FEARS, UNCERTAINTIES AND INSECURITIES IN DECISION-MAKING SPORTS

MEDOS, INCERTEZAS E INSEGURANÇAS NOS ESPORTES DE DECISÃO

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Abstract
This article examines the impact of fear, uncertainty, and insecurity in decision-making sports such as chess, martial arts, sport poker, and team sports, particularly during critical moments of performance. Drawing on sports psychology and neuroscience, the study explores the causes and manifestations of these emotional states and discusses coping strategies that enhance athletes' emotional resilience. The research underscores the need for training programs that integrate technical, physical, and psychological components to improve performance under pressure and support mental health in competitive sports environments.
Keywords: Decision-making sports; Sports psychology; Fear; Insecurity; Athletic performance.

Resumo
Este artigo analisa o impacto dos sentimentos de medo, incerteza e insegurança nos esportes de decisão, como xadrez, artes marciais, poker esportivo e modalidades coletivas, especialmente em momentos críticos de tomada de decisão. Considerando abordagens da psicologia do esporte e das neurociências, o estudo investiga as causas e manifestações dessas emoções e discute estratégias de enfrentamento que podem fortalecer a resiliência emocional dos atletas. A pesquisa destaca a importância de programas de treinamento que integrem aspectos técnicos, físicos e psicológicos, com o objetivo de otimizar o desempenho sob pressão e promover a saúde mental no ambiente esportivo.
Palavras-chave: Esportes de decisão; Psicologia do esporte; Medo; Insegurança; Desempenho atlético.

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1 INTRODUCTION

Decision-making sports such as chess, martial arts, sports poker, and team sports such as volleyball, handball, soccer, and futsal, in crucial decision-making moments (such as penalty kicks in soccer), require athletes not only technical skills but also psychological strength to handle high-pressure situations. In this context, feelings of fear, uncertainty, and insecurity become relevant and sometimes decisive factors in an athlete's performance. This article aims to analyze the role of these feelings in decision-making sports, identifying their causes, manifestations, and coping strategies, based on studies in sports psychology and neuroscience.

Understanding the psychological factors involved in decision-making sports is essential for developing training programs that consider not only the physical and technical aspects, but also the emotional. Fear, uncertainty, and insecurity can act as significant barriers to performance, affecting decision-making and competitive performance. Therefore, investigating these feelings allows for the development of specific interventions to strengthen athletes' emotional resilience and decision-making capacity, aspects that have received increasing attention in contemporary sports literature.

This study is justified by the need to deepen our understanding of the emotions that permeate decision-making moments, especially in sports where speed and precision are essential. Furthermore, given the growing professionalization and competitiveness of sports, it is crucial that coaches, psychologists, and other professionals involved understand the psychological mechanisms that influence performance in high-pressure contexts. Strengthening these psychological aspects contributes not only to improved performance but also to mental health and the longevity of a sports career.

The main objective of this article is to analyze feelings of fear, uncertainty, and insecurity in decision-making sports, seeking to understand how these emotional states manifest and impact athletic performance. Furthermore, it discusses the main psychological strategies and techniques used to cope with these emotions, proposing paths for the comprehensive preparation of athletes who perform in highly challenging and unpredictable environments.

2 DEVELOPMENT

2.1 The Nature of Decision Sports

Decision-making sports are characterized by moments when a choice must be made quickly, often under emotional pressure, with limited time, and with a high degree of consequences associated with the decision. According to Teodorescu and Erev (2014), these sports challenge the athlete's cognitive system, requiring not only speed but also assertiveness and anticipation.

In chess, for example, every move can determine the outcome of the match, requiring the player to anticipate their opponent's possible responses. In judo or MMA, a wrong tactical decision can result in immediate defeat. In both cases, mental stress is high, with significant impacts on the autonomic nervous system (Hanin, 2000). In addition to the cognitive and emotional demands, decision-making sports often involve high-level competition, in which the outcome affects not only the athlete's athletic career but also their reputation and financial livelihood. This increases perceived pressure and potentiates the effects of competitive stress (Weinberg; Gould, 2017).

Another essential characteristic of these sports is situational variability. Each match or confrontation can present completely different configurations, requiring athletes to adapt their decisions in real time, often without being able to rely on stable patterns of action. This dynamism is one of the main causes of the mental load accumulated during intense competitions (Damásio, 1994).

