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# Early career teachers' social and emotional competencies, self-efficacy and burnout: a mediation model

Ivana Pikić Jugović<sup>1\*</sup>, Iris Marušić<sup>1</sup> and Jelena Matić Bojčić<sup>1</sup>

## Abstract

Teacher well-being has increasingly become a prominent research topic due to its significant impact on various teacher and student outcomes. This focus is particularly crucial for early career teachers, who often encounter numerous challenges at the beginning of their careers, leading to elevated levels of stress and burnout. Our study aimed to examine the relationship between social and emotional competencies and burnout of early career teachers and the potential mediating role of teacher self-efficacy in this relationship. A total of 657 Croatian subject teachers with up to 5 years of experience participated in the study. Structural equation modelling was implemented to test models of hypothesised relations for the overall burnout as a dependent variable and for each burnout dimension: exhaustion, mental distance, cognitive impairment, and emotional impairment. Tested models singled out self-management and social awareness as two social and emotional competencies that are, along with teacher self-efficacy, particularly predictive of burnout. Self-management predicted lower overall burnout and teacher self-efficacy partially mediated this relationship. Social awareness also predicted lower burnout in teachers, but this relationship was fully mediated by teacher self-efficacy. Early career teachers who are better at managing and motivating themselves, who are socially aware and behave more prosocially were feeling more efficacious as teachers and, subsequently, displayed fewer symptoms of burnout. At the level of burnout dimensions, the overall pattern of relations was mainly retained, indicating that self-management and social awareness are particularly predictive of the four burnout dimensions and that self-efficacy plays a mediating role, either partially or fully, in this relationship. Our findings are especially important in light of the knowledge about early years in teaching being a critical period for teacher career development. They suggest that new teachers could benefit from well-structured mentoring and induction programs designed to ease their transition into schools and foster their well-being in the initial years of teaching.

**Keywords** Burnout, Social and emotional competencies, Self-efficacy, Early career teachers

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## Introduction

Teacher well-being has become a prominent topic in the last decade, with a wide range of research studies using this all-encompassing term to investigate the relations of well-being indicators with a number of teacher and student outcomes. Well-being has been related to teacher motivation [1], their basic need satisfaction [2], psychopathological symptoms and student-related emotions [3], relatedness with students [4] or student achievement [5]. Bearing in mind a wide variety of well-being indicators used in empirical studies and a lack of clear definition of well-being in the teaching profession, Hascher & Waber [6] suggested in their recent systematic review that teacher well-being should be conceptualised as a multidimensional construct.

Recently, a theoretical framework that is founded on the conceptual integration of the existing research proposed four key areas of teacher well-being: cognitive, physical and mental, subjective and social well-being [7]. Cognitive well-being refers to teacher skills and abilities needed for quality work. Physical and mental well-being refer to psychosomatic symptoms related to stress teachers encounter in their daily work. Subjective well-being refers to general life satisfaction and to the more specific aspects of teacher satisfaction with their current job and profession, commitment, and interest in teaching. Finally, recognizing that the very nature of the teaching profession is collaborative and relational, this framework introduced the social dimension of teacher well-being as reflected in the quality of teacher relations with students, colleagues, and school leaders [7].

This study focused on burnout as a crucial indicator of teacher well-being at the beginning of their teaching careers. We aimed to investigate the relationship between teacher burnout and characteristics such as social and emotional competencies and self-efficacy in a sample of early career teachers. The early years of teaching may be a particularly challenging period of adaptation to a specific school context. During this time, early career teachers must develop skills required to understand a specific school culture, establish professional relationships with various actors, and cope with the increasing workload and intense emotional labour of the profession [8], which could lead to a decrease in teacher self-efficacy [9]. Dealing with a variety of demands leaves early career teachers more vulnerable to burnout and deteriorating mental health, which may eventually result in their decision to leave the profession [10–12]. Empirical evidence indicates that early years in teaching are challenging regardless of the specific educational context [e.g., [13], [14]. Interventions focused at enhancing aspects of self-efficacy such as classroom management skills are related to lower levels of burnout in early career teachers [15]. This suggests that self-efficacy may serve as a protective

factor against burnout during the initial stages of teaching career.

In the following sections, relevant conceptualisations of teacher burnout, social and emotional competencies and self-efficacy are outlined, together with the empirical findings on their relations.

## Teacher burnout

Teacher burnout is widely recognised and cross-examined indicator of teacher well-being, with implications on a micro (personal), meso (school) and macro levels (society). As a prolonged response to chronic emotional and interpersonal work stressors, teacher burnout is related to teachers' physical and mental health [16, 17], lower self-efficacy [18], and relationships with students and colleagues [19]. Teacher burnout can also lead to quitting, whether quiet (i.e., low enthusiasm and work engagement, e.g [20]), or loud (leaving the profession, e.g [21]).

The most prominent Maslach's conceptualisation of burnout proposed three burnout dimensions: emotional exhaustion, depersonalisation, and reduced personal accomplishment [22]. However, over the years evidence has indicated some shortcomings of Maslach's burnout theory and measurement. Schaufeli et al. [23] outlined three major flaws of Maslach burnout inventory: (1) problems with the conceptualisation of burnout, such as neglect of the cognitive malfunctioning and the distinction from depression symptoms, (2) technical and psychometric shortcomings, e.g., the extreme item formulation and the lack of factorial validity, and (3) poor practical applicability for individual burnout assessment which is often a prerequisite for entering social and medical services or burnout prevention and treatment programs. This resulted with a new conceptualisation of burnout [23], based on a qualitative study with practitioners that work with people experiencing burnout symptoms. Under this conceptualisation, burnout can be defined as "a work-related state of exhaustion that occurs among employees, which is characterised by extreme tiredness, reduced ability to regulate cognitive and emotional processes, and mental distancing" and is "(...) accompanied by depressed mood as well as by non-specific psychological and psychosomatic complaints" [23, p. 4]. Authors propose four primary burnout dimensions: exhaustion, impaired emotional and cognitive control (inability dimensions) and mental distancing (unwilliness dimension). Exhaustion is a common symptom, referring to extreme tiredness and loss of energy, both physical and mental. Further, emotional impairment stands for the reduced capacity to adequately regulate one's emotional processes, and the cognitive impairment denotes the reduced capacity to regulate one's cognitive processes. Finally, mental distancing was singled out

to represent the mental withdrawal and psychological detachment from one's job [23].

By juxtaposing Schaufeli et al.'s [23] dimensions of burnout to the four key areas of teacher well-being [7], it appears evident that burnout may interfere with all well-being areas, indicating challenges to teachers' cognitive, physical and mental, subjective and social well-being.

