EMOTIONAL INTELLIGENCE AND COACHING EFFECTIVENESS AMONG BULGARIAN FOOTBALL PLAYERS

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ABSTRACT
Introduction: Coaching effectiveness is determined not only by the coach's skills but also by how those skills are perceived and understood by the athletes. Horn's (2002) Working Model of Coaching Effectiveness outlines the interactions between the coach's personal expectations and traits, coaching behavior, the athletes' individual characteristics, and their emotional and cognitive responses to the coach's behavior.
Aim: The aim of the present study is to examine levels of emotional intelligence and perceived coaching effectiveness among Bulgarian football players.
Methodology: The research was done among 94 Bulgarian football players aged between 15 and 18 years (U15 – 27, U16 – 23, U17 – 21, U18 – 23). In order to fulfill the aim used: 1) Coaching Efficacy Scale (Feltz et al., 1999); 2) Emotional Intelligence Scale (Schutte et al., 1998).
Results: The results of the variation analysis showed similar levels of the components of emotional intelligence and perceptions of coaching effectiveness. Players rated their coaches' confidence highest on the subscale Character Building Efficacy and lowest on the subscales Technique Efficacy and Game Strategy Efficacy. Strong statistical differences were found in the players' ages regarding the subscales Character Building Efficacy and Motivation Efficacy. The correlation analysis revealed positive relationships between the subscales of EI and CE. The regression analysis found that the subscales Appraise own emotions, Social skill, and Optimism can predict the subscales of coaching efficacy.
Conclusions: The findings highlight the role of emotional intelligence as a key factor influencing athletes' perceptions of coaching effectiveness. The data received from the study confirm the data published in the literature.

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INTRODUCTION

Emotional intelligence (EI) in the sports environment plays a significant role in the positive and effective performance of athletes. During training and competition, athletes must recognize and regulate their emotions in a dynamic environment that triggers a variety of both positive and negative emotional responses, resulting from expectations, pressure, gameplay situations, and other factors. In this environment, athletes need to maintain high psychological resilience in order to make the most appropriate tactical decisions (Hanin, 1997, 2000; Botterill & Brown, 2002; Gould et al., 2002).

The significance and influence of emotional intelligence levels have attracted the interest of many researchers. Over the years, several conceptual models of emotional intelligence have emerged in the specialized literature. The two leading models are – ability EI and trait EI (Laborde et al., 2015).

Salovey and Mayer (1990) presented the first conceptual model of emotional intelligence, describing effective human functioning in society. They defined EI through three abilities: assessment and expression of emotions, emotional regulation, and emotional utilization (Mayer & Salovey, 1990). Later, they expanded the model by introducing the ability conception of EI, which consists of four branches: perception/appraisal, emotional facilitation of thinking, understanding/analyzing emotion, and regulation (Mayer & Salovey, 1997). Mayer, Salovey, and Caruso (2002) emphasized that EI should be viewed as a cognitive-emotional ability within an ability framework and should be measured using a maximum performance test (MSCEIT), which includes tasks evaluated against predetermined criteria (e.g., expert or consensus scoring) (Mayer, Salovey, & Caruso, 2002). Furnham and Petrides (2001) developed a model for trait emotional intelligence, using a trait framework that posits this construct is unrelated to intelligence (i.e., cognitive ability) as in Mayer and Salovey's model, but instead is based on personality and behavioral tendencies. According to Furnham and Petrides, the trait emotional intelligence model includes emotional behavioral traits and encompasses self-perceptions aligned with emotional experience (Petrides & Furnham, 2001).

The present study focuses on the trait level of EI, which pertains to the enduring aspects of athletes' emotional experiences. Trait EI refers to the disposition of individuals in emotional situations, encompassing their typical behavioral patterns, and is commonly assessed through self-report questionnaires.

One of the most popular scales for measuring Trait Emotional Intelligence in sport is the Schutte Self Report Emotional Intelligence Test (SSEIT), developed by Nicola S. Schutte and colleagues (1998), and the proposed 6-factor model of Lane et al. (2007) – appraisal of others' emotions, appraisal of own emotions, regulation, social skills, utilisation of emotions, and optimism (Lane et al., 2007).

Studies among athletes (Lane et al., 2009; Meyer & Fletcher, 2007; Zizzi et al., 2003) show that higher EI is associated with better anxiety management, self-reflection, emotional regulation, and higher levels of confidence.