The emotional component, therefore, is strongly linked to the nature of these sports. Athletes are continually exposed to scenarios in which emotion can interfere with the logic of decision-making. As Damásio (1994) points out, pure reason is insufficient in contexts of complex choices; emotions function as somatic markers that guide decision-making in ambiguous situations.

Hanin (2000) argues that each athlete has an "optimal individual functioning zone" in emotional terms. When stress exceeds this threshold, performance tends to decline. In decision-making sports, this zone is frequently tested, as the time to develop and execute a response is minimal, and distractions and anxiety are abundant.

The need to anticipate and read the game, especially in sports such as soccer, tennis, or combat sports, requires athletes to quickly process a large amount of visual and contextual information. This ability is related to experience and continuous mental

training, as Vealey (2007) indicates, and is essential for minimizing response time and maximizing the effectiveness of actions.

Anticipation, however, can be compromised by intrusive thoughts, such as the fear of making a mistake or disappointing someone. These thoughts are common in decisive situations and directly affect the athlete's attentional focus, diverting their mental energy from the task at hand. Mindfulness techniques, according to Kabat-Zinn (2003), have been successfully used to strengthen focus on the here and now.

Finally, decision-making sports require not only technical and emotional mastery but also a solid foundation of self-confidence. As Bandura (1997) explains, an athlete's perception of their own effectiveness influences their willingness to act in adverse situations. Self-confidence, shaped by training and real-world experience in critical decisions, therefore becomes a decisive differentiator.

2.2 Fear: A Natural Human Reaction

Fear, although often seen as an enemy of athletic performance, is a natural response of the body to situations perceived as threatening. It activates the "fight or flight" system or flight), increasing adrenaline and cortisol levels (Sapolsky, 2004). In decision-making sports, fear can arise due to the possibility of failure, negative evaluation by coaches and fans, or the professional consequences of a defeat.

For Weinberg and Gould (2017), athletes who do not develop adequate coping mechanisms for fear tend to experience decreased performance in decisive situations. Emotional management, therefore, is an essential skill in decision-making sports.

Fear can manifest itself in a variety of ways: excessive sweating, muscle tension, heart rate, cognitive blocks, and hesitation in performing trained actions. These symptoms are not only uncomfortable but directly impact performance, compromising the fluidity of reasoning and motor skills (Hanin, 2000).

Sapolsky (2004) points out that, although fear has a protective evolutionary function, its chronic or disproportionate activation tends to be detrimental. In high-level competitions, where the margin for error is minimal, dysregulated fear can be the defining factor in failure, even among technically prepared athletes.

The origin of fear in decisive sports is also linked to the athlete's personal history. Traumatic defeats, previous injuries, and harsh criticism can be stored in emotional memory, being unconsciously reactivated at crucial moments. Damásio

(1994) describes this process as the activation of somatic markers, which guide behaviors based on past experiences.

Beyond the individual component, fear can be reinforced by external expectations. Pressure from sponsors, family, or the general public increases the emotional burden on athletes, especially in high-profile decisions such as championship finals or Olympic trials. Lazarus (2000) emphasizes that the subjective assessment of these pressures determines the emotional intensity experienced. Bandura (1997) argues that fear can be reduced as self-efficacy develops. Athletes confident in their abilities tend to interpret stressful situations as challenges to be overcome, rather than threats to be avoided. This mindset transforms fear into motivation to overcome.

Psychological training programs have been increasingly used to help athletes manage fear. Techniques such as controlled breathing, systematic desensitization, cognitive restructuring, and simulated practice of critical scenarios are effective strategies (Vealey, 2007). The effectiveness of these techniques depends on the consistency of training and the individualization of the intervention plan.

Mindfulness, in turn, has shown promising results in regulating competitive fear. Kabat-Zinn (2003) demonstrated that mindfulness practices reduce emotional reactivity, allowing athletes to acknowledge their feelings without being overwhelmed by them. This non-reactive awareness is particularly useful in sports where decisions must be made in milliseconds.

Therefore, understanding and accepting fear as an integral part of the sporting experience is a fundamental step in an athlete's psychological development. Rather than trying to eliminate it, the goal should be to integrate it as a given internal reality, transforming it into energy for focus, action, and overcoming challenges.