### Teachers' social and emotional competencies

The importance of social and emotional learning in schools and its impact on students' personal and social well-being have been recognised and investigated for a long time. However, social and emotional competencies of teachers, who are the primary instructors and models for social and emotional learning in schools, have only recently come into the focus of more systematic research [24, 25]. Therefore, a lack of scholarly agreement on how to conceptualise and measure teachers' social and emotional competencies is not surprising [26]. One of the common approaches to conceptualisation of teachers' social and emotional competencies is by using the five dimensions proposed by Collaborative for Academic, Social, and Emotional Learning (CASEL): self-awareness, self-management, social awareness, relationship skills, and responsible decision making [27].

Self-awareness presumes the ability to recognise and understand one's emotions, thoughts and values, together with their influence on one's behaviour [27, 28]. In the teacher population this can be evident in teachers' awareness of the knowledge and abilities they currently possess or need to develop, their optimism about their own and students' current state and future development, as well as their confidence and positive attitude for the interactions with colleagues and parents [24]. Self-management refers to the ability to effectively regulate emotions, thoughts, and behaviours in different situations, to motivate oneself, pursue goals and aspirations, manage stress, and persist in overcoming difficulties [27, 28]. In teachers' interactions with students, parents and colleagues, this can be manifested through teachers' efforts in regulation of stress responses, modelling adequate behaviours and demonstrating work engagement [24]. Social awareness presumes the ability to understand the perspective of others and to empathise. It involves the capacity to understand social norms and each person's diverse backgrounds [27]. Teachers' social awareness can be seen in their efforts to hear, acknowledge and empathise with their students' or colleagues' viewpoints or experiences. It also includes knowledge about resources that might be helpful in teaching and learning at school [24]. Relationship skills denote the ability to establish and maintain healthy and supportive relationships. Teachers with good relationship skills interact with students, parents and colleagues in a caring and constructive way and use

appropriate conflict avoidance or resolution strategies [24, 27, 28]. Finally, responsible decision-making refers to the ability to make adequate choices about personal behaviour and social interactions. In teachers' work, this is related to decisions that are concerning students, their families, colleagues and the school as a whole. It can take a form of employing pedagogy that is respectful to students and considers others' well-being [24, 27, 28].

Social and emotional competencies, such as the ones defined within the CASEL model, have usually been evaluated separately, due to the lack of validated instruments that measure different social and emotional competencies within the same scale [29, 30]. Aiming to provide a basis for the practical measurement of social and emotional competencies within a single scale, Zych et al. [30] developed a new instrument that was expected to include the following social and emotional competencies: self-awareness, self-management and motivation, social-awareness and prosocial behaviour, and reflexive decision-making.

Oliveira et al. [31] found that teachers' social and emotional competencies are associated with numerous positive outcomes on teacher, student and school levels. There is evidence for the negative relationship between teachers' social and emotional competencies and burnout [e.g., 32], implying the co-occurrence of lower social and emotional competencies and higher burnout. Teachers who reported lower emotional competency also reported higher levels of exhaustion and cynicism, as well as reduced sense of personal accomplishment [33]. Oberle et al. [34] found that teachers with higher self-reported levels of burnout were perceived by their students as having significantly lower social and emotional competencies, compared to teachers who reported lower levels of burnout. A meta-analysis by Oliveira et al. [31] found that interventions aimed at developing teachers' social and emotional competencies diminished teachers' emotional exhaustion and improved teachers' personal accomplishment, i.e., reduced the symptoms of teacher burnout.

### Teacher self-efficacy

Teacher self-efficacy reflects teachers' beliefs in their own capabilities to achieve desired student learning outcomes [35]. Recent reviews of research on teacher self-efficacy indicate its relevance to various outcomes at multiple levels. Teachers' beliefs in their ability to succeed in the profession are linked to their occupational well-being, including lower levels of job-related stress and burnout, as well as higher levels of job satisfaction, commitment to teaching, and personal accomplishment [36, 37].

Self-efficacious teachers are more engaged in their work and experience more positive emotions and fewer negative emotions related to teaching [38]. Teachers

with higher self-efficacy are also less likely to express intentions of leaving the profession [39]. Additionally, a meta-analysis by Shoji et al. [40] supports the finding that teachers with low self-efficacy are more prone to burnout. However, longitudinal data suggest that the relationship may be bidirectional, as increased levels of burnout can subsequently reduce self-efficacy [41].

Existing evidence suggests that both teacher self-efficacy and emotional regulation play significant roles in teachers' psychological well-being, with self-efficacy being identified as a particularly robust predictor [42, 43]. Additionally, emotional competencies have been found to positively predict teacher self-efficacy [44] and to impact empathy both directly and indirectly through their influence on teacher self-efficacy [45]. However, there is a significant gap in research exploring how these factors interact and jointly contribute to overall teacher well-being.

### The present study

There is an increasing interest in understanding teacher well-being, particularly through the lens of contextual and individual factors [7]. Research in teacher well-being has mainly focused on contextual factors, while the role of individual factors in diverse aspects of teacher occupational well-being remains underresearched. These factors are particularly important in the early years of teaching, when novice teachers consider their stay in the profession [46].

Our study aimed to examine the relationship between social and emotional competencies and burnout of early career teachers, with the potential mediating role of teacher self-efficacy in this relationship. The existing evidence indicates that early years in teaching are a critical period in teachers' careers, which makes them vulnerable to stress and burnout that can subsequently shape

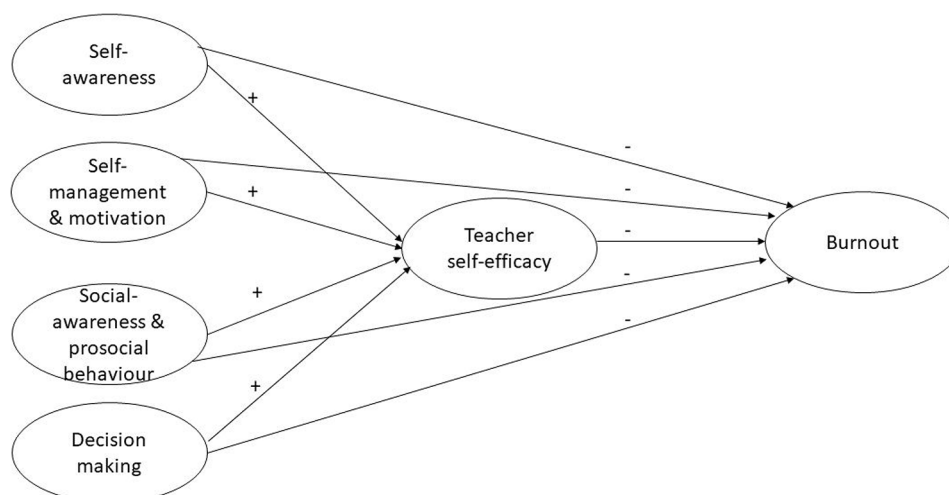
their career plans. Previous studies show that social and emotional competencies, as well as self-efficacy, are negatively related to teacher burnout [e.g., 40, 32]. There is also evidence of mediating role of teacher self-efficacy in the relationship between emotional competencies and teacher well-being and empathy [43, 45]. However, it has not yet been tested whether self-efficacy mediates the relationship between teachers' social and emotional competencies and burnout. Following recent theoretical advancements in the conceptualisation of burnout [23], we decided to use both general burnout and its subdimensions to gain a comprehensive perspective on the relations between social and emotional competencies, self-efficacy, and burnout. Given that the role of social and emotional competencies in teacher well-being was usually studied either using separate measures for each competency or by including only emotional competencies [e.g., 47, 43], we decided to explore the importance of social and emotional competencies in a more comprehensive manner.