The relationship between emotional intelligence and coaching efficacy expectations has been explored in various studies (Thelwell et al., 2008; Hwang et al., 2013; Mehrparvar & Moosav, 2016; Iancheva & Prodanov, 2018; Teques et al., 2019).

Feltz et al. (1999) conceived coaching efficacy as the extent to which coaches believe they have the ability to influence athletes' learning and performance. They proposed a multidimensional model of coaching efficacy beliefs that contains four efficacy dimensions: motivation efficacy, game strategy efficacy, technique efficacy, and character building efficacy (Feltz et al., 1999). The authors note that the sources of coaching efficacy (coaching experience or preparation, prior success, and social support) may enhance or diminish a coach's confidence and athletes' perception of the coach's effectiveness.

The conceptual model is based on Bandura's (1977, 1994) self-efficacy theory, which identifies four key sources: mastery experiences, vicarious experiences, verbal persuasion, and emotional states (Bandura, 1977, 1994). Feltz et al. (2008) state that people with high levels of self-efficacy are proactive in regulating their cognitions, motivations, and emotions, which allows them to take advantage of the challenges they face (Feltz et al., 2008). Feltz et al.'s (1999) model also suggests that coaching efficacy dimensions can be considered mediators between various sources and outcomes (Feltz et al., 1999). Feltz and colleagues (2008) developed the Coaching Efficacy Scale (CES), a continuation of their conceptual model, which provides a foundational framework for studies linked to multiple theoretically based external variables (Feltz et al., 2008).

In 2002, Horn outlined the interactions between external influences, coaches' expectations, beliefs, and behaviors, athletes' perceptions, and performance, through the development of A Working Model of Coaching Effectiveness (Horn, 2002). In this model, athletes' personal characteristics influence their perceptions and evaluation of coaching behavior. Because athletes' perceptions and evaluations of a coach's behavior are believed to play a critical role in coaching effectiveness, a tool to assess athletes' evaluations of key coaching competencies is crucial for the continued improvement of coaching and the further development of coaching effectiveness models.

The relationship between EI and CE has attracted the interest of many researchers. Their studies are primarily focused on coaches. Thelwell et al. (2008) found that the components of CE, such as Motivation efficacy, were significantly correlated with regulation and social skills, Character building efficacy with optimism, and Technique efficacy with appraisal of one's own emotions (Thelwell et al., 2008). Hwang, Feltz, and Lee (2013) expanded the topic by presenting a structural model where EI directly predicted CE and CE acted as a mediator between EI and Leadership Style, indicating that EI influences not only coaching effectiveness but also leadership behavior (Hwang et al., 2013).

A study by Iancheva and Prodanov (2018) conducted among football coaches in Bulgaria shows that components of emotional intelligence can serve as reliable predictors of coaching efficacy expectations. The influence of emotional intelligence levels on athletes' perceptions of coaching effectiveness remains underexplored in the literature.

The aim of this study is to examine age-related differences in levels of emotional intelligence and perceived coaching effectiveness among football players, as well as to explore the statistical relationships between these two variables.

METHODOLOGY

Participants

The research was done among 94 Bulgarian football players aged between 15 and 18 years (U15 – 27, U16 – 23, U17 – 21, U18 – 23). At the beginning of the research, all participants were informed about the survey's aim and agreed to participate.

Measures

In order to fulfill the aim of the research, we used:

- *Background information.* General demographic and sport-related data (age, playing experience, competitive category) were collected.
- *Coaching Efficacy Scale (CES; Feltz et al., 1999).* The adapted Bulgarian version (T. Iancheva, 2012) includes 24 items rated on a 10-point scale. The CES measures four dimensions of coaching efficacy:

✓ Motivation efficacy – the coach's confidence in the ability to motivate athletes;

✓ Game strategy efficacy – the coach's confidence in making tactical decisions during competition;

✓ Character building efficacy – the coach's confidence in influencing the positive attitudes and sportsmanship of athletes;

✓ Teaching technique efficacy – the coach's confidence in teaching and developing technical skills.

