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## Association of emotional intelligence with resilience and work engagement in sports coaches

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### Abstract:

**Problem statement.** Sports coaching is recognized as a stressful and challenging profession due to several different aspects such as organizational, performance, contextual, interpersonal, and intrapersonal stressors that coaches face. High level of work stress is a risk factor for decreased well-being at work. Sports coaches' well-being not only matters to coaches themselves but plays a significant role in athlete performance and well-being as well. **Approach.** There is research evidence on sports coaches' stress and burnout. There is, however, little knowledge on personal resources that enhance sports coach's well-being at work. Therefore, studies that examine personal resource factors that facilitate the well-being of sports coaches are needed. We explored whether emotional intelligence (EI) is associated with resilience and work engagement in sports coaches. **Methods.** The participants were 51 sports coaches (19 women) who reported their EI, resilience and work engagement. We analyzed data with Spearman's rank correlation and regression analysis. **Results.** Our results showed that women reported higher EI. Regression analysis revealed that EI was associated with resilience and work engagement independently of age and gender. EI in sports coaches was associated with higher resilience, reflecting better recovery from stress, and higher work engagement, reflecting higher well-being at work. **Discussion.** Personal resources seem to be related to sports coaches' well-being at work. The well-being studies among sports coaches is still scarce and therefore further studies are needed. **Conclusion.** We suggest that emotional intelligence and emotional skills should be considered in developing interventions targeted at enhancing sports coaches' occupational well-being and in the training of sports coaches.

**Keywords:** coach, well-being at work, personal resources, emotional skills, gender differences

### Introduction

The fact that athletes develop mental skills that help them regulate their psychological states, enhancing performance and well-being, is well established (Golby & Wood 2016). However, sports coaches' mental skills and well-being have received insufficient research attention. Sports coaching is a challenging and stressful profession due to a great variety of organizational, performance, contextual, interpersonal, and intrapersonal stressors that coaches face (Carson et al., 2018; Norris et al., 2017). For example, coaches experience unstructured work roles, irregular working hours, as well as lack of social support and job security (Knight et al., 2013). Coaches can benefit by paying more attention to how they cope with stress, promote work engagement, and prepare themselves to perform at peak level (Altfeld et al., 2018; Carson et al., 2018; Norris et al., 2017). Here, we examine factors that enhance resilience and well-being in Finnish sports coaches.

High levels of work stress and poor recovery skills and habits can have several negative outcomes, such as burnout (Gluschkoff et al., 2016), anxiety and depression (Melchior et al., 2007). Coaches have a burnout risk at work due to various stressors (Altfeld et al., 2018). Although a recent study of Finnish sports coaches reported good overall well-being, a quarter of coaches experienced burnout symptoms (Kaski & Kinnunen, 2020). Coach burnout was almost equally due to job demands and a lack of job resources. An important single contributor to burnout was lack of positive challenges at work (Kaski & Kinnunen, 2020).

Sports coaches' well-being not only matters to coaches themselves but plays a significant role in affecting athletes, in performance (Balk et al., 2019; Fouraki et al., 2020; Syrmpas & Bekiari, 2018), well-being (Katagami & Tsuchiya, 2016) and adaptation to stress (Wagstaff et al., 2018). Moreover, sports coaches' physical and emotional recovery during leisure is important for both coaches' well-being and athletes' daily sporting experiences (Balk et al., 2019). What makes coaches flourish and how they can promote well-being at work warrant study. In the present study, we focused on resilience (Galli & Gonzalez, 2015) in the form of bouncing back from stressful encounters as well as finding a good workflow and work engagement (Schaufeli et al., 2002; Tomietto et al., 2019). Resilience denotes the ability to recover from stress and is reflected in the ability to overcome difficulties (Flecher & Sarkar, 2013). Individuals differ in their perceptions of stress and reactions to adversity (Hintsa et al., 2010; Hintsa et al., 2013; Strelau, 2008), and how these differences influence emotions, thinking, and behavior vary considerably. Personal abilities, such as the use of positive emotions, can

promote resilience against stressors (Tugade & Fredrickson, 2004). In this study, we view resilience as the ability to recover from stressors and to maintain functioning throughout challenging situations (Bryan, O'Shea & MacIntyre, 2019).

