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# STRESS PERCEPTION, EMOTIONAL INTELLIGENCE AND BURNOUT SYNDROME: A LONGITUDINAL STUDY OF TEACHERS' STRENGTHS

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The aim of this study was to longitudinally investigate the protective role of emotional intelligence (EI) as a personal resource in the burnout (BT) process of Croatian teachers using the burnout model by Maslach & Jackson (1981). The study was conducted over two school years and included 161 secondary school teachers (34 male, 127 female) aged 24 to 65 years ( $M = 45.35$ ,  $SD = 10.55$ ). Hierarchical regression analyses were performed. The moderating effect of teachers' EI on the relationship between stress and BT in two consecutive years was partially demonstrated. The longitudinal moderating effect of expressing and labelling emotions (EL), an aspect of EI, on the relationship between stress and depersonalisation was found. As a function of the increase in stress (Time 1), teachers with a lower EL were more prone to depersonalisation (Time 2), in contrast to teachers with a more pronounced EL. The findings support the provision of systematic emotional support for teachers in an environment where they can express their emotions, e.g. through supervision, which can be incorporated into BT prevention strategies.

Keywords: burnout (BT), emotional intelligence (EI), longitudinal study, stress perception, secondary school teachers



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## INTRODUCTION

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Secondary school teachers are particularly at risk of burnout (BT) (García-Carmona et al., 2019) as they are confronted with the challenges of the teaching profession on a daily basis, but as "emotional workers", they are expected to deal with the demands of their work sensitively and resourcefully (Yin, 2015). BT is one of the strongest correlates of teacher well-being (Zhou et al., 2024). This prolonged reaction to chronic work stress consists of emotional exhaustion (EE), depersonalisation (DP) and reduced personal accomplishment (PA) (Maslach & Jackson, 1981; Maslach et al., 2001). Maslach & Leiter (2017) update the previous conceptualisation by defining it as an individual's negative psychological experience that encompasses attitudes, feelings, and motivation, and is associated with dysfunction, distress and/or negative consequences. Exhaustion presupposes loss of energy and fatigue, DP or cynicism implies negative attitudes, irritability and a sense of detachment, while the dimension of reduced PA or inefficacy dimension refers to reduced productivity, inability to cope and low morale (Maslach & Leiter, 2017). This conceptualisation is still the most commonly used in BT research (Lubbadeh, 2020).

The majority of secondary school teachers have moderate or high levels of EE (>70% of participants) and DP (>60% of participants) and low levels of PA (García-Carmona et al., 2019). These authors note that despite the risk of BT for this occupational group, there is a lack of information on the prevalence of BT, citing the fact that fewer papers were published on this topic between 2013 and 2018 than in the early 2000s.

Although there are fewer studies on teacher BT in Croatia, they do not contain separate data on the levels of BT among secondary school teachers. Some of them show that contextual factors such as student misbehaviour and low support from expert associates contribute to BT and that all three BT dimensions negatively predict job satisfaction (Vidić et al., 2021). Burić et al. (2019) found that teacher resilience can predict BT and negative student-related emotions, but not BT measured in the following school year. In another Croatian teacher sample, Slišković et al. (2019) found that teachers' emotions partially mediate the relationship between BT and work engagement and perceived principal support.

Teachers are confronted with unexpected patterns and maladaptive behaviours in students, which can be very stressful (Klassen et al., 2013), and working with young people in high school can be particularly challenging and stressful, as the normative period of adolescence is a time of numerous developmental changes. Considering that teachers also have a peda-

gological impact on students as part of their profession, they are exposed to emotionally complex interactions on a daily basis, so uncertain school situations can initiate the management of stressful situations and emotional labour. It appears that the expression of naturally felt emotions as an emotional labour strategy is negatively associated with teacher BT (Yin et al., 2019). In the school environment, it is common for teachers to express their emotions such as love and care, but also sadness and anger depending on the teaching objectives (Yin et al., 2013).

This leads to the assumption that emotional competence plays an important role in dealing with contextual determinants of BT and that certain social and emotional skills are required to successfully overcome these professional challenges. This assumption is in line with some authors' recommendations that current research should focus on identifying the key factors of teacher BT in order to successfully develop interventions that reduce BT and prevent harmful consequences (Roloff et al., 2022).

Due to the complexity of this occupational phenomenon (Schaufeli et al., 2020), including in teachers, several models have been developed that attempt to capture the factors of BT and possible protective mechanisms against it. The BT model by Maslach et al. (2012) was one of the most popular, which assumes that BT is inevitable when work demands are high and resources are inadequate and focuses on the subjective experience of the individual. Conservation of Resources (COR) theory (Hobfoll, 1989) emphasises the role of resources in the experience of stress, and if they are not adequately compensated for, negative effects of stress such as BT occur, and resources such as personal ones can mitigate the negative effects of stress. The Job Demand-Resources (JD-R) model (Demerouti et al., 2001) assumes that BT is caused by a prolonged imbalance between job resources and demands, focusing on the constellation of these factors in the individual's work system.

