Chapter 6

A Scientific Perspective on Sport Psychology: History, Theory, And Practice

Deniz Bedir[1]

Ferhat Canyurt[2]

Abstract

This article provides a comprehensive scientific perspective on sports psychology, meticulously charting its historical trajectory, examining its diverse theoretical underpinnings, and detailing its evidence-based practical applications. The paper begins by tracing the discipline's evolution from its nascent stages in the late 19th and early 20th centuries to its current status as a sophisticated, multidisciplinary field. It highlights pivotal moments and foundational research that shaped sports psychology's scientific identity, emphasizing the shift towards rigorous empirical methodologies.

Subsequently, the article delves into the core theoretical paradigms that inform contemporary practice, including but not limited to cognitive-behavioral, psychodynamic, social-cognitive, and ecological approaches. Each theoretical lens is critically analyzed for its explanatory power regarding psychological factors influencing athletic performance and well-being. The final section transitions to the practical dimension, showcasing evidence-based interventions designed to optimize performance, foster resilience, and promote mental health in athletes. Specific techniques such as mental skills training (e.g., imagery, self-talk, arousal regulation), goal setting, stress management, and team building are discussed in detail, grounded in empirical research. The paper advocates for an integrated approach, underscoring the necessity of interdisciplinary collaboration for advancing both the scientific rigor and applied efficacy of sports psychology.

1 Erzurum Technical University Faculty of Sports Sciences, https://orcid.org/0000-0002-5926-3433, deniz.bedir@erzurum.edu.tr

2 Erzurum Technical University Faculty of Sports Sciences, https://orcid.org/0009-0000-1950-5007, ferhat.canyurt@erzurum.edu.tr

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Introduction

Sport Psychology

Sport has emerged as a universal field of activity that attracts the interest of numerous individuals worldwide—across different regions and levels of civilization—both as active participants and as spectators. The necessity of understanding and managing the psychological processes experienced by individuals involved in this broad sphere of interaction underscores the growing significance of sport psychology. Sport psychology addresses various issues that arise within this universal context and contributes to the development of scientific methods—grounded in experimental and theoretical findings—particularly for use in the training and development of athletes.

In this context, sport psychology is a scientific discipline that examines not only the behaviors of athletes but also those of other stakeholders in the sporting environments such as spectators, fans, referees, coaches, managers, and parents and evaluates these behaviors within a relational framework. Complex psychological constructs such as the conduct of training processes, the acquisition of athletic skills, participation in competitions, and the management of psychosocial factors associated with these processes are all addressed within the scope of sport psychology (Wylleman, 200).

More specifically, the primary focus of sport psychology is to contribute to the optimization of performance in both individual and team sports by examining the psychological characteristics of individuals involved in sport (Azboy et al., 2012). Within this scope, applied areas of sport psychology include efforts aimed at enhancing training efficiency, accelerating learning processes, and eliminating psychological barriers that hinder performance (Yıldıran, 2011).

The Historical Development of Sport Psychology

In the 20th century, numerous rules were introduced into sporting activities, and expectations from athletes increased significantly. Each new rule imposed additional physical and psychological demands on athletes. Particularly in the second half of the 20th century, with the rapid advancement of sport psychology techniques, sport psychology began to take its place among the fundamental elements of sport. As public interest in sport grew, it also transformed into a source of income and a commercial sector. These developments made it necessary to examine athletes' training methods, recreational habits, performance levels, self-identities, and personality

traits—as well as the process of athlete selection—in a more detailed and scientific manner (Doğan, 2015).

Sport psychology is said to have been developed in response to these emerging needs. Given that sport functions as both an individual and a social activity, it has become inevitable to examine athletes from physical, psychological, and social perspectives. Although studies related to sport psychology began in the late 19th and early 20th centuries, it has been argued that conceptual approaches in this field date back to much earlier periods (Şahiner et al., 2021). The origins of sport psychology are often traced back to ancient Greek philosophers such as Socrates, Plato, and Aristotle (Konter, 2006; Mareš, 2023). In subsequent centuries, philosophers and educators emphasized the psychological dimension of play, sport, and physical exercise in human life, thereby laying the philosophical foundations of sport psychology in an indirect manner. Figures such as Hippocrates, Galen, Avicenna, and Taoist monks highlighted the effects of exercise and overexertion on health.

