The 20th International Scientific Conference
"DEFENSE RESOURCES MANAGEMENT IN THE 21st CENTURY"
Braşov, October 30th-31st 2025

EMOTIONAL CULTURE IN SPORT: THEORETICAL PERSPECTIVES AND RESEARCH DIRECTIONS

*** Assist. prof. Elisabeta-Emilia HALMAGHI, PhD**
**** Assoc. prof. Fabiana MARTINESCU-BĂDĂLAN, PhD**

* Faculty of Military Management, "Nicolae Bălcescu" Land Forces Academy, Sibiu, Romania
** Faculty of Military Sciences, "Nicolae Bălcescu" Land Forces Academy, Sibiu, Romania

Abstract:
In the era when we are talking about robots, drones and artificial intelligence in all areas, even in physical activities, we must remember that emotional intelligence is the basis of humanity. This small but very important detail makes us different from everything around us.
In sports, under the huge pressure of results, we see the dedication, strength, speed, technique that they possess, talent, the team's struggle to win, but never what is inside, what is behind them, namely the emotions of the athletes.
The emotional state of athletes depends on many variables, such as awareness of their own feelings and the possibility of managing them, recognition of certain emotional states of opponents or teammates, the effect that supporters or critics have, as well as the emotions transmitted indirectly by coaches. It should not be forgotten that emotions can be a motivating or demotivating factor, and for a sporting activity this can be decisive.

Key words: competition; emotional culture; emotions; individual performance; sport; success.

1. Introduction

The interplay between cognition and emotion has long occupied a unique place in emotion research. Although psychologists agree that the two are closely related, the field is easily polarized by debates about their interaction. These disagreements persist because they touch on issues of human nature: the conflict between the affective and cerebral sides of human experience, the need for rational control over irrational impulses, and the dangers of unrestrained feelings [1, p. 293]. Unlike cognitive culture, which guides how athletes think and behave, emotional culture sets the tone for how they feel. Despite growing recognition of the importance of how athletes feel and the emotions they experience during competition, emotional culture has been little studied in academia.

To study this connection, we used the Web of Science (WoS) database, because "WoS is a reliable and robust source of bibliometric data" [2]. The search was conducted according to the following topics:

- Topic 1: "emotional culture" OR "culture of emotion" OR "culture of emotions";
- Topic 2: "sport" OR "sports".

The search syntax was: "emotional culture" OR "culture of emotion" OR "culture of emotions" AND "sport" OR "sports".

The results obtained indicated a number of 179,145 publications in the period 1975-2026. For the year 2026, 32 scientific documents (journals, conferences) are already in pre-publication. The materials were published mainly in the following languages: English (mostly), Spanish, German,

Portuguese, Russian and French. We noted the existence of one article published in Arabic, Persian and Zulu.

For our study, we selected articles published in English in the last 5 years plus the current year (2020-2025). Refining the initial results led us to the following values:

a) by *publication period*. During the period chosen for our research – 2020-2025 – 75,347 documents were published. The largest number of documents was published in 2024 (figure 1).

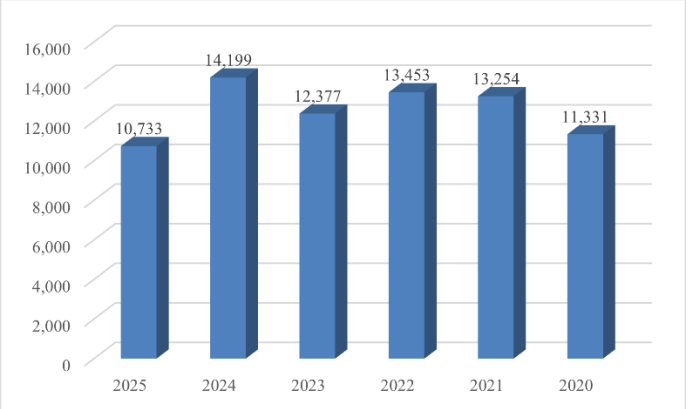

Figure 1 Number of articles published, per year, in the period 2020-2025
(Source: The authors)

gb) by the *language* in which the materials were published. The result was 71,047 documents in English;

c) by *document type*. During the research period, 2020-2025, 57,526 articles were published in English. These articles belong to 248 Web of Science Core Collection categories. In table 1 and figure 2, we have represented the first 10 Web of Science Core Collection categories in which the articles were published. From their analysis, it is noted that most of the articles that meet the criteria selected by us were published in the field of Sport Sciences (15,025).