## **Teacher stress and burnout**

The most common stressors for teachers can be workload, conflict, teaching demands and service (Turner & Garvis, 2023). Furthermore, situational predictors such as control, reward, and community as well as individual predictors such as demographic factors such as age, marital status, gender, education, years of teaching experience (Maslach & Leiter, 2017; Alsalhe et al., 2021), and personality traits (Angelini, 2023) should be considered when examining BT. The determinants of teacher BT can be divided into: conflict (e.g. with colleagues, parents), support (e.g. from supervisors, colleagues), organisational con-

text (time pressure, classroom disruption), and individual differences (e.g., self-efficacy, dimensions of BT, job satisfaction, and neuroticism) (Mijakoski, et al., 2022).

Previous studies provide a clear insight into the diversity of situational predictors of teachers, so there are fewer that investigate their personal risk factors such as personality or skills that may play an important role in the experience of BT. Personal characteristics of teachers are an important factor in BT and may contribute to it (Maslach & Leiter, 2017), and the recent meta-analysis by Angelini (2023) suggests that job stress theories should examine the role of personality in BT more closely. The fact that there is less consistent empirical evidence for personal predictors of teacher BT (Maslach & Leiter, 2017) provides an opportunity to examine personal characteristics such as EI that may contribute to teachers' psychological well-being and help them cope with professional challenges.

### **Emotional intelligence (EI) and burnout (BT)**

There is a significant negative correlation between BT and EI in the teaching profession (Mérida-López & Extremera, 2017). EI can be defined as the complex set of abilities to perceive and express one's own and others' emotions, the integration of emotions into thought processes, the understanding and labelling of emotions, and the ability to regulate emotions in a way that promotes emotional and intellectual growth (Mayer & Salovey, 1997). EI enables teachers to adapt to challenges in their professional context and may have a protective "buffer effect" in the process of BT by reducing the perception of stress in teachers with higher scores on this personal resource (Rey et al., 2016; Mérida-López et al., 2019).

Some studies show that different EI aspects can have different effects on the BT dimensions. Teachers' abilities to perceive and understand their own emotions and the emotions of others are negatively related to BT through proactive coping and attention to students' needs (Nizielski et al., 2013). Emotional attention (EA), an aspect of EI that refers to individuals' tendency to observe and reflect on their own emotions, may correlate positively with EE (Augusto-Landa et al., 2012), which can be influenced by emotional appraisal and positive regulation, leading to DP affected by empathy and then PA (Chan, 2006). Expressive suppression, an aspect of emotion regulation, is positively correlated with EE and has the strongest relationship with DP (Chang, 2020). Emotion-regulation ability (Brackett et al., 2010) and positive utilisation, which requires the use of emotions to solve problems, may be positive predictors of PA by generating creative ideas and solutions that make

success likely (Chan, 2006). Although previous authors confirm the protective nature of EI, it is still not known why some aspects of EI make some teachers more vulnerable in some cases and not others, as few studies have investigated this. It follows that the process of the protective role of EI in teachers' BT process should be approached multidimensionally by considering several aspects of EI and BT simultaneously.

### **Longitudinal study of teacher burnout**

Most studies on teacher well-being are cross-sectional, thus there is a need for longitudinal studies that can follow the patterns between the variables that can explain teacher well-being (Zhou et al., 2024), as they provide the opportunity to investigate the complexity of BT in teachers (Hultell et al., 2013; Skaalvik & Skaalvik, 2020), so that appropriate prevention strategies can be provided (Corrente et al., 2022). The individual mechanism of BT development remains, and it should be investigated whether BT is altered by a longer latency period between stress and BT investigation (Shoman et al., 2022). When looking at BT at the group level, BT levels may be moderately low and stable over time, but when analysing trajectories at the individual level, significant changes may be observed, justifying the conduct of longitudinal studies (Hultell et al., 2013). Longitudinal findings show that job demands and job resources may be associated with EE, DP and PA to varying degrees. For example, time pressure was the strongest predictor of EE, dissonant values in the work context and low student motivation were the strongest predictors of DP, autonomy was positively associated with PA, while low student motivation was negatively associated with PA (Skaalvik & Skaalvik, 2020). Teachers' ability to recognise, regulate and understand emotions can strengthen resources over time in the face of challenging teaching contexts (Cece et al., 2022).