With the Renaissance, interest in physical activities increased, and between the 16th and 18th centuries, scientific findings began to be applied to sport, particularly in the area of physical conditioning (Başer, 1985). In the 1830s, German scientist Carl Friedrich Koch conducted studies on physical education and the psychological processes observed in that context. His article titled *"The Psychology of Physical Education"* is considered one of the pioneering works in the field. Meanwhile, in the United States toward the end of the 19th century, Norman Triplett of Indiana University proposed that psychological factors could play a decisive role in bicycle racing. Triplett argued that the presence of strong and successful competitors during a race could activate an additional source of energy in other athletes (Terry, 2011).

It is stated that the term *sport psychology* was first used by Baron Pierre de Coubertin, who is regarded as the founder of the modern Olympic Games. In this context, the term entered the literature with the publication of an article titled *La Psychologies du Sport* in 1900 (De Coubertin, 1990). The first person to build a professional career in sport psychology—and often referred to as the "father of sport psychology"—was the American psychologist Coleman Griffith. In 1925, the University of Illinois commissioned him to work with coaches to enhance the performance of athletes. With Griffith's contributions, the university's American football team went on to win two national championships and three Big Ten titles (Şahiner et al., 2021).

Griffith taught the first course titled *Psychology and Sport* in 1923, and the first sport psychology laboratory was established in 1925. His contributions

to the field continued with the publication of *Psychology of Coaching* in 1926 and *Psychology of Athletics* in 1928 (Begel, 1992; Cöhce et al., 2022).

The studies conducted in the 1960s by Bruce Ogilvie and Thomas Tutko are considered a significant turning point in the development of sport psychology. The impressive success of Eastern Bloc countries in highly attended international events such as the 1976 Montreal Olympic Games prompted Western nations (such as the USA, UK, Canada, and Australia) to investigate the reasons behind their comparatively lower athletic performance. This led to a surge in scientific research on sport psychology and paved the way for the organization of academic activities in the field.

In this regard, the first Sport Psychology Symposium was held in Bulgaria in 1968, and the European Federation of Sport Psychology (FEPSAC) was founded in 1969 in Vittel, France (Ersöz, 2022). As a result of these scientific and institutional advancements, the field of sport psychology gained greater visibility, and in the 1980s, the formal appointment of sport psychologists to athletic teams began (Nazlıcan, 2023).

Fundamental Principles of Sport Psychology

Psychological Resilience

Psychological resilience is defined as the capacity of individuals to maintain their mental and physical health, preserve functionality, and adapt effectively when faced with stressful life events or traumatic experiences (Kobasa, 1979). This concept explains the degree of resistance individuals demonstrate in the face of adversity and is regarded as an effective personality trait in coping with stress (Kobasa et al., 1982). According to Cicchetti (2010), psychological resilience is the process of positive adaptation under conditions of significant adversity and threat. From this perspective, resilience is considered not as a fixed personality trait but as a developmental and dynamic process.

When individuals encounter life-threatening circumstances such as stress, loss, financial hardship, or health problems, their ability to adapt reflects their level of psychological resilience (Tusaie & Dyer, 2004). Maddi and Khoshaba (1994) emphasized that resilient individuals are more competent in coping with stress and distress, viewing challenging experiences not as threats but as opportunities for growth. A high level of resilience enhances an individual's capacity to protect their mental and physical well-being in the face of stress, and this personality characteristic is also associated with a reduced risk of illness (Şahin, 1998).

The role of early childhood in the development of psychological resilience has been strongly emphasized. During this period, the support received from parents, the acquisition of independence, and the opportunities provided by the surrounding environment play a crucial role (Pollock, 1989). In particular, the sense of independence and environmental interaction acquired during the ages of 1 to 3 significantly shape a child's ability to cope with challenges encountered later in life.