- *Emotional Intelligence Scale (EIS; Schutte et al., 1998).* The Bulgarian adaptation (T. Iancheva & G. Prodanov, 2022) consists of 33 items rated on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). Based on the factor structure suggested by Lane, Thelwell, Gill, & Weston (2007), it measures six factors:

✓Appraisal of own emotions – the ability to recognize and understand one's own emotional states;

✓Appraisal of others' emotions – the ability to perceive and interpret the emotions of others;

✓Optimism – a tendency toward positive expectations and constructive thinking;

✓Regulation of emotions – the capacity to control and manage emotional responses;

✓Social skills – the ability to use emotions effectively in social interactions;

✓Utilization of emotions – the ability to employ emotions in problem-solving and performance.

✓Both the CES and the EIS have demonstrated very good psychometric properties under Bulgarian conditions.

Statistical methods

When processing the initial research data, we used the statistical package SPSS 21 and conducted variation, correlation, comparative, and regression analyses.

RESULTS AND ANALYSIS

The results of the variation analysis (Figure 1) for players' perceptions of coaching effectiveness show that the subscale Character Building Efficacy has the highest values (M = 8.12, SD = 1.09). The players rate their coaches' confidence in influencing their positive attitude toward the game and their opponents as most highly. The sense of coaches' confidence in influencing the players' activity and motivation ranks second, subscale Motivation Efficacy (M = 8.04, SD = 0.96). The other two subscales — Technique Efficacy (M = 7.99, SD = 0.85) and Game Strategy Efficacy (M = 7.98, SD = 0.87) — show lower and closer mean values, which indicates that the players are more critical toward their coaches' confidence in developing technical-tactical skills and making tactical decisions during a match.

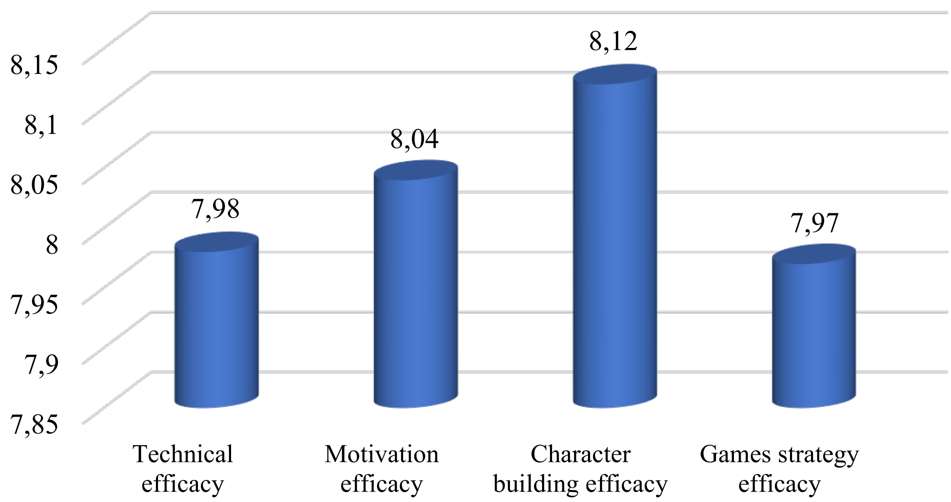


Figure 1. *Players' perceptions of coaching effectiveness (mean values of subscales)*

Figure 2 presents the results of the variation analysis of the subscales of emotional intelligence. The analysis reveals that the subscales Optimism (M = 4.23, SD = 0.56) and Regulation of Emotions (M = 4.13, SD = 0.54) show the highest levels, suggesting that the players tend toward positive thinking and self-control. Appraise Own Emotions (M = 4.10, SD = 0.52) is also relatively high, while Social Skill (M = 3.67, SD = 0.64) and Utilization of Emotions (M = 3.71, SD = 0.61) have moderate values. Appraise Other Emotions has the lowest mean score (M = 3.58, SD = 0.46), which may indicate a limited ability to read the emotions of others.