Based on the theoretical and empirical considerations from the existing literature, we hypothesised a mediation model presented in Fig. 1. We expected that teachers' social and emotional competencies would positively predict teacher self-efficacy (H1) and negatively predict burnout (H2). We also expected that teacher self-efficacy would negatively predict burnout (H3). Finally, we expected that teacher self-efficacy would mediate the relationship between teachers' social and emotional competencies and burnout (H4).

## Methods

### Participants

A total of 657 (81.1% women) Croatian early career subject teachers, employed in state elementary schools, participated in the study. Teachers were on average 30.58



**Fig. 1** Tested model

years old ( $SD=5.77$ ) and had 31.98 months ( $SD=17.81$ ) of teaching experience. Teachers taught different school subjects (e.g., Croatian language, foreign languages, mathematics, biology, history, physical education, art).

### Measures

**Teachers' social and emotional competencies** were measured with the Social and Emotional Competencies Questionnaire (SEC-Q; [30]). The instrument contains four subscales: Self-awareness (4 items; sample item: "I know how to label my emotions."), Self-management and motivation ( $n=3$ ; sample item: "I pursue my objectives despite the difficulties."), Social-awareness and prosocial behaviour ( $n=6$ ; sample item: "I pay attention to the needs of others."), and Decision making ( $n=3$ ; sample item: "I make decisions analysing carefully possible consequences."). Items were assessed on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The scale was translated and validated for this study. Confirmatory factor analysis demonstrated good model fit for the original four-factor structure ( $\chi^2(420)=790.597$ ;  $p=.000$ ;  $\chi^2/df=1.88$ ;  $RMSEA=0.034$ ,  $CFI=0.938$ ,  $TLI=0.927$ ,  $SRMR=0.052$ ). All four subscales demonstrated high reliability in our sample, with Cronbach  $\alpha$  values of 0.855, 0.825, 0.789, and 0.811, respectively.

**Teacher self-efficacy** was assessed by the Teacher Self-Efficacy Scale (TSES; [48]) from the Teaching and Learning International Survey (TALIS). A Croatian translation used and validated in TALIS 2018 was used in this study. The scale measures self-efficacy with the question "In your teaching, to what extent can you do the following?" in three domains: Self-efficacy in classroom management (4 items; sample item: "Calm a student who is disruptive or noisy."), Self-efficacy in instruction (5 items; sample item: "Craft good questions for students."), and Self-efficacy in student engagement (4 items; sample item: "Motivate students who show low interest in school work"). Response options were: "Not at all" (1), "To some extent" (2), "Quite a bit" (3), "A lot" (4). We used the total scale score for this study, with a Cronbach's  $\alpha$  of 0.861.

**Burnout** was measured by the Burnout Assessment Tool (BAT; [23]), which contains four subscales assessing: Exhaustion (8 items; sample item: "At work, I feel mentally exhausted."), Mental distance (5 items; sample item: "I feel indifferent about my job."), Cognitive impairment (5 items; sample item: "At work, I struggle to think clearly."), and Emotional impairment (5 items; sample item: "I get upset or sad at work without knowing why."). Participants rated each item on a 5-point scale ranging from 1 (never) to 5 (always). We used the existing Croatian translation [49] and validated its factorial structure. CFA model did not fit the data well. On the other hand, the ESEM model fit the data significantly

better, and demonstrated good fit according to all criteria ( $RMSEA=0.034$ ,  $CFI=0.929$ ,  $TLI=0.911$ ,  $SRMR=0.043$ ). All four subscales demonstrated good reliability in our sample, with Cronbach  $\alpha$  values of 0.888, 0.770, 0.855, and 0.788, respectively. A total scale score can also be calculated, with a reliability of  $\alpha=0.939$ .

### Procedure

The research was carried out as part of a larger research project on the role of personality, motivation and social and emotional competencies in teacher occupational well-being, and was conducted from November 2022 to February 2023 with the approval of the Ethics Committee of the authors' institution. An invitation to participate in the research was sent to school principals of all elementary schools in the Republic of Croatia in order to ensure a nationally representative sample. Croatia has a single-structure eight-year elementary education with primary school lasting from 1st to 4th grade and lower secondary school lasting from 5th to 8th grade. School principals were asked to send the link to the online questionnaire to all teachers in their school that have up to 5 years of experience and teach lower secondary grades. Teachers from 289 schools participated in the research, with an average of 2.3 teachers per school. Reminders were sent to school principals by email, and if they did not respond, they were contacted by phone calls. The principals either reminded their teachers to participate, or reported that they did not have teachers from the target population. The estimated response rate was about 50%. Before agreeing to participate in the study, teachers were given informed consent. Participation in the research was voluntary and anonymous, and teachers were informed that their school principals would not be given information about their individual results. Teachers did not receive monetary compensation for participation, but were offered the opportunity to request the results of the study afterwards.

