

# Chapter 14

## Self-determination and Socioemotional Learning Interventions on Educator's Psychological Health and Well-Being: A Systematic Review



Heon Jin Kang

**Abstract** There are a growing number of interventions based on socioemotional learning (SEL) which specifically target to promote educators' well-being and psychological health (Crain et al., 2017). The meta-analysis and literature reviews convince its application and outcomes toward positive health outcomes; however, there is still room for improvement to include theory proven psychotherapy for better effectiveness. In an autonomy-supportive therapy grounded in self-determination theory (SDT; Deci & Ryan, 1985; Ryan & Deci, 2017), therapists facilitate the process of clients organizing and self-regulating their actions without imposing their own agenda or values on them. The aim of this present systematic review is to examine the characteristics and curriculums of SEL and SDT interventions targeted at educators' psychological health and well-being. Nine studies met the inclusion criteria, capturing 6 programs which mainly combined SEL training, mindfulness, and self-compassion practice. The major strength of this review was the integration of the SEL and SDT which offer an overarching construct that provided a viewpoint of an efficient intervention strategy. The major limitation was although the review aimed to identify SDT components, it only found one component, mindfulness, which only relates to autonomy-supportive methods; thus, generalization of integration of SEL and SDT may be limited.

### Introduction

Among professions, teaching has been considered one of the most demanding (Lomas et al., 2017). Educators experience the reality of its challenges and are faced with its stress and challenges (Herman et al., 2018; Oberle & Schonert-Reichl, 2016). In a national survey by the Canadian Teachers' Federation (2020), over 65% of respondents indicated that they are increasingly worried about their personal mental health,

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H. J. Kang (✉)

National Institute of Education, Nanyang Technological University, Singapore, Singapore  
e-mail: [heonjin.kang@nie.edu.sg](mailto:heonjin.kang@nie.edu.sg)

well-being, and ability to cope with heavy workloads. In addition, educators faced high levels of unhappiness and frustration with their work environment and conditions. However, these findings are unsurprising given their poor working environment and conditions. There is a lack of proper policies, support, resources, and funds in place to properly support the emotional and mental health of educators.

One major source of stress for educators has been attributed to negative teacher–student interactions, such as disciplinary problems and disruptive behaviors in the classroom. Despite being a major source of stress, research on the role of positive teacher–student relations and interactions has been scarce, particularly in constructs such as social and emotional competence (SEC; Jennings & Greenberg, 2009). Mutjaba and Reiss (2013) showed that certain teacher–student interactions may result in positive stress, improve well-being, and reduce negative emotions.

Improved SEC has been identified from a meta-analysis on teacher stress as a key factor in the prevention of teacher stress (Oliveira et al., 2021a, 2021b). While dealing with negative student–teacher interactions, teachers undergo emotional labor in managing their negative emotions which may result negatively in emotional burnout and exhaustion (Chang, 2009; Montgomery & Rupp, 2005; Skaalvik & Skaalvik, 2007) and negatively related to job satisfaction (Klassen et al., 2010; Robinson et al., 2019) and mental health (Schonfeld & Bianchi, 2016). Developing a structured training model to improve SEC may result in better well-being and work productivity for educators. Consequently, social and emotional learning (SEL) encompasses encouraging positive classroom and school culture which promotes safe, caring, and encourages participation (Collie, 2017; Humphrey, 2013; Weissberg et al., 2015).

### ***SEL for Educators***

SEL involves teaching students' competencies in the social and emotional domains such as relationship and self-management skills (Bridgeland et al., 2013; See Table 14.1). Oliveira et al., (2021a, 2021b) presents that SEL is advanced as a systematic framework to guide and assess student-targeted policies to promote the optimal development and reduce problem behaviors of children and youths and equip them with the tools to head on the challenges of the twenty-first century (Durlak et al., 2015; Tolan et al., 2016). Henceforth, most of the SEL interventions in the education context adopted a student centric approach (Domitrovich et al., 2016; Greenberg & Abenavoli, 2017; Oberle et al., 2016). Initially, a school-based approach was developed, through which teachers were identified as essential partners in SEL programs and assumed to be socially and emotionally competent to spearhead them (Durlak et al., 2015; Jennings & Greenberg, 2009). Consequentially, SEL programs were developed as sub-products of global interventions. These interventions prepared teachers to intervene with their students through teacher training on how to teach SEC to their students and also developed the teacher's own interpersonal SEC to better relate and deal with their students (Greenberg et al., 2003; Osher et al., 2016). It was only recently that interventions targeting educators' own SEC had been developed