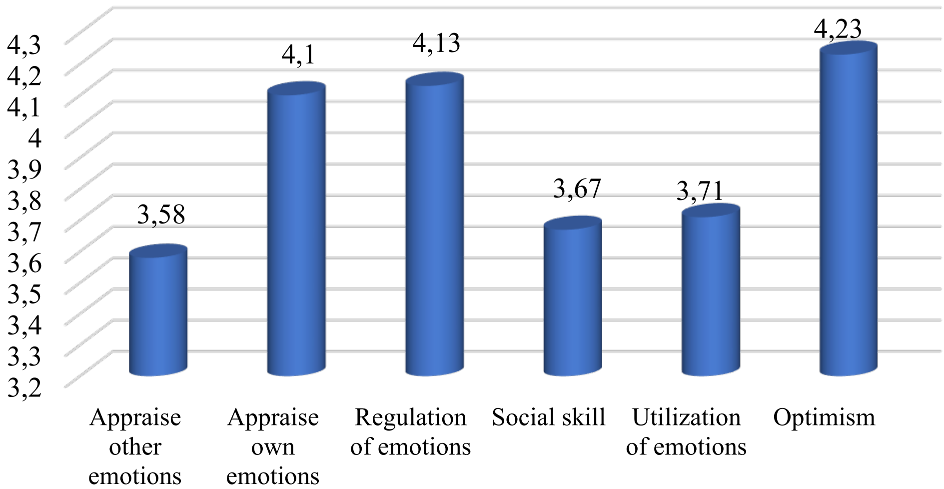


Figure 2. *Players' emotional intelligence (mean values of subscales)*

The comparative analysis of the data reveals statistically significant differences based on the players' age (Figure 3) across several subscales. The most pronounced differences are observed in the subscales Character Building Efficacy and Motivation Efficacy, where 18-year-old players report significantly higher levels (M = 8.83, M = 8.60) compared to 16-year-olds (M = 7.25, M = 7.63). The subscales Technique efficacy and Regulation of Emotions also show statistically significant age-related differences. These statistically significant differences indicate a clearly expressed age-related dynamic. In the subscale Game Strategy Efficacy, a trend of higher scores with increasing age is also observed, although the differences are not statistically significant.

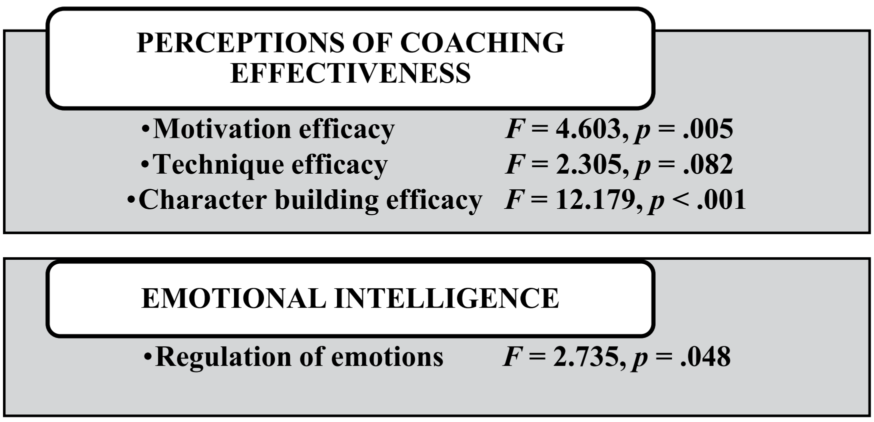
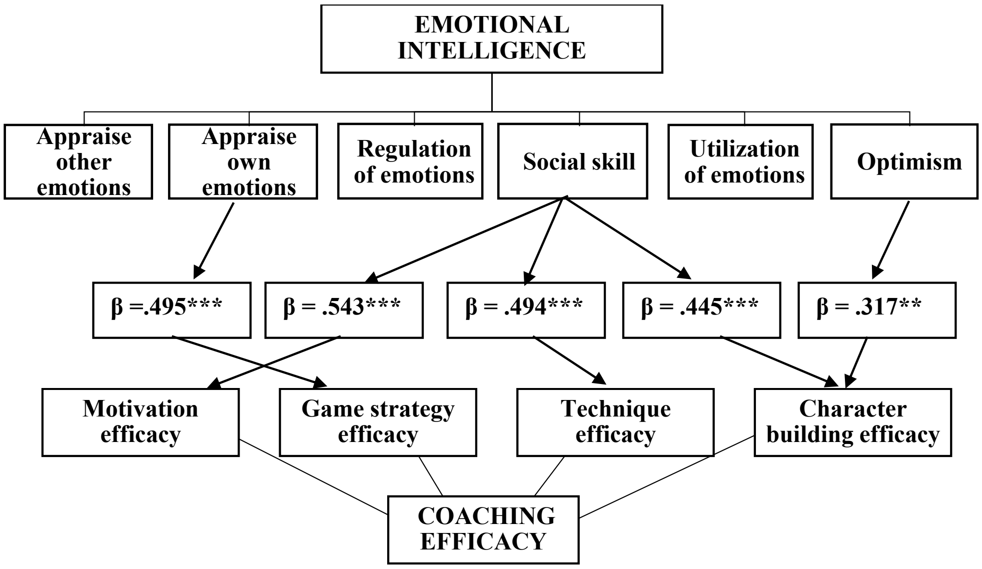