Individuals with high levels of psychological resilience have been found to possess the potential to influence their environment, exhibit a tendency to transform adversity into opportunity, and report greater overall life satisfaction (Crowley, 1997; Hanton et al., 2003). Research has also shown that such individuals display fewer symptoms of illness and are less affected by the physiological impacts of stress (Klag & Bradley, 2004).

Psychological resilience should not be viewed solely as the ability to resist adversity, but also as a personality trait characterized by openness to growth, effective interaction with the environment, an internal locus of control, and the ability to perceive change as an opportunity. These characteristics are reported to influence not only an individual's personal health, but also their social relationships and professional success (Masten et al., 1990; Stewart et al., 1997; Vanderbilt-Adriance, 2001).

Self-Confidence and Self-Esteem

Self-confidence is considered a significant psychological factor in enhancing individuals' mental well-being and achieving life goals. Also referred to as *self-assurance*, this concept is not merely an emotional state but also serves a functional role in terms of psychological wellness and interpersonal relationships (Lingreen, 1991). Rufus (2014) associates' self-confidence with a person's ability to respect themselves and the courage to defend their beliefs. Within this framework, self-confidence encompasses the capacity to believe in oneself, to assign value to oneself, and to act in alignment with that self-perception.

It has been emphasized that self-confidence influences individuals' attitudes toward their own abilities and skills; it enables people to recognize their strengths and weaknesses, set realistic goals, and engage in constructive communication (Lingreen, 1991). Conversely, individuals with low self-confidence tend to exhibit traits such as skepticism, passivity, submissiveness, and difficulty in trusting others. This may lead to feelings of worthlessness and increased sensitivity to criticism (Gündüz, 2021).

Moreover, self-confidence is largely based on self-perception; it is shaped more by how individuals view themselves than by their actual skill level. These perceptions are influenced by factors such as past experiences, criticism, separations, or fear of failure, and they can significantly affect one's self-evaluation over time (Gündüz, 2021).

Self-esteem is defined as a construct that reflects an individual's overall sense of self-worth. According to Rosenberg (1965), self-esteem pertains to whether individuals hold a positive or negative attitude toward themselves. Adler and Stewart (2004) conceptualize it to the degree to which a person feels valued, accepted, appreciated, and admired. Self-esteem reflects the value individuals place in their internal qualities as well as how they interpret feedback from their environment, making it one of the most frequently utilized concepts in psychology (Baumeister et al., 2003).

According to Blascovich and Tomaka (1991), self-esteem is directly related to the individual's tendency to perceive the attributes within their self-concept in a positive manner. While high self-esteem is regarded as a key indicator of mental well-being, low self-esteem is associated with feelings of worthlessness and symptoms of depression. Self-esteem is understood to encompass both effective and cognitive dimensions, contributing to an individual's overall perception of self-worth (Murphy et al., 2005).

Individuals with high self-esteem are reported to make more conscious evaluations about themselves and their choices, to take ownership of their successes, to attribute failures to external factors, and to demonstrate greater emotional stability (Wang et al., 2001).

Motivation: The Path to Achievement

Motivation is a dynamic construct that refers to the process through which an individual initiates, sustains, and directs behavior toward a specific goal (Schunk & DiBenedetto, 2020). Also referred to as *drive* or *activation*, motivation is regarded as a fundamental psychological mechanism that determines both the onset and the continuity of behavior undertaken to fulfill one's desires. This concept is examined from various perspectives across disciplines such as psychology, education, and sport.

In the field of sport psychology in particular, motivation is considered a central determinant not only of physical performance but also of mental processes (Tunca & Gülsoy, 2023; Çiftçi et al., 2023). Motivation guides an individual's engagement in an activity, their persistence within it, and their effort toward achieving a particular goal (Pelletier et al., 1995). In this process, an individual's needs, goals, expectations, and environmental

factors are evaluated collectively. In this respect, motivation can also be seen as the behavioral reflection of the relationship between an individual's inner world and their external environment.