**Table 14.1** Description of teacher-specific social, emotional, and cognitive skills within each SEC

Domain	Specific skills
Self- and social awareness	To recognize and understand emotions and emotional patterns of their own and of others. To understand/be aware of how their emotional expressions affect their interactions with others. To have a realistic understanding of their abilities and recognize their emotional strengths and weaknesses. To be culturally sensitive and understand different perspectives. To motivate learning in themselves and others, though the promotion and use of emotions. To build strong and supportive relationships through mutual understanding and cooperation. To effectively negotiate solutions to conflict situations
Self- and relationship management	To manage their behavior even when emotionally aroused by challenging situations. To regulate their emotions in healthy ways that facilitate positive classroom outcomes without compromising their health. To effectively set limits firmly, yet respectfully. To be comfortable with a level of ambiguity and uncertainty that comes from letting students figure things out for themselves
Responsible decision-making	To display prosocial values and decide ethically, based on the assessment of factors such as the impact of their decisions on themselves and others. To respect others and take responsibility for their decisions and actions

Retrieved from Jennings and Greenberg (2009), p. 495

(Schonert-Reichl, 2017). The inclusion of teachers in SEL interventions is significant as their SEC plays a crucial role in how they perform in their work, social interactions, and their social and emotional well-being; it is through their SEC that teachers learn to adapt and overcome life challenges through their personal development and positive interpersonal relationships (Durlak et al., 2015; Tolan et al., 2016).

### ***SEL Intervention to Educators' Health and Well-Being***

SEC and the ability to manage and regulate emotions in relation to the classroom is key to optimizing teaching effectiveness. Teachers need to regulate their emotional reactivity in response to student disruptions by managing the social and emotional dynamics of the classroom in order to create a warm and caring emotional climate most conducive to learning. Educators function best when negative emotions such as anger and frustration can be minimized while positive emotions such as enthusiasm and interest can be enhanced (Jennings, 2015). Recent SEL interventions specifically developed for educators have drawn attention owing to the positive impact on both the educators' professional and personal development. The effects have extended beyond the educators' well-being and performance to include those of their students (Durlak et al., 2015; Schonert-Reichl, 2017). It was suggested that the intervention had an impact on educators' SEC, which contains specific outcomes related to the five key competencies of SEL.

On a personal level, higher SEC has been linked to decreased psychological distress (e.g., emotional exhaustion, psychological discomfort from stress, anxiety, depersonalization, and depression symptoms), physical distress (e.g., health complaints), and behavioral and physiological health indicators (e.g., sleep problem, cortisol level, blood pressure, and respiratory health) (Harris et al., 2016; Jennings et al., 2017; Roeser et al., 2013). Furthermore, studies (Carvalho et al., 2017; Crain et al., 2017; Domitrovich et al., 2016; Jennings et al., 2013) have shown that a higher level of SEC has also been associated with increase in well-being, specifically in outcomes relating to personal well-being (e.g., better job and life satisfaction, self-efficacy) and positive emotions (e.g., positive affect and personal accomplishment). Educators with higher SEC are more capable of taking on their job demands and achieving higher levels of work and personal life satisfaction and well-being (Crain et al., 2017; Talvio & Lonka, 2019).

The meta-analysis by Oliveira et al., (2021a, 2021b) evaluated the efficacy of interventions aiming to reduce burnout symptoms in teachers. The findings shed light on the possible impacts of SEL interventions on reducing burnout/stress symptoms in teachers; however, a theory-based approach is needed to investigate current research and drive future direction for more effective interventions that will complement traditional stress-reduction interventions such as cognitive-behavioral interventions and relaxation-based intervention techniques.

### ***Autonomy Support and Mindfulness in Psychotherapy***

To reduce stress and promote emotional well-being, autonomy support is a central concept in psychotherapy which aligns with the self-determination theory (SDT) by Deci and Ryan (1985). Autonomy support refers to the extent to which individuals feel that their actions and choices are self-endorsed and self-directed rather than externally driven (Brown & Ryan, 2003; Ryan, 1993). This concept is particularly relevant as the primary task of therapy is to support autonomous self-exploration, identification, initiation, and sustaining a process of change (Ryan & Deci, 2008).

The process of supporting autonomy in psychotherapy begins with therapists and clients understanding and validating the individuals' own internal frame of reference. This helps therapists facilitate the process of clients organizing and self-regulating their actions without imposing their own agenda or values on them. It also involves aiding the clients in understanding their own experiences and taking ownership of new behaviors without external agendas being imposed on them. Researchers (Brown & Ryan, 2003; Deci & Ryan, 1980; Kabat-Zinn, 1990) explained that mindfulness which is described as a quality of consciousness can (1) allow individuals to maintain steady attention and accept their prompt responses to thoughts, feelings, and physical sensations with non-judgment and (2) help individuals enhance their self-regulation skills and reduce reactivity by encouraging them to stay in the present moment and be aware of their thoughts and emotions while suspending judgment (Hölzel et al., 2011; Schussler et al., 2016). Individuals who are mindful tend to

maintain a consistent and steady level of attention, noticing and accepting immediate responses to thoughts, feelings, and physical stimuli, encompassing awareness of their own internal bodily sensations (Khanna & Greeson, 2013). In the context of psychotherapy, mindfulness techniques are often integrated into the principle of autonomy support to help clients' greater self-awareness, emotional regulation, and autonomy. The non-judgmental observation and acceptance fostered by mindfulness align with the principles of autonomy support, as clients learn to explore their inner experiences in a self-determined and non-coercive manner. This can contribute to more effective and empowering therapeutic experiences.

