

Original Article

## Study on The Level of Top Athletic Performance Correlated with the Level of Motivation

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### Abstract

When it comes to top athletic performance, “the way athletes understand and regulate their own emotions is closely related to the motivation to achieve goals in competitions through intensive training” (Laborde et al., 2014). Starting from this premise, we were interested in finding out whether the level of motivation correlates with athletes’ performance. Objective: The aim of this study is to observe the relationship between the level of sports performance and the level of motivation. Methods: A motivation questionnaire was applied to a sample of 60 Romanian athletes. Results: The results of the questionnaires applied to athletes support the hypothesis that a high level of positive intrinsic motivation can correlate with top athletic performance.

### 1. Introduction

Improving sports performance has long been a focus of researchers. Physical abilities, technology, technical and tactical preparation, psychological capacity, and intelligence are important factors for stable performance achieved in competitions. Competitions are not only a game between technology and tactics; psychological abilities are key factors in achieving sports performance. Therefore, coaches and experts in the field pay much attention to psychological training.

Emotions “play a significant role in sports performance” (Hanin, 2007), and

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understanding “the nuances between emotions and performance can influence outcomes” (Lane, Beedie, & Stevens, 2005). While athletes' physical abilities remain constant, their psychological and emotional reactions, particularly in emotional intelligence and motivation, can change outcomes. The coping mechanisms and defense strategies of the athlete, as discussed by Lane AM, Beedie CJ et. al, often determine whether they will win or lose.

The relationship between performance and motivation has long been discussed in the literature. Performance in sports is determined not only by technical and physical abilities, but also by psychological and psychomotor factors. Previous studies have shown that reaction time plays a significant role in the ability to adapt to competitive situations and to respond adequately to unpredictable stimuli (Gorgan, Graur, Milon, & Puni, 2022). At the same time, research on motivation emphasizes that athletes' capacity to regulate effort and to engage consistently in intensive training is closely linked to their motivational structure. Integrating these perspectives, we may argue that top athletic performance is the result of both rapid psychomotor responses and strong motivational resources, which together shape the athlete's competitive behavior. Two others theories have been formulated and tested in high-performance sports: the *drive theory* (Hull, 1943; Spence, 1966), which suggests a linear relationship between arousal and performance (as arousal increases, performance also increases), and the *inverted-U theory* (Hebb, 1957), which argues that there is an optimal level of arousal that ensures maximum individual performance. These theoretical perspectives are also highlighted by Epuran (2005). Literature provides ample information on motivation, and the book *Elements of Psycho-Sociology of Body Activities – Sports and Games* presents several types of motivation for high performance: “internal (satisfaction, pleasure, self-respect, self-confidence, challenge, curiosity, etc.), external (rewards, bonuses, praise, self-image, encouragement, criticism, sanctions)”. Since motivation is “an internal psychological structure that manifests in each action situation and often involves interaction with other motivational structures, we can outline the following perspectives for understanding motivation” (Deci, & Ryan, 2000): a) Motivation as an intrapsychic structure – starting from the premise that any motivating behavior represents a basal and necessary function in the dynamics of individual characteristics. Thus, the human personality needs precise goals for motivating behaviors to emerge. For example, a coach may describe an athlete as a “true champion,” which will consistently drive the athlete to maintain or exceed personal performance. In contrast, a description using terms like “incapable” or “underperforming” will inhibit personal motivation and lead to results “prescribed” by the coach. In this perspective, motivational characteristics are interdependent with general personality traits such as self-esteem, self-perception, optimism/pessimism, self-control, and emotional intelligence, integrated into “facets of personality” (Zlate, 1999, p. 51-58).

In addition to the desire of every athlete to improve, it is essential that they maintain their interest throughout training. This can be achieved through engaging training that stimulates the athlete and keeps them focused on reaching maximum

performance. (Milon, 2021, p. 356-361).