Web of Science Categories	Record Count
Sport Sciences	15,025
Hospitality Leisure Sport Tourism	6,040
Orthopedics	4,709
Public Environmental Occupational Health	3,011
Medicine General Internal	2,383
Engineering Electrical Electronic	2,166
Environmental Sciences	2,078
Multidisciplinary Sciences	2,030
Rehabilitation	1,942
Education Educational Research	1,918

Table 1: Top 10 Web of Science Core Collection categories in which the articles in the research sample were published

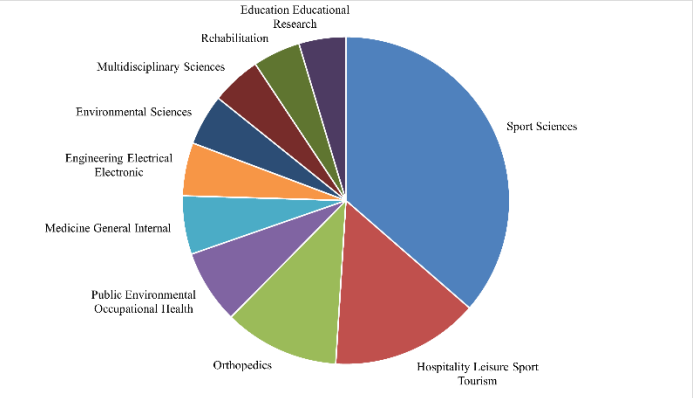

Figure 2 Figure 2 Top 10 Web of Science Core Collection categories in which the 57,526 English language articles were published in 2020-2025
(Source: The authors)

We analyzed the connections between research topics in the top 500 articles relevant according to WoS out of the 57,526 articles published in English between 2020 and 2025. Figure 3 shows the connections between topics.

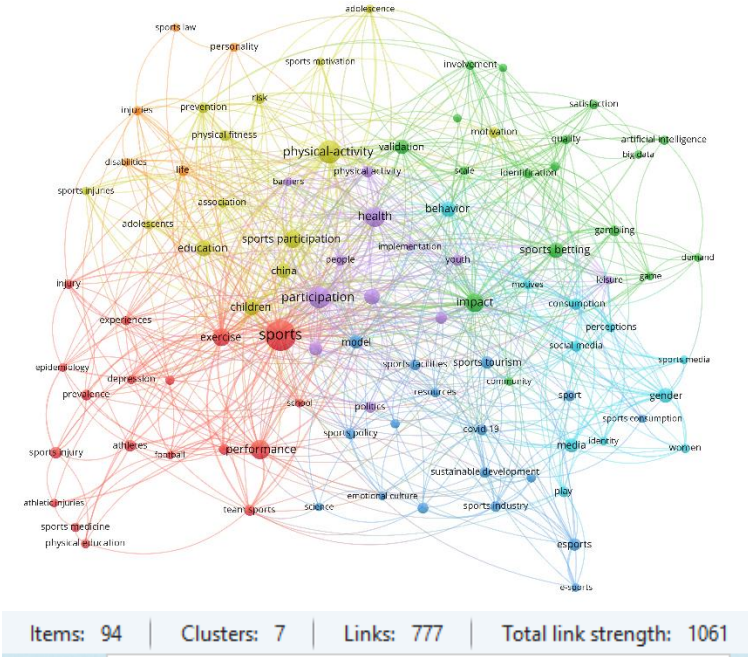

Figure 3 Relationship between research topics in the top 500 most relevant articles
(Source: created by the authors using VOSviewer)

Analyzing figure 3, it is observed that there is no direct connection between the topics. Topic 1, "emotional culture" OR "culture of emotion" OR "culture of emotions", is related to 7 keywords, the most important of which are "performance", "behaviour", "impact".