### ***SDT and Educators' Health and Well-Being***

When an individual is mindfully aware of their inherent needs and experiences, then he/she is less likely to less likely dominate intra-psychic interaction and fulfillment of the basic psychological needs for autonomy, competence, and relatedness (Hodgins & Knee, 2002). As a result of satisfying the psychological needs, one is more likely to experience more autonomous motivation to engage in those activities. Autonomous motivation refers to motivation that comes from within, where individuals engage in activities because they find them inherently satisfying and valuable, rather than being motivated by external rewards or pressures (Deci & Ryan, 2008; Ryan & Deci, 2000).

Research in the context of education supports the idea that autonomously motivated behavior is advantageous for psychological functioning and overall well-being (see Deci & Ryan, 2000; Ryan & Deci, 2017). Teachers who would be autonomously motivated tend to show higher levels of self-efficacy in their teaching roles (Dybowski et al., 2017) as well as job satisfaction (Aelterman et al., 2019; Collie et al., 2017; Moe & Katz, 2020) which are consequences that extend to those working in teaching careers (see Fernet et al., 2012; 2016; 2017; Soenens et al., 2012). In addition, research has demonstrated that more autonomous forms of teacher motivation are related to less teacher burnout (Cuevas et al., 2018; Fernet et al. 2012) and well-being (Pauli et al., 2018). Hence, autonomous motivation tends to coincide with indicators of positive wellbeing as well as reduced levels of teacher distress. Given that teachers tend to experience high levels of stress and disorder (Gallup, 2014), establishing motivational mechanisms in teacher mental health will yield valuable insight about ways to promote healthier and more productive teaching workforces.

### ***Study Aim***

In relation to SEL's components, fostering SDT concept such as mindful awareness would foster greater emotional regulation. Ryan and Deci (2008) stated that mindful awareness is a means for individuals to become more in touch with their

emotions, introjects, and painful experiences which have been suppressed. Through being aware, individuals can examine their emotions, experience, or introjects and integrate them together. Mindful awareness enhances the integration process through fostering fuller acknowledgment of the various parts of one's personality such that they can be brought into coherence and harmony (Deci & Ryan, 1991). Both SEL and SDT-based initiatives in education emphasize the development of positive self, moral, social, and emotional understanding.

Closer examination of the impact of using SDT with SEL on educators' well-being and psychological health may shed light on how to improve current SEL programs available to educators. The main aim of this present systematic review is to examine the characteristics of SEL and SDT interventions targeted for educators, and the additional aim is to investigate the program's curriculum for recommendation to future interventions.

## **Method**

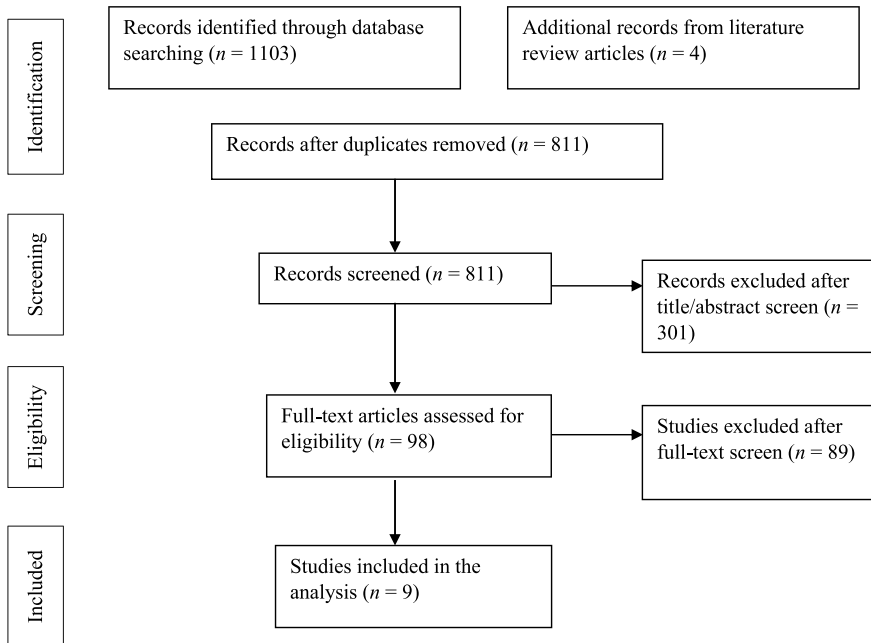
The systematic review was conducted and reported according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Statement (Moher et al., 2009).

### ***Search Strategy and Study Selection***

A comprehensive literature search was conducted using electronic databases: ERIC, PsycINFO, PsycARTICLES, PubMed, Scopus, Web of Science, and Google Scholar. We applied four sets of filters in the database search. The filters were applied to search for terms in the titles and abstracts of papers within the databases. The first filter was used to identify studies with an experimental design with the terms: experiment\* OR trial\* OR manipulate\* OR intervention. The second filter was applied to identify SEL studies that the terms included SEL OR social emotional learning OR social, emotion\*. The third filter was applied to identify SDT studies with the key terms: autonomy support\* OR SDT OR self-determined motivation OR mindful\* OR self-awareness. The third filters were used to identify populations with the following terms: adult OR educator OR teacher.