Motivation is what drives action. It is the driving force. Without motivation, it is very difficult to perform well, especially at a high level, because a lot of energy is required to achieve truly high goals. The “direction of effort involves focusing behavior and activity on a specific goal, and the intensity of effort reflects the energy load of the motive and materializes in its pressure on decision and execution mechanisms” (Nechifor & Sandovici, 2010, p. 90).

## 2. Material and methods

The study was conducted between March and June 2024 and aimed to identify correlations between the level of sports motivation and athletic performance at national and international levels. *The aim* of the study was to determine whether, and what type of, correlations exist between motivation and top athletic performance. *The hypothesis* was formulated around the question: if intrinsic motivation is high, is top athletic performance achieved at national and international levels? The research *methods* employed were: a) literature review, b) observation, c) statistical-mathematical analysis, d) questionnaire survey.

The sample consisted of 60 active athletes (28 women and 32 men), aged between 16 and 22 years, registered with sports clubs and sports-oriented schools in Romania. The represented disciplines were handball, volleyball (men’s and women’s teams), football, and athletics. Participants were selected on a voluntary basis, following the distribution of 100 questionnaires; the response rate was 60%. Athletes were informed about the purpose of the study and signed an informed consent form. To ensure confidentiality, the questionnaires were anonymous, and no personally identifiable data were collected.

The main research method was the questionnaire survey, supplemented by observation and descriptive statistical analysis. The questionnaire included both closed questions (single-answer) and open-ended questions, grouped into four dimensions: context of sport initiation (determinant factors of entry), level of performance achieved and self-satisfaction, motivation for continuing sports practice, risk factors for dropout.

Data were processed using basic statistical methods (frequencies, percentages), with standard statistical analysis packages (SPSS/Excel).

## 3. Results and Discussions

A total of 60 active athletes answered the questionnaire, out of the initial 100 questionnaires distributed. The distribution of responses for each question is illustrated in the tables and figures below.

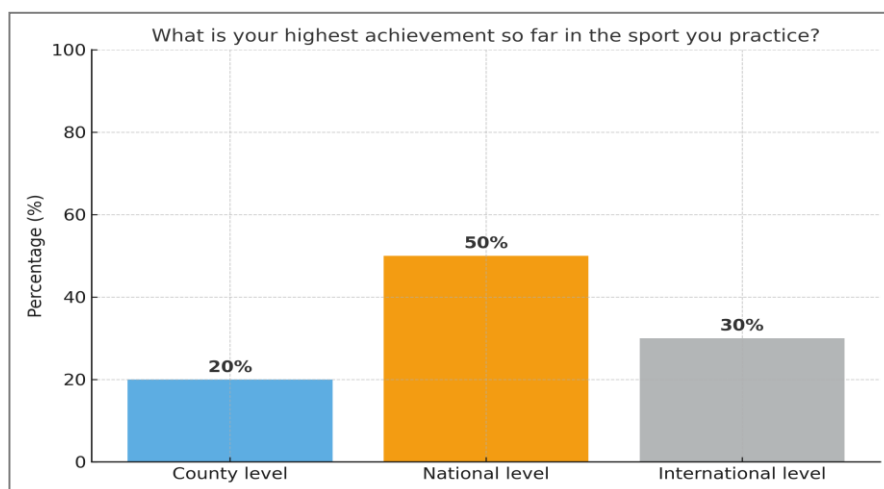
For question “*How did you start practicing professional sports?*”, the frequency of responses show that more than half of the respondents (57%) began practicing sports out of an inner calling or passion, emphasizing the importance of intrinsic motivation in choosing a professional athletic path. The influence of teachers (29%) also plays a significant role, highlighting the educational environment as a key factor in encouraging and guiding youth toward

performance sports. Meanwhile, the relatively small percentage of those who started *by chance* (14%) suggests that most athletes have a deliberate and meaningful connection to their sport.



**Figure 1.** Responses to the first question

For the second question, the frequency of responses was distributed as follows: 20% of the respondents reported achievements at the *county level*, 50% reached the *national level*, and 30% achieved results at the *international level*. These findings highlight a clear progression from local to national and international performance, indicating that the majority of respondents have advanced beyond the initial stages of competition.