In sports psychology, resilience has been explored in relation to athletes' sports performance and successful adaptation to adversities in sport (Galli & Gonzalez, 2015). A recent study of sports coaches found that progressive coaching, maintaining work-life balance, and effective decision-making were some protective factors against stressors (Sarkar & Hilton, 2020). Other such factors were motivation, supportive networks, and secure working environments. In organizational settings, resilience entails achievement and goal-oriented behavior, with links to low levels of burnout, anxiety, and depression (Mealer et al., 2012). Resilient individuals can use positive emotions to bounce back from adversities; they can for instance, experience accelerated cardiovascular recovery after negative emotional arousal (Tugade & Fredrickson, 2004). Occupation- and organization-related resilience can be developed via interventions (Tonkin et al., 2018).

In addition to resilience, a key influencing factor on well-being at work is work engagement. Work engagement refers to a relatively permanent, positive motivational and emotional orientation in the working environment, characterized by vigor, dedication, and absorption (Schaufeli et al., 2002). One feels energized and has positive feelings towards work and working. Work engagement is also a mindful mental state, wherein one is fully focused on work. Work engagement is a wider state than flow experience (Schaufeli et al., 2002). Employees who feel enjoyment about working are highly dedicated and experience high levels of positive emotions after a work period (Sonnentag et al., 2008). Previous research findings imply that work engagement can be learned and developed (Bakker, Albrecht, & Leiter, 2011). Resilience - work engagement association studies span various domains. Resilience has links to employees' confidence in their abilities, which enhances work engagement (Malik & Garg, 2020). Higher resilience, job satisfaction, and work engagement, for example, have shown to reduce turnover intentions among Chinese village doctors (Zhang et al., 2020). In resilience, some gender differences prevail. A recent study among nurses working on the frontline of COVID-19 found that resilience enhanced work engagement (Lyu et al., 2020). Men, athletes included, report higher resilience, while women are more vulnerable to distress (González-Hernández et al., 2020; Stratta et al., 2013; Xiao et al., 2020). Although work engagement is generally a gender-neutral phenomenon, countries differ; some favor men and others women (Schaufeli & Bakker, 2006). Banihani et al. (2013) suggest that work engagement is gender-associated phenomenon and that experiencing work engagement is easier for men. For instance, men have displayed greater engagement in sports (Huml et al., 2020). Several personal resources can enhance well-being at work. Among sport coaches, for coping, positive personal characteristics, such as optimism, perseverance, and resilience, are important (Laborde et al., 2017). Another important personal resource is emotional intelligence (EI) (Kotsou et al., 2019). According to Salovey and Mayer (1990; Salovey et al., 2004), EI consists of emotional skills, including the ability to monitor one's own and others' feelings and emotions, to discriminate between them, and to use this knowledge to guide thinking and behavior. As noted by Kokkonen (2012, 2017), sport coaches need emotional skills not only to create and maintain positive relationships and safe training environments, but also to enhance their own well-being.

Regarding gender differences in EI, mixed results have been reported, with some citing that women have higher EI than men (Cabello et al., 2016; Fernández et al. 2020; Koveshnikov et al., 2013; Pérez-Díaz et al., 2021; Schneider et al. 2013; Xu et al., 2019). In a study among the Spanish adult population, women reported higher total EI including all subdimensions (Cabello et al., 2016). Another study across four different countries showed gender differences in total EI (Pérez-Díaz et al., 2021). A study among French expatriates showed that EI is more beneficial for men than for women in work adjustment (Koveshnikov et al., 2013). A meta-analysis found a stronger association between EI and creativity among men (Xu et al., 2019). In sports, EI has been reported to be higher among female athletes (Fernández et al. 2020). However, reported effect sizes have been relatively small (MacCann et al., 2020; Pérez-Díaz et al., 2021). Previous research outside the sporting domain has reported associations between EI and work engagement and other aspects of occupational well-being. A meta-analysis of EI and work attitudes showed that EI was related to higher job satisfaction, organizational commitment, and lower turnover intentions (Miao et al., 2017). The meta-analysis showed that EI improves job satisfaction by reducing negative feelings and increasing positive feelings, thus improving job performance (Miao et al., 2017). EI has been associated with dimensions of work engagement and overall job satisfaction (Extremera et al., 2018). Higher EI has been related to greater vigor, dedication and absorption, which in turn increased positive attitudes in the workplace (Extremera et al., 2018). It has also been found to predict work engagement in several occupations, such as clinical nursing (Zhu et al., 2015), police work (Brunetto et al., 2012), and teaching (Garrido & Panheco, 2012).

As outlined previously in this paper, sports coaching has been shown to generally be a stressful occupation and coaches' well-being can influence the well-being of their athletes. Thus, examining the potential personal resource factors that enhance well-being among sports coaches is important. The association of EI with resilience and work engagement has not been examined among sports coaches. The aim of the present study was to explore the associations between EI, resilience, and work engagement, and to investigate the extent to which EI explains sports coaches' resilience and work engagement. Based on previous research, we assumed EI to be associated with both resilience and work engagement.