### Data analyses

In order to test the hypothesised relationships between the variables, structural equation modelling (SEM) in the Mplus 8.2 program [50] was conducted. A maximum-likelihood estimation (ML) method was used to obtain parameter estimates in the model, while full-information maximum-likelihood (FIML) method was utilised to compensate for the missing data. Following Kline's [51] recommendations, the overall model fit was evaluated by the chi-square, comparative fit index (CFI), Tucker-Lewis index (TLI), root-mean-square error of approximation (RMSEA), and standardised root mean residual (SRMR) using the cut-off values guidelines [52, 53]. The statistical significance of the chi-square test depends on the sample size, so in studies with larger samples ( $N>200$ ), even

**Table 1** Correlations, reliability coefficients, means and standard deviations of study variables

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Self-awareness	-	0.525***	0.554***	0.389***	0.416***	-0.302**	-0.219***	-0.255***	-0.326***	-0.301***
2. Self-management and motivation		-	0.430***	0.364***	0.489***	-0.434***	-0.385***	-0.389***	-0.415***	-0.320***
3. Social-awareness and prosocial behaviour			-	0.403***	0.462***	-0.351***	-0.253***	-0.323***	-0.360***	-0.340***
4. Decision making				-	0.257***	-0.162***	-0.093*	-0.136**	-0.182***	-0.203***
5. Self-efficacy					-	-0.457***	-0.383***	-0.370***	-0.492***	-0.366**
6. Burnout (overall)						-	0.921***	0.860***	0.865***	0.803***
7. Exhaustion							-	0.724***	0.687***	0.621***
8. Mental distance								-	0.701***	0.581***
9. Cognitive impairment									-	0.702***
10. Emotional impairment										-
M	4.44	4.20	4.34	4.18	3.09	1.88	2.22	1.81	1.70	1.61
SD	0.53	0.68	0.46	0.70	0.41	0.52	0.67	0.59	0.55	0.53

Note. \*\*\*<0.001; \*\*<0.01 \*<0.05

**Table 2** Fit indices of tested structural equation models

Tested structural equation models	$\chi^2$	df	CFI	TLI	SRMR	RMSEA (90% CI)
1) Structural equation model for overall burnout	603.263***	215	0.943	0.932	0.042	0.053 (0.048, 0.057)
2) Structural equation model for exhaustion	832.017***	309	0.931	0.921	0.048	0.051 (0.047, 0.055)
3) Structural equation model for mental distance	613.556***	237	0.939	0.929	0.043	0.049 (0.044, 0.054)
4) Structural equation model for cognitive impairment	576.884***	237	0.948	0.940	0.039	0.047 (0.042, 0.052)
5) Structural equation model for emotional impairment	629.137***	237	0.936	0.926	0.043	0.050 (0.046, 0.055)

Note. \*\*\*<0.001

models that fit the data well usually have a significant  $\chi^2$ , which is the statistical criterion for rejecting the model [54]. CFI and TLI values above 0.95 show excellent model fit, while values above 0.90 are indicative of satisfactory model fit [52]. RMSEA values between 0.05 and 0.08 show adequate model fit, whereas RMSEA and SRMR values lower than 0.05 indicate excellent model fit [53].

### Preliminary analyses

Prior to conducting SEM, descriptive statistics and Pearson correlation coefficients between the study variables were calculated (Table 1). Arithmetic means pointed to teachers' well-developed social and emotional competencies and self-efficacy for teaching. In addition, teachers on average reported to rarely experience burnout symptoms. The statistical significance and the direction of the correlation coefficients were in line with the hypotheses – teachers' social and emotional competencies and self-efficacy were negatively correlated with the burnout variables, whereas correlations between social and emotional competencies and self-efficacy were positive.

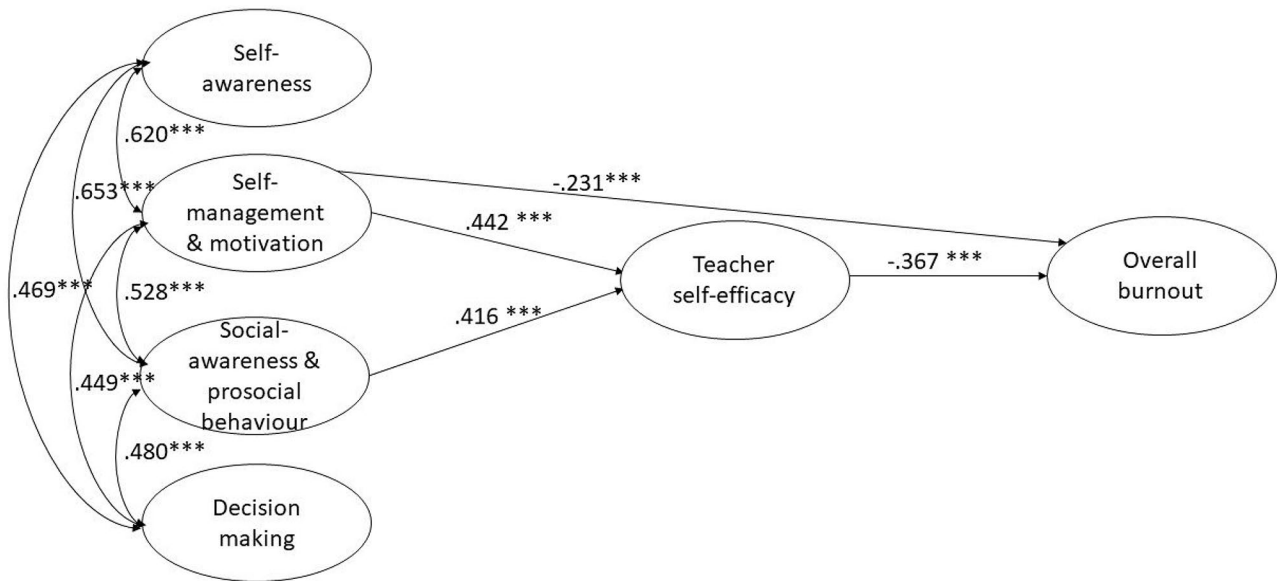
Next, the measurement model containing six latent variables was tested. For each of the social and emotional competencies, indicators were items that form each subscale. In order to keep the model more parsimonious, the indicators of the latent variable of teacher self-efficacy were sums of the scores on its three subscales, whereas the indicators of the latent variable for the overall burnout were sums of the scores of its four subscales. Model

fit results were as follows:  $\chi^2=603.263$ ,  $df=215$ ,  $p<.001$ ,  $CFI=0.943$ ,  $TLI=0.932$ ,  $RMSEA=0.053$  (90% CI: 0.048–0.057),  $SRMR=0.042$ , which indicate adequate to excellent model fit. All standardised factor loadings were statistically significant ( $p<.001$ ) and varied in magnitude from 0.606 to 0.896. The intercorrelations among the factors were statistically significant ( $p<.001$ ) and ranged from  $-0.230$  to 0.653.

Four additional measurement models were tested, similar to the first one, with the only difference for the burnout construct. In each measurement model, one burnout subscale was a latent variable with its accompanying items as indicators. All model fit indices for these four models were satisfactory or excellent (and are identical to the ones for SEM models shown in Table 2).