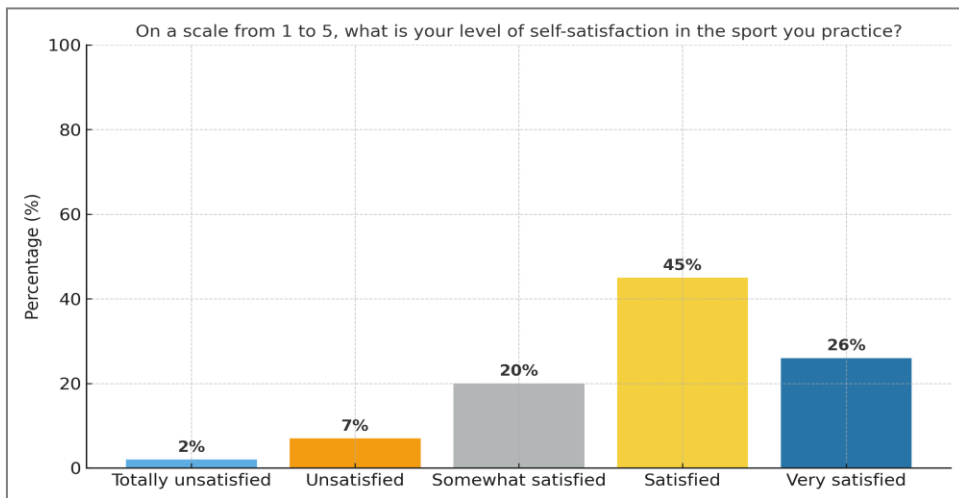
**Figure 2.** Responses to the second question

The dominance of those performing at the national level (50%) and the

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substantial proportion who achieved international recognition (30%) emphasize both the quality of training programs and the strong motivational drive of the participants to pursue excellence and long-term success in sport.

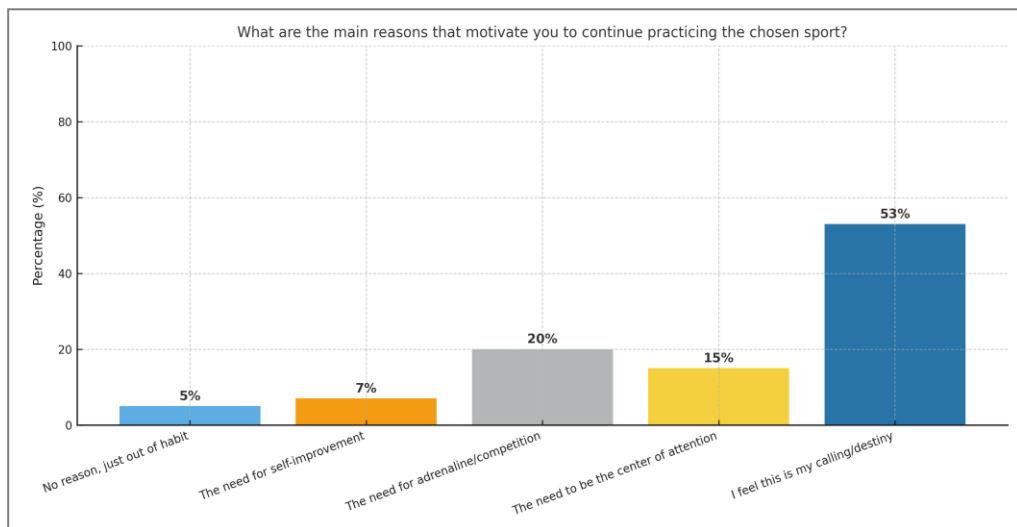
For the next question the frequency of responses was distributed as follows: 2% of respondents reported being totally unsatisfied, 7% unsatisfied, 20% somewhat satisfied, 45% satisfied, and 26% very satisfied. These results indicate that the vast majority of respondents (71%) experience a high degree of satisfaction with their sporting activity. Only a very small proportion (9%) expressed dissatisfaction, suggesting that athletes generally perceive their sporting experience positively. This pattern reflects a strong sense of intrinsic motivation and self-determination, consistent with the principles outlined by Deci and Ryan (2000), who emphasize the connection between autonomy, competence, and personal satisfaction in athletic contexts.