### ***Review Procedure and Data Abstraction***

The systematic search identified 1103 articles after the removal of duplicates (Fig. 14.1). All titles and abstracts were screened by two research team members



**Fig. 14.1** Flow diagram of studies included in review

at Motivation and Educational Research lab in National Institute of Education, independently co-screening 10% of the titles and abstracts; articles to be read in full were agreed on by them after discussion. One hundred and ninety-nine papers were read in full, with 11 included in the review.

One review paper that provided data relating to the same study was combined (Oliveira et al., 2021a, 2021b). The following pre-specified data were extracted from each study: (i) setting; (ii) study design; (iii) sample size (number of participants); (iv) characteristics of participants; (v) type of control group; (vi) SEL program; (vii) program components; (viii) outcome, outcome measure, and informant; and (ix) findings, including effect sizes were reported by the authors.

### *Quality Assessment of Reviewed Articles*

Study quality was assessed using the Effective Public Health Practice Project (EPHPP) Quality Assessment Tool for quantitative studies to assess for selection bias, study design, confounders, blinding, data collection methods, withdrawals, dropouts, intervention integrity, and analyses (Thomas et al., 2004). This tool was used in the recent review examining the impact of SEL interventions on teacher outcomes (Blewit et al., 2020) and is suitable for randomized, non-randomized, and

pre–post-designs. Components were rated as strong, moderate, or weak across each study, based on guidelines in the EPHPP Dictionary, and an overall global quality rating was assigned. Studies were being rated based on the presence or absence of weak ratings. If a study had no weak ratings, it was rated as strong. If it had one weak rating, it was considered of moderate quality, and if it had two or more weak ratings, it was rated as overall weak.

## Results

### *Descriptive Synthesis*

Table 14.2 contains general characteristics of the reviewed interventions, and Table 14.3 provides a summary of intervention characteristics. The pooled characteristics of the nine studies included in this review are provided. The studies were published after 2013 and written in English. Eligible interventions were delivered in USA ( $n = 5$ ), Portugal ( $n = 2$ ), Canada ( $n = 1$ ), and Israel ( $n = 1$ ). Table 14.2 describes detailed information. The studies involved a total of 714 educators, with sample sizes ranging from 6 (Palacios & Lemberger-Truelove, 2019) to 224 (Jennings et al., 2017). The participants ranged from early educators to teachers.

### *Intervention Design*

As for the intervention features, most of the interventions were only targeted educators ( $n = 8$ ). Sessions ranged from 3 sessions of 60–90 min (Cochran & Peters, 2023) to 30 h delivered through 10 weekly 2.5 h in-group sessions and a 5 h booster session 3 months after completion (Carvalho et al., 2021). Except for one qualitative study, all interventions have pre- and post-test assessments to measure effect (See Table 14.2).

### *Characteristics of Programs*

Two interventions (Carvalho et al., 2017; Kim et al., 2021) examined Mindfulness-based SEL approach (MindUP). Two experimental studies (Jennings et al., 2013, 2017) examined Cultivating Awareness and Resilience in Education (CARE) which is a combination of emotional skill instruction, mindful awareness practices, caring, and compassion practices. Other papers used the brief mindfulness and SEL training (Cochran & Peters, 2023), the mindfulness, SEC, and self-compassion skills training (Carvalho et al., 2021), SEL and mindfulness-based consultation session (Palacios &



**Table 14.2** Report on general characteristics of the nine reviewed interventions

Characteristics	<i>N</i> (% where applicable)
Location	
USA	5
Canada	2
Portugal	1
Israel	1
Sample size	
0–10	1
11–25	1
26–50	3
51–100	1
101–150	2
150+	1
Participant	
In-service teacher only	5
Pre-teacher only	2
Teacher and student	1
Teacher, student, and parent	1
Dosage of intervention	
< 6 h	1 (11%)
6–20 h	2 (22%)
21–40 h	5 (56%)
> 41 h	1 (11%)
Study type	
Experiment with self-report measures	5
Experiment with mixed-method measures	3
Experiment on phenomenological approach	1
Time of assessment	
Pre–post-test	9
Post-test	1

Lemberger-Truelove, 2019), and the Call to Care—Israel for Teachers (C2CIT) program employing mindfulness, self-compassion, and SEL skills (Tarrasch et al., 2020).