One of the core functions of motivation is to provide direction and purpose to behavior. In environments where motivation is present, individuals tend to act in a more organized, conscious, and goal-oriented manner facilitating success, especially in structured disciplines such as sport (Öztürk, 2017).

Motivation is generally examined under two main categories: intrinsic motivation and extrinsic motivation**.** Intrinsic motivation refers to a state in which an individual engages in an activity purely for the enjoyment, satisfaction, or personal growth it brings—without the influence of external rewards or pressures (Ryan & Deci, 2000). Individuals who are intrinsically motivated derive satisfaction from the activity itself; for example, an athlete may continue swimming simply because they enjoy the act of swimming.

This type of motivation is highly valuable in terms of learning, development, and long-term engagement. Deci and colleagues (1991) stated that intrinsic motivation operates through a two-stage process, both mentally and physically: at the cognitive level, the individual sets a goal, and at the physical level, they initiate action to achieve that goal.

Extrinsic motivation, on the other hand, refers to behavior that is driven by external rewards, punishments, approval, or recognition (Yıldırım, 2017). For example, athletes may be motivated by the desire to win awards, gain appreciation, or meet their coach's expectations these are all illustrative of extrinsic motivation.

While extrinsic motivation can have a directive effect, it is often short-term; therefore, it is suggested that lasting behavioral change requires the support of intrinsic motivation (Aslan & Doğan, 2020).

Motivation plays a critical role not only in initiating and sustaining an activity, but also in goal setting, decision-making, and problem-solving processes (Nicholas & Robert, 1992). In the context of sport, goal orientation is closely linked to high levels of motivation. Therefore, the development of motivational support strategies for athletes contributes not only to enhanced performance but also to the sustainability of athletic engagement.

Studies on the concept of motivation are generally based on two distinct theoretical approaches:

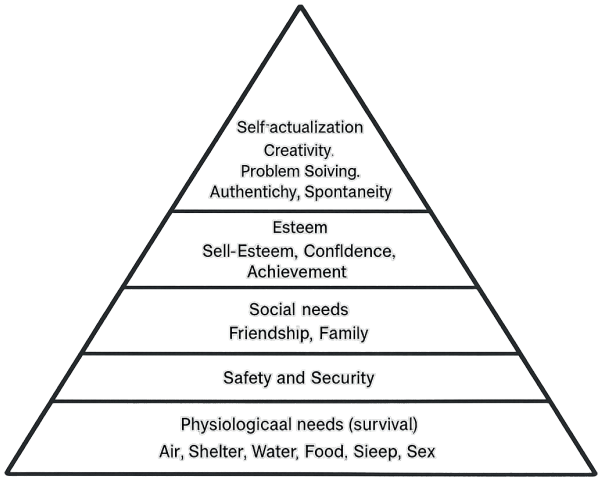
- **Content Theories**
- **Process Theories**

Content theories focus on *what* motivates individual behavior, whereas process theories examine *how* behavior is motivated (Küçüközkan, 2015).

Content Theories of Motivation

a) Maslow's Hierarchy of Needs: In order to better understand and satisfy both primary (basic) and secondary (complementary) human needs, it has been suggested that these needs should be organized into a hierarchy based on their relative importance. Although it is acknowledged that establishing a definitive order of needs is difficult, some psychologists have argued that individuals tend to prioritize certain needs over others. According to this perspective, higher-level needs (such as those at the third level) cannot emerge until lower-level, more fundamental needs have been fulfilled. Therefore, unless a more pressing need is satisfied, the fulfillment of subsequent needs will be postponed (Luthans, 2008; Deci & Ryan, 1985).

One of the most well-known theories in this area was proposed by A. H. Maslow, who suggested within the framework of motivational theory that human needs could be examined in a five-tier hierarchy, progressing from the most basic to more complex levels.