2.3 Uncertainty: The Unknown on the Playing Field

Uncertainty is inherent in sports. No situation can be fully predicted or controlled. In decision-making sports, unpredictability is even more pronounced. According to Damásio (1994), decision-making under uncertainty involves the interaction between reason and emotion, which can lead to errors in judgment, especially when the athlete is emotionally compromised.

Uncertainty can also be seen as a motivating factor. As Csikszentmihalyi (1999) points out, the state of "flow" is achieved when the individual is fully immersed in an activity, balancing challenges and skills. In decision-making sports, this immersion can be hampered by the constant presence of uncertainty, unless the athlete develops concentration and resilience skills.

The context of uncertainty also demands constant adaptation from athletes, who must make decisions based on incomplete information. In decisive matches, accurate anticipation of opponents' actions can be compromised by the multitude of possibilities, which demands a high level of real-time cognitive processing (Teodorescu; Erev, 2014).

This unpredictability affects not only the rational mind but also triggers defensive emotional responses, such as fear and anxiety. Lazarus (2000) emphasizes that psychological stress is directly proportional to the degree of perceived uncertainty, influencing how athletes assess risks and their ability to face them.

Furthermore, uncertainty in decision-making sports extends beyond the moment of competition. Issues such as imminent injuries, refereeing decisions, or environmental variations expand the scope of elements beyond the athlete's control. This constant instability can compromise mental preparation if not properly managed (Weinberg; Gould, 2017).

On the other hand, mastering uncertainty is what characterizes elite athletes. They learn to deal with the unpredictable through the repetition of complex patterns and by strengthening confidence in their internal judgment and decision-making processes. The ability to maintain focus and follow planned strategies even in the face of doubt is a psychological trait of high competitive value (Vealey, 2007).

Damásio (1994) contributes to the notion that somatic markers are crucial for quick decisions under uncertainty. These markers function as emotional shortcuts that guide behavior based on past experiences. Therefore, experienced athletes tend to make more appropriate decisions even under pressure, as they have already internalized efficient responses to similar situations.

Mindfulness and cognitive training programs have been used to reduce the harmful effects of uncertainty. Kabat-Zinn (2003) proposes that accepting instability without judgment fosters a more centered and adaptive response. This allows athletes to maintain full attention, reducing the mental noise that interferes with decision-making clarity.

In short, uncertainty is not only a barrier to be overcome, but also an opportunity for competitive growth. Athletes who learn to act with confidence even in uncertain contexts develop a distinct resilience and stand out for their emotional stability. Psychological work on uncertainty is, therefore, fundamental to contemporary sports development.

2.4 Insecurity: The Absence of Self-confidence

Insecurity can be defined as a lack of confidence in oneself or one's surroundings. In decisive sports, it can be triggered by previous defeats, doubts about one's own abilities, or external pressure. According to Bandura (1997), self-efficacy is a critical factor for performance. Athletes with high self-efficacy face challenges with greater determination and are less vulnerable to stress.

Insecurity is also linked to how athletes interpret their emotions. Lazarus (2000) emphasizes that cognitive assessment of the situation determines emotional response. Thus, two athletes may react differently to the same pressure-filled situation, depending on how they perceive their chances and capabilities.

Insecurity is often fueled by patterns of social comparison, in which athletes evaluate their own competence relative to their opponents or teammates. This process can generate feelings of inferiority and self-doubt, especially when coupled with excessive expectations from coaches or family members (Weinberg; Gould, 2017).

Sapolsky (2004) explains that prolonged insecurity can trigger physiological responses similar to those of chronic fear, such as hyperactivity of the HPA (hypothalamic-pituitary-adrenal) axis, which affects mood, concentration, and decision-making. The result is a negative spiral: insecurity fuels stress, which in turn compromises performance and feeds back into feelings of inadequacy.

According to Damásio (1994), somatic markers associated with negative experiences reinforce the emotional memory of failure. Thus, an athlete who experienced insecurity at a decisive moment may relive that emotional state in similar situations, even if objectively they are better prepared. Bandura (1997) argues that building self-efficacy is an ongoing process, based not only on successes but also on the interpretation of failures. Athletes who can reframe defeats as learning experiences develop greater resilience and tend to regain their emotional security more quickly.

Vealey (2007) proposes that psychological skills programs focused on self-confidence should include elements of positive reinforcement, the construction of personal narratives of overcoming challenges, and realistic simulations of competitive challenges. These practices foster the internalization of more functional beliefs about one's own ability to perform.