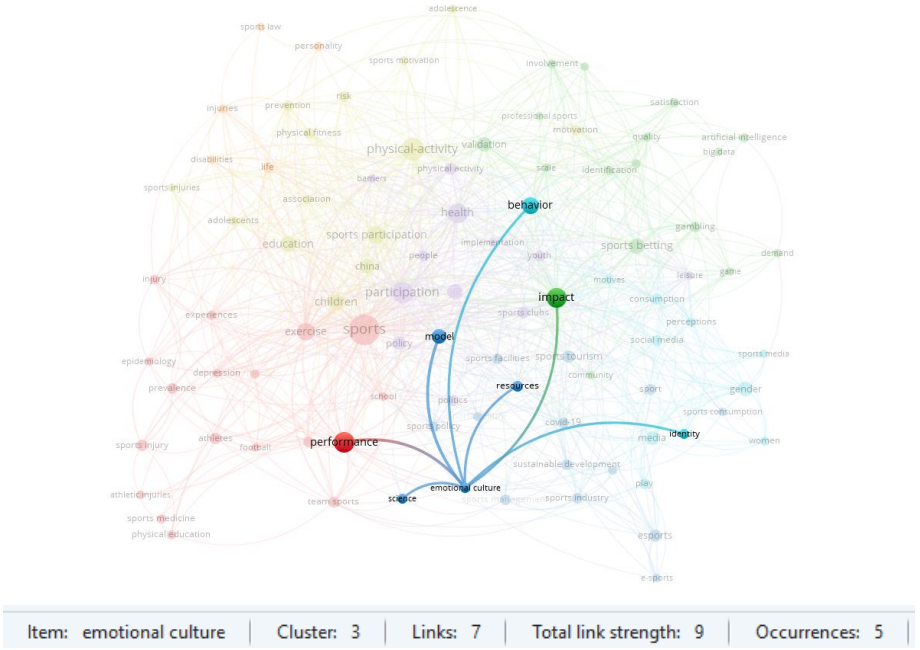

Figure 4 "Emotional culture" networking
(Source: created by the authors using VOSviewer)

Topic 2, "sport" OR "sports", is related to over 50 keywords, including: "physical-activity", "health", "participations", "behaviour", "impact", "gender", "performance" (figure 5).

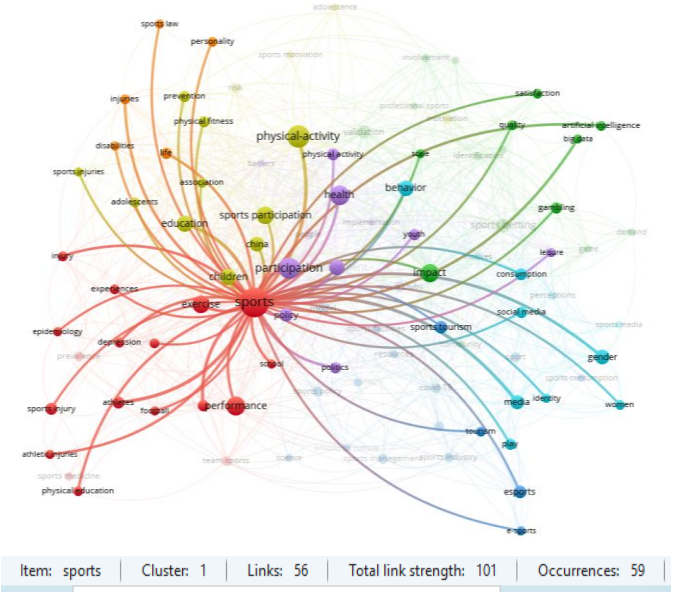

Figura 5 "Sports" networking
(Source: created by the authors using VOSviewer)

Although there is no direct connection between the researched topics, there are several indirect connections between them, through some keywords: "behaviour", "performance", "impact". The lack of a direct connection may be due to the fact that in general, emotional culture is associated

more with the employees of an organization and with the organizational culture, not with athletes and sport. In sport, the study of emotions and how athletes react under their impulse predominates.

2.Emotions in sports

Emotions cannot be avoided, they are an integral part of our lives and have physical, mental, behavioral and social effects, but what is important is how we relate to them. We have the power to amplify or diminish our emotions. Avoiding, ignoring, suppressing, hiding, repressing emotions are not appropriate approaches [3].