**Table 14.3** Summary of intervention characteristics of the included studies

Authors (year) Source	Intervention design	Type of participants	Intervention characteristics and curriculum	Outcomes related with well-being and psychological health	Outcome instruments	Quality assessment
Carvalho et al. (2021). <i>Mindfulness</i>	Experiment with mixed measures (self-report, observational rating, and parents' reports) RCT Assessment at pre-post-test 30 h through 10 weeks, 2.5 h in-group sessions, and a 5 h booster session 3 months after completion	123 Portuguese teachers, students, and students' parents	Mindfulness, SEC, and self-compassion skills SEC (e.g., understanding, recognizing, and regulating emotions and the role of positive emotions were explored through experiential exercises, reflection, and self-induction) Mindfulness training (e.g., mindfulness of breathing, mindfulness of body sensations, and mindful listening) Self-compassion skills, caring exercises (e.g., active listening exercises) Activity (e.g., group reflection, role-playing, reflection on poetry or readings, lecture, and homework assignments)	The intervention group showed a significant increase in mindfulness and emotional regulation competencies, self-efficacy, and well-being and a decrease in burnout symptoms than control group	The Mindfulness Questionnaire (FFMQ; Baer et al., 2006; Portuguese version by Gregório & Gouveia, 2011) The Emotion Regulation Questionnaire (ERQ; Gross & John, 2003; Portuguese version by Vaz & Martins, 2008) The Teachers' Sense of Efficacy Scale (TSES; Tschannen-Moran et al., 2001; Portuguese version by Conceição, 2008) The Mental Health Continuum—Short Form (MHC-SF; Keyes, 2006; Portuguese version by Matos et al., 2010) The Maslach Burnout Inventory—Educators Survey (MBI; Maslach et al., 1996; Portuguese version by Pinto et al., 2005)	S
Carvalho et al. (2017). <i>Mindfulness</i>	Experiment with self-report measures Assessment at pre-post-test 50 h course (consisting of 25 h delivered by an expert and 25 h of program implementation by teachers) over 6 sessions	20 Portuguese teachers Teacher and students	Mindfulness-based SEL approach (MindUP by Hawn Foundation, 2011) The content covered all SEC domains, mindfulness, neuroscience, and positive psychology The four themes in four separate units: (a) getting focused (learn the functions of brain parts, the difference between mindful and unmindful behavior, and breathing exercise) (b) sharpening your senses (practice mindful listening, seeing, smelling, tasting, and movement) (c) it is all about attitude (consider others' viewpoints, cultivate optimism, and appreciate happy experiences) (d) taking action mindfully (express gratitude and perform acts of kindness) Activity (e.g., discussions, interactive activities)	The intervention group reported a lower means for emotional exhaustion and higher in self-compassion than the control group	The MBI (Maslach et al., 1996; Portuguese version by Pinto et al., 2005) The Self-compassion Scale (SCS; Neff, 2003a; Portuguese version by Castilho & Pinto-Gouveia, 2011)	M

(continued)

**Table 14.3** (continued)

Authors (year) Source	Intervention design	Type of participants	Intervention characteristics and curriculum	Outcomes related with well-being and psychological health	Outcome instruments	Quality assessment
Cochran and Peters (2023). <i>Teaching and Teacher Education</i>	One-fold intervention with mixed-method measures 3 sessions with 60–90 min	48 US preservice teachers Teacher only	Brief mindfulness and SEL training The program introduced to mindfulness, mindfulness strategies, emotion regulation and learning training, and all five components of SEL	Quantitative outcome showed no significant change in empathy	Teacher empathy data were collected through the Interpersonal Reactivity Index (IRI; Davis, 1980)	W
Gamer et al. (2018). <i>Psychology in the Schools</i>	Experiment with self-report measures Assessment at pre–post-test RCT Weekly 2 h session in 6 weeks Group 1-mindfulness and SEL Group 2-mindfulness only	87 US preservice teachers Preservice teacher only	Mindful practice and SEL intervention Mindfulness practice (1 week, 2 h) Introduction on mindfulness definitions, goal of mindfulness practice, acceptance skills, distress tolerance, and non-judgment Practice with breathing awareness meditation SEL (2–6 week, 2 h) Sessions focused on emotional competence, the role of emotions in relationship-building and coping with students' challenging classroom behavior, and promoting an awareness of SEL Activity (e.g., lectures, role-playing, hypothetical case studies, group discussions, and collaborative work)	Both groups showed an increase in mindfulness Emotional competence improved more significantly in the group 1	The Freiburg Mindfulness Inventory to assess mindfulness (Walach et al., 2006) The self-report emotional intelligence scale (SREIS; Brackett et al., 2006)	S

(continued)

