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The relationship among burnout, emotional intelligence, and self-efficacy in school teachers. A systematic review

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ABSTRACT

In the contemporary education system, educators assume a key role in shaping the cognitive, emotional, and social development of students. The multifaceted nature of their responsibilities, spanning instructional delivery, student engagement, and comprehensive classroom management, exposes teachers to a range of stressors with potential contributions to burnout. Recognizing the impact of burnout is crucial for both teachers' well-being and the guidance they provide to students. Burnout has the potential to hinder teachers' effectiveness, thereby affecting the quality of instruction and students' learning experiences. An exploration of the connections between emotional intelligence and burnout reveals how teachers' emotional abilities shape their resilience amid professional challenges. This systematic review investigates the overall relationship among teachers' burnout, emotional intelligence, and self-efficacy. The findings from these studies consistently showed negative associations between burnout with emotional intelligence and self-efficacy, along with positive associations between emotional intelligence and self-efficacy. Additionally, some studies suggested potential pathways linking emotional intelligence, self-efficacy, and burnout; however, these findings are based exclusively on correlational evidence and should be interpreted as theoretically grounded hypotheses rather than established mechanisms. Given the limited number of available studies and their cross-sectional design, the present review synthesizes patterns of association rather than causal relationships, highlighting directions for future longitudinal and intervention research.

1. Introduction

The educational sector places teachers at the forefront of shaping not only academic growth but also the socio-emotional development of future generations (Denham et al., 2012; Fried et al., 2015; Jennings & Greenberg, 2009). As key contributors to societal progress, teachers' roles extend beyond mere instructional scopes. Amidst these responsibilities, teachers meet a myriad of challenges that may significantly affect their psychological well-being (Dias-Lacy & Guirguis, 2017; Kyriacou, 2001; Newberry & Allsop, 2017).

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Psychological well-being in the context of teaching is a multifaceted construct, embracing factors such as emotional resilience, job satisfaction, and a sense of professional efficacy (Hakanen et al., 2006; Madigan & Kim, 2021). The psychological state of educators not only influences their individual satisfaction but also permeates the educational environment, potentially shaping students' psychological experiences and academic outcomes (Fried et al., 2015; Roorda et al., 2011; Sutton & Wheatley, 2003). However, global research findings show various emerging issues, including a diminishing status of the teaching profession, an escalating dissatisfaction with the working environment, and, notably, increasing teacher burnout and turnover rates leading to a later shortage of qualified educators (Borman & Dowling, 2008; European Commission, 2018; Skaalvik & Skaalvik, 2011).

1.1. Burnout

Research from many countries underscores the global concern surrounding teacher burnout, as showed by the widespread engagement of diverse nations in studies addressing this phenomenon (Aloe et al., 2014; Brown, 2012; Mérida-López & Extremera, 2017; Puertas Molero et al., 2019; Shoji et al., 2016; Wang & Wang, 2022). To this day, a widely recognized definition of burnout characterizes it as an exhaustion syndrome, encompassing a simultaneous negative attitude toward work, reduced professional efficiency, and emotional exhaustion - a central dimension expressed through psychological and physical reactions to work (Maslach et al., 2001). This emotional fatigue leads to detachment from activities and colleagues, coupled with a diminished sense of personal accomplishment, reflecting a decline in one's perceived ability to complete tasks (Schaufeli et al., 2009). Assessing burnout consistently relies on self-report instruments (Edú-Valsania et al., 2022), with the Maslach Burnout Inventory (MBI; Maslach et al., 1996) still standing out as the predominant measurement tool in this area of study even though an increasing number of competing measures exist (Edú-Valsania et al., 2022; Schaufeli, 2003; Schaufeli et al., 2020; Shoman et al., 2021). While Maslach's definition remains highly influential, it has been criticized for its conceptual vagueness and lack of diagnostic clarity (Kristensen et al., 2005, Schaufeli & Taris, 2005; Schaufeli et al., 2020). Moreover, the MBI has also been criticized on both conceptual and psychometric grounds (Kristensen et al., 2005; Schaufeli, 2003; Schaufeli & Taris, 2005; Shoman et al., 2021). Its three dimensions combine heterogeneous elements as an individual state (exhaustion), a coping strategy (depersonalization), and a consequence (reduced efficacy) that may not belong under a single construct (Schaufeli & Taris, 2005). Recent contributions have discussed several limitations of the MBI, noting that it may not fully capture certain dimensions of burnout (e.g., cognitive or emotional impairments), that some subscales raise validity concerns, and that its structure does not provide an overall score for case identification, which reduces its applicability in clinical contexts (Schaufeli et al., 2020, 2023). To address these limitations, a more harmonized definition ws recently approved through the Delphi method by an expert panel from 29 countries, which describes occupational burnout as «an exhaustion due to prolonged exposure to work-related problems» (Guseva Canu et al., 2021, p. 104). Another recent definition defined burnout as «a work-related state of exhaustion characterized by extreme tiredness, reduced ability to regulate cognitive and emotional processes, and mental distancing» complemented by secondary symptoms such as depressed mood, psychological distress, and psychosomatic complaints (Schaufeli et al., 2020, p. 4). From this updated conceptualization, new instruments have been developed, most notably the Burnout Assessment Tool (BAT; Schaufeli et al., 2020, 2023), which aims to overcome the limitations of the MBI and is increasingly recognized as a step toward greater conceptual clarity and clinical applicability (W.B. Schaufeli et al., 2023).

In the context of education, burnout is linked to a decline in job satisfaction, a rise in absenteeism, and diminished occupational health (Hakanen et al., 2006; Madigan & Kim, 2021; Skaalvik & Skaalvik, 2011). This, in turn, leads to a downturn in classroom performance, adversely affecting learning goals and overall students' social and emotional development (Aloe et al., 2014; Jennings & Greenberg, 2009; Madigan & Kim, 2021). In comparison to the demanding nature of teaching tasks, factors such as limited resources, ineffective school leadership, challenging student conduct, heightened workload, time constraints, and low wages all play roles in inducing exhaustion and eventual disengagement among teachers (Aloe et al., 2014; Borman & Dowling, 2008; Hakanen et al., 2006; Kyriacou, 2001; Skaalvik & Skaalvik, 2011). Furthermore, burnout is linked to the propensity for departure and resignation from the profession (Skaalvik & Skaalvik, 2011), being the culminating phase of unsuccessful coping with prolonged work-related stress (Maslach et al., 2001; Schaufeli et al., 2009). In this regard, a recent systematic review has highlighted a wide range of determinants contributing to teachers' burnout (Mijakoski et al., 2022). At the individual level, detrimental factors include low self-efficacy, job dissatisfaction, neuroticism, and maladaptive coping strategies, whereas high self-efficacy, problem-focused coping, and intrinsic motivation play a protective role. At the relational level, conflicts with students, parents, and colleagues consistently predict higher burnout, while social support from peers and family-to-work facilitation mitigate its development. Finally, organizational conditions such as excessive workload, time pressure, disruptive classroom environments, and negative school climate exacerbate burnout, whereas supportive and innovative school environments serve as protective resources. These findings confirm the multifaceted nature of burnout and the importance of considering both personal and contextual variables.

1.2. Emotional intelligence

In the education field, emotions have mostly gained recognition from scholars since they foster student's learning and academic achievement (Li et al., 2020; Mega et al., 2014). However, during the last decade, the functions of emotions in teachers' work have also been recognized to be crucial due to its multifaceted nature that extends far beyond the mere transmission of knowledge (Fried et al., 2015). Teachers' work has an intrinsic relational nature since they daily engage in parents, colleagues, and principals, but above of all students who they spend most time with (Hagenauer et al., 2015; Sutton & Wheatley, 2003). Emotions not only influence teachers' well-being but also significantly affect their teaching style, classroom dynamics, and the educational outcomes of their students (Frenzel et al., 2021). Moreover, the quality of teachers-students relationship is related to teachers' emotional experiences during

instructional activities (Hagenauer et al., 2015). In recent years, many studies in education field focused in particularly on the role of emotional intelligence (EI): Mayer and Salovey (1997) conceptualized EI as a collection of cognitive abilities, known as ability EI, encompassing perception, use, understanding, and regulation (Mayer et al., 2016). These cognitive abilities are quantitatively assessed through performance tests like the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT; Mayer et al., 2002). In contrast, alternative theoretical perspectives defined EI as a personality dimension, specifically trait EI, measured through self-report methodologies (Petrides et al., 2007, 2016). Furthermore, within the realm of self-report measures, there exists a sub-distinction based on the underlying theoretical framework distinguishing between trait EI self-report and ability EI self-report (Gutiérrez-Cobo et al., 2016; Joseph & Newman, 2010; Mérida-López & Extremera, 2017; Sánchez-Álvarez et al., 2016). Ability EI self-report scales adhere to the model proposed by Mayer and Salovey (1997), excluding elements related to personality traits or emotional competencies (Gutiérrez-Cobo et al., 2016; Mérida-López & Extremera, 2017). As a result, these scales assess individuals' self-perceptions of their emotional abilities, commonly referred to as self-reported EI or perceived EI (PEI; Sánchez-Álvarez et al., 2016). Consequently, ability EI and PEI measures assess distinct psychological processes of the same construct (Brackett et al., 2006; D'Amico & Geraci, 2023; Joseph & Newman, 2010).