Figure 3. *Results from comparative analysis along the factor age of players*

The correlation analysis revealed a positive and statistically significant correlation between the components of coaching efficacy and almost all components of emotional intelligence (r = .35–.57, p < .01). The analysis shows that the subscale Appraise Other Emotions has a correlation only with Game Strategy Efficacy (r = .27, p < .01).

The stepwise regression analysis (Figure 4) revealed relationships between components of emotional intelligence and players' perceptions of coaching efficacy. Higher levels of the Social Skill subscale positively influenced Motivation Efficacy (β = .543, p < .001), Technique Efficacy (β = 0.494, p < .001), and Character Building Efficacy (β = .445, p < .001).



*Notes: ** = p < .01, *** = p < .001*

Figure 4. *Results from Regression analysis*

Higher levels of the subscale 'Appraise own emotions positively' stimulate Game strategy efficacy (β = .495, p < .001), while Optimism shows a moderate but significant relationship with Character building efficacy (β = .317, p = .003).

The regression analysis did not reveal other significant relationships between the remaining components of emotional intelligence and coaching efficacy.

DISCUSSION

The investigated football players demonstrate relatively high levels of emotional intelligence. They rate their positive beliefs about future outcomes (optimism) and their ability to regulate their emotions (regulation of emotions) the highest, followed by their ability to recognize their own emotions (appraise own emotions), to show social skills, and to use their emotions (utilization of emotions). The lowest levels were observed in their ability to recognize the emotions of others (appraise other emotions), which suggests limited emotional sensitivity toward others.

On the other hand, the results regarding players' perceptions of coaching effectiveness showed that players rated the confidence of their coaches to influence their positive attitude toward the game and opponents (character building efficacy) the highest. Next was the coaches' confidence in motivating and activating the players (motivation efficacy). Lower ratings were given to components related to developing technical and tactical skills (technique efficacy) and making tactical decisions during the game (game strategy efficacy).

These results correspond with the findings of Iancheva and Prodanov (2018, 2019), who reported similar levels of coaching efficacy among Bulgarian football coaches. The authors noted that the investigated coaches felt the least confident in their ability to create a strategy and manage their teams during competitions. According to several authors, the Coaching Efficacy Scale (CES) can be used as an indicator when planning the content of coach education programs (Fung, 2003; Weller, 2013).

The results from the comparative analysis showed a clear age-related dynamic, with 18-year-old football players rating character-building efficacy and motivation efficacy higher than 16-year-olds. This may be due to greater playing experience and longer interaction with coaches.

Correlation and regression analyses confirmed the existence of relationships between emotional intelligence and players' perceptions of coaching effectiveness. The results indicate that the six subscales of emotional intelligence, measured by the EIS (Schutte et al., 1998), are significantly associated with the subscales of coaching efficacy, measured by the CES (Feltz et al., 1999). The data confirm the strong interconnection between emotional intelligence and the perception of coaching efficacy.

Specifically, the social skill subscale positively influenced motivation efficacy, technique efficacy, and character building efficacy. These findings are consistent with the results of Hwang et al. (2013), who also noted a strong association between social skills and all subscales of coaching efficacy. Furthermore, the optimism subscale shows a moderate but statistically significant relationship with character-building efficacy, in line with the findings of Thelwell et al. (2008). The regression analysis also found that the ability to recognize one's own emotions (appraise own emotions) has a positive influence on game strategy efficacy.

LIMITATIONS

We should point out some limitations of the research. The study was conducted among Bulgarian football players aged 15 to 18 years. Future surveys involving a larger number of players from diverse sports and various age groups could shed more light on this important issue for both theory and practice.

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