### Main analysis

In order to test the mediating role of teacher self-efficacy in explaining the relationship between teachers' social and emotional competencies and burnout, a structural equation modelling was implemented. One model was tested for the overall burnout as a dependent variable, and the subsequent four models for each burnout dimension: exhaustion, mental distance, cognitive impairment, and emotional impairment.



**Fig. 2** Model for overall burnout. Note \*\*\*<0.001; Only significant relations are shown (standardised values)

**Table 3** Total, indirect and direct effects of social and emotional competencies on burnout

Independent variable	Effect	Dependent variables				
		Overall burnout	Exhaustion	Mental distance	Cognitive impairment	Emotional impairment
Self-awareness	Total	0.028	0.083	0.079	-0.008	-0.058
	Indirect	-0.002	-0.001	-0.001	-0.003	-0.002
	Direct	0.030	0.084	0.080	-0.005	-0.056
Self-management and motivation	Total	-0.426***	-0.440***	-0.435***	-0.389***	-0.213**
	Indirect	-0.162***	-0.136***	-0.104**	-0.197***	-0.126**
	Direct	-0.264***	-0.304***	-0.332***	-0.192**	-0.087
Social-awareness and prosocial behaviour	Total	-0.275***	-0.172*	-0.275***	-0.263***	-0.265***
	Indirect	-0.153***	-0.129**	-0.098**	-0.186***	-0.119**
	Direct	-0.122***	-0.043	-0.176*	-0.077	-0.146
Decision making	Total	0.080	0.119*	0.126*	0.071	-0.053
	Indirect	0.031	0.026	0.020	0.037	0.024
	Direct	0.049	0.093	0.106	0.033	-0.077

Note. \*\*\*<0.001; \*\*<0.01 \*<0.05

**Results**

Fit indices for all structural equation models were satisfactory to excellent, as shown in the Table 2. Results for each model are presented in the following text and tables. The model for overall burnout was presented in both Fig. 2; Table 3.

**Model for overall burnout**

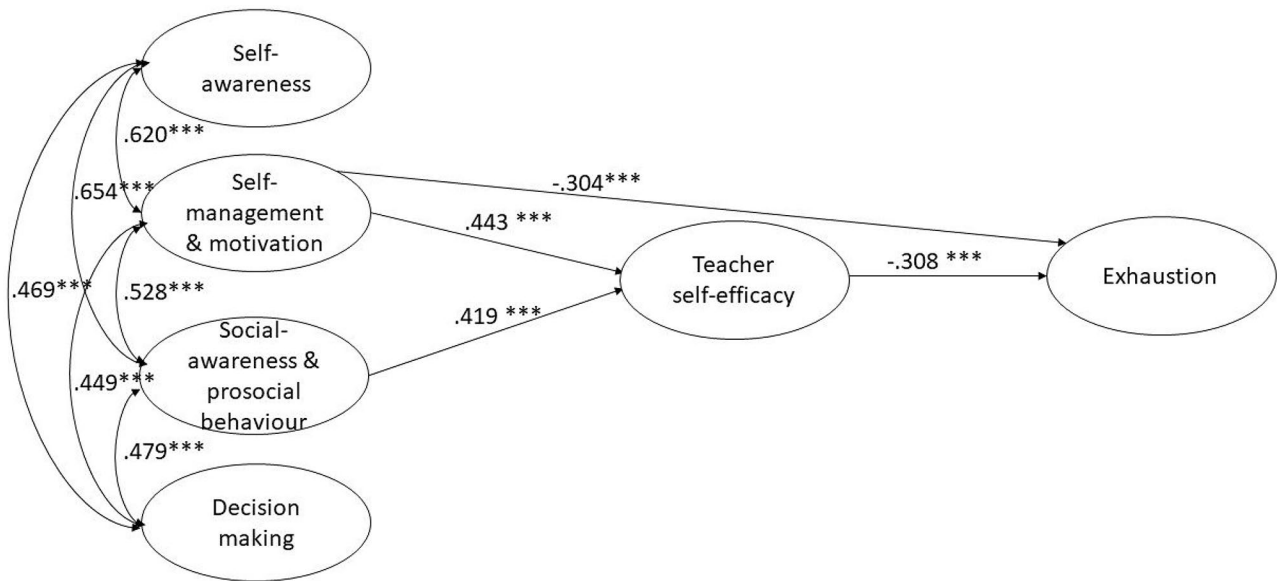
As can be seen in Fig. 2, self-management ( $\beta=0.442, p<.001$ ) and social-awareness ( $\beta=0.416, p<.001$ ) had positive direct effects on teacher self-efficacy. These effects were medium in size, following the commonly used measure of the size of an effect: values of  $\pm 0.1$  represent a small effect,  $\pm 0.3$  a medium effect and  $\pm 0.5$  a large effect [55, 56]. Self-management had a small negative direct effect ( $\beta=-0.231, p<.001$ ) and teacher self-efficacy

a medium negative direct effect ( $\beta=-0.367, p<.001$ ) on overall burnout. In addition, indirect effects of self-management ( $\beta=-0.162, p<.001$ ) and social-awareness ( $\beta=-0.153, p<.001$ ) on burnout were statistically significant and small (Table 3). However, effects of self-awareness and decision making on self-efficacy or burnout were not statistically significant.

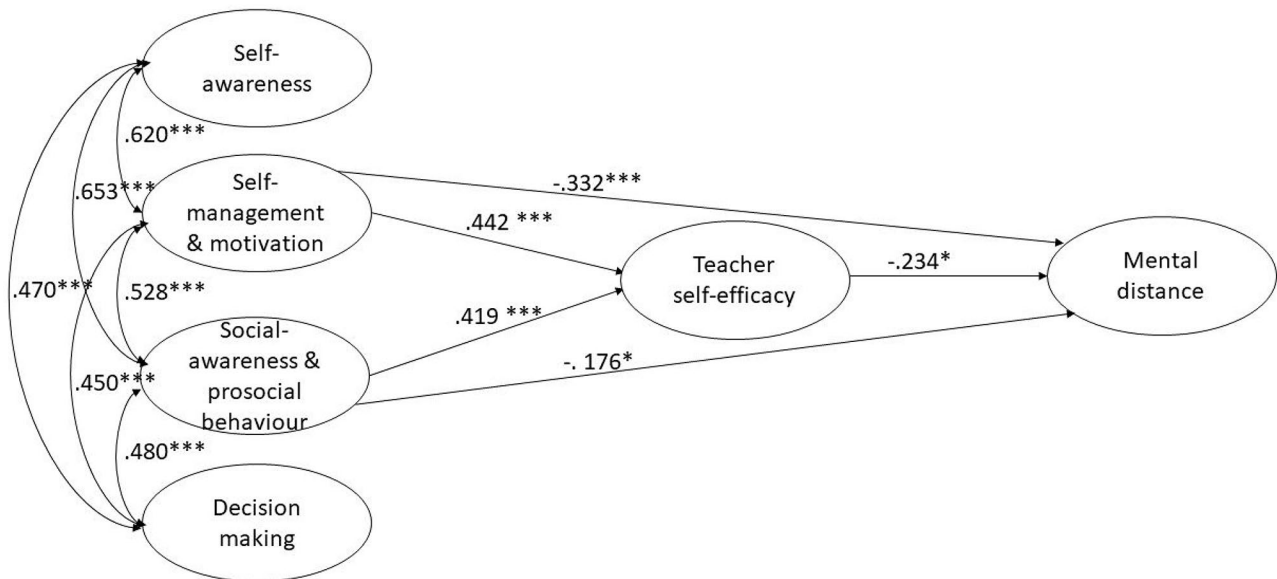
To sum up, the results for the overall burnout model showed that self-efficacy partially mediated the relationship of self-management and burnout, and fully mediated the relationship of social-awareness and burnout.