1.3. Self-Efficacy

Another key aspect of a teacher's work is self-efficacy (SE), which has progressively assumed a significant position in the field of school psychology due to its impact on fostering openness to adopting innovative teaching methods, maintaining higher standards in delivering classroom instruction, and enhancing effectiveness in behavior management (Caprara et al., 2006; Klassen & Tze, 2014; Miller et al., 2017; Zee & Koomen, 2016). The genesis of the SE concept lies in Bandura's social-cognitive theory of behavioral change (Bandura, 1977), which explains that people develop their sense of efficacy through multiple sources, including mastery experiences and personal achievements, vicarious experiences, feedback and social persuasion, emotional states and physical reactions. People often interpret stress as indicators of inefficacy, whereas positive emotional states foster stronger efficacy beliefs. Experiencing positive states can lead individuals to view themselves as more competent in completing tasks (Llorens et al., 2007; Salanova et al., 2011). SE encompasses a teacher's belief in their ability to effectively navigate tasks, obligations, and challenges inherent in their professional role, such as didactical tasks and classroom discipline management (Caprara et al., 2006; Tschannen-Moran & Hoy, 2001). Teachers' SE holds significant implications for teaching effectiveness, instructional practices, and students' academic achievement (Klassen & Tze, 2014; Tschannen-Moran & Hoy, 2001; Zee & Koomen, 2016). Teachers' SE is commonly measured using various instruments and surveys designed to assess their beliefs and confidence in their ability to perform specific teaching-related tasks (Aloe et al., 2014; Wang & Wang, 2022; Zee & Koomen, 2016). One widely used tool for measuring teacher self-efficacy is the Teacher Self-Efficacy Scale (TSES; Tschannen-Moran & Hoy, 2001; Wang & Wang, 2022). In addition to self-report measures, external measures like classroom observations, and students' achievement or evaluations of teachers are often included (Klassen & Tze, 2014). Extensive studies reveal that teachers owning high SE levels tend to experience elevated job satisfaction, reduced job-related stress, and meet fewer challenges in managing students' misbehaviors (Caprara et al., 2006; Klassen & Tze, 2014; Zee & Koomen, 2016).

1.4. The association between burnout, EI, and SE

In teacher burnout research, EI and SE are consistently studied for their protective roles in helping teachers confront or mitigate burnout symptoms. Numerous studies have demonstrated that higher levels of EI are associated with a reduced emergence of burnout symptoms, confirming its protective role (Mérida-López & Extremera, 2017; Puertas Molero et al., 2019; Wang & Wang, 2022). A consistent body of research has likewise shown a negative correlation between teachers' self-efficacy beliefs and burnout, indicating that teachers with stronger SE are less likely to experience burnout across different educational stages, subjects, and countries (Aloe et al., 2014; Brown, 2012; Shoji et al., 2016; Wang & Wang, 2022). Importantly, EI not only acts as a buffer against the onset of burnout (Mérida-López & Extremera, 2017; Puertas Molero et al., 2019; Wang & Wang, 2022), but also contributes to strengthening teachers' SE (Fabio & Palazzeschi, 2008; Valente et al., 2020; Wang & Wang, 2022). Notably, these associations between EI, burnout, and SE emerge consistently across studies, despite differences in theoretical frameworks and measurement methods. This link between EI and SE suggests that educators with stronger emotional abilities tend to develop higher self-efficacy and foster more positive relationships with students (Aloe et al., 2014; Fabio & Palazzeschi, 2008; Valente et al., 2020; Wang & Wang, 2022). Despite this evidence, however, little is known about the underlying processes or mechanisms that explain how EI and SE interact with each other and with burnout, or about the precise nature of these relationships.

The Job Demands–Resources (JD-R) model (Demerouti et al., 2001; Schaufeli & Bakker, 2004) offers a useful framework for understanding the relationships among these variables. According to this model, burnout develops through a health-impairment process that occurs when job demands chronically exceed the resources available to cope with them. In contrast, when sufficient resources are available, they can buffer the negative impact of demands and foster engagement through a motivational process (Bakker & Demerouti, 2007, 2014). Longitudinal research showed that the processes tend to evolve in two different cycles, namely gain and loss cycle (Bakker & Demerouti, 2018). In the loss cycle, excessive demands and a lack of support drain energy, leading to strain and burnout that, in turn, increase job demands. In contrast, the gain cycle describes a positive spiral in which job resources sustain motivation and engagement, encouraging behaviors that increase new resources. In these cycles, personal resources play an important role as they contribute to successfully achieve work goals by controlling and influencing workplace environment (Bakker & Demerouti, 2014; Schaufeli & Taris, 2014). Personal resources that have been previously studied in the teaching population included EI (Fiorilli et al., 2019; Ju et al., 2015; Pulido-Martos et al., 2016) and self-efficacy (Llorens et al., 2007; Llorens-Gumbau et al., 2014). Since

personal resources are defined as «psychological characteristics or aspects of the self that are generally associated with resilience and refer to the ability to successfully control and influence one's environment» (Bakker & Demerouti, 2014, p. 49), they reflect people's beliefs about how much control they have over their work and their ability to cope with challenges (Bakker & Demerouti, 2018). Employees who feel confident in their abilities and maintain a positive view are more likely to approach demanding situations proactively and to view them as opportunities rather than threats. When these personal resources are high, they can help buffer the negative effects of job demands. But when they are depleted, individuals become more vulnerable to adversities. In this sense, personal resources not only protect against burnout but also foster motivation and engagement, helping people to stay focused and resilient even in demanding environments. To this regard, longitudinal research provided evidence for the loss and gain cycle between workplace demands and resources, burnout and SE (Llorens-Gumbau & Salanova-Soria, 2014). Specifically, in the loss cycle, excessive demands contribute to feelings of exhaustion and detachment that gradually erode SE which in turn deepens burnout. In the gain cycle, on the other hand, job resources foster work engagement that strengthens SE and maintain their motivation over time, creating a reinforcing loop. In this context, EI can be considered a complementary personal resource that may help to cope more effectively with emotionally demanding situations and to mobilize job resources. In doing so, EI may protect against the loss cycle by buffering the decline of SE while also amplifying the gain cycle by strengthening efficacy beliefs and sustaining engagement, an association that has been extensively documented (Aloe et al., 2014; Fabio & Palazzeschi, 2008; Valente et al., 2020; Wang & Wang, 2022). Thus, EI and SE could be considered as interconnected personal resources within the JD-R model, jointly contributing to teachers' ability to manage demands, prevent burnout, and maintain engagement and well-being.

1.5. The present systematic review

The burnout experienced by school teachers is a notable concern, affecting both the well-being of teachers and the social, emotional, and academic development of students. Therefore, it is crucial to explore the protective influence of two key variables – EI and SE – shown by scientific literature in relation to teachers' work. This exploration is particularly important as the interaction of these variables in mitigating teachers' burnout is currently underexplored. Currently, existing systematic reviews have focused their analysis solely on the relationship between two variables at a time (Aloe et al., 2014; Brown, 2012; Mérida-López & Extremera, 2017; Puertas Molero et al., 2019; Shoji et al., 2016; Wang & Wang, 2022). However, no reviews have advanced the analysis by examining all three variables together and simultaneously. Consequently, the aim of the systematic review was to (1) analyze the overall relationship between burnout, EI, and self-efficacy in teachers; (2) to explore differences in this relationship as a function of the EI model or assessment method employed; and (3) to set up a model that explains the relationships among the three variables.