**Table 14.3** (continued)

Authors (year) Source	Intervention design	Type of participants	Intervention characteristics and curriculum	Outcomes related with well-being and psychological health	Outcome instruments	Quality assessment
Jennings et al. (2013). <i>School Psychology Quarterly</i>	Experiment with self-report measures Assessment at pre-post-test RCT 30 h delivered in 5 sessions	50 US teachers Teacher only	<p>Cultivating Awareness and Resilience in Education (CARE)</p> <p>Emotional skill instruction, mindful awareness practice, caring, and compassion practice</p> <p>(a) Emotion skills instruction (40%)</p> <ul style="list-style-type: none"> <li>– Introduction to emotions, purpose, universal expressions, relevant brain research</li> <li>– How emotions affect teaching and learning</li> <li>– Didactic information about anger, fear, sadness</li> <li>– Didactic information about “comfortable” or positive emotions</li> <li>– Exploring bodily awareness of emotions</li> <li>– Exploring individual differences in emotional experiences</li> <li>– Practice using mindful awareness and reflection to recognize and manage strong emotions</li> </ul> <p>(b) Mindfulness and stress-reduction practices (40%)</p> <ul style="list-style-type: none"> <li>– Body awareness reflection</li> <li>– Basic breath awareness practice</li> <li>– Mindfulness of thoughts and emotion practice</li> <li>– Mindful movement practices (standing, walking, stretching, centering)</li> <li>– Practice maintaining mindful awareness</li> <li>– Role plays to practice</li> </ul> <p>(c) Listening and compassion exercises (20%)</p> <ul style="list-style-type: none"> <li>– “caring practice”—a series of guided reflections focused on caring for self, loved one, colleague, challenging person</li> <li>– Mindful listening partner practices</li> </ul>	The intervention group reported improvement in teacher well-being, burnout/time-related stress, emotional exhaustion, and mindfulness	<p>General well-being measured by (a) the positive and negative affect schedule (PANAS; Watson et al., 1988), (b) the Emotion Regulation Questionnaire (ERQ; Gross &amp; John, 2003), (c) the center for epidemiologic studies depression scale daily physical symptoms (DPS; Larsen &amp; Kasimatis, 1997)</p> <p>Burnout and time pressure measured by (a) the MBI-ES (Maslach et al., 1996) and (b) the time urgency scale (TUS; Landy et al., 1991)</p> <p>The FFMQ (Baer et al., 2006)</p>	S

(continued)

**Table 14.3** (continued)

Authors (Year) Source	Intervention design	Type of participants	Intervention characteristics and curriculum	Outcomes related with well-being and psychological health	Outcome instruments	Quality assessment
Jemmings et al. (2017). <i>Journal of Educational Psychology</i>	Experiment with self-report measures Assessment at pre-post-test RCT 30 h of in-person training in addition to intercession phone coaching	224 US teachers Teacher only	CARE program Emotion skills instruction Mindful awareness/stress-reduction practices Caring and listening practices Additional activity (e.g., workbook and homework)	Results showed significant direct positive effects on adaptive emotion regulation, mindfulness, and psychological distress	The ERQ (Gross & John, 2003) FFMQ (Baer et al., 2006) The Patient Health Questionnaire 8-item Depression Scale (PHQ-8; Kroenke et al., 2009)	S
Kim et al. (2021). <i>School Mental Health</i>	Experiment with mixed-method measures RCT Assessment at pre-post-test Group 1: two full day training Group 2: one full day training Group 3: control	112 Canadian educators Teacher only	Trauma-informed training and MindUP (mindfulness program-based SEL) (a) Getting focused (learn the functions of brain parts, the difference between mindful and unmindful behavior, and how to perform a breathing exercise) (b) Sharpening your senses (practice mindful listening, seeing, smelling, tasting, and movement) (c) It is all about attitude (consider others' viewpoints, cultivate optimism, and appreciate happy experiences) (d) Taking action mindfully (express gratitude and perform acts of kindness)	Results showed both intervention groups showed significant decreases in emotional exhaustion, and improvements in the trauma-informed attitudes	The MBI (Maslach et al., 1996) The attitudes related to trauma-informed care (ARTIC; Baker et al., 2015)	M

(continued)

**Table 14.3** (continued)

Authors (year) Source	Intervention design	Type of participants	Intervention characteristics and curriculum	Outcomes related with well-being and psychological health	Outcome instruments	Quality assessment
Palacios and Lemberger-Tmelove (2019). <i>The Journal of Humanistic Counseling</i>	Experiment with semi-structure based on phenomenological approach 45–60 min for 12 consecutive weeks	6 US early childhood teachers Teacher only	SEL and mindfulness-based consultation session General parameters for intervention (a) Eliciting and exploring the participants' actual experiences in the classroom, including experiences of the most immediate past week and general experiences accumulated over time (b) Psychoeducational instruction related to one of five progressive SEL skills (c) Facilitation of a guided meditation (d) Reflection and goal-setting opportunities	Results showed how the teachers experienced growth in emotional regulation	NA	W
Tarrasch et al. (2020). <i>Mindfulness</i>	Experiment with self-report measures RCT Assessment at pre–post-test Each session lasted 1.5 h in 20 weekly meeting sessions	44 Israel teachers Teacher only	The call to care—Israel for teachers (C2CIT) program Mindfulness, compassion, and SEL skills Each session included (a) Psychoeducational materials (e.g., mindfulness and compassion effects on brain activity and anatomy, correlates of mindfulness and compassion, or the concepts of fixed vs. growth mind-sets) (b) Contemplative practices (e.g., mindful breathing, body scan, or caring-figure meditation) (c) SEL skills (e.g., identifying and sharing emotions, learning to receive and give social support, or developing perspective-taking and empathy skills) Group activity (e.g., sharing positive and negative feelings with peers or role-playing difficult situations)	Intervention group showed a significant increase in mindfulness, decrease in perceived stress and rumination	The interpersonal mindfulness in teaching (IMTS; Greenberg et al., 2010) The Self-compassion Scale (SCS; Raes et al., 2011) The Perceived Stress Scale (PSS; Cohen et al., 1983) The rumination-reflection questionnaire (RRQ; Trapnell & Campbell, 1999)	S