**Figure 3.** Responses to the third question

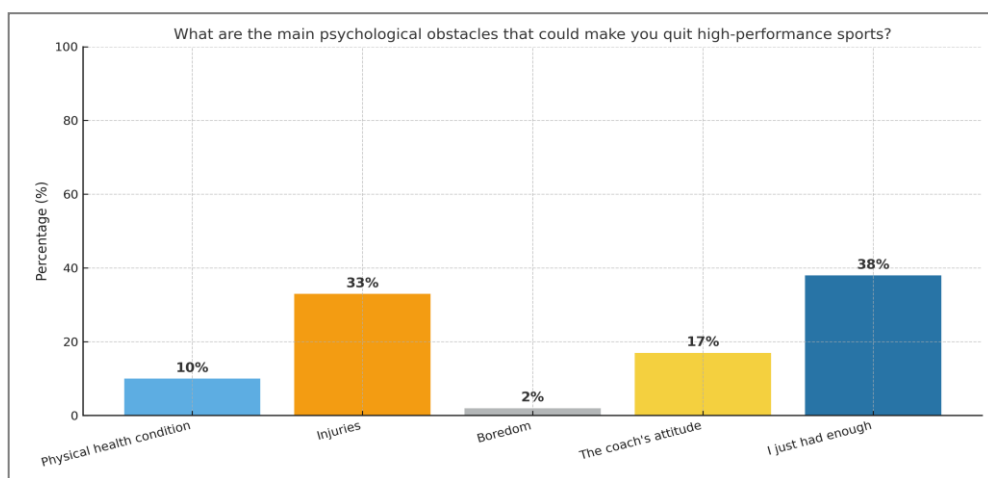
For the question “What are the main reasons that motivate you to continue practicing the chosen sport?”, the frequency of responses was distributed as follows: 5% of respondents stated “no reason, just out of habit”, 7% mentioned “the need for self-improvement”, 20% indicated “the need for adrenaline or competition”, 15% reported “the need to be the center of attention”, and 53% declared “I feel this is my calling/destiny.” The results clearly show that intrinsic motivation is the predominant factor behind athletes’ continued engagement in their sport. Over half of the respondents (53%) identified their participation as being driven by a deep sense of vocation or personal calling, while only a small percentage associated their motivation with external factors such as attention (15%) or competition and adrenaline (20%). These findings suggest that long-term athletic involvement is primarily sustained by internal satisfaction and meaning, rather than by external pressures or rewards, aligning with self-

determination theory (Deci & Ryan, 2000), which emphasizes the importance of intrinsic motivation in achieving lasting commitment and fulfillment in sport.



**Figure 4.** Responses to the fourth question

For the fifth question the distribution of responses was as follows: 10% of respondents mentioned “*physical health condition*”, 33% identified “*injuries*”, 2% selected “*boredom*”, 17% cited “*the coach’s attitude*”, and 38% stated “*I just had enough.*” These findings show that the most frequently reported obstacles to continuing high-performance sports were psychological exhaustion or loss of motivation (38%) and injuries (33%), which together represent the majority of responses.