2. Method

To ensure the proper structure and integrity of the study, this systematic review adheres to the principles in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA; Liberati et al., 2009; Moher et al., 2015).

2.1. Literature search

The systematic review was conducted in September and October 2023, with a focus on articles that explore the relationship between EI, burnout, and SE among teachers. A computerized literature search of peer-reviewed scientific articles was conducted on the electronic databases of Web of Science, Scopus, PsycINFO and ERIC. Moreover, the references in relevant review articles were examined. The search strategy included the following terms: ("emotional intelligence") AND (“burnout” OR "emotional exhaustion" OR “exhaustion” OR "depersonalization" OR “cynicism” OR "personal accomplishment" OR “professional inefficacy”) AND (“teach*” OR "school teach*") AND (“teach* self efficacy” OR “teach* self-efficacy” OR “self-efficacy” OR “self efficacy” OR “confidence” OR “efficacy expectation”). We used Boolean operators and the asterisk (truncation) to account for variations in word ending. These keywords searches were applied to titles and abstracts, and there were no date restrictions. To ease the selection process and cut duplicate articles, Microsoft Excel and Mendeley were employed.

2.2. Inclusion and exclusion criteria

We incorporated peer-reviewed studies published in English, Spanish or Italian (which were languages known by the authors), without any restrictions on publication date. The articles we selected for our review had to meet specific inclusion criteria. The first requirement for inclusion was that the article had to be based on empirical research like cross-sectional or longitudinal research design published in peer-reviewed scientific journals to ensure consistency in research quality. The second condition was that the articles had to address EI, burnout, and SE as interconnected factors and present findings on the correlation between these three variables. The decision to include only studies adopting EI framework was guided by several theoretical and empirical considerations. Conceptually, EI represents a well-established and distinct construct that integrates several processes related to emotional functioning, thereby distinguishing it from other similar constructs (e.g., emotion regulation, social-emotional attributes; Mayer & Caruso, 2025; Peña-Sarrionandia et al., 2015). EI refers to a set of interrelated abilities involved in the perception, understanding, use and regulation of emotions, that allow to accurately detect and process emotional information. Furthermore, EI has consistently emerged as an important predictor across multiple life domains, such as health, subjective well-being, work attitudes, and academic performance (Llamas-Díaz et al., 2022; MacCann et al., 2020; Martins et al., 2010; Sánchez-Álvarez et al., 2016; Schutte et al., 2007). Moreover, EI

as already been identified as key predictor of both self-efficacy and burnout in teachers (Mérida-López & Extremera, 2017; Puertas Molero et al., 2019; Wang & Wang, 2022). The third criterion for inclusion was that the study employed a measurement tool specifically designed based on the theoretical models for each of three constructs. The fourth criterion for inclusion in our systematic review was that the study had to involve school teachers, with no restrictions on age, gender, role or school level. Thus, we did not consider articles that: (a) were theoretical studies and reviews; (b) solely explored a specific aspect of EI (e.g., emotion regulation) or followed different theoretical approaches; (b) explored the relationship between two out of the three variables; (c) employed unspecific measurement tool to assess each variable; (d) included participants recruited from higher education institutions or other human service professionals; (e) were not published in peer-reviewed journals. Two independent researchers used the established inclusion and exclusion criteria to evaluate titles and abstracts, with a third researcher consulted in cases of disagreements about eligibility. Inter-rater reliability was evaluated using Cohen's kappa coefficient to assess the agreement between two independent raters during the study selection process. The analysis produced a kappa value of 0.83 (SE = 0.12; 95 % CI: 0.60–1.00), indicating almost perfect agreement according to established interpretation guidelines (Landis & Koch, 1977).

2.3. *Quality assessment*

The methodological quality and risk of bias of the included studies were evaluated using the QualSyst a 14-item quantitative checklist (Kmet et al., 2004). The scale provides a systematic procedure for assessing empirical studies through 14 criteria about research questions, methods, outcome assessment, and conclusions. Each criterion is rated as "Yes" (2 points), "Partial" (1 point), or "No" (0 points). Because the studies were cross-sectionals, items referring to intervention, randomization, and blinding were marked as not applicable (N/A) and excluded from the total possible score. The quality score for each study was calculated by dividing the total obtained score by the total possible score ($2\times11 = 22$), resulting in a final value between 0 and 1. The quality score for each criteria was computed by dividing the total obtained score by the total possible score ($2\times8 = 16$), also resulting in a final value between 0 and 1. Scores above 0.75 indicated high methodological quality, those between 0.55 and 0.75 moderate quality, and those below 0.55 low quality. Following the approach proposed by Scifo et al. (2019), a cut-off value of 0.50 was considered as the threshold for acceptable methodological quality. All assessments were performed independently by two reviewers, and any disagreements were discussed with a third researcher.

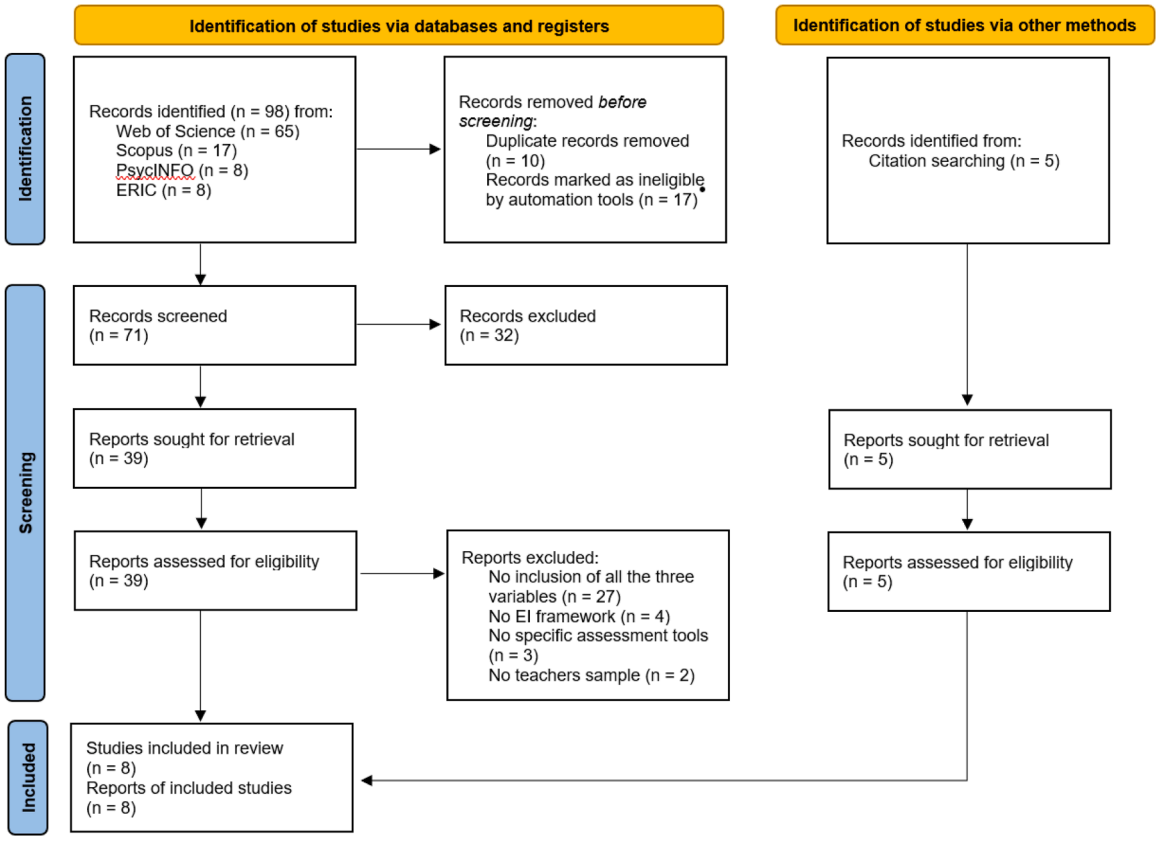

Fig. 1. PRISMA flow diagram.

3. Results

3.1. Selection of studies

The search initially identified 103 records, 98 from electronic databases and 5 from citation searching. After removing duplicates and screening titles and abstracts, 76 articles were examined in more detail. Applying the inclusion and exclusion criteria reduced this number to 8 studies, which were included in the review (Fig. 1). These selected studies were thoroughly reviewed and analyzed in their entirety, constituting our ultimate collection of research that empirically explored the relationships between teachers' burnout, EI, and SE. In only one case we asked the authors to supply information about the correlation values that were missing. The extracted data were classified by manual coding using the following methodological categories: country, sample (i.e., size, sex, and age) and the related statistics (i.e., mean scores, standard deviations, and range), grade level, EI measure, burnout measure, SE measure, research design, and statistical analyses.