Note: M = moderate, S = strong, W = weak

## ***Curriculum of Programs***

Regarding SEL training, five SEC domains (self-awareness, self-management, relationship skills, responsible decision-making, and social awareness) were introduced and practiced. Generally, the SEL skills in the review taught included: identifying and sharing emotions, learning to receive and provide social support, and developing perspective-taking and empathy skills (from C2CIT program in Tarrasch et al., 2020). Mindfulness-based training including mindfulness of breathing, mindfulness of body sensations, mindful listening, and mindful movement practices (standing, walking, stretching, centering) were employed in the interventions. Interventions imparting self-compassion skills utilized active listening exercises. The CARE program employed by Jennings et al., (2013, 2017) explained that compassion practice involves noticing emotional reactions while not acting upon the emotional reactions such as the urge to interrupt, offer advice, or judge others while listening. Activities such as group reflection, role-playing, reflection on poetry or readings, lecture, and homework assignments were used as part of psychoeducational content. The use of emotional journaling, self-care assessment, and nurturing activities were also used by Cochran and Peters (2023).

## ***Outcomes Related with Well-Being and Psychological Health and Measures***

The studies captured in this review examined the following psychological domains and well-being outcomes mainly, (i) mindfulness; (ii) burnout; (iii) self-compassion; (iv) affect, (v) empathy, (vi) well-being, (vii) mental health, and (viii) perceived stress and psychological distress. Measures for mindfulness utilized the Mindfulness Questionnaire (FFMQ; Carvalho et al., 2021; Jennings et al., 2013), the Interpersonal Mindfulness in Teaching (IMTS; Tarrasch et al., 2020). Burnout was measured by the Freiburg Mindfulness Inventory for burnout and the Maslach Burnout Inventory-Educators Survey (MBI) (Carvalho et al., 2017, 2021; Jennings et al., 2013; Kim et al., 2021; Tarrasch et al., 2020). Instruments to measure self-compassion included the Self-compassion Scale (SCS) invented by Neff, 2023 (Carvalho et al., 2017) and the Self-compassion Scale (SCS) invented by Raes et al., 2011 (Tarrasch et al., 2020). Perceived affect was measured by Affect the Positive and Negative Affect Schedule—Short Form (PANAS; Jennings et al., 2013); empathy was measured by the Interpersonal Reactivity Index (IRI; Cochran & Peters, 2023); well-being was measured by the Well-being the Mental Health Continuum-Short Form (MHC-SF; Carvalho et al., 2021); perceived stress and psychological distress were measured by The Perceived Stress Scale (PSS; Tarrasch et al., 2020) and the Patient Health Questionnaire 8-item Depression Scale (PHQ-8; (Jennings et al., 2017); and lastly, mental health was measured by The Mental Health Continuum-Short Form (MHC-SF; Carvalho et al., 2021). One study (Jennings et al., 2013) categorized the following four instruments

as measures for general well-being: The PANAS, the Emotion Regulation Questionnaire, the Center for Epidemiologic Studies Depression Scale (CES-D-20), and the Daily Physical Symptoms (DPS). Among the psychological domains and well-being outcomes, mindfulness and burnout were the mainly measured outcomes. Most of intervention groups in this review showed significant changes in their outcomes compared to their control groups. One study by Cochran and Peters (2023) which used a onefold intervention using mixed-method measures found no significant change in empathy. Garner et al. (2018)'s intervention compared mindfulness and SEL versus mindfulness only. Their findings showed that emotional competence improved more significantly in the mindfulness and SEL group. There was one experimental study (Palacios & Lemberger-Truelove, 2019) with phenomenological approach resulted how teachers experienced growth in emotional regulation from 12 consecutive weeks SEL and mindfulness-based consultation.

## Discussion

The aim of this systematic review was to examine the characteristics of SEL and SDT interventions for educators. From SDT relating psychotherapy, mindfulness was mainly harmonized with SEL training as the components of interventions targeted at educators, with some studies including self-compassion skills. Mindfulness was popularly adapted in the interventions. Effective interventions reviewed in this paper contained the good integration of both mindfulness and SEL. Garner et al. (2018) explained that mindfulness and SEL trainings complement each other in the sense that they have similar goals of cultivating the ability of emotion regulation, empathy, and the capacity to remain resilient in challenging personal and professional situations (Lawlor, 2016). Carvalho et al. (2017)'s intervention explained that such similarities between the two trainings suggest that mindfulness and SEL skill trainings could be integrated together easily.