## Materials and methods

### Participants

The sample consists of 51 Finnish sports coaches (19 women, 32 men) representing a variety of sports. Participants were 42 years old on average (SD=10.09; range 23–59 years) and had an average of 18 years (SD=10; range 3–42) of coaching experience. 40 had a full-time work contract, 9 worked part-time and 2 were volunteer coaches. The majority of the coaches ( $n = 42$ ) reported having daily coaching sessions with athletes. The data were gathered via an online survey in collaboration with the Professional Coaches of Finland association in late 2015. The study was approved by the ethical committee of the University of Jyväskylä, Finland.

### Measures

**Resilience.** Resilience was measured using the Connor-Davidson (2003) Resilience Scale-10 (CD-Risc-10). Coaches responded to 10 items, such as “I am able to adapt when changes occur” and “I can deal with whatever comes my way”, on a 5-point Likert scale (0 = not at all true – 4 = almost always true). Cronbach’s alpha for the sum score was 0.82.

**Work engagement.** Work engagement was measured using the Finnish version (Hakanen, 2009) of the 17-item Utrecht Work Engagement Scale (UWES-17; Schaufeli & Bakker, 2004), measuring coaches’ levels of work engagement on a 7-point Likert scale (0 = never – 6 = every day). The scale consists of three dimensions: vigor (item example: “I am bursting with energy in my work”), dedication (item example: “I find my work full of meaning and purpose”), and absorption (item example: “When I’m working, I forget everything around me”). Cronbach’s alpha for the sum score was .93.

**Emotional intelligence.** EI was measured using the 10-item Brief Emotional Intelligence Scale (BEIS-10; Davies et al., 2010). The scale consists of items assessing appraisal of the respondent’s own emotions (“I know why my emotions change”), appraisal of others’ emotions (“I can tell how people are feeling by listening to the tone of their voices”), regulation of their own emotions (“I seek out activities that make me happy”), regulation of others’ emotions (“I arrange events other enjoy”) and utilization of emotions (“When I am in a positive mood, solving problems is easy for me”). Cronbach’s alpha for the sum score was .66.

**Background variables.** We included age and gender (1= female, 2= male) as control variables. Employment type was determined by the question “What was the employment basis of your most recent coaching work?” on a four-point response scale (1= volunteer 2 = second job 3 = part time 4 = full-time). Monthly income was determined by the question “What are your monthly earnings from coaching?” on a 10-point Likert scale ranging between 1 = less than €500 to 10 = more than €10 000. We used a single-item stress question (“Stress means a situation in which a person feels tense, restless, nervous or anxious or is unable to sleep at night because their mind is troubled all the time. Do you feel this kind of stress these days?”) to measure stress (Elo et al., 2003) on a 5-point Likert scale varying from 1 = not at all to 5 = very much.

**Data analysis** Data were initially screened based on scatterplots and normal distribution characteristics. The sum scores for EI, resilience and work engagement were normally distributed. The interrelations between the study variables were analyzed with Spearman’s correlational coefficients. Linear regression analyses were performed to examine relations between EI, resilience and work engagement. In the first step, we calculated the raw associations between EI and resilience and EI and work engagement. In the second step, we added age and gender as control variables to the model. Statistical analyses were done with IBM SPSS Statistics for Windows, version 27 (IBM Corp., Armonk, N.Y., USA).

## Results

The characteristics of the sample and the interrelations between study variables are shown in Table 1. Female gender correlated with full-time employment, higher stress, and with higher EI. EI was higher among women (4.13 vs. 3.89,  $p < 0.05$ , Cohen’s  $d=0.32$ ). Higher resilience was linked to higher work engagement (Table 1). EI correlated with higher resilience and higher work engagement. There were no gender differences in resilience and work engagement.

**Table 1:** Characteristics of the sample and bivariate correlations between study variables.

	1	2	3	4	5	6	7	8
1. Age	1.00							
2. Gender	.17	1.00						
3. Employment type	-.19	-.32 *	1.00					
4. Monthly income	.22	-.14	.74 **	1.00				
5. Emotional intelligence	-.02	-.36 **	.25	.24	1.00			
6. Stress	.03	-.34 *	.41 **	.47 **	.08	1.00		
7. Resilience	.01	.26	-.08	-.01	.31 *	-.38 **	1.00	
8. Work engagement	-.01	-.18	.26	.27	.45 **	.10	.42 **	1.00
Mean	41.83	1.63	3.61	5.43	3.98	2.92	30.12	6.06
SD	10.10	0.49	0.83	2.21	0.34	1.02	4.59	0.72

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*. Correlation is significant at the 0.01 level (2-tailed).