The role of emotions in individual performance. Emotions play a crucial role in sport activity by influencing athletes performance, motivation, and ability to cope with challenges. Emotion is a manifestation of the emotional system in response to an event or stimulus, involving a subjective experience (cognitive component), physiological response (arousal or activation), and tendencies to act. Emotions were perceived as unnatural experiences that exceed the scope of logical perception due to their interdependence with mood, disposition, creativity, motivation, and character [4].

Emotions, by their nature, timing, and intensity, can facilitate or hinder athletic performance. Consequently, athletes who have the ability to identify, understand, and effectively use emotions to their advantage have a distinct competitive advantage over those who lack such skills. Emotions act as signals about the importance of situations, and how athletes appraise these situations shapes their emotional responses and subsequent actions [5]. It is known that each sport has psychological characteristics and individual dimensions of emotional intelligence may have different relevance for sports performance. Both physiological and emotional challenges must be taken into account in physical training.

Sport in general is a context known for its high emotional intensity, in which emotions serve as signals of the importance of the situation. Emotional challenges are unique to sport, including social interactions, opponents, physical contact, environmental unpredictability, and referee decisions. Due to these factors, athletes must regulate their emotions in various ways to maintain focus, motivation, and optimal performance.

Emotional intelligence is a common denominator in sports activities and especially in sports performance [5]. Athletes face these challenges in sports activities, both during training and during competition. Consequently, the concept of emotional intelligence (EI) has become popular in sports psychology.

A substantial amount of research supports the theory that emotional fluctuations are linked to variations in athletic performance [6], [7], [8]. The emotional state of athletes is influenced by factors such as the level of competition, the type of competition, the level of skill, the level of preparation, the level of confidence, and the level of motivation. These factors can be influenced by the athlete's physical condition, mental state.

In conclusion, emotions are deeply connected to sports activity, influencing the way athletes experience, interpret and respond to the specific demands of their sport, having a direct impact on their performance and well-being.

Emotions as motivators and demotivators. Positive emotions and higher emotional intelligence can enhance motivation, while negative emotions like anxiety and stress can e demotivating. Emotions influence what we pay attention to. Positive emotions tend to broaden attention; negative ones can narrow it (which might help or hurt depending on the task) [9]. Emotions serve as signals of goal progress (or setbacks). For example, frustration can signal that current strategy isn't working — may motivate a change. But if too intense, leads to giving up. How

people appraise a situation (threat vs challenge; low control vs high control) influences whether emotion will lead to motivation or demotivation.

Emotions arising from doing something because you want to (autonomous) tend to be positive, reinforcing; doing something due to pressure or obligation (controlled) tends more likely to produce negative emotions and possible demotivation. Studies show that in workplaces, autonomous motivation combined with positive emotional experiences leads to better performance [10].

As I specified above, emotions, through the moment they appear, their intensity and type, their nature, have a direct and very strong impact on athletes' performance.

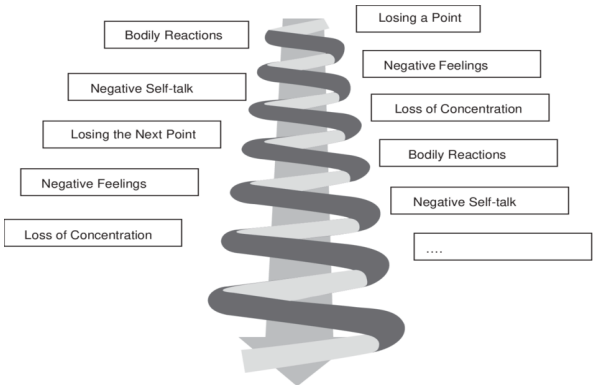

Figure 3 The impact of emotions on sports performance when emotions are not properly regulated (Source: [11])

A greater awareness of individual emotions generates a proactive attitude towards practicing high-intensity physical activities. Also, recognizing and regulating the type of emotions an athlete goes through increases the level of adaptation to competitive demands. In addition, athletes have lower levels of anxiety and competitive stress because motivation is viewed as a phenomenon that encompasses interconnected emotional, biological, social, and cognitive aspects and has been assessed based on observable behaviors [12], [13].

Positive emotions have a significant positive correlation with performance and with motivation [14].