### **Current research**

A review of the literature shows that there is a lack of longitudinal studies investigating the BT process in teachers in a long-term context focusing on its personal determinants, precisely because their long-term effects and the nature of BT are not tracked in these studies. The question of how different aspects of EI, as a personal resource, influence the development of BT is still open (Mérida-López & Extremera, 2017). Previous studies have examined the role of EI in the mediation approach, and there are few studies on its moderator role, so it is not sufficiently known under what circumstances and with what aspects of EI teachers can be protected from or predisposed to BT. The aim of this study is therefore to examine the

longitudinal process of BT in teachers in Croatia to determine whether EI plays a moderating role in the relationship between perceived stress and BT observed over two consecutive school years.

Findings on the functionality of teachers in the BT process has shown that those who exhibited higher levels of intra-personal EI as an aspect of this personal trait were found to be more functional than their counterparts with lower levels of these personal traits, such that their BT levels were low and stable over time (Cece et al., 2022), leading to the first hypothesis:

H1 The dimensions of EI, such as perceiving and understanding (PU), expressing and labelling (EL), and managing and regulating (MR) emotions, are negative predictors of EE, DP, and low PA as dimensions of teacher BT syndrome, with control for perception of stress, and they are stable over time.

Relying on the multidimensionality of BT by the Maslach BT model (Maslach & Leiter, 2017) and considering the protective role of EI as a multidimensional personal resource that contributes to stress management and prevents negative psychological consequences such as BT syndrome (Chan, 2006; Görgens-Ekermans & Brand, 2012), assuming the emotional complexity of the environment in which this process occurs (Yin et al., 2019; Mérida-López et al., 2019), it can be expected that EI aspects can mitigate the effects of unavoidable stress on teachers' BT, which is why the following hypothesis was put forward:

H2 PU, EL and MR moderate the relationship between the perception of stress and teacher BT: EE, DP, and decreased PA. Teachers with strong EI abilities will experience to a lesser extent BT syndrome in high stress situations, as opposed to teachers with lower EI abilities at the end of a school year and one year later.

## METHOD

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### Participants

The participants were included in two time measurements, during two consecutive school years. As some participants only partially completed the questionnaires and tended to mark only one option when answering the questions or simply left some questionnaires blank, they were excluded from the analysis for the first and second measurements. In the first measurement, 313 teachers from 12 secondary schools voluntarily participated in the study and completed the questionnaires, while 295 teachers were included in the further statistical ana-

lysis for the reasons mentioned above. In the second measurement, 224 teachers participated, 161 of whom were the teachers who participated for the second time. The final sample consists of 161 teachers whose age is between 24 and 65 years ( $M = 45.35$ ,  $SD = 10.55$ ), their length of service ranged from one month to 40 years ( $M = 19.42$ ,  $SD = 10.30$ ), or, if we take into account their teaching experience, between one month and 42 years of teaching experience ( $M = 16.42$ ,  $SD = 9.61$ ). Most of the teachers who provided information on their professional qualifications had a university degree. In addition, most teachers, 120 of them (74.5%), work full-time, while only 2 (1.4%) of the teacher examinees work only half, and 2 (1.4%) a third or a quarter of their working hours. From this study, 82 teachers (50.9%) are employed in vocational schools, 40 (24.8%) in high schools, and 39 (24.2%) in schools with combined programmes that are both high schools and vocational schools. The reasons for teachers' non-participation in the second measurement range from lack of motivation to current absence from work due to a business trip, illness or other reasons, such as a change of job. No significant differences were found between the observed variables measured on the first sample and the sample obtained after the withdrawal of some participants, so the analyses were carried out on a sample of 161 participants.

## Instruments

*The Perceived Stress Scale (PSS 10; Cohen et al., 1983)*

This questionnaire consists of 10 items which estimate the frequency of the above statements in the previous month (e.g. "In the last month, how often have you felt nervous and 'stressed?'"). The ratings range from 0 to 4 on a five-point scale (0 – never, 4 – very often) and refer to the participants' assessment of how unpredictable, out of control and demanding their lives are. Higher scores mean a higher level of perceived stress. The participants rated these experiences according to their profession. The acceptable reliability of this measure is confirmed by previous studies included in a review study in which Cronbach's alpha is  $>0.07$  (Lee, 2012), and in this study Cronbach's alpha values in both measurements are also acceptable compared to the previous ones ( $\alpha$  Time1 = 0.82 and  $\alpha$  Time2 = 0.84).