3.2. Risk of bias

As shown in Table 1, the methodological quality of the included studies was overall adequate. Total scores ranged from 0.68 to 0.91, indicating generally good methodological rigor across studies. Most studies clearly stated their research aims (0.94), used well-defined outcome measures (1), and applied appropriate analytical procedures (1.00). Conversely, some methodological weaknesses

Table 1
Checklist for assessing the quality of the included studies.

Criteria	Extremera et al. (2010)	Akbari & Tavassoli (2011)	Nizielski et al. (2013)	Barari & Jamshidi (2015)	Cohen & Abedallah (2015)	Amirian et al. (2021)	Tian & Guo (2022)	Geraci et al. (2023)	Total Score (0–1)
1. Question/objective sufficiently described?	2	2	2	2	2	1	2	2	.94
2. Study design evident and appropriate	1	1	1	2	1	1	1	1	.56
3. Method of subject/ comparison group selection or source of information/ input variables described and appropriate?	1	1	1	2	1	1	1	1	.56
4. Subject (and comparison group, if applicable) characteristics sufficiently described?	2	1	2	0	1	2	2	2	.75
5. If interventional and random allocation was possible, was it d escribed?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
6. If interventional and blinding of investigators was possible, was it reported?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
7. If interventional and blinding of subjects was possible, was it reported?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
8. Outcome and (if applicable) exposure measure(s) well defined and robust to measurement/ misclassification bias? Means of assessment reported?	2	2	2	2	2	2	2	2	1
9. Sample size appropriate?	2	1	2	2	2	1	2	0	.75
10. Analytic methods described/justified and appropriate?	2	2	2	2	2	2	2	2	1
11. Some estimate of variance is reported for the main results?	1	2	2	1	1	1	2	2	.75
12. Controlled for confounding?	1	1	2	0	2	1	2	0	.56
13. Results reported in sufficient detail?	2	2	2	2	2	2	2	2	1
14 Conclusions supported by the results?	2	2	2	2	2	2	2	1	.94
Total score (0–1)	.82	.77	.91	.77	.82	.73	.91	.68	

Note. 0 = No; 1 = Partial; 2 = Yes; N/A = Not Applicable

emerged in relation to the description of study design (0.56) and participant selection (0.56), as well as the control of potential confounding variables (0.56). Moderate quality was also observed in the adequacy of sample size (0.75) and in the reporting of variance estimates (0.75). In line with the criteria proposed by Scifo et al. (2019), a cut-off value of 0.50 was considered as the threshold for acceptable methodological quality. All studies exceeded this threshold, indicating an overall moderate risk of bias.

3.3. Descriptive characteristics of the empirical studies included

The systematic review involved a total of 8 studies published over the past decade (Table 2). All the studies included in the review employed a cross-sectional and correlational research design. Most of the articles were from Iran (3), and the rest were from various countries including Spain, Italy, China, Israel, and Syria. Overall, it included a studies' sample of 1.983 participants, and the average age range from 40 to 50 years. The individual study sample sizes varied, ranging from a minimum 65 to a maximum 539 participants. Most studies presented an unequal distribution of sex among their participants, except for one study (Barari & Jamshidi, 2015) who did not report this information. Consequently, most of the participants in each study were female apart from two where the majority were male (Amirian et al., 2021; Tian & Guo, 2022). The articles encompass the range of educational levels, including infant, primary, and secondary education. Most of the articles involved a combined sample of teachers belonging to different educational levels. Likewise, when considering the tools employed to assess each variable, it was seen that the Maslach Burnout Inventory – Educator Survey (MBI-ES; Maslach et al., 1996) was the predominant choice, used in every case to measure burnout. In only study (Geraci et al., 2023) was used the Copenhagen Burnout Inventory (CBI; Kristensen et al., 2005). In contrast, various assessment tools were employed for assessing EI. In terms of EI models, all the 8 articles included in the review exclusively used measures derived from the ability model. Each study employed self-report measures to assess EI, while one article (Geraci et al., 2023) employed concurrently a performance test (i.e., MSCEIT; Mayer et al., 2002). The most often used instrument within the self-report ability model was the Wong and Law Emotional Intelligence Scale (WLEIS; Wong & Law, 2002), appearing in 4 instances (50 %), followed by the Schutte Self-Report Emotional Intelligence Test (SSREIT; Schutte et al., 1998), appearing in 3 instances (37.5 %). Only one study (Extremera et al., 2010) employed the Trait Meta-Mood Scale (TMMS-24; Salovey et al., 1995). When considering SE, 4 articles (50 %) employed the Teachers' Sense of Efficacy Scale (TSES; Tschannen-Moran & Hoy, 2001), 3 articles used the General Perceived Self-Efficacy Scale (GPSES; Scholz et al., 2002), while one study (Geraci et al., 2023) employed the Norwegian Teacher's Self-Efficacy Scale (NTSES; Skaalvik & Skaalvik, 2007).

3.4. Main findings

The results were categorized based on the distinct correlation findings among burnout, EI, and SE. Table 3 offers an overview of the correlation results between burnout, EI, and SE, while Table 4 supplies the results for the correlation between EI and SE.

3.4.1. Relationship between burnout with EI and SE

Regarding the association between burnout and EI, all the articles found a significant negative association, varying from small (around -0.13) to large (-0.62) in different subdimensions, according to the effect size standard (Cohen, 1992). The only exception was the dimension of Emotional Attention (EA) in the TMMS-24, which showed a small positive association (Extremera et al., 2010). In all studies, the negative association between burnout and EI remained consistently significant despite the diverse measures employed, except for two studies. Akbari and Tavassoli (2011) found only a small negative correlation between the dimensions of Emotional Exhaustion (EE) measured with the MBI-ES and Managing Own Emotions (ME) measured with SSREIT. Similarly, Geraci et al. (2023) discovered only a small to medium negative association between all the dimensions of burnout (CBI), with the dimension of Use of Emotion (UOE) measured with WLEIS. Additionally, they found a small negative association between Student-Related Burnout (SB) and the dimension of Others' Emotion Appraisal (OEA). The relationship between ability EI measured with MSCEIT and burnout also proved a small but significant correlation, but only for the total ability EI score and the branch of Perceiving Emotions. Concerning the relationship between burnout and SE, all the studies also found a significant negative correlation, ranging from small (around -0.14) to large (around -0.66) in their respective dimensions. However, in one study (Geraci et al., 2023), the dimensions of Student-Related Burnout (SB) showed only a small negative correlation with two out of six dimensions of SE measured with the NTSES: Cooperating with Colleagues (CO) and Coping with Change (CC).

3.4.2. Relationship between EI and SE

In all the studies included in the review, a consistent positive correlation was found between EI and SE, despite the different assessment tools employed. The effect size of the correlation ranged from small (around 0.14) to exceptionally large (around 0.91) across different dimensions. However, Cohen and Abedallah (2015) reported that the dimension of Emotional Attention (EA) in TMMS-24 did not correlate with the total score of General Perceived Self-Efficacy (GPSES). Akbari and Tavassoli (2011) found no significant correlation between the dimensions of Managing Own Emotions (ME) in SSREIT, and the dimensions of SE measured with TSES. Additionally, they did not find any correlation between the dimension of Utilization of Emotions (UE) and the dimensions of Instructional Strategies (IS) and Student Engagement (SE) of the TSES. Comparable results were found by Geraci et al. (2023), who did not find any correlation between the dimensions of Others' Emotional Appraisal (OEA) and Regulation of Emotion (ROE), and all the dimensions of SE measured by NTSES. Finally, concerning ability EI, the branch of Perceiving Emotions and the total score of MSCEIT showed only a small positive significant correlation with all the dimensions of SE measured by NTSES.

Table 2
Summary of the studies on teachers' EI, burnout, and SE included in the systematic review.