Emotion	How It Can Motivate	How It Can Demotivate
• **Positive Emotions** (e.g. joy, pride, satisfaction)	• Boost intrinsic motivation — when people feel good, they are more willing to engage, persist, explore. • Improve performance via better attention, memory, openness. • In work: positive emotions mediate between autonomous motivation and better job performance.	• Overconfidence can lead to complacency (though less often discussed). • Distracting positive states can reduce alertness for risks or mistakes.
• **Negative Emotions** (e.g. anxiety, fear, guilt)	• Can provide urgency or signal importance (i.e. "there's a threat so I must act"). • Fear of negative outcomes or failure can push people to prepare or avoid mistakes. • Guilt/shame can sometimes trigger corrective action or self-improvement.	• Too much negative emotion can overwhelm cognitive resources, leading to anxiety, avoidance, procrastination. • Demotivating when people feel hopeless, under-supported, or believe effort won't help. • Can damage self-confidence, reduce intrinsic motivation.

Figure 4 The correlation between emotions - performance - motivation (Source: [14])

Managing emotions in competitions and training. Effectively managing emotions is a crucial skill for athletes, both in training and competition. It's not about eliminating emotions, but rather about learning to regulate them to enhance performance. Before you can manage your emotions, you need to understand them. Pay attention to the situations, thoughts, or people that consistently lead to strong emotional responses. Understanding what sets you off is the first step toward preparing for and responding to it effectively. Recognize that emotions like anxiety and frustration are a normal part of sports. The goal isn't to get rid of them, but to manage their intensity.

Teach and rehears the skills such as goal-setting, imagery/visualization, self-talk, relaxation, and performance routines as part of training (not only before competitions). Psychological skill training increases athletes' ability to regulate emotions and improves performance [15].

Stress and anxiety often manifest physically, calming your body can help calm your mind. There are some techniques that can be rehearsed and leaned to be used in those moments during competition when the athletes need them. Deep Breathing a simple but powerful technique. Box breathing (inhale for 4 seconds, hold for 4, exhale for 4, hold for 4) is a common method that can quickly calm your nervous system and help you reset. Progressive Muscle Relaxation it involves tensing and then consciously releasing different muscle groups, starting from your feet and working your way up. This practice helps release physical tension and promotes a sense of relaxation. Systematic and applied studies show preparatory routines help regulate emotions and boost self-paced motor performance [16].

Reappraisal changes the emotional response and preserves cognitive resources better than suppression [17]. These techniques focus on changing the thought patterns and mental state. Replace negative thoughts with positive, encouraging phrases. Athletes shall use simple mantras or cue words to help to refocus. They need to learn to interpret the physical symptoms of anxiety (fast heart rate, increased alertness) as signs of excitement and readiness, rather than fear. Before a competition or a difficult training session, vividly imagine themselves performing successfully. They shall picture themselves handling challenging situations and recovering from mistakes with confidence. Engaging all their senses in this "mental movie" can build mental toughness and reduce pre-game anxiety. Channel their energy into process goals rather than outcome goals. This helps the athletes stay grounded and reduces the pressure of things outside their control.

Consistency helps create a sense of control and reduces anxiety. Create practice scenarios that mimic competition stress (crowd noise, time pressure, scoring conditions) so athletes can rehearse emotional and tactical responses when stakes are high. Gradually increase stress to build resilience. Simulation and graded exposure are commonly recommended in sport emotion regulation literature and linked to better in-competition coping [18].

The coaches and athletes must be trained in supportive communication (emotion coaching, constructive feedback, shared routines). Social regulation can down-regulate negative affect and up-regulate helpful motivation during team collapse or high pressure. Tamminen et al. [19] show both self- and interpersonal regulations are used by athletes in competition; interpersonal regulation influences outcomes in teams. This can include also a specific physical warm-up, a playlist to listen to, or a mental checklist.

Prioritize sleep, nutrition, and hydration**,** these basic needs are fundamental to managing stress and maintaining a balanced emotional state. Dehydration and poor nutrition can exacerbate anxiety and negatively impact mood.

After a competition, reflect on what went well, not just what went wrong. Building a "confidence file" of your successes and effective moments helps reinforce your belief in your abilities and reduces future anxiety.