The use of mindfulness-based intervention may facilitate deepening the development of SEC. One view (Maloney et al., 2016) guided that mindfulness practice is theorized to develop one's ability to aware external factors. Through mindfulness practices, one can foster stillness and calm and reflect on the necessary conditions for self-exploration which results in self-awareness (Mind and Life Education Research Network, 2009), and this may develop school structured SEL programs by providing a practical way to improve SEC. There is another view by Jennings et al. (2016) is that "mindfulness practice itself engage and promote self-awareness and self-regulation by focusing on non-elaborative, non-judgmental, present-centered awareness of each thought, feeling, or sensation in the attentional field" (Bishop et al., 2004, p. 232). This practice engages self-regulation of attention and non-judgmental awareness which can help teachers to become more adjusted to their own emotions and to regulate them more effectively. This can help teachers to enhance positivity and acceptance toward themselves and their experiences which leads to improve their own well-being



and resilience in face of challenges. Consequently, the current review showed participation of SEL and mindfulness program aids in lowering levels of perceived stress, burnout, and psychological distress and in enhancing mindfulness, self-compassion, positive affect, empathy, and well-being. The review by Oliveira et al. (2021a, 2021b) showed the impact of SEC on the five key competencies (emotional acknowledgment, emotional regulation, social competence, and self-regulation) on educators' SEL. Teachers who have strong SEC may have better equipped to handle the challenges that arise in their work and are more likely to experience a sense of efficacy and fulfillment in their teaching. This, in turn, can lead to a more enjoyable and rewarding teaching experience. However, when teachers experience distress, whether it be related to their personal life or their work, it can impair their ability to provide emotional and instructional support to their students. This can have negative consequences for both the teacher and the students. These demonstrated improvements at both the teacher and classroom levels provide support for key components of the SEL programs.

There were two interventions (Carvalho et al., 2021; Tarrasch et al., 2020) which applied self-compassion skills into the intervention. Self-compassion can be defined as a positive attitude toward oneself, characterized by a non-judgmental attitude of openness, understanding, and acceptance of one's suffering, inadequacies, and shortcomings (Neff, 2003a, 2003b). It involves the expression of one's true and authentic self being attentive to their inner states in a kind and positive attitude, worthy of others, and having emotional balance derived from mindfulness (Neff, 2003b; Neff et al., 2005).

Mindfulness and self-compassion would be interrelated concepts as mindfulness is the practice of paying attention to the present moment with non-judgmental awareness, and compassion is the sensitivity to suffering in self and others, with a commitment to try to alleviate it. By practicing mindfulness, one becomes more aware of the suffering that exists in oneself and others. This awareness can then be used to develop compassion, which involves feeling empathy and sympathy for others who are suffering, and a desire to help alleviate their suffering (Dalai Lama, 1995; Tsering, 2008). Compassion, in turn, can lead to caring, which involves taking action to help others. This may involve providing physical or emotional support or simply being there for someone in need.

The other aim of the review was to investigate all the programs' curriculum. Most programs reviewed were designed to strengthen the theoretical premises of the belief that SEL and mindful activities or self-compassion skills may lead to new insights, emotional responsivity, and improved pedagogical practices. Furthermore, the programs were developed and evaluated by educational organizations (e.g., MindUP was developed by the Hawn Foundation). The MindUP curriculum was combined using various fields: cognitive developmental neuroscience, contemplative science, mindfulness, SEL, and positive psychology. Similar to other mindfulness programs, the MindUP curriculum centers around breathing practices and mindful awareness practices (e.g., mindful seeing and eating). Breathing activities and being aware of one's body and mind were core ingredients in the practice of mindfulness.

Breathing exercises have been found to help regulate the automatic nervous system, focus the mind, and increase self-awareness. The quality of teaching increases when teachers are more “present”. More focused teachers may be able to better deal with stress. Mindful listening is the practice of granting one’s full attention to what is being shared with oneself in any moment. As a mindful listener, one will take in what others are saying with openness, curiosity, and non-judgment. Most mindful listening components in the SEL and mindfulness-based interventions were adapted to develop empathy and compassion skills. Kim et al. (2021) utilized mindful listening practices to sharpen SEC senses, while Carvalho et al. (2021) utilized it as part of developing mindfulness practice.

## Conclusion

The systematic review found that SEL and SDT programs may strengthen adult’s well-being and psychological health, particularly for those who are engaged in the education sector. The major strength of this review was the integration of the SEL and SDT which offers an overarching construct that provided a viewpoint of an efficient intervention strategy. Additionally, the quality appraisal of the reviewed articles provided evidence for the methodological rigor of the reviewed articles and strengthened the interpretation of the findings as all the articles were assessed from medium to high-quality studies. The major limitation was although the review aimed to identify SDT components including basic psychological needs support and motivational components, it only found one component, mindfulness, which only relates to autonomy-supportive methods; thus, generalization of integration of SEL and SDT may be limited.

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**Heon Jin Kang** is Research Fellow at the National Institute Education, Nanyang Technological University (Singapore), with the specialization in Sports and Exercise Psychology. Heon Jin is interested in promoting exercise adherence and reducing perceived exercise barriers in public employing self-determination theory.