Gender: 1= female 2= male,

Employment type: 1= volunteer, 2 = second job, 3 = part-time, 4 = full-time

Linear regression analysis showed that higher EI was associated with higher resilience independently of age and gender (Table 2). Higher EI was associated with higher work engagement independently of age and gender (Table 3). EI explained 26.3% of the variance of resilience and 10.4% of the variance of work engagement.

**Table 2:** Results of linear regression analysis of the association between EI and resilience.

Measure	Model 1				Model 2			
	$\beta$	p-value	95% CI		$\beta$	p-value	95% CI	
Emotional intelligence	0.32	0.021	0.7	to 8.07				
Age					-0.08	0.527	-0.15	to 0.08
Gender					0.43	0.003	1.48	to 6.6
Emotional intelligence					0.47	0.001	2.75	to 10.05

<sup>a</sup> Model 1: Raw association

<sup>b</sup> Model 2: Controlling for age and gender

CI = Confidence interval

**Table 3:** Results of linear regression analysis of the association between EI and work engagement.

Measure	Model 1				Model 2			
	$\beta$	p-value	95% CI		$\beta$	p-value	95% CI	
Emotional intelligence	0.35	0.011	0.18	to 1.32				
Age					0.02	0.910	-0.02	to 0.02
Gender					0.02	0.880	-0.40	to 0.47
Emotional intelligence					0.36	0.016	0.15	to 1.39

<sup>a</sup> Model 1: Raw association

<sup>b</sup> Model 2: Controlling for age and gender

CI = Confidence interval

## Discussion

The relationship between EI, resilience and work engagement has not been previously studied among sports coaches. The purpose of this study was to examine whether EI is associated with resilience and work engagement. We found that higher EI was associated with higher resilience and higher work engagement independently of age and gender. We also found that higher resilience correlated with higher work engagement. Female gender was linked to full-time sports coach employment. Female sports coaches experienced more stress. Female sports coaches also reported higher EI than male coaches. These novel findings add to the literature about sports coaches' well-being.

In the present study, we found that higher EI was associated with higher resilience. Previous studies of resilience and emotions show that EI can be viewed as an antecedent to resilience (Magnano et al., 2016). However, studies of EI and burnout have shown that an ability to manage positive and negative emotions can improve resilience against stress and burnout (Görgens-Ekermans & Brand, 2012; Zysberg et al., 2017). There is evidence that individuals can purposefully use emotions, especially positive emotions, to bounce back (Tugade & Fredrickson, 2004), to solve problems and to develop resilience against stress (Cohn et al., 2009). It has also been proven that individuals with high levels of resilience have faster physiological recovery time from negative emotional arousal and experience fewer negative feelings (Tugade & Fredrickson, 2004). In addition, it has been shown that the world's best athletes use personal resources to reflect on their emotions and reactions to stress. For example, these athletes perceived stressors as opportunities to grow and develop, which resulted in a positive behavioral response (Flecher & Sarkar, 2012). In turn, resilience has been found to be a personal resource that buffers against stressors and burnout in both athletes and coaches (Wagstaff et al., 2018).

The present findings are in line with recent studies of semi-professional athletes (Trigueros et al., 2019), mental health workers (Frajo-Apor et al., 2016), and various other occupational groups (Magnano et al., 2016). EI and resilience are personal resource factors that can help coaches to manage stress at work. It can be assumed that individuals with better EI are capable of recognizing and appraising emotions and using this emotional knowledge in beneficial ways in stressful situations. Emotion regulation requires learning that we can successfully choose and use appropriate emotional states in the situations at hand to improve performance (Lane et al., 2009). Moreover, coaches' expression of positive emotions have been shown to be linked with athlete's positive inferences of their performance and to promote better performance in team sports (van Kleef et al., 2019). In the present study, EI as a personal resource was associated with higher resilience.

We found that higher EI was associated with higher work engagement in sports coaches. Work engagement entails several elements of well-being at work, namely vigor (energy), dedication (meaning and purpose) and absorption (being deeply engrossed in one's work). The present finding is in line with previous

findings on the associations between higher EI and higher work engagement in different occupational groups, such as Spanish employees (Extremera et al., 2018), teachers (Mérida-López & Extremera, 2020), Chinese nurses (Zhu et al., 2015) and Chinese hotel managers (Liu & Cho 2017). Previous studies have reported a link between higher emotional skills, especially emotional regulation, and higher work engagement (Extremera et al., 2018; Mérida-López & Extremera, 2020).