No	Study	Country	Sample			Grade level	EI measure	Burnout measure	SE measure	Research design	Statistical analysis
			Size	Sex	Age						
1	Extremera et al. (2010)	Spain	245	52.7 % females; 47.3 % males	41.4 years (SD = 9.06, range = 21–66)	Combined	TMMS-24	MBI-ES	GPSES	Cross-Sectional	Correlation; hierarchical regression
2	Akbari & Tavassoli (2011)	Iran	264[a]	78.4 % females; 21.6 % males	/	/	SSREIT	MBI-ES	TSES	Cross-Sectional	Correlation
3	Nizielski et al. (2013)	Syria	300	68.3 % females; 31.7 % males	40.37 (SD = 7.77, range = 23–59 years)	Combined	WLEIS	MBI-ES	GPSES	Cross-Sectional	Correlation; mediation
4	Barari & Jamshidi (2015)	Iran	225	/	/	Primary school	SSREIT	MBI-ES	TSES	Cross-Sectional	Correlation; SEM
5	Cohen & Abedallah (2015)	Israel	221	83.7 % females	80 % under 40 years	Primary school	SSREIT	MBI-ES	GPSES	Cross-Sectional	Correlation; mediation
6	Amirian et al. (2021)	Iran	124	35.5 % females; 64.5 % males	/	Secondary school	WLEIS	MBI-ES	TSES	Cross-Sectional	Correlation; hierarchical regression
7	Tian & Guo (2022)	China	539	40.6 % females; 59.4 % males	112 under 30 years (20.8 %); 216 between 31–40 years (40.1 %); 168 between 41–50 years (31.2 %); 43 above 51 years (8 %)	Combined	WLEIS	MBI-ES	TSES	Cross-Sectional	Correlation; SEM
8	Geraci et al. (2023)	Italy	65	93.8 % females; 6.2 % males	50.49 years (SD = 8.99; range = 29–72)	Combined	MSCEIT; WLEIS	CBI	NTSES	Cross-Sectional	MANOVA

Note. CBI = Copenhagen Burnout Inventory (Kristensen et al., 2005); GPSES = General Perceived Self-Efficacy Scale (Scholz et al., 2002); MBI-ES = Maslach Burnout Inventory – Educator Survey (Maslach et al., 1996); MSCEIT = Mayer–Salovey–Caruso Emotional Intelligence Test (Mayer et al., 2002); NTSES = Norwegian Teacher's Self-Efficacy Scale (Skaalvik & Skaalvik, 2007); SSREIT = Schutte Self-Report Emotional Intelligence Test (Schutte et al., 1998); TMMS-24 = Trait Meta–Mood Scale (Salovey et al., 1995); TSES Teachers' Sense of Efficacy Scale (Tschannen-Moran & Hoy, 2001); WLEIS = Wong and Law Emotional Intelligence Scale (Wong & Law, 2002).

[a] Data analyses were conducted on 175 out of the total 264 participants, as 89 individuals left several items unanswered.

Table 3
Summary of the cross-sectional correlations between burnout, EI, and SE.

Study			EI										SE					
			Self-report					Performance-based										
Extremera et al. (2010)			TMMS-24					/					GPSES					
			EA		EC	ER							Total					
	Burnout (MBI-ES)	EE	.18**		-0.31**	-0.14*							-0.31**					
		DP	.02ns		-0.20**	.09ns							-0.16*					
		PA	.13*		.35**	.25*							.29**					
Akbari & Tavassoli (2011)			SSREIT					/					TSES					
			PE	ME	MOE	UE	Total						IS	CM		SE		Total
	Burnout (MBI-ES)	EE	-0.07 ns	-0.13*	-0.04ns	-0.08 ns	-0.11 ns						-0.14*	-0.21*		-0.20*		-0.20*
		DP	-0.02 ns	-0.01 ns	-0.05ns	-0.01 ns	-0.03 ns						-0.18*	-0.24*		-0.26*		-0.25*
		PA	.10ns	.04ns	.12ns	.06ns	.11ns						.33*	.37*		.41*		.41*
Nizielski et al. (2013)			WLEIS					/					GPSES					
			SEA		OEA								Total					
	Burnout (MBI-ES)	Total	-0.34*		-0.18*								-0.38*					
Barari & Jamshidi (2015)			SSREIT					/					TSES					
			PE	RE	UE	Total							IS	CM		SE		Total
	Burnout (MBI-ES)	EE	-0.27*	-0.20*	-0.23*	-0.26*							-0.28*	-0.29*		-0.22*		-0.30*
		DP	-0.21*	-0.36*	-0.35*	-0.34*							-0.30*	-0.25*		-0.14*		-0.27*
		PA[a]	-0.26*	-0.32*	-0.33*	-0.34*							-0.33*	-0.32		-0.23*		-0.33*
Cohen & Abedallah (2015)			SSREIT					/					GPSES					
			PE		RE	UE							Total					
	Burnout (MBI-ES)	EE	-0.49***		-0.37***	-0.38***							-0.44***					
		DP	-0.62***		-0.51***	-0.50***							-0.55***					
		PA[a]	-0.56***		-0.54***	-0.48***							-0.54***					
Amirian et al. (2021)			WLEIS					/					TSES					
			Total										Total					
	Burnout (MBI-ES)	Total	-0.33**										-0.29**					
Tian & Guo (2022)			WLEIS					/					TSES					
			Total										Total					
	Burnout (MBI-ES)	Total	-0.35**										-0.61**					
Geraci et al. (2023)			WLEIS					MSCEIT					NTSES					
			SEA	OEA	UOE	ROE	Total	P	F	U	M	Total	IN	AI	CO	CC	MS	MD
	Burnout (CBI)	PB	-0.24 ns	.04ns	-0.31*	-0.11 ns	-0.20 ns	-0.33**	-0.20 ns	-0.06 ns	-0.06 ns	-0.27*	-0.59**	-0.51**	-0.50**	-0.57**	-0.57**	-0.54**
		WB	-0.20 ns	.06ns	-0.40**	-0.16 ns	-0.22 ns	-0.30*	-0.20 ns	-0.10 ns	-0.02 ns	-0.26*	-0.65**	-0.58**	-0.60**	-0.63**	-0.66**	-0.62**
		SB	-0.25*	-0.04 ns	-0.29*	-0.09 ns	-0.21 ns	-0.34**	-0.21 ns	-0.14 ns	-0.02 ns	-0.28*	-0.22ns	-0.18ns	-0.25*	-0.31*	-0.21ns	-0.22ns

Note. AI = Adapting Instruction to Individual Needs; CBI = Copenhagen Burnout Inventory; CC = Coping with Change; CM = Classroom Management; CO = Cooperating with Colleagues; DP = Depersonalization; EA: Emotional Attention; EC = Emotional Clarity; EE = Emotional Exhaustion; ER = Emotional Repair; F = Facilitating Thoughts; GPSES = General Perceived Self-Efficacy Scale; IN = Instruction; IS = Instructional Strategies; M = Managing Emotions; MBI-ES = Maslach Burnout Inventory – Educator Survey; MD = Maintaining Discipline; ME = Managing own Emotions; MOE = Managing Others' Emotions; MS = Motivating Students; MSCEIT = Mayer–Salovey–Caruso Emotional Intelligence Test; NTSES = Norwegian Teacher's Self-Efficacy Scale; OEA = Others' Emotion Appraisal; P = Perceiving Emotions; PA = Personal Accomplishment; PB = Personal Burnout; PE = Perception of Emotions; RE = Regulation of Emotions; ROE = Regulation of Emotion; SB = Student-Related Burnout; SE = Student Engagement; SEA = Self-Emotion Appraisal; SSREIT = Schutte Self-Report Emotional Intelligence Test; TMMS-24 = Trait Meta–Mood Scale; TSES Teachers' Sense of Efficacy Scale; U = Understanding Emotions; UE = Utilization of Emotions; UOE = Use of Emotion; WB = Work-Related Burnout; WLEIS = Wong and Law Emotional Intelligence Scale.

[a] reversed items.

[ns] non-significant.

* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 4
Summary of the cross-sectional correlations between EI and SE.