Conclusions

Emotions play an important role in physical activities in general, and in sports in particular. The process by which emotions are transferred among group members — often unconsciously it is known as *emotional contagion*. It can influence cooperation, conflict, cohesion, motivation, and perception of performance. Barsade [20] shows that positive emotional contagion improves cooperation, perception of task performance, and reduces conflict, while negative contagion has opposite effects.

The shared ambient emotional "weather" in a group, or how the members perceive the overall emotional tone, norms, and expectations, this is the group emotional climate. The emotional climate can be measured, and affects creativity, learning, adaptability, performance. Wahba [21] finds correlations between emotional climate and group effectiveness in real settings.

Positive emotion in a group reduces conflict and increases group reflection [22]. The emotional valence (positive/negative) of emotional expressions, and the status of the person expressing them, influence how contagion happens. Participants' emotions (felt and displayed) can be influenced by the positive/negative emotional language of a partner, and higher status amplified some effects, especially for negative emotion contagion.

More than simply "surprising" emotions, group members interpret and infer the meaning of others' emotional expressions. This influences decisions, expectations, and behavior. The emotions theory is often used to explain how emotional displays in groups lead to both affective (feelings) and cognitive (judgments, inferences) consequences [23]. Group members' emotions become more similar over time (often via contagion, synchronization of nonverbal cues). The groups tend to converge in extreme emotional states, whereas moderate or neutral states show more divergence [24].

It's not just what an individual feels, but what they *perceive* others are feeling that matters — the "group emotional climate". Even if somebody does not strongly feel an emotion, if they believe many others in their group do, that perception influences their behavior, well-being, judgments [25].

References:

[1] Thompson, R.A., Winner, A.C., *The Developmental Polyphony of Cognition and Emotion*. In: Robinson Michael D., Watkins Edward R., Harmon-Jones Eddie (ed.), *Handbook of Cognition and Emotion*, The Guilford Press, New York, London, 2013.

[2] Gorski, A.T., Dumitraşcu, D.D., *Exploring the Dynamic Landscape of Performance Management: A Bibliometric Analysis of Emerging Trends*, Studies in Business and Economics, 2023, 18(1):342-366. https://doi.org/10.2478/sbe-2023-0019

[3] Gorski, H., Ranf, D.E., *Study Regarding the Emotional Self-Awareness and Emotional Self-Control on Managers Activity*, International Conference Knowledge-Based Organization, 2019, vol. XXV, No. 1, pp. 230-235. DOI: 10.2478/kbo-2019-0037

[4] Scarantino, A., de Sousa, R., *Emotion*, The Stanford Encyclopedia of Philosophy (Summer 2021 Edition), Edward N. Zalta (ed.), https://plato.stanford.edu/archives/sum2021/entries/emotion/

[5] Kopp, A., Jekauc, D. *Trait emotional intelligence in competitive sports: are there differences in dimensions of emotional intelligence when comparing different sports?*, BMC Psychology, 2025, 13, 253. https://doi.org/10.1186/s40359-025-02563-w