Mindfulness, according to Kabat-Zinn (2003), can be an effective tool in combating insecurity. By allowing athletes to observe their thoughts and emotions without judgment, an internal space of acceptance and stability is fostered. This reduces the influence of negative automatic thoughts that fuel insecurity at crucial moments.

Ultimately, insecurity can be understood as a psychological obstacle that, if faced with adequate support, becomes a foundation for growth. Athletes who learn to recognize their limits without being paralyzed by them are able to develop a sense of self-awareness that increases their confidence and competitive consistency.

2.5 Coping Strategies

Various techniques have been proposed to help athletes cope with feelings of fear, uncertainty, and insecurity. These strategies not only alleviate immediate emotional symptoms but also promote cognitive and behavioral transformations that strengthen the athlete's psychological structure when faced with decision-making situations. The most effective methods are those that simultaneously address the mental, emotional, and contextual aspects of the sporting experience, such as:

- **Mental training and imagery:** Imagery is not limited to idealizing success but includes mentally rehearsing different decision-making scenarios - including adverse ones - allowing the athlete to develop mental and emotional responses to each situation. According to Vealey (2007), imagery increases familiarity with uncertain events and promotes a sense of control, reinforcing neural patterns associated with confidence and decision-making.
- **Mindfulness and meditation:** Mindfulness, as described by Kabat-Zinn (2003), is a practice of full attention that promotes focus on the present and reduces the impact of anxious thoughts. This technique trains the mind to observe emotions and automatic thoughts without judgment, which helps athletes maintain composure in decisive

situations. Continued practice has been shown to be effective in regulating the autonomic nervous system and preventing impulsive responses.

- **Individualized psychological counseling:** Sports psychologists play a central role in identifying and restructuring dysfunctional cognitive patterns that fuel fear, insecurity, and avoidance. Bandura (1997) argues that building self-efficacy is essential for athletes to face difficult situations with perseverance. Psychotherapeutic work may include cognitive restructuring techniques, systematic desensitization, positive self-talk, and the development of pre-competition routines.
- **Training under pressure and realistic simulations:** Exposing athletes to simulations of decisive moments, with the presence of judges, spectators, or unpredictable variables, strengthens their stress tolerance and prepares the brain to respond with agility and emotional control. Weinberg and Gould (2017) point out that the more realistic the training is, the greater the transfer of psychological skills to the real competitive situation.

In addition to these core strategies, building narratives of overcoming challenges and practicing positive self-talk are valuable resources. The way an athlete talks to themselves during decisive moments can be crucial in maintaining or losing focus. Internalized phrases that evoke confidence, perseverance, and readyness act as mental anchors amidst the chaos of competition.

The integration of these strategies must be planned and personalized. Isolated or short-term interventions tend to lose their impact over time. Therefore, it is essential that psychological work be incorporated into the athlete's training routine, in coordination with coaches and other members of the coaching staff. This integration ensures a holistic approach to sports performance.

The effectiveness of coping programs also depends on the athlete's willingness to self-discovery and address their vulnerabilities. Applying techniques isn't enough - it's necessary to create a space of trust where the athlete feels safe to discuss their anxieties and limitations. The sports environment, in this sense, needs to be re-educated to value emotional development as much as technical and physical development.

In short, effective coping strategies work not only to reduce symptoms of anxiety or fear, but also to transform how athletes interpret and react to challenges. It's about empowering athletes to take control of their experience, developing not only performance but also emotional maturity and psychological balance.

3 METHODOLOGICAL PROCEDURES

This descriptive and exploratory study, with a quantitative approach, involved the participation of 187 male athletes from situational sports, specifically volleyball and handball. Participants were selected by convenience and came from clubs, universities, and regional teams in the interior of São Paulo state; their ages ranged from 18 to 25.

Data collection was conducted using a structured questionnaire containing validated scales assessing competitive fear, perception of uncertainty, and self-efficacy. The instruments were administered in a controlled environment, before and after simulated decision-making situations (such as decisive point contests or final shots under pressure). Data were statistically analyzed using SPSS software, using Pearson's correlation and analysis of variance (ANOVA).

The research followed the ethical principles established by Resolution 510/2016 of the National Health Council and was approved by the institutional Ethics Committee. All athletes signed the Informed Consent Form and were guaranteed anonymity and confidentiality. Data were collected between March 15 and June 15, 2025.