*Emotional Skills and Competence*

*Questionnaire (ESCQ, UEK-45; Takšić, 2002)*

This measurement consists of 45 items and three subscales. The scale of the ability to perceive and understand emotions (PU) consists of 15 items (e.g., "When I see how someone is feeling, I usually know what happened to them."), the scale of the

ability to express and label emotions (EL) consists of 14 items (e.g. "When something doesn't suit me, I show this immediately."), while the scale of the ability to regulate and manage emotions (MR) consists of 16 items (e.g. "I can maintain a good mood, even when the people around me are in a bad mood."). The participants have to rate on a Likert scale from 1 (it doesn't relate at all) to 5 (it completely relates) the extent to which a particular item of the questionnaire applies to them. Higher scores in these dimensions mean that each of them is developed. In previous studies using the UEK-45 questionnaire, its acceptable reliability for each subscale was confirmed by Cronbach's alpha coefficient of 0.88 PU, 0.84 EL and 0.70 MR (Dobrota & Reić Ercegovac, 2012). This study also confirms acceptable and high reliability coefficients of Cronbach's alpha, which are listed for the individual subscales of this questionnaire first for the first and then for the second measurement as follows: for PU 0.90 and 0.91, for EL 0.87 and 0.88, and for MR 0.76 and 0.74.

*The Maslach Burnout Inventory –  
Educators Survey* (Maslach et al., 2012)

This survey consists of 22 items on the participants of an individual's feeling towards work and contains three subscales that measure different aspects of professional BT: EE (8 items), DP (7 items) and perception of lowered PA (7 items). In the MBI-ES, the participants use the Likert scale to evaluate the frequency of feelings in relation to their work (0 – never, 6 – every day). Lower scores for EE and DP and higher scores for PA mean that the individual does not express the experience of BT. In previous Croatian studies using the MBI-ES questionnaire, its acceptable reliability for each subscale was confirmed by Cronbach's alpha coefficient of 0.93 EE, 0.83 DP and 0.70 PA (Vidić et al., 2021). This study also confirms acceptable and high reliability coefficients of Cronbach's alpha which are listed for the individual subscales of this questionnaire first for the first and then for the second measurement as follows: for EE 0.93 and 0.93, for DP 0.70 and 0.74, and for PA 0.76 and 0.85.

## Procedure

The study is longitudinal and was conducted in two measurements within nine months – at the end of the 2012/2013 school year in a stressful phase because the school year was coming to an end (June 2013), and in the 2013/2014 school year (March 2014), when regular school situations had become established and the amount of stressful situations was part of everyday school life. This was done in order to obtain the most accurate assessment of teachers' stress, BT and EI activat-



ed during the stressful phase, and nine months later when the possible effects of these variables could be reflected in their regular school routine, where teachers spend the majority of their time during the school year. The study was carried out in a total of 12 secondary schools in Croatia, in classrooms and teachers' rooms. The Ministry of Science and Education of the Republic of Croatia and the school principals gave their consent to the study. At the beginning of the study, the teachers were informed about the study and their rights. The teachers were also assured that their identity would be protected and that they could withdraw from participation at any time. After signing the consent form to participate in the study, the teachers completed a series of questionnaires, which took approximately 25 minutes for both measurements. The data collected was calculated using the statistical program IBM SPSS 26.

## RESULTS

### Descriptive data

The following is a tabular presentation of the descriptive data of the variables observed in this study (Table 1) and their mutual correlations (Table 2).

↪ TABLE 1  
Descriptive parameters of psychological measures of teachers' perception of stress, EI and BT in two different school years (N = 161)

		M	SD	Min.	Max.	$\gamma_1$	$\kappa$
Time 1	Stress	25.23	5.03	10	42	0.44	0.45
	PU	55.79	6.74	36	75	-0.06	0.70
	EL	53.26	6.72	28	67	-0.31	0.78
	MR	61.88	5.72	45	77	0.14	0.13
	EE	19.36	11.98	0	47	0.56	-0.55
	DP	3.66	4.27	0	19	1.76	2.76
	PA	35.77	6.87	11	48	-0.67	0.41
Time 2	Stress	25.67	5.40	13	41	0.06	0.36
	PU	55.47	6.99	33	74	0.04	0.25
	EL	53.02	6.65	34	70	-0.09	0.60
	MR	60.83	5.36	49	76	0.38	0.28
	EE	19.99	12.41	0	48	0.50	-0.64
	DP	3.91	4.63	0	22	1.70	2.68
	PA	35.50	7.99	1	48	-1.03	1.76

PU – Perceiving and understanding emotions, EL – Expressing and labelling emotions, MR – Managing and regulating emotions, EE – Emotional exhaustion, DP – Depersonalisation, PA – Personal accomplishment,  $\gamma_1$  – skewness coefficient;  $\kappa$  – kurtosis coefficient

Teachers in this study reported higher levels of perceived stress, moderate levels of EE, low levels of DP, and high levels of PA. They also rated the aspects of their EI as moderate to high.