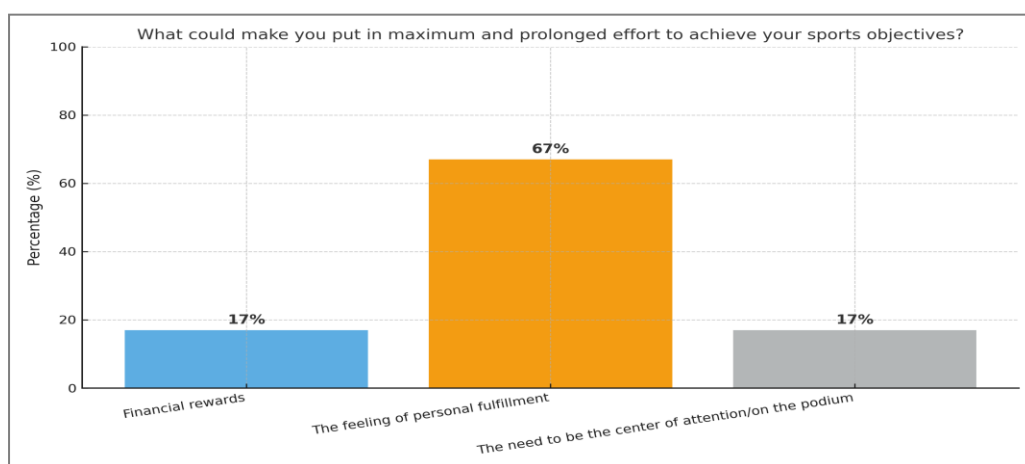


**Figure 5.** Responses to the fifth question

A smaller proportion of athletes pointed to relational aspects, such as the coach's attitude (17%), or physical health limitations (10%), while boredom (2%) was almost negligible. Overall, the results suggest that emotional fatigue and injury-related challenges are the most significant threats to long-term athletic engagement, emphasizing the need for psychological support and injury prevention strategies in high-performance environments.

For the next question, the frequency of responses was distributed as follows: 17% of respondents mentioned *"financial rewards"*, 67% indicated *"the feeling of personal fulfillment"*, and 17% selected *"the need to be the center of attention/on the podium."*

The majority of athletes (67%) stated that personal fulfillment represents the main factor motivating them to invest sustained effort in achieving their sporting goals. Only a small proportion (17%) reported being driven by financial rewards or by the desire for public recognition. These findings emphasize that intrinsic motivation, rooted in self-satisfaction and internal accomplishment, plays a decisive role in athletes' perseverance and long-term commitment, while extrinsic incentives such as material gain or visibility appear to have a secondary influence.

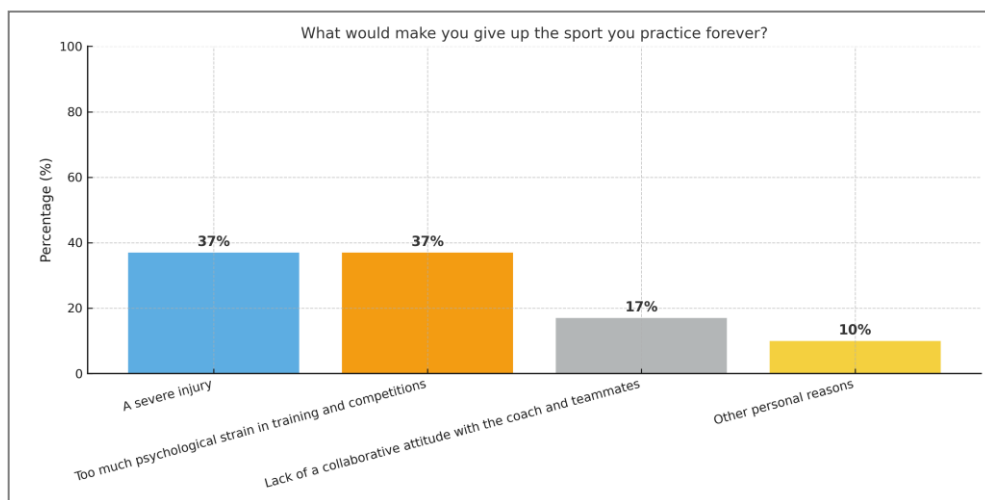


**Figure 6.** Responses to the question six

For the seventh question, the distribution of responses was as follows: 37% of respondents indicated *"a severe injury"*, another 37% mentioned *"too much psychological strain in training and competitions"*, 17% pointed to *"lack of a collaborative attitude with the coach and teammates"*, and 10% cited *"other personal reasons."*