**Model for exhaustion**

In the structural model for exhaustion, positive direct effects from self-management ( $\beta=0.443, p<.001$ ) and social-awareness ( $\beta=0.419, p<.001$ ) on teacher



**Fig. 3** Model for exhaustion. Note. \*\*\*<0.001; Only significant relations are shown (standardised values)



**Fig. 4** Model for mental distance. Note. \*\*\*<0.001; Only significant relations are shown (standardised values)

self-efficacy were statistically significant and medium in size (Fig. 3 in the Appendix). Self-management ( $\beta=-0.304$ ,  $p<.001$ ) and teacher self-efficacy ( $\beta=-0.308$ ,  $p<.001$ ) also had direct negative effects on exhaustion that were medium in size. In addition, self-management ( $\beta=-0.136$ ,  $p<.001$ ) and social-awareness ( $\beta=-0.129$ ,  $p<.001$ ) both had small indirect negative effects on exhaustion (Table 3). For decision making, only total effect was marginally significant and small ( $\beta=0.119$ ,  $p<.05$ ), but neither direct nor indirect effects were significant. All effects of self-awareness on exhaustion were statistically nonsignificant.

In this model, mediations were similar to those in the overall burnout model: effect of self-management on exhaustion was partially mediated by self-efficacy, whereas effect of social-awareness on exhaustion was fully mediated by self-efficacy.

**Model for mental distance**

In line with previous models, model for explaining mental distance showed that self-management ( $\beta=0.442$ ,  $p<.001$ ) and social-awareness ( $\beta=0.419$ ,  $p<.001$ ) predicted higher teacher self-efficacy with medium size effects (Fig. 4 in the Appendix). Teacher self-efficacy



had a direct negative small effect on mental distance ( $\beta=-0.234, p<.05$ ). In addition, negative direct and indirect effects of self-management ( $\beta_{dir}=-0.332, p<.001$ ;  $\beta_{indir}=-0.104, p<.01$ ) and social-awareness ( $\beta_{dir}=-0.176, p<.05$ ;  $\beta_{indir}=-0.098, p<.01$ ) on mental distance were also statistically significant and ranged from small to medium (Table 3). For decision making, only total effect was marginally significant and small ( $\beta=0.123, p<.05$ ), but neither direct nor indirect effects were significant. All effects of self-awareness on mental distance were statistically nonsignificant.

These results indicate that self-efficacy partially mediated the relations of both self-management and social awareness with mental distance.

**Model for cognitive impairment**

Model for cognitive impairment was similar to those for overall burnout and exhaustion. Direct effects of self-management ( $\beta=0.441, p<.001$ ) and social-awareness ( $\beta=0.416, p<.001$ ) on teacher self-efficacy were medium size and positive, whereas direct effect of self-efficacy on cognitive impairment was medium size and negative ( $\beta=-0.447, p<.001$ ) (Fig. 5 in the Appendix). Self-management additionally had both direct ( $\beta=-0.192, p<.01$ ) and indirect negative effects ( $\beta=-0.197, p<.001$ ) on cognitive impairment, whereas the effect of social-awareness on cognitive impairment was only indirect ( $\beta=-0.186, p<.001$ ) (Table 3). These three effects were small in size. The effects of self-awareness and decision making on cognitive impairment were not statistically significant.

Therefore, we can conclude that self-efficacy partially mediated the effect of self-management, and fully

mediated the effect of social-awareness on cognitive impairment.