Study	EI		SE					
Extremera et al. (2010)			GPSES					
			Total					
	TMMS-24	EA	.01ns					
		EC	.44**					
		ER	.33**					
Akbari & Tavassoli (2011)			TSES					
			IS	CM		SE	Total	
	SSREIT	PE	.20*	.25*		.16*	.23*	
		ME	.05 ns	.09 ns		.10 ns	.09 ns	
		MOE	.14*	.19*		.14*	.17*	
		UE	.11 ns	.14*		.08 ns	.12*	
		Total	.17*	.23*		.16*	.21*	
Nizielski et al. (2013)			GPSES					
			Total					
	WLEIS	SEA	.46*					
		OEA	.44*					
Barari & Jamshidi (2015)			TSES					
			IS	CM		SE	Total	
	SSREIT	PE	.32*	.40*		.39*	.88*	
		RE	.37*	.41*		.39*	.89*	
		UE	.38*	.42*		.41*	.91*	
		Total	.40*	.47*		.45*	.41*	
Cohen & Abedallah (2015)			GPSES					
			Total					
	SSREIT	PE	.78***					
		RE	.77***					
		UE	.74***					
Amirian et al. (2021)			TSES					
			Total					
	WLEIS	Total	.63**					
Tian & Guo (2022)			TSES					
			Total					
	WLEIS	Total	.43**					
Geraci et al. (2023)			NTSES					
			IN	AI	CO	CC	MS	MD
	WLEIS	SEA	.25*	.24 ns	.28*	.24 ns	.24 ns	.31*
		OEA	.16 ns	.23 ns	.19 ns	.17 ns	.15 ns	.21 ns
		UOE	.32**	.30*	.32**	.29*	.32**	.32**
		ROE	.19 ns	.10 ns	.13 ns	.16 ns	.21 ns	.13 ns
		Total	.30*	.28*	.30*	.27*	.30*	.32*
	MSCEIT	P	.36**	.35**	.31*	.44**	.41**	.32**
		F	.21 ns	.20 ns	.13 ns	.23 ns	.21 ns	.17 ns
		U	.13 ns	.03 ns	-0.01 ns	.06 ns	.05 ns	.08 ns
		M	.09 ns	.05 ns	-0.02 ns	.10 ns	.05 ns	.07 ns
		Total	.31*	.27*	.20 ns	.34**	.31*	.26*

Note. AI = Adapting Instruction to Individual Needs; CC = Coping with Change; CM = Classroom Management; CO = Cooperating with Colleagues; EA: Emotional Attention; EC = Emotional Clarity; ER = Emotional Repair; F = Facilitating Thoughts; GPSES = General Perceived Self-Efficacy Scale; IN = Instruction; IS = Instructional Strategies; M = Managing Emotions; MD = Maintaining Discipline; ME = Managing own Emotions; MOE = Managing Others' Emotions; MS = Motivating Students; MSCEIT = Mayer–Salovey–Caruso Emotional Intelligence Test; NTSES = Norwegian Teacher's Self-Efficacy Scale; OEA = Others' Emotion Appraisal; P = Perceiving Emotions; PE = Perception of Emotions; RE = Regulation of Emotions; ROE = Regulation of Emotion; SE = Student Engagement; SEA = Self-Emotion Appraisal; SSREIT = Schutte Self-Report Emotional Intelligence Test; TMMS-24 = Trait Meta–Mood Scale; TSES Teachers' Sense of Efficacy Scale; U = Understanding Emotions; UE = Utilization of Emotions; UOE = Use of Emotion; WLEIS = Wong and Law Emotional Intelligence Scale.

[ns] non-significant.

* $p < .05$, ** $p < .01$, *** $p < .001$.

3.4.3. Links involved in the relationship among teachers' burnout, EI, and SE

Several articles in the review proposed different models linking the studied variables, with most not concurrently examining all three variables or suggesting a connection among them. Two studies used hierarchical regression analyses to explore the roles of EI and SE in burnout variation. Amirian et al. (2021) found teachers' EI, measured with WLEIS, as the sole significant predictor of burnout among the five independent variables (experience, age, personality, EI, and SE) using hierarchical regression analysis. Extremera et al. (2010) investigated the impact of EI, measured with TMMS-24, and SE, measured with GPSES, on individual burnout dimensions. The hierarchical regression analysis revealed that 23 % of the total variance in Emotional Exhaustion (EE) was explained by SE, optimism, Emotional Attention (EA), and Emotional Clarity (EC). Furthermore, the inclusion of Emotional Attention (EA) and Emotional Clarity (EC) increased the explained variance by 7.6 %. Cohen and Abedallah (2015) examined the mediating role of burnout in the

associations between EI, SE, and teachers' work outcomes (i.e., in-role performance and organizational citizenship behaviors). EI was measured with the SSREIT, SE with the General Perceived Self-Efficacy Scale (GPSES), and burnout with a short form of the MBI-ES. Using hierarchical linear models and mediation analyses, the results indicated that both EI and SE were positively related to organizational citizenship behaviors and in-role performance, whereas burnout was negatively related to these outcomes. Importantly, burnout significantly mediated the links between EI/SE and organizational citizenship behaviors and in-role performance. Tian and Guo (2022) analyzed the combined roles of SE and EI in the relationship between transformational leadership and teacher burnout. SE was assessed with the TSES, burnout with the MBI-ES, and EI with the WLEIS. Mediation analysis showed that SE partially mediated the effect of transformational leadership on burnout as the direct effect remained significant. Moreover, the moderating role of EI was tested using hierarchical regression. The analysis showed a significant interaction effect (transformational leadership × EI), indicating that the negative association between transformational leadership and burnout was stronger among teachers with higher EI compared to those with lower EI. Lastly, Barari and Jamshidi (2015) investigated the mediating role of SE (assessed with TSES) in the relationship between EI (assessed with SSREIT) and burnout (assessed with MBI-ES). Using structural equation modeling (SEM), they found that EI had a significant positive effect on SE and a significant negative effect on burnout. Moreover, SE also showed a significant negative effect on burnout. The indirect effect of EI on burnout via SE was significant, although weaker than the direct effect of EI. Together, EI and SE explained 29 % of the variance in burnout, indicating that EI exerts both direct and indirect protective effects against burnout through its impact on teachers' SE.

4. Discussion

Interest in the psychological well-being of teachers and its impact on their ability to work effectively has increased in the last decade. Specifically, there is a growing body of evidence on the role of teachers' emotions and EI in relation to their health and instructional efficacy (Aloe et al., 2014; Brown, 2012; Mérida-López & Extremera, 2017; Puertas Molero et al., 2019; Shoji et al., 2016; Wang & Wang, 2022). The present review systematically examines scientific papers published thus far on the association between burnout with EI and SE among school teachers. The aims were to supply an overview of the current state of the art and to hypothesize the underlying mechanisms behind this association, also taking into consideration information on the methodological characteristics of the empirical studies examined (i.e., research design, measurement method, sample characteristics).

4.1. Key findings

Concerning the aims of the review, all eight studies included showed a consistent negative relationship between burnout and EI, regardless of whether assessed through self-report or performance-based measures in line with earlier research (Mérida-López & Extremera, 2017; Vesely et al., 2013). However, it is important to highlight certain noteworthy aspects in the results that will be discussed in depth. First, Extremera et al. (2010) found a positive association between Emotional Attention (TMMS-24) and Emotional Exhaustion (MBI-ES). This suggests that elevated levels of Emotional Attention, characterized as an ineffective coping mechanism, particularly when not complemented by adequate emotional understanding and regulation, may contribute to the emergence of burnout symptoms. Therefore, while Emotional Attention is necessary for understanding emotions, an excessive focus of this nature may increase the risk of ruminative thoughts, after heightening the likelihood of depressive states and negative moods (Domínguez-García & Fernández-Berrocal, 2018; Extremera et al., 2010; Fernández-Berrocal & Extremera, 2008; Martínez-Monteagudo et al., 2019). This result shows the differences between Emotional Attention and Perception concerning burnout syndrome. While excessive Emotional Attention increases the possibility of experiencing burnout, emotional perception can mitigate the effects of burnout in teachers, as shown by the study of Geraci et al. (2023). This study found a negative correlation between Emotional Perception ability (MSCEIT) and burnout (CBI). Consistent with studies on the relationship between EI and coping strategies, it is noteworthy that emotional perception and appraisal play a crucial role in stressful situations because they aid in understanding the circumstances and selecting effective regulation strategies (Brackett et al., 2011; MacCann et al., 2011; Saklofske et al., 2012). Second, only one study found no correlation (Akbari & Tavassoli, 2011) between PEI (SSREIT) and burnout (MBI). As the authors suggested, several factors might contribute to this lack of correlation, such as participants' careless answers, unfamiliarity with the study variables, or social desirability. Additionally, the absence of correlation could be attributed to sampling techniques. It is challenging to prove any explanation in this regard because this study does not specify the characteristics of the sample, such as age or educational level. However, among the studies included in this review, two other papers (Barari & Jamshidi, 2015; Cohen & Abedallah, 2015) did find a negative correlation between these variables, using the same instruments. In this sense, the literature consistently shows a negative association between these two variables in the general population and specifically in school teachers (Aloe et al., 2014; Mérida-López & Extremera, 2017; Puertas Molero et al., 2019; Shoji et al., 2016; Wang & Wang, 2022). Third, Geraci et al. (2023) found only significant negative correlations between all dimensions of burnout (CBI) and the dimension of Use of Emotions from PEI (WLEIS). Unfortunately, other studies included in the review that employed the same measure of PEI (WLEIS) use different instruments to assess burnout such as MBI. So, it is difficult to compare the Geracíś et al. (2023) result with other studies included in this review. Nevertheless, these findings could potentially be attributed to the study's small sample size or the fact that it was conducted during a COVID-related lockdown. Considering that teachers were interacting with students through remote teaching, the ability to use emotions might have been the more relevant aspect for them in coping with the difficulties related to this new kind of teaching. In fact, the use of emotions dimension encompasses items that evaluate an individual's ability to apply emotions, particularly to enhance problem-solving and performance. Examples include statements such as "I always set goals for myself and then strive to achieve them" and "I consistently encourage myself to do my best". Geraci's et al. study also investigates the relationship between burnout (CBI) and