TABLE 2  
Pearson correlations  
between perceived  
stress, EI and teacher  
BT in two different  
school years  
(*N* = 161)

The Pearson correlations between most of the observed variables are significant and usually vary from moderate to high (Table 2). There are positive correlations between the perception of stress and the dimensions of BT in two different school years (Time 1 and Time 2). Teachers who reported higher levels of stress at first measurement (Time 1) reported higher levels of BT aspects and lower scores on aspects of emotional competence at both measurements (Time 1 and Time 2) (Table 2), with the exception of the relationship between PU and EE and DP (Time 1) and the relationship between expressing emotions and exhaustion (Time 2) (Table 2).

		Time 1							Time 2						
		1	2	3	4	5	6	7	8	9	10	11	12	13	
Time 1	1. Stress														
	2. EE	0.66**													
	3. DP	0.36**	0.47**												
	4. PA	-0.39**	-0.23**	-0.29**											
	5. PU	-0.17*	-0.07	-0.07	0.27**										
	6. EL	-0.27**	-0.16*	-0.25**	0.30**	0.57**									
	7. MR	-0.50**	-0.37**	-0.28**	0.42**	0.39**	0.48**								
Time 2	8. Stress	0.64**	0.44**	0.24**	-0.36**	-0.14	-0.13	-0.30**							
	9. EE	0.58**	0.74**	0.47**	-0.24**	-0.03	-0.14	-0.25**	0.64**						
	10. DP	0.34**	0.32**	0.54**	-0.36**	-0.09	-0.29**	-0.15	0.39**	0.48**					
	11. PA	-0.35**	-0.25**	-0.27**	0.69**	0.35**	0.30**	0.40**	-0.48**	-0.33**	-0.36**				
	12. PU	-0.25**	-0.10	-0.04	0.31**	0.74**	0.48**	0.34**	-0.30**	-0.13	-0.11	0.47**			
	13. EL	-0.28**	-0.15	-0.20*	0.27**	0.47**	0.77**	0.35**	-0.21**	-0.14	-0.19*	0.34**	0.58**		
	14. MR	-0.48**	-0.33**	-0.20*	0.33**	0.19*	0.29**	0.66**	-0.43**	-0.27**	-0.14	0.44**	0.42**	0.44**	

\*\**p* < 0.01, \**p* < 0.05, EE – Emotional exhaustion, DP – Depersonalisation, PA – Personal accomplishment, PU – Perceiving and understanding emotions, EL – Expressing and labelling emotions, MR – Managing and regulating emotions

## Predictors of teacher burnout

The regression analyses were performed taking into account the values of kurtosis and skewness of some variables above the normality range and the model diagnostic q-q plots (Kim, 2019), which show that the model residuals are reasonably normally distributed. Hierarchical regression analyses with interactions for BT dimensions as criteria were conducted to test models predicting teacher BT based on stress levels and the potentially protective role of EI in the process of developing BT at the end of a school year and one year later. To control for the role of stress in explaining the BT model, perceived stress was included as an independent predictor in the first step of each hierarchical regression analysis; three dimensions of EI were included in the second step; and interactions between perceived stress and individual aspects of emotional competence were included in the third step of each hierarchical regression analysis. The results of the analyses for both measurements are also presented (Table 3).

Predictors	Criterion ↻		Time 1			Time 2				
			EE	DP	PA	EE	DP	PA		
Time 1	1 <sup>st</sup> step	Stress	Beta	0.66**	0.35**	-0.37**	0.57**	0.36**	-0.35**	
			R	0.66	0.35	0.37	0.57	0.36	0.35	
			R <sup>2</sup>	0.43	0.12	0.14	0.33	0.13	0.12	
			F	110.15**	19.81**	23.27**	71.98**	22.46**	19.73**	
	2 <sup>nd</sup> step	PU	Beta	0.07	0.13	0.14	0.08	0.07	0.22**	
			EL	Beta	-0.00	-0.21*	0.04	-0.04	-0.28**	0.01
			MR	Beta	-0.07	-0.09	0.23**	0.07	0.11	0.20*
			R	0.66	0.40	0.48	0.58	0.43	0.48	
			R <sup>2</sup>	0.44	0.16	0.23	0.34	0.18	0.23	
			F	27.56**	6.72**	10.74**	18.44**	7.99**	10.58**	
			ΔF	0.45	2.19	5.79**	0.72	2.88**	6.74**	
	3 <sup>rd</sup> step	Interaction S-PU	Beta	0.05	0.11	0.07	0.13	0.18	0.15	
			Interaction S-EL	Beta	-0.01	-0.15	0.04	-0.14	-0.30**	0.06
			Interaction S-MR	Beta	-0.02	0.09	-0.08	0.01	0.09	-0.14
			R	0.66	0.42	0.49	0.59	0.48	0.51	
			R <sup>2</sup>	0.44	0.18	0.24	0.35	0.23	0.26	
			F	15.54**	4.25**	6.25**	10.91**	6.05**	6.82**	
			ΔF	0.15	0.96	0.44	0.92	3.01*	1.63	