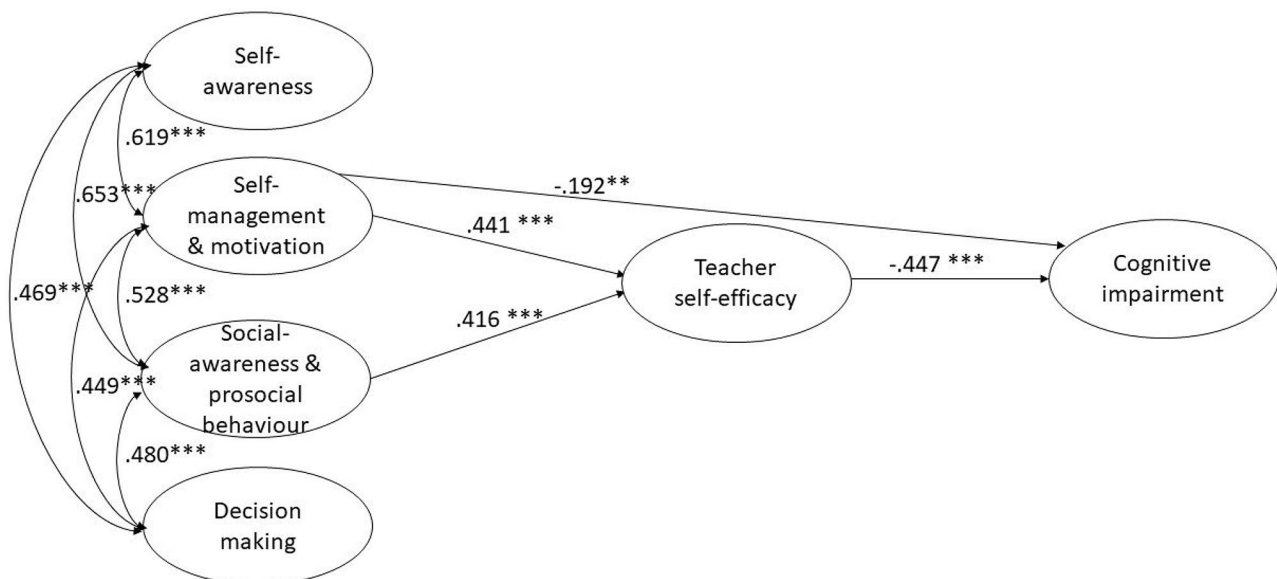
**Model for emotional impairment**

In the structural model for emotional impairment, positive direct effects from self-management ( $\beta=0.441, p<.001$ ) and social-awareness ( $\beta=0.418, p<.001$ ) on teacher self-efficacy were statistically significant and of medium size (Fig. 6 in the Appendix). Self-efficacy had a small negative effect on emotional impairment ( $\beta=-0.285, p<.001$ ). In addition, self-management ( $\beta=-0.126, p<.01$ ), as well as social-awareness ( $\beta=-0.119, p<.01$ ) had small negative indirect effects on emotional impairment (Table 3). The effects of self-awareness and decision making on emotional impairment were not statistically significant.

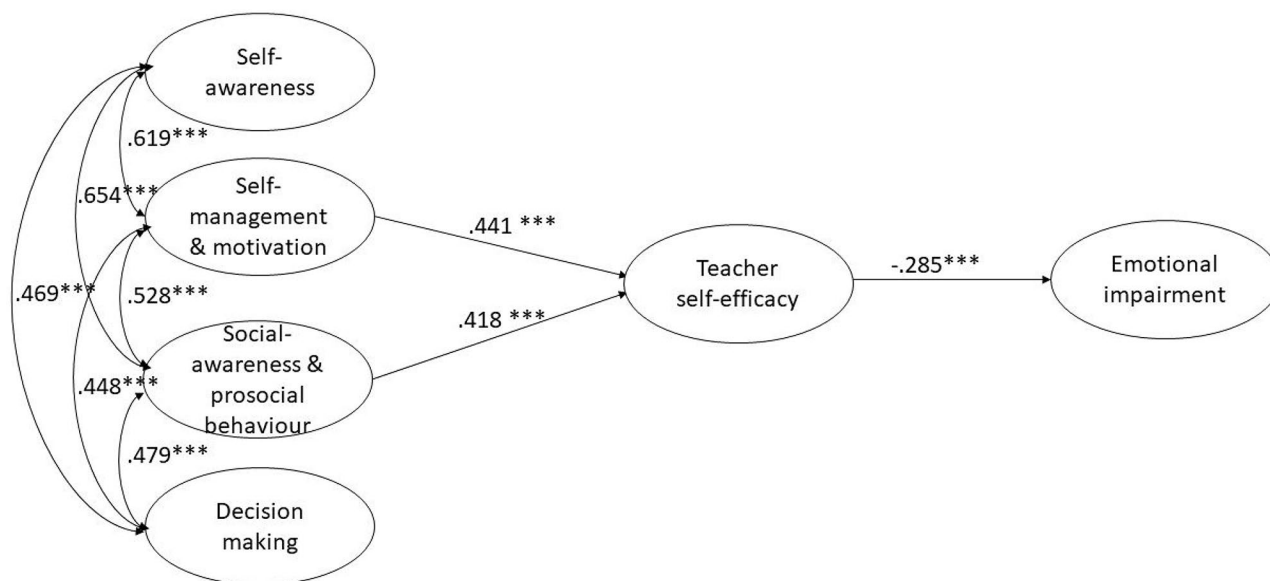
This is the only model where the effects of self-management and social-awareness on emotional impairment were both fully mediated by teacher self-efficacy.

**Discussion**

This study examined the relations between social and emotional competencies, self-efficacy and burnout in a sample of teachers who are in the beginning years of their careers. Our results outlined a number of theoretically meaningful relations between the variables under study, indicating a complex interplay of the factors that shape teachers' well-being during their early years in teaching. Tested models singled out self-management and social awareness as two social and emotional competencies that are, along with self-efficacy, particularly predictive of burnout.



**Fig. 5** Model for cognitive impairment. Note. \*\*\*<0.001; Only significant relations are shown (standardised values)



**Fig. 6** Model for emotional impairment. Note. \*\*\* $<0.001$ ; Only significant relations are shown (standardised values)

Self-management predicted lower overall burnout, and self-efficacy partially mediated this relationship. Social awareness also predicted lower overall burnout in teachers, but this relationship was fully mediated by self-efficacy. Early career teachers with strong self-management skills are less likely to experience burnout, especially when they also possess high self-efficacy. These skills are particularly valuable during the initial years of teachers' careers. Furthermore, early career teachers who are aware of the needs of others are less prone to burnout, but only if they possess high self-efficacy for teaching, which enables them to effectively manage daily teaching tasks. It appears that self-management skills alone are associated with fewer burnout symptoms, whereas social awareness does not seem to be related to lower burnout without the specific efficacy for teaching.

When tested at the level of burnout subdimensions, the overall pattern of relations was mainly retained, indicating that the two social and emotional competencies are particularly predictive of the four specific aspects of burnout and that self-efficacy plays a mediating role, either partially or fully, in this relationship.

Overall, our findings lend much empirical support for the hypothesised relations. Our first hypothesis, predicting positive relations between social and emotional competencies and teacher self-efficacy was partly supported, with the self-awareness and decision making not being related to self-efficacy, while self-management and social awareness showed positive relations in line with the prediction. Our second hypothesis predicted negative relationships of social and emotional competencies with burnout, with partial empirical support from our results. The study found that self-awareness and decision-making

skills were not related to burnout. However, self-management skills were associated with lower overall burnout levels, as well as reduced experiences of exhaustion, mental distance, and cognitive impairment. Additionally, higher levels of social awareness were associated with decreased feelings of mental distance. As proposed in our third and fourth hypotheses, teacher self-efficacy negatively predicted burnout and mediated the relationship between teachers' social and emotional competencies and burnout, either partially or fully, depending on the model.

Among the four models tested, self-efficacy fully mediated the relationship between self-management and emotional impairment, suggesting that strong self-management and social awareness are related to higher teaching self-efficacy, which is in turn associated with less emotional impairment. For the other three burnout components - exhaustion, mental distance, and cognitive impairment, higher self-management skills were associated with lower levels of burnout, both directly and indirectly via self-efficacy.