4 RESULTS

The results indicated that 68% of the athletes reported feeling intense fear in decision-making situations, especially when they were behind on the scoreboard or under the observation of coaches. The relationship between fear and performance was statistically significant ($p < 0.05$), indicating a decline in tactical performance under pressure.

Regarding uncertainty, 74% of athletes reported feeling insecure when faced with unexpected changes in the game (such as substitutions, opponent tactical changes, or refereeing decisions). There was a moderate correlation between the perception of uncertainty and self-reported stress levels, confirming the emotional impact of these factors on the competitive stage.

Finally, it was observed that athletes with higher self-efficacy levels had lower levels of fear and insecurity. These athletes reported feeling better prepared to face adversity, demonstrating greater emotional stability and consistency in decision-

making under pressure. Self-efficacy showed a strong negative correlation with reported anxiety levels (r = -0.61).

5 DISCUSSION

The data obtained reinforce the existing literature on the importance of psychological preparation in decision-making sports. The high percentage of athletes reporting fear and uncertainty corroborates the ideas of Sapolsky (2004) and Hanin (2000), who point to heightened physiological activation and cognitive blocks as limiting factors in sports performance. The identification of uncertainty as a destabilizing factor confirms the contributions of Damásio (1994) and Lazarus (2000), according to which the interaction between emotion and cognition can lead to inadequate judgment in pressure-based contexts. This highlights the importance of developing mechanisms for emotional self-regulation and adaptive decision-making training.

The strong correlation between self-efficacy and reduced fear and insecurity is also consistent with Bandura (1997), who argues that belief in one's own ability to perform actions is a protective factor against competitive stress. Building self-confidence, therefore, emerges as a key variable in performance in situational sports.

Furthermore, the results indicate the need for specific interventions in the sports development process, focusing on developing psychological skills such as visualization, mindfulness, and emotional coping. According to Vealey (2007) and Kabat-Zinn (2003), these tools contribute significantly to improving emotional regulation and behavioral stability in critical moments.

Finally, the findings reinforce the argument that sporting excellence can no longer be conceived solely in physical or technical terms. Emotional competence and continuous psychological preparation are structural differentiators in contemporary sports. Strengthening athletes' emotional resilience should be a priority for coaches, trainers, and sports institutions committed to high-level performance.

6 FINAL CONSIDERATIONS

Feelings of fear, uncertainty, and insecurity are natural and inevitable in decision-making sports, as they emerge from the emotional and cognitive complexity

required by highly competitive and unpredictable contexts. However, the difference between average and high-performance athletes lies in how these emotions are recognized, understood, and addressed.

Sports psychology demonstrates that these emotional states should not be seen as flaws to be eliminated, but as human dimensions to be integrated into the sports preparation process. When understood from the perspective of self-efficacy (Bandura, 1997), the balance between challenge and skill (Csikszentmihalyi, 1999), and the regulatory role of emotions (Damásio, 1994; Lazarus, 2000), they become transformative elements in the development of resilient and conscious athletes.

The balance between technical, tactical, and psychological preparation is essential for developing coping strategies that go beyond improvisation. Visualization, mindfulness, training under pressure, and psychological support are no longer optional extras, but rather fundamental resources for sustaining performance under stress and strengthening a sense of athletic identity. Athletes who learn to manage their fears, embrace uncertainty, and overcome insecurity tend to stand out not only for their achievements but also for their emotional consistency, self-control, and decision-making ability in adverse situations. Self-control thus becomes the greatest competitive advantage.

Therefore, investing in psychological preparation must be understood as an integral part of sporting excellence. Cultivating self-knowledge and emotional maturity is as important as improving techniques or game strategies. Ultimately, winning in decisive sports also means winning yourself. Furthermore, the ability to recognize these emotional states as an integral part of the competitive process contributes to building a more robust psychological repertoire. Athletes who learn to interpret their feelings without denying them tend to respond more adaptively to external and internal pressures, preserving their mental clarity and decision-making autonomy even in adverse contexts.

From an institutional perspective, this understanding requires a paradigm shift in sports preparation, recognizing that competitive excellence depends on both physical performance and emotional maturity. Investing in the development of psychological skills is not only a strategy for preventing emotional breakdown, but also a way to enhance athletic performance and longevity.

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