ability EI (MSCEIT), finding significant negative correlations between all dimensions of burnout (CBI) and the total score of ability EI (MSCEIT). In this case, the actual performance that teachers show in EI is related to their levels of burnout, proving that in the context of COVID-related lockdowns, the level of ability EI is more important than perceived EI in protecting teachers from burnout symptoms. This is in line with the idea that ability EI and PEI measures evaluate different processes of the same construct (Brackett et al., 2006; D'Amico & Geraci, 2023; Joseph & Newman, 2010).

Likewise, across the reviewed studies, a negative correlation between burnout and SE was consistently observed. Some studies report a medium to high size of correlation (Cohen & Abedallah, 2015; Geraci et al., 2023; Tian & Guo, 2022), while others find a medium to low size (Akbari & Tavassoli, 2011; Amirian et al., 2021; Barari & Jamshidi, 2015; Extremera et al., 2010; Nizielski et al., 2013). These differences could be attributed to the diverse cultures in which the research has been conducted, including studies with Chinese, Iranian, Spanish, and Israel populations (Gunkel et al., 2014; Ji et al., 2022). Nevertheless, these results align with those presented in specialized literature (Aloe et al., 2014; Brown, 2012; Shoji et al., 2016; Wang & Wang, 2022), where burnout is consistently associated, both in its dimensions and overall, negatively with the perception of SE. In summary, teachers who perceive themselves as more self-efficacious confront work-related stressful situations with greater resources and so experience less burnout.

Taken together, the results also suggest that the relationships between EI, SE, and burnout may differ depending on the specific burnout dimension considered. Across the studies, among EI abilities, emotion regulation and understanding showed the strongest and most consistent negative associations with emotional exhaustion, supporting the idea that the ability to manage and interpret emotions helps teachers cope with emotional demanding situations (Mérida-López & Extremera, 2017; Puertas Molero et al., 2019; Wang & Wang, 2022). In contrast, SE appeared to be more strongly related to depersonalization and personal accomplishment, likely due to its role in sustaining confidence and goal-directed behaviors (Klassen & Tze, 2014; Zee & Koomen, 2016). Burnout models describe different pathways and stages through which the components tend to develop over time (Edú-Valsania et al., 2022). Although emotional exhaustion is generally considered the core dimension of burnout, there is still no consensus regarding a clear developmental trajectory of how its components emerge and interact over time (Demerouti, 2024; Mańkowska, 2025). However, the results indicate that EI may be more relevant in buffering the emotional exhaustion component of burnout, whereas SE may play a stronger role in preventing depersonalization and sustaining a sense of efficacy and accomplishment.

Furthermore, the studies consistently found a positive association between EI, measured through both self-report and performance-based methods, and SE. Following Cohen's (1992) benchmark, correlation coefficients analysis revealed a medium-large correlation between EI and SE. This positive association is consistent with the findings of Aloe et al. (2014), and Wang and Wang (2022) in their meta-analyses. However, in Extremera et al. (2010) the Emotional Attention dimension (TMMS-24) showed no correlation with the total score of general SE. Again, Emotional Attention keeps a different pattern than Emotional Clarity and Repair (TMMS-24). One explanation could be that Emotional Attention may be context-specific and related more to emotional experiences, while general SE may be more context-general and relate to a person's beliefs about their abilities in a wide range of situations. Even though the literature consistently proves a strong correlation between EI and SE, it is important to note that in two studies (Barari & Jamshidi, 2015; Cohen & Abedallah, 2015), the results reveal an extremely high correlation coefficient between all dimensions of EI (SSREIT) and SE (both the total scores of TSES and GSES). Specifically, in the study by Barari and Jamshidi (2015), the values reach 0.91, which is almost close to 1. These findings may suggest that the two measures tend to overlap, implying that SSREIT measures a form of emotional efficacy. Another explanation could be related to the characteristics of the sample, which unfortunately one study did not provide, or any methodological bias. Furthermore, much depends on how consistently and reliably the scales are administered and scored, as well as any potential confounding variable that are not controlled for. Differences in correlation results about the total scores of PEI (WLEIS) and SE (TSES) are clear in two studies (Amirian et al., 2021; Tian & Guo, 2022). Specifically, Amirian et al. (2021) found a large correlation, in contrast to Tian and Guo (2022), who found a medium correlation. These studies involve different sample sizes and compositions, which could offer one explanation. The highest correlations were found in the study with a larger male composition (Amirian et al., 2021) compared to the other, where the majority were females (Tian & Guo, 2022). This result might suggest that gender is a moderating factor in the relationship between these two variables. This phenomenon aligns with well-known evidence of gender differences in self-perception. Despite empirical evidence showing gender equality in cognitive functioning, individuals, especially males, often supply higher self-estimates of their intelligence compared to females (known as the male hubris/female humility effect; Furnham et al., 2001). In the case of EI measures, most studies prove that females show higher actual emotional abilities than males, but males usually report higher perceived emotional abilities than females (Cabello et al., 2016; D'Amico & Geraci, 2022; Fernández-Berrocal et al., 2012; Joseph & Newman, 2010; Lopez-Zafra & Gartzia, 2014; Meshkat & Nejati, 2017). It is important to note that all findings discussed in this section are derived from cross-sectional studies and therefore reflect correlational relationships. Consequently, references to protective roles or buffering effects should be interpreted descriptively rather than causally.

4.2. Theoretical implications

The overall evidence suggest that school teachers who show greater confidence in their teaching abilities and heightened perceived emotional abilities are less prone to experiencing burnout. Overall, these findings align with the existing scientific literature in the field, as many studies have emphasized the crucial role of EI in both the well-being of teachers and their sense of SE. Nevertheless, in analyzing potential links among the three variables, most studies examined the relationship between two of the variables alongside several factors, occasionally appointing one solely as a control variable. Finally, only one study (Barari & Jamshidi, 2015) hypothesized and investigated a potential mechanism underlying the relationship among burnout, EI, and SE. In particular, the authors discovered that even though all the variables have a direct effect on each other, they found that SE partially mediated the relationship

between EI and burnout. However, the effect of SE as a mediator was minor compared to the direct effect of EI on burnout. In other words, the authors supplied data supporting a mediation of SE on the relationship between EI and burnout. Individuals with elevated levels of EI tend to have an enhanced sense of SE, thereby mitigating the likelihood of experiencing professional burnout. This is consistent with earlier research that has proven the crucial role of EI in sustaining the best emotional functioning (Llamas-Díaz et al., 2022; Martins et al., 2010; Sánchez-Álvarez et al., 2016; Schutte et al., 2007). These findings can be interpreted within the framework of the JD-R model (Bakker & Demerouti, 2018). In this context, the JD-R model is used as an interpretative framework to organize the observed associations, rather than as a model empirically tested within the reviewed studies. From this perspective, EI and SE act as personal resources that help teachers manage the challenging aspect of their work. Teachers with higher EI may be more capable of perceiving, understanding, and regulating their emotional states in demanding situations, which sustains their sense of self-efficacy and prevents the depletion of resources and the consequent exhaustion that typically characterizes the impairment process and the loss cycle. At the same time, both EI and SE may activate a gain cycle by promoting engagement, motivation, and adaptive coping, ultimately protecting against burnout.