In line with theoretically and empirically derived models of relations, social and emotional competencies, particularly self-management and social awareness, were related to lower burnout in teachers. Self-management refers to self-motivating, goal-oriented behaviour, while social awareness refers to understanding other people's needs and perspectives and behaving accordingly [30]. These dimensions refer to the abilities to regulate one's own emotions, understand the perspective of others and behave prosocially, a set of behavioural skills that enable teachers to master the demands of the teaching profession. Our findings corroborate recent research indicating

that teachers who possess better self-management and social awareness skills are less prone to burnout [47]. Furthermore, teachers who demonstrate strong relationship-building skills tend to have more effective daily interactions in school settings and are less susceptible to burnout [32, 34].

It is worth noting that self-awareness and decision-making did not correlate with either self-efficacy or burnout. Upon examining the items from the self-awareness and decision-making subscales, it appears that self-awareness may be too narrow or too specific construct to predict outcomes in the multifaceted role of a teacher. Simply being able to identify one's own emotions may not suffice to effectively support teachers in their professional duties, as success in the teaching role often requires additional competencies such as interpersonal skills, classroom management, and lesson planning. On the other hand, decision making skill, which involves thorough evaluation of potential outcomes and weighing of different options, may be too detached from the daily teacher role to significantly improve self-efficacy in teaching performance or reduce burnout.

The nature of our study does not imply causal relations, however our findings could indicate that some of the social and emotional competencies teachers bring into their daily work could have a buffering effect against burnout. This is in line with the meta-analytic findings that interventions aimed at improving teachers' social and emotional competencies reduced the symptoms of teacher burnout [31]. Our finding that teacher self-efficacy plays a prominent role in mediating the relations between self-management and social awareness and burnout, is consistent with the vast body of literature outlining a complex network of relations between teacher self-efficacy and positive outcomes, including teacher well-being [36, 37]. Existing evidence shows that highly efficacious teachers manage to establish quality relations with students and are more sensitive to students needs and expectations [37], which implies having the capacities of understanding others and managing one's own behaviour. Our research indicates that social awareness and self-management are positively related to self-efficacy, which mediates their relations with burnout. This is in line with meta-analytic findings that self-efficacy is negatively related to burnout in teachers [40]. A pattern of self-perceptions and competencies related to successful management of relations with others in the school context could be related to reduced stress in teachers' daily functioning, as reflected in their lower levels of burnout. In sum, our study provides a more detailed insight into the relations between personal dispositions, in this case social and emotional competencies, teacher self-efficacy and professional burnout, treating burnout as a dimensional construct. A set of theoretically

meaningful relations indicates that this is a promising line of research into the complex interplay of various factors influencing teacher well-being.

#### Limitations of the study

As it was explained earlier, in the current paper we explored how teacher social and emotional competencies relate to burnout syndrome, as well as individual burnout symptoms. We were interested in the relationships within the model that was postulated with teacher social and emotional competencies as exogenous and teacher burnout as endogenous variables. We wanted to explore how teacher social and emotional competencies, as individual-level variables that are already (partly) formed when teachers enter the profession, relate to teacher burnout syndrome (or particular symptoms) they develop while at the current job position (e.g., is teachers' self-management predictive of their burnout level or any of the burnout symptoms). However, it is important to note that one can also be interested in a plausible scenario in which teacher burnout is treated as exogenous and teacher social and emotional competencies as endogenous variables. This approach would allow an investigation into whether teacher burnout hinders teachers' perception of teaching efficacy and their capacity to self-regulate. This perspective aligns with evidence suggesting that burnout can diminish self-efficacy beliefs [41], reduce the capacity for self-management, and provoke more emotional outbursts. The present study is limited by its inability to test hypotheses regarding reciprocal relationships or causality. Specifically, due to the cross-sectional nature of the data, it is not possible to establish a temporal sequence, making causal inferences infeasible. To address this limitation, future studies should adopt a longitudinal design, which would allow for confirmation of the mediating effects and exploration of potential reciprocal relationships between self-efficacy and burnout. It is also worth noting that our sample was based on voluntary and anonymous participation of early career teachers, with the estimated response rate of about 50%. Since we do not have data on how teachers who agreed to participate differed from those who did not respond, there could be a self-selection bias in our sample. Additionally, this study relied exclusively on self-report measures, which are susceptible to biases, including social desirability and response set biases. Future work by our team will incorporate other-report data, collected from students taught by the early career teachers who were the focus of our research, to mitigate these biases. Finally, while the experiences of early career teachers share similarities across countries, caution is warranted in generalising these findings to educational systems and professional environments that differ substantially from the one examined here. Variations in support structures at both micro and

macro levels could alter the observed relationships, and should therefore be carefully considered. Cross-cultural investigations into early career teachers' well-being present a valuable direction for future research.

### Conclusions and implications

The present study explored the relationships between social and emotional competencies, self-efficacy, and burnout in early career teachers. Our findings indicate that teachers with higher self-management and social awareness skills are less susceptible to burnout. The ability to self-regulate, recognise others' needs, and behave prosocially may be a protective factor against burnout in the early years of a teaching career. Additionally, teacher self-efficacy emerged as a mediating variable in the relationship between the social and emotional competencies and burnout.

Our findings obtained with early career teachers are particularly important in light of the knowledge that this period is critical for teacher career plans. Early career teachers who report stronger social and emotional competencies and teacher self-efficacy have better occupational well-being, consistent with previous studies [39, 47]. Research has consistently shown that various aspects of occupational well-being are related to teachers' intentions to remain in or leave the teaching profession [57]. This evidence suggests that new teachers need professional support early in their careers to assist their transition into schools and the initial stages of their professional lives [58]. Such support could be provided through carefully planned mentoring and induction programs aimed at fostering teacher well-being from pre-service education through the initial years of teaching [59, 60]. Finally, future studies in this field should prioritise longitudinal designs, incorporate diverse data sources, and give careful consideration to cultural specificities to enhance the robustness and generalizability of findings.

## Appendix

### Abbreviations

CASEL	Collaborative for Academic Social and Emotional Learning
CFI	Comparative fit index
FI ML	Full-information maximum-likelihood
ML	Maximum-likelihood
RMSEA	Root-mean-square error of approximation
SEM	Structural equation modelling
SRMR	Standardised root mean residual
TALIS	Teaching and Learning International Survey
TLI	Tucker-Lewis index

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### Author contributions

IPJ, IM and JMB conceptualised the study and collected the data. IPJ analysed the data. All authors contributed in writing the paper and interpreting the results. All authors approved the final version of the paper.

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### Data availability

The dataset of the present study is available upon request from the corresponding author.

### Declarations

#### Ethics approval and consent to participate

The study was reviewed and approved by the Ethics Committee at the Institute for Social Research in Zagreb. Informed consent to participate in this study was provided by the participants.

#### Consent for publication

Not applicable.

#### Competing interests

The authors declare no competing interests.

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