TABLE 3  
Results of the hierarchical regression analyses for teacher BT as a criterion measured in two different school years (N = 161)

\*\* $p < 0.01$ , \* $p < 0.05$ , S – Perception of stress, PU – Perceiving and understanding emotions, EL – Expressing and labelling emotions, MR – Managing and regulating emotions, EE – Emotional exhaustion, DP – Depersonalisation, PA – Personal accomplishment

As can be seen in Table 3, all regression models were significant in all steps for the BT dimensions as criteria in both measurements ( $p_s < 0.01$ ).

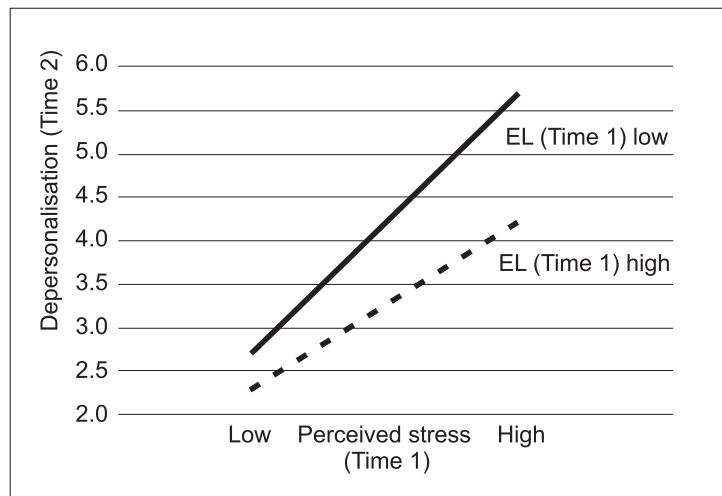
In the first step of the hierarchical regression analyses, stress was found to be a significant predictor of all dimensions of BT in both the first and the second measurements, explaining between 12% and 43% of the variance of the criteria (Table 3). Teachers who experienced higher levels of stress tend to experience EE, DP and low PA in both measurements.

The introduction of the dimensions of EI in the second step of the analyses shows that for different aspects of the BT criteria in both measurements, EL is a significant negative predictor of DP, and MR is a significant positive predictor of PA. PU is only a significant positive predictor of PA in the second measurement. Also, in this step for PA in both measurements, the dimensions of EI together contribute to a significant increase in the variance of this criterion with 9% (Time 1) and 11% (Time 2), as well as 5% for DP as a criterion in the second measurement (Time 2) (Table 3).

In the third step of the hierarchical regression analyses, the interactions between the dimensions of EI and stress on the BT dimensions are not significant, with the exception of the

interaction between stress and the expression and labelling of emotions on DP as a criterion in the second measurement (Table 3). There are no effects of stress for teachers who reported a score one standard deviation above the mean for EL on the first measurement, and greater effects of stress for teachers with a score one standard deviation lower on this trait. Teachers who had higher levels of perceived stress and lower levels of EL on the first measurement showed higher levels of DP one year later compared to their peers who scored higher on this aspect of EI. As can be seen in Figure 1, the increase in perceived stress in teachers with a less developed ability to express and label emotions (Time 1) is one year later, followed by a greater increase in the DP experience compared to teachers with a more developed ability to express emotions, who show a significant but smaller increase in DP. The effects of stress are stronger in teachers with lower competence in EL.

FIGURE 1  
Interaction between  
perceived stress  
(Time 1) and EL  
(Time 1) with DP  
(Time 2)



## DISCUSSION

The aim of this study was to investigate the longitudinal process of teacher BT in Croatia focusing on EI as a personal resource in this process, in order to determine whether this personal characteristic plays a moderating role in the relationship between perceived stress and teacher BT observed in two consecutive school years. According to the norms (Maslach et al., 2012; García-Carmona, et al., 2019), the Croatian teachers who participated in this study expressed moderate levels of EE, low levels of DP and high levels of PA. Teachers' levels of BT reported in this study are inconsistent with the meta-analysis findings that the majority of secondary school teachers reported moderate or high levels of EE and DP and low levels of PA (García-Carmona et al., 2019). These results can be ex-

plained by the inclusion of teachers who may be motivated to deal with BT and successfully use coping strategies, whereas we did not control for individual factors such as neuroticism or situational factors such as peer support of colleagues, school climate, conflict, etc., which may also contribute to BT.