[6] Beedie, C.J., Terry, P.C., Lane, A.M., *The profile of mood states and athletic performance: Two meta-analyses*, Journal of Applied Sport Psychology, 2000, 12(1), 49-68. https://doi.org/10.1080/10413200008404213
[7] Lane, A., Thelwell, R., Devonport, T., *Emotional Intelligence and Mood States associated with Optimal Performance*, E-Journal of Applied Psychology, 2009, 5(1), 67-73. https://doi.org/10.7790/ejap.v5i1.123
[8] Robazza, C., Pellizzari, M., Bertollo, M., Hanin, Y., *Functional impact of emotions on athletic performance: Comparing the IZOF model and the directional perception approach*. Journal of sports sciences, 2008, 26(10), 1033-47. doi: 10.1080/02640410802027352
[9] Tyng, C.M., Amin, H.U., Saad, M.N.M., Malik, A.S. (2017). The Influences of Emotion on Learning and Memory Frontiers in psychology, 2017, 8, 1454. https://doi.org/10.3389/fpsyg.2017.01454
[10] Reizer, A., Brender-Ilan, Y., Sheaffer, Z., *Employee motivation, emotions, and performance: a longitudinal diary study*, Journal of Managerial Psychology, 2019, 34 (6), 415-428. https://doi.org/10.1108/JMP-07-2018-0299
[11] Fritsch, J., Jekauc, D., *Self-talk and Emotion Regulation*, In: Alexander T. Latinjak, Antonis, Hatzigeorgiadis, Self-talk in Sport, Routledge, 2020, https://doi.org/10.4324/9780429460623
[12] Zarauz Sancho, A., Ruiz Juan, F. *Motivación, satisfacción, percepción y creencias sobre las causas del éxito en atletas veteranos españoles*, Revista iberoamericana de psicología del ejercicio y el deporte, 2016, 11(1), 37-46. ISSN: 1886-8576.
[13] Sheehan, R.B., Herring, M.P., Campbell, M.J., *Associations Between Motivation and Mental Health in Sport: A Test of the Hierarchical Model of Intrinsic and Extrinsic Motivation*, Frontiers in psychology, 2018, 9, 707. https://doi.org/10.3389/fpsyg.2018.00707
[14] Xie, J., Cho, K.W., Wei, T., Xu, J., Fan, M., *The effects of academic emotions on learning outcomes: A three-level meta-analysis of research conducted between 2000 and 2024*, Learning and Motivation, 2025, 90, 102109. https://doi.org/10.1016/j.lmot.2025.102109.
[15] Park, I., Jeon, J., *Psychological Skills Training for Athletes in Sports: Web of Science Bibliometric Analysis*, Healthcare, 2023, 11(2), 259. https://doi.org/10.3390/healthcare11020259
[16] Orbach I., Blumenstein B., *Preparatory routines for emotional regulation in performance enhancement*, Frontiers in Psychology, 2022, 13, 948512. doi: 10.3389/fpsyg.2022.948512
[17] Robazza, C., Morano, M., Bortoli, L., Ruiz, M.C. *Athletes' basic psychological needs and emotions: the role of cognitive reappraisal*, Frontiers in psychology, 2023, 14, 1205102. https://doi.org/10.3389/fpsyg.2023.1205102
[18] Aliyas, S.E., Chalapathy, C.V., Mathew, L., Thomas, A., *Emotion Regulation and Sports Performance: A Systematic Review*, Journal of Chemical Health Risks JCHR, 2024, 14(5), 1037-1046. https://jchr.org/index.php/JCHR/article/view/6355
[19] Tamminen, K.A., Kim, J., Danyluck, C., McEwen, C.E., Wagstaff, C.R.D., Wolf, S.A., *The effect of self- and interpersonal emotion regulation on athletes' anxiety and goal achievement in competition*, Psychology of Sport and Exercise, 2021, 57, 102034. https://doi.org/10.1016/j.psychsport.2021.102034
[20] Barsade, S.G., *The Ripple Effect: Emotional Contagion and Its Influence on Group Behavior*, Administrative Science Quarterly, 2002, 47(4), 644-675. http://www.jstor.org/stable/3094912
[21] Wahba, M., Emotional Workgroup Performance and Group Effectiveness Egyptian Context, International Journal of Business, Economics and Management, Conscientia Beam, 2016, 3(10), 122-132. https://ideas.repec.org/a/pkp/ijobem/v3y2016i10p122-132id1165.html
[22] Kane, A.A., van Swol, L.M., Sarmiento-Lawrence, I.G., *Emotional contagion in online groups as a function of valence and status*, Computers in Human Behavior, 2023, 139, 107543. https://doi.org/10.1016/j.chb.2022.107543

[23] van Kleef, G.A., Heerdink, M.W., Homan, A.C., *Emotional influence in groups: the dynamic nexus of affect, cognition, and behavior*, Current Opinion in Psychology, 207, 17, 156-161. https://doi.org/10.1016/j.copsyc.2017.07.017
[24] Prabhu, N.R., Tsfasman, M., Oertel, C., Gerkmann, T., Lehmann-Willenbrock, N., *Dynamics of collective group affect: Group-level annotations and the multimodal modeling of convergence and divergence*, arXiv preprint arXiv, 2024, 2409.08578.
[25] Yang, X.J., Wang, X.Q., Liu, J.P., Lai, S.H., Liu, M., Ye, B., *The Perceived Broad Group Emotional Climate Scale: Development and Validation With Chinese Community Residents and University Students*, Frontiers in psychology, 2021, 12, 686734. https://doi.org/10.3389/fpsyg.2021.686734