In summary, studies have shown that both EI and SE may be considered important potential predictors of teacher burnout. Moreover, the relationship among teachers' burnout, EI, and SE may manifest in several ways, though the available evidence remains limited. Firstly, EI and SE have been investigated as predictors of teachers' burnout (Amirian et al., 2021; Extremera et al., 2010), alongside other variables. In this context, EI has proved to be a stronger predictor than SE of burnout symptoms. Secondly, these three variables have been examined in path models, assuming different roles (e.g., mediator, moderator), in together with other variables (Cohen & Abedallah, 2015; Tian & Guo, 2022). Specifically, burnout mediated the relationship between EI and SE, as independent variables, and in-role performance and organizational citizenship behavior, as dependent variables (Cohen & Abedallah, 2015). Additionally, SE mediated the relationship between transformational leadership (independent variable) and burnout (dependent variable), while EI moderated it (Tian & Guo, 2022). Thirdly, SE mediates the relationship between teachers' EI (independent variable) and burnout (dependent variable; Barari & Jamshidi, 2015). These diverse findings do not conclusively address the research hypotheses about the potential paths linking all three variables. Much of this variability may depend on the theoretical aspects guiding the study's aims and hypotheses. Establishing a clear theoretical framework would provide a stronger conceptual basis to interpret how EI and SE interact to prevent teachers from burnout. Additionally, these path analyses are based on cross-sectional data and stem from three out of 8 studies reviewed, which prevents casual inference and limits generalizability of the findings. Taken together, the results suggest possible links among the three constructs, but the current evidence is not sufficient to draw conclusions about the directionality or underlying mechanisms, highlighting the need for future longitudinal studies to examine these relationships.

4.3. Practical implications

The consistent evidence showing that EI and SE are negatively related to burnout suggests that both constructs represent key personal resources that should be actively developed and supported through targeted interventions aiming at reduce occupational stress and burnout. Within the framework of the JD-R model (Bakker & Demerouti, 2018), EI and SE function as protective factors that help teachers access work resources and manage work demands more effectively, maintain engagement, and prevent emotional exhaustion.

Thus, the evidence suggests to integrate EI and SE training into professional development and teacher education programs. Interventions aimed at enhancing teachers' emotional abilities (e.g., the ability to identify, understand, and regulate emotions) may strengthen their capacity to manage stressful classroom situations and to maintain positive relationships with students, colleagues, and parents. At the same time, programs designed to foster SE can help teachers build stronger beliefs in their ability to manage and cope with everyday challenges. Several training programs in the educational field have already demonstrated the effectiveness of such strategies in improving teachers' emotional abilities and SE and reducing burnout (Agyapong, et al., 2023; Iancu et al., 2018: Paudel et al., 2022). However, it must be noted that such initiatives are mostly integrated into broader approaches that promote multiple aspects of teacher well-being, including mindfulness-based programs and interventions grounded in cognitive-behavioral therapy. To this regard, it would be beneficial to develop and implement theoretically grounded methods that are explicitly designed to directly support EI abilities and SE.

Developing teachers' EI and SE can translate into better classroom climate, higher job satisfaction, and a stronger sense of professional accomplishment (Caprara et al., 2006; Frenzel et al., 2021; Hagenauer et al., 2015; Klassen & Tze, 2014; Zee & Koomen, 2016). More broadly, interventions that support teachers' personal resources can have cascading benefits for the entire school community since emotionally competent and self-confident teachers contribute to a more supportive and engaging learning environment ultimately influencing students' social and academic outcomes (Fried et al., 2015; Roorda et al., 2011; Sutton & Wheatley, 2003).

4.4. Limitations and future directions

Upon reviewing the literature within this field, some limitations became known. First, a noteworthy constraint was identified as the uniform reliance on self-report instruments in all but one study. This issue is particularly critical for EI because different measurement methods reflect distinct underlying psychological processes that are being assessed. In addition, the effect sizes of the observed correlation coefficients may be influenced by the common method effect (Demerouti et al., 2021). Furthermore, the exclusive use of the MBI-ES self-report instrument (Maslach et al., 1996) was pervasive across the studies. Out of the 8 studies considered, only one opted for a different assessment tool, namely the CBI. This pattern highlights that the MBI continues to be widely adopted measurement tool in the field (Edú-Valsania et al., 2022). However, it must be noted that, due to ongoing criticism on the MBI's conceptual background

and psychometric properties, new measures have been developed in recent years (e.g., BAT; Schaufeli et al., 2020), that are more aligned with updated definitions of burnout that show good psychometric properties and clinical applications (Demerouti et al., 2021; Desart & De Witte, 2019; Kristensen et al., 2005; Schaufeli et al., 2020, 2023; Shoman et al., 2021, 2023). Overall, observational research on burnout as well as different measurement methods could offer valuable insights by presenting diverse perspectives on this phenomenon beyond reliance on self-report measures. Similarly, considering the diversity of instruments assessing EI, future studies should promote the combined use of self-report methods and performance tests.

Second, the absence of longitudinal cohort studies in each of the articles included in the review. Each investigation adhered to a cross-sectional design, lacking the extension of cohort follow-ups. Consequently, the causal inference about the direction of relationships stays unclear. The three constructs might reciprocally contribute to each other, implying a need for longitudinal studies to elucidate the directional dynamics. Thus, the mechanisms underlying these effects need investigation through longitudinal studies. Moreover, the limited number of included studies prevented the assessment of publication bias and the systematic examination of heterogeneity across countries, school levels, and measurement tools. As a result, the stability and generalizability of the observed associations across different contexts remain uncertain.

Third, not all the studies included in the review supplied complete information about sample size and composition, making it challenging to account for potential individual differences, as well as variations in sampling techniques and the reliability index of measures. These methodological concerns make it difficult to conduct a metanalysis with these studies. Additionally, a few studies focused solely on a single school level, while the majority used a combined sample of teachers. In future research, it is essential to distinguish between different school levels, as this could be a relevant organizational variable that might explain divergent results.

Fourth, about the cultural context, it is noteworthy that most studies in the review originate from Southwestern Asia. Therefore, some of the observed results could be attributed to social and cultural variations in the school context. Future research, particularly cross-cultural studies, holds the potential to offer new insights in this regard.

Lastly, it is crucial to acknowledge that the review's conclusions are based on a limited number of studies ($n = 8$), which restricts the stability and generalizability of the findings across countries, school levels, and measurement tools. Given the complexity of the relationships among burnout, EI, and SE, it becomes clear that more extensive research is needed to fully uncover the intricate paths linking these variables. The existing studies provide valuable insights, however, further research is needed to support more robust conclusions. Continued research efforts will contribute significantly to refining the comprehension of the dynamics between burnout, EI, and SE among teachers.

5. Conclusions

In summary, the current systematic review has supplied insights into the relationship among burnout, EI, and SE among school teachers. To the best of our knowledge, this is the first systematic review that distinctly examines the association among the three variables. Collectively, these findings offer a holistic perspective on the interconnectedness of EI, SE, and teacher burnout. These findings highlight consistent patterns of association between EI, SE, and teacher burnout, indicating that higher levels of EI and SE are associated with lower levels of burnout. However, their specific contributions remain uncertain, as the available evidence does not allow conclusions about causal directionality or empirically established mechanisms linking these variables. This uncertainty also depends mostly on the theoretical and methodological approach used. In conclusion, these results supply valuable insights for educators, administrators, and researchers aiming to foster a healthier and more effective teaching environment. The multifaceted nature of these relationships emphasizes the need for comprehensive approaches to address teacher well-being and instructional effectiveness. Accordingly, the present systematic review should be interpreted as a synthesis of correlational evidence that delineates theoretically meaningful patterns of association, rather than as evidence for causal mechanisms, and it aims to inform future longitudinal and intervention-based research on teachers' occupational health and psychological resources.

CRediT authorship contribution statement

Alessandro Geraci: Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Project administration, Methodology, Investigation, Conceptualization. **Antonella D'Amico:** Writing – review & editing, Visualization, Validation, Supervision. **Pablo Fernández-Berrocal:** Writing – review & editing, Visualization, Validation, Supervision. **Rosario Cabello:** Writing – review & editing, Visualization, Validation, Supervision, Project administration, Methodology, Conceptualization.

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