We found that higher resilience correlated with higher work engagement. The association between resilience and work engagement has not been studied previously in coaching. Previously a relationship between higher resilience and higher work engagement has been reported among Chinese nurses (Lyu et al., 2020) and Indian IT workers (Malik & Garg, 2020). The present finding of the relationship between higher resilience and higher work engagement among sports coaches is in line with these previous studies among other occupational groups. Resilience can be a buffer against stress that may promote work engagement.

We found that higher EI was linked to female gender, and women scored higher in EI. This finding is mainly in line with previous research (Cabello et al., 2016; Fernández et al. 2020). A study among Spanish adults has reported that women scored higher on emotional skills, including perceiving emotions, facilitating thought, understanding emotions, and managing emotions (Cabello et al., 2016). In the sporting context, a study among Spanish athletes found that women scored higher in EI (Fernández et al. 2020). Despite earlier studies on resilience, our study did not find a link between resilience and gender. Work engagement has been considered quite gender-neutral, although Finnish studies have found higher work engagement among men than women (Schaufeli & Bakker, 2006). However, our study did not find a link between gender and work engagement.

We suggest that personal resources, such as EI and resilience, can jointly enhance sports coaches' well-being at work. Personal resources are important in coaches' well-being, not just for coaches themselves, but also for athletes. Sports coaches need to be able to guide athletes and create an environment that can facilitate athletes' improving their skills and reaching higher levels of performance (Sarkar & Hilton, 2020). Competitive sport is an environment in which both athletes and coaches need to engage themselves in striving long-term to aim high and achieve measures of success, such as championship medals. The world's best coaches have been found to have close relationships with their athletes and to create a trustful and socially integrated environment in which athletes can focus and perform their best (Lara-Bercial & Mallet, 2016). Sports teams experience a vast range and intensity of individual and collective emotions and coaches are caught up in, and part of, these emotional whirlwinds (Tamminen & Bennett, 2017).

Sports coaches with personal resources that strengthen well-being may be more capable of creating a favorable environment for athletes' performance, development and well-being. Associations of EI with resilience and work engagement imply that learning and developing emotional skills could be beneficial in facilitating stress management and enhancing well-being at work among sports coaches. However, further studies are needed to examine whether resilience and work engagement can be enhanced by practicing and learning emotional skills.

When interpreting the present results, there are some limitations that have to be taken into account. The study design is cross-sectional, and thus we cannot draw any conclusions about causal relationships between EI, resilience and work engagement. We collected data via self-reports, which contain several potential sources of bias. For example, respondents may exaggerate or underestimate their responses (Dunning, 2005), and these responses can also be subject to positivity or negativity bias (Dunning, 2005). However, we used standard measures of EI, resilience and work engagement that have been proven to be valid in previous studies (Connor & Davidson, 2003; Davies et al., 2010; Hakanen, 2009). As these have been used in previous research in other study samples, our results are internationally comparable (Balakrishnan & Saklofske, 2015; Durosini et al., 2020). Future research could focus on subdimensions of EI and work engagement to achieve a more detailed understanding of these relationships. The study sample was quite small in size. The present preliminary results, however, outline important aspects of sports coaches' well-being that have not been previously examined. We plan to conduct this kind of research in larger samples with a longitudinal research design in our forthcoming research projects.

Despite these limitations, there are several strengths of the present study. Association of EI with both resilience and work engagement has not been previously reported among sports coaches. We were able to identify some novel personal resources that may be important in sports coaches' well-being. We produced new knowledge in the area of positive psychology and found support for personal resource factors in sports coaches. This new scientific knowledge can be beneficial in the training of sports coaches, but it is also of practical importance for sports psychologists who support coaches in their work. Research evidence is needed when developing intervention programs aiming at enhancing personal resources. Further research is needed to show whether it is possible to promote sports coaches' personal resources, such as EI and resilience, and their well-being through developing emotional skills.

## Conclusions

We were able to identify personal resources such as EI and resilience that seem to be linked with well-being in sports coaches. This novel information is important in helping discover what makes coaches flourish and how they can promote well-being at work. This information should be taken into account in sports coach

training and when developing intervention programs aimed at promoting personal resources and well-being at work. Further studies are needed to examine whether learning and developing these can enhance well-being at work.

**Conflicts of interest:** The authors have no conflicts of interest to declare

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