The results partially confirm the first hypothesis. In both the first and second measurement, the results show that teachers with a more pronounced ability to express their emotions have a lower sense of detachment and a less negative attitude towards their students, while those who are able to manage their emotions and those of others better have a higher sense of professional fulfilment. Teachers who are able to monitor their emotions feel more enthusiastic and energised about their work with students and their work in general a year later. Similarly, Brackett et al. (2010) show that teachers who have developed the ability to regulate their own emotions and those of others receive positive feedback that can help them to deal successfully with problems with students or others, which in turn can explain higher PA.

The observation of the role of EI as a predictor of BT syndrome and its stability over time shows that this construct can play a significant role in regression models and is involved in the BT process. This is consistent with previous research suggesting that EI enables individuals to cope successfully with emotionally challenging situations and that its positive role may be reflected in a reduced experience of BT (Görgens-Ekermans & Brand, 2012; Rey et al., 2016). The lack of regression effect of EI in experienced EE can be explained by the assumption that teachers who exhibit higher aspects of EI are more emotionally sensitive due to their emotional competencies, which allows them to focus more on the emotional content that they use in their interactions with students and colleagues, causing them to lose the emotional capacities necessary to maintain low levels of EE. A similar explanation is offered by Yin (2015), while Chan (2006) explains this part of the BT process as a precursor to DP and PA, which occur independently, and this is consistent with the assumption that DP and reduced PA involve the teacher's mental capacities, as opposed to EE, which involves emotional capacities (Maslach et al., 2012). The lack of a regulation effect can be explained by the assumption that the perceived exposure to stress and BT is not so threatening to teachers at this stage of the BT process that makes it necessary to use, but may manifest itself in the future. Since this measure of regulation involves an assessment of the regulation of their own emotions and the emotions of others, it is possible that teachers, although they consider these to be developed, do not draw on the regulation of others' emotions when it comes to dealing with their BT, which is a subjective experience.

The results of the investigation of the moderator role of EI in the process of the link between perceived stress and BT syndrome in teachers partially confirm the second hypothesis. The moderator role of the dimensions of EI in the relation between perceived stress and BT syndrome was not obtained in the first, but its longitudinal moderation effect is partially expressed in the second measurement. It appears that aspects of emotional competence such as EL may play a protective role in the relationship between stress and aspects of BT such as DP, which was observed one year after a stressful transaction in the teachers who participated in this study. Teachers who rate their ability to express and label emotions as above average do not experience the same impact of stress as their colleagues. The effect of stress is greater in teachers who self-assess their ability to express and label emotions as below average. More precisely, the ability to express and label emotions in high-stress work situations partially "protects" teachers from experiencing high DP a year later after the perceived stress. The results of this study are consistent with the previous, stating that EI helps teachers cope with stress and BT in a way that acts as a personal resource and buffers the impact of stress on their work engagement (Mérida-López et al., 2019). It follows from the above that the expression of emotions as an aspect of EI can play an adaptive role in coping with stressful situations in teachers and can serve as a "protective shield" against BT.

The fact that not all protective long-term effects of some aspects of EI investigated in this study on BT were found, such as PU as well as MR, can be explained by the multidimensional nature of EI. Moon & Hur (2011) explain the lack of effects of utilisation of emotions on BT in their study with the assumption that people who are good at using emotions process more emotional content in relation to themselves and others, which can be stressful and lead to EE. The finding that different components of EI may play different roles in the development of BT, as found in this study, is similar to some previous studies confirming that these processes may occur independently (Chan, 2006). These findings fit Maslach's BT model and support the assumption that personal characteristics and subjective experiences, such as the expression of emotions, play an important role in teachers' BT process and that if they act as a high resource over and above the high demands, e.g. stress, BT would not be experienced in the same way as it was for the teachers in this study when considering EL as a personal resource. Furthermore, the results may support the JD-R model by confirming that EL can act as a personal resource that reduces stress and consequently does not increase BT. The results can also contribute to COR theory by showing that EL as an EI aspect can reduce stress and allows teachers to maintain other

possible personal and contextual resources such as disclosure and social support through which they can successfully cope with BT.

