paper 3) and by Colaianne et al. (paper 4), move forward our

understanding of how and why naturally occurring mindfulness develops across the adolescent years. In these longitudinal studies, correlates of mindfulness levels and changes over time included classroom features, internal factors, and social affordances at school. Warren et al. (paper 3) map latent linear growth curves of mindful awareness at the same time that they argue that mindful awareness should have contextual underpinnings. They revealed much that was previously not known about the development of mindfulness, supported some of their hypotheses, and had some counterintuitive findings. In particular, they found no average linear change in mindful awareness from about the age of 14 to 18 years. Yet, linear change in mindfulness did vary among adolescents (suggesting that some adolescents would have increased over the grades, others decreased, and others remained stable). Also, given that there was variability to predict, two contextual features were associated with higher mindfulness across some or all time points (a need supportive climate and lower discrimination). Yet, somewhat counterintuitively, other factors expected to promote greater mindful awareness were associated with less mindfulness across time periods (internal factors of perspective taking and prosocial behavior within the grade group). Still other internal factors (emotion regulation and empathy) were not significantly associated with mindful awareness. Also, breadth of extracurricular participation was not significantly associated with mindful awareness. This study raises many new questions, but it particularly alerts us to the possibility that there may be multiple internal and external forces at play that need to be considered to understand change inside or outside of a mindfulness training environment. It also suggests that there are additional locations for training and intervention as adjuncts to mindfulness programs (e.g., cultural competency and anti-discrimination programs, teacher support programs). Further, there is the suggestion from the findings that there may be trade-offs between self-focused awareness (i.e., mindful awareness) and a focus on the other (i.e., perspective-taking and prosocial behavior). This trade-off or difference may prove to be a useful new direction for research in mindfulness within developmental science, education, and youth development programs.

Colaianne et al. (paper 4) also examined correlates of adolescents' mindfulness, focusing on change across a school year. They extend on ideas from the first three papers. First, they also consider both self-reported adolescent mindfulness and adolescents' views of their teachers' expressions of mindfulness (using items developed by Rickert et al., 2020). Second, they also incorporate measures that tap both a self-focus (intrapersonal) and an other-focus (interpersonal), echoing the work by Warren et al. (2020), by measuring both self-compassion and compassion for others as potential correlates and outcomes of mindfulness. Overall, their findings suggest wide-reaching impacts, via psychological need fulfillment, of teachers' expression of mindfulness as perceived by students. What was especially unique here was the collection of new items used to assess compassion for others, as well as the finding of correlations between mindfulness, self-compassion and compassion for the other. In particular, mindfulness and self-compassion were highly correlated with each other, but mindfulness and self-compassion were not highly correlated with compassion for others. As with the paper by Warren et al. (2020), this could guide future research on the role of mindfulness in predicting a range of personal and social competencies and functional outcomes. Perhaps, for example, dispositional mindfulness, as most frequently conceptualized in psychological research, or mindfulness training may be more important to self-development than social development.

Conversely, Colaianne et al. reported that mindful teaching had direct effects on students' compassion for others but not on students' mindfulness or self-compassion. This suggests that expression of mindfulness from those who provide support to adolescents will have a direct impact on adolescents' social development.

In the fifth paper, Clear et al. studied naturally occurring mindfulness in adolescents as a source of protection from the detrimental mental health effects of stressful peer interactions. Thus, consistent with conceiving of mindfulness as an internal capacity that can aid flexibility and regulation of emotion (and resilience; Cortazar & Calvete, 2019), mindfulness was tested as a buffer against negative mental health outcomes from stressful events, with the stressor defined as peer victimization and exclusion. This research tackles the role of individual differences in mindfulness and stress buffering. Yet, it also speaks to development, given that mindfulness is described as an advanced metacognitive skill (Shapiro, Carlson, Astin, & Freedman, 2006) and such capacities are still under development in adolescence (Skinner & Zimmer-Gembeck, 2016). Therefore, it is unclear whether adolescents, even when they report high levels of dispositional mindfulness, actually can rely on this for personal regulation and maintaining well-being when faced with significant social challenges. In other words, adolescents may be growing in mindfulness skills normatively as they get older, but they may not yet have reached the level of experienced practitioner when they are required to use these skills for managing and responding to external stressful events. The findings reflect this complexity, with mindfulness of benefit to adolescents' mental health in general, but mindfulness was not found to buffer against the quite significant negative symptoms found among adolescents who reported more experience of peer exclusion and victimization.

To wrap up this special section, we end with a critical but forward-looking review of the quality and feasibility of the many ways of implementing mindfulness interventions (e.g., training in meditation practice to increase internal awareness, acceptance, and non-judgment of experience) in schools (Emerson et al., 2020, paper 6). This review adds to the critiques of the evidence for the benefits of mindfulness interventions, with mixed findings to date and a great variety of approaches available and used. As has been a theme throughout the special section, this review raises concerns and issues to be addressed, as mindfulness continues to be promoted as a benefit to all teachers, children, and school environments. This review paper authored by Emerson et al. (2020) reminds everyone of best educational practices as they apply to mindfulness-based interventions in schools, and how many programs still fall down when they are assessed against quality standards. As coherently suggested in an extensive critique (van Dam et al., 2018), there is some way to go in basic research on mindfulness and on understanding best practice in the implementation of mindfulness-based intervention. Following the recommendations for future research in this area, outlined in this review, will allow more confident conclusions about mindfulness interventions in schools. In so doing, we may mitigate against teachers', adolescents', and others' feelings of being "harmed, misled, and disappointed" (van Dam et al., 2018, p. 36; see also Coyne, 2016 as cited in van Dam et al., 2018; Dobkin, Irving, & Amar, 2011; Foster, 2016).

The six papers in this special section do not shy away from this possibility of a need for refining ideas and considering the meaning of unexpected findings for future research. Each paper is independently relevant to conceptualization, measurement, and study of the development of mindfulness, while also discussing the place of mindfulness within a range of topics, including stress, coping,

well-being, psychopathology, social relationships, teaching, competence, compassion, kindness, and personal development. However, additional strengths of the papers come from considering commonalities across them. This set of papers, together, addresses important questions of ambiguities, complexity, change, interactions between measures and people, and contextual influences in the study of mindfulness. Future research will be able to build on these findings to further refine measures of experienced and expressed mindfulness and related concepts for use with children, adolescents, and teachers (and could extend this to other contexts, such as the study of parent-child relationships and adolescent friendships). Also of importance, researchers could build on the current studies by integrating and extending on concepts of intra-personal and interpersonal mindfulness and development, and considering (and reporting on) quality standards when implementing and evaluating new school-based mindfulness interventions.

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