The results reveal that the most significant risk factors for athletes giving up sport permanently are severe injury and psychological overload, each reported by more than one-third of respondents. These findings highlight the dual impact of physical vulnerability and mental strain in influencing athletic persistence. Meanwhile, relational difficulties with coaches or teammates (17%) and personal reasons (10%) play a smaller yet relevant role. Overall, the data underline the

importance of injury prevention, psychological resilience, and healthy coach-athlete relationships in ensuring long-term commitment to sport.



**Figure 7.** Responses to the seventh question

### **Discussion**

The correlation between motivation and top athletic performance emphasizes that success in sports is not solely dependent on physical or technical abilities but is strongly influenced by psychological resources. Athletes with higher levels of intrinsic motivation tend to approach training with greater perseverance, resilience, and a stronger desire for self-improvement, which often leads to superior performance in national and international competitions (Deci & Ryan, 1985; Gorgan et al., 2024).

Conversely, athletes predominantly motivated by extrinsic rewards may experience fluctuating levels of engagement, which can limit the consistency of their performance. This highlights the importance of integrating psychological training strategies that develop intrinsic motivation, such as goal-setting, self-regulation, and emotional control. As recent research in reaction time and decision-making also demonstrates (Gorgan, Graur, Milon, & Puni, 2022; Afonso et al., 2012), high performance results from the combination of rapid psychomotor responses and stable psychological drive.

Therefore, motivation emerges as both a determinant and a mediator of athletic excellence, reinforcing the necessity of designing comprehensive training programs that address not only physical and technical skills but also the motivational dynamics of athletes.

### **4. Conclusions**

The conclusions of this study highlight a complex and profound relationship between athletes' motivation and their level of performance. The results suggest that intrinsic motivation, defined by the desire for self-improvement, inner



satisfaction, and commitment to personal goals, plays a crucial role in achieving high-level sports performance. Athletes with high intrinsic motivation tend to be more engaged in the training process and have greater psychological resilience in the face of difficulties, contributing to notable results at the national and international levels. This phenomenon can be explained by the self-efficacy theory, which suggests that athletes with a positive self-image and a strong belief in their ability to achieve set goals are more likely to maximize their potential.

On the other hand, extrinsic motivation, which includes factors such as financial rewards, social recognition, or the desire to be in the spotlight, can influence sports performance but to a lesser extent and over a shorter term. These factors can stimulate effort, but without strong intrinsic motivation, athletes risk emotional exhaustion and a decline in performance once extrinsic motivation disappears or changes.

Another crucial aspect highlighted by this study is the role of emotions in sports performance. Emotions play a central role in how athletes respond to competition pressure, and the ability to effectively manage anxiety, frustration, and stress becomes a determining factor for competitive success. Thus, athletes who develop emotional regulation skills, such as emotional intelligence, are better able to cope with challenges and stay focused on their goals, even in situations of intense stress. This underscores the importance of psychological interventions in sports training, which can help develop effective coping strategies and optimize performance.

Additionally, the study discusses the impact of external factors on athletes' motivation. The relationship with the coach together with the team atmosphere are major influencing factors. A positive relationship with the coach, based on trust and support, can strengthen the athlete's motivation, while a conflicting relationship or lack of supportive attitude from the team can lead to demotivation and, in extreme cases, abandonment of high-performance sports. Thus, the training environment becomes essential in supporting the athlete's efforts and maintaining a high level of engagement.

This study confirms that motivation, especially intrinsic motivation, is a determining factor in high-level sports performance. Athletes' success depends not only on their physical abilities but also on their emotional balance and the psychological support provided during training. This highlights the importance of involving sports psychologists in the preparation of high-performance athletes to facilitate the improvement of mental and emotional abilities and to create a supportive environment that favors the athlete's complete development.

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