According to these findings, teachers with a higher EL are those who successfully express their work-related emotions and this ability protects teachers from experiencing DP. This aspect of work BT largely relates to negative attitudes towards work and service recipients (Maslach et al., 2012). Therefore, it is possible that teachers who initially become aware of their own unpleasant emotions channel them appropriately by justifying their negative attitudes and emotions towards students and work in general, e.g., by talking about them with colleagues, school psychologists and perhaps students, especially when conflicts arise, which may lead them to resolve them and thus not eventually acquire such negative beliefs that they experience mental and emotional disengagement, i.e. DP. The process of awareness, which can occur through conversation, sharing experiences or so-called disclosure (Larsen & Buss, 2008) can help an individual, in this case a teacher, to deal with stressful situations at work. These assumptions are confirmed by the findings of Bakker & Schaufeli (2000), according to which a lower level of teacher BT is related to the frequency of conversations with colleagues about problems with students, which these authors explain by the inevitable role of social support among teachers. Given the "therapeutic" effect of talking with colleagues on the experience of BT, BT prevention guidelines can incorporate techniques to strengthen group cohesion in their programmes, through workshops at the individual school level, but also through more frequent professional meetings for teachers where they have the opportunity to talk about problems they encounter at work. Conversations and reflections on emotions are also part of the supervision that can be set up for teachers who need support in coping with their professional demands.

The advantage of this study is the longitudinal design in which participants completed the same questionnaire twice, which supports the test-retest reliability of the results, unlike most longitudinal studies that use only one measurement of BT such as EE or a measurement of individual differences from previous measurements. The above advantage is also reflected in the observation and monitoring of the role of stress as a major cause of BT, which is not the case in most longitudinal studies on BT. Also, an EI measurement was used that combines the three different aspects, and whose "fine-tuning" can be observed at different points in time, depending on the severity of the different BT dimensions.

In addition, it is necessary to mention some limitations of this research. One of them is the convenient sample resulting

from the voluntary participation of teachers in the research. Based on this fact, it can be assumed that their consent shows that the teachers who were willing to participate already have other protective mechanisms against BT, as their results do not exhibit high BT experiences. Perhaps for some of them, taking part in this study is also a reaction and part of coping with their BT problem. Although a decrease in the number of participants over the course of the measurement is unavoidable in longitudinal research (Lindwall et al., 2014), the high non-participation of teachers in the second measurement in this study could also have an impact on the results obtained for the longitudinal observation of the predictors of BT and the moderator variables. A major issue in this study is the convenient sample and the possibility of providing socially desirable responses, as well as the fact that the use of instruments does not provide a deeper understanding of the processes involved and the relationships between the different aspects of EI and BT. A better understanding could be achieved through a combined methodology that includes both quantitative and qualitative approaches.

## CONCLUSION

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The results of this study confirm a strong relationship between EI and BT, and this relationship is stable over time in the Croatian teacher sample. EL is a negative predictor of DP, and the MR is a significant positive predictor of teachers' PA in both school years. PU is a significant positive predictor of PA for the second measurement only. EL longitudinally moderates the effects of stress on teacher DP. The effect of teacher stress on DP experienced one year later is stronger in teachers with a lower ability to express and label their emotions than in teachers with a higher level of this ability, who also experience DP in high stress situations, but at a lower level. These findings suggest that some aspects of EI, such as EL, may play a protective role in the process of DP of teachers as an aspect of BT, which should be considered when developing prevention strategies such as supervision and mental health maintenance programmes for teachers in Croatia.

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## Percepcija stresa, emocionalna inteligencija i sindrom izgaranja na poslu: longitudinalno istraživanje nastavničkih snaga

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Cilj je ovog istraživanja longitudinalno ispitati zaštitnu ulogu emocionalne inteligencije (EI) kao osobnog resursa u procesu izgaranja na poslu hrvatskih nastavnika upotrebom modela izgaranja Maslach i Jackson (1981). Istraživanje je provedeno tijekom dvije školske godine i obuhvatilo je 161 srednjoškolskoga nastavnika (34 muškarca, 127 žena) od 24 do 65 godina ( $M = 45,35$ ,  $SD = 10,55$ ). Provedene su hijerarhijske regresijske analize. Moderirajući učinak EI nastavnika na odnos između stresa i izgaranja u dvije uzastopne godine djelomično je potvrđen. Dobiven je longitudinalni moderirajući učinak izražavanja i imenovanja emocija (IIE), aspekta EI, na odnos između stresa i depersonalizacije. U funkciji porasta stresa (vrijeme 1), nastavnici s nižim IIE bili su skloniji depersonalizaciji (vrijeme 2), za razliku od nastavnika s izraženijim IIE. Nalazi podržavaju pružanje sustavne emocionalne podrške nastavnicima u okruženju u kojem mogu izraziti svoje emocije, npr. kroz superviziju, što se može ugraditi u strategije prevencije izgaranja.

Ključne riječi: izgaranje na poslu, emocionalna inteligencija (EI), longitudinalno istraživanje, percepcija stresa, srednjoškolski nastavnici



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