Maslow's hierarchy of needs theory

b) Alderfer's ERG Theory: Developed as an alternative to Maslow's hierarchy of needs, Alderfer's ERG (Existence, Relatedness, Growth)

Theory is recognized as a significant content theory within motivational frameworks**.** This theory simplifies Maslow's five-level model by reducing it to three fundamental categories of needs, thereby presenting a more streamlined structure (Eren, 2004).

As in Maslow's theory, Alderfer's model also proposes that needs should be satisfied in a certain order. However, the ERG Theory argues that individuals can move not only upward through the hierarchy of needs, but also downward. According to this approach, if a higher-level need cannot be fulfilled, a previously satisfied lower-level need may become active again. This phenomenon is explained by the *frustration-regression* principle (Tevrüz, 1999).

Maslow	*Alderfer*
Self-Actualization	
Self-Esteem	*Growth Needs*
Social Needs	*Relatedness Needs*
Safety and Security	
Physiological Needs	*Existence Needs*

In this context, the ERG model evaluates the process of need satisfaction within a more flexible framework, suggesting that individuals can move in both directions between different levels of needs depending on their current situation and level of fulfillment. Therefore, the hierarchical structure of needs may vary according to an individual's experiences and circumstances (Eren, 2004).

Comparison of Maslow's Hierarchy of Needs and Alderfer's ERG Theory

c) Başarı-Güç Teorisi: McClelland's Achievement-Power Theory was developed as an approach to identifying the core drives that influence individual behavior. Within this theoretical framework, it is proposed that individuals' motivation is shaped around three primary needs: the need for achievement, the need for power, and the need for affiliation (Oksay, 2005).

The need for achievement refers to an individual's desire to succeed, willingness to overcome challenges, and tendency to pursue personal goals. Individuals driven by this motive are typically characterized by high performance, a preference for taking responsibility, and a view of achievement as a means of personal growth (Fındıkçı, 2000).

The need for power is associated with an individual's desire to influence, direct, control others, and exert authority over their social environment. This need is reflected in characteristics such as valuing authority, believing in

the necessity of order and discipline, and placing importance on a sense of justice. Individuals with a high-power motive tend to use various strategic means to enhance their influence in interpersonal and environmental relationships (Tevrüz, 1999).

The need for affiliation refers to an individual's desire to develop social relationships, belong to a group, and engage in interpersonal interactions. According to Koçel (2005), this need arises from the inherently social nature of human beings. While the intensity of this motive varies among individuals, everyone possesses, to some extent, a social environment in which they maintain relationships (Eren, 2004). Some individuals tend to form broad social networks, whereas others may prefer solitude and choose to maintain more limited interpersonal connections.

d) Herzberg's Two-Factor Theory: Herzberg's Two-Factor Theory offers a valuable framework for understanding and managing individuals' levels of motivation. Within this theory, elements referred to as "hygiene factors"—such as management style, team relationships, facility conditions, and the training environment—are seen as essential for meeting athletes' basic needs; however, these factors alone are not considered to have a motivational effect (Mirze, 2002). For athletes, the absence of such factors may lead to decreased performance, a loss of motivation, and a tendency to leave the team or club.

On the other hand, factors identified as "motivators"—such as achievement, recognition, opportunities for advancement, and challenging goals—are found to enhance individuals' intrinsic motivation and strengthen their commitment to training and competition (Mirze, 2002). As Herzberg emphasized, the principle of "job enrichment" can be adapted to sport psychology by encouraging athletes to participate more actively in their personal goal-setting processes, thereby increasing their level of psychological commitment (Oksay, 2005).

Such an approach not only provides athletes with a more meaningful level of engagement on a physical level, but also on mental and emotional levels—ultimately paving the way for long-term success and stability.

Process Theories of Motivation

a) Vroom's Expectancy Theory: Vroom's Expectancy Theory is classified under process theories of motivation and aims to explain the cognitive evaluation processes that determine an individual's behavior. Unlike classical content theories, process theories not only explore the factors that motivate individuals but also examine the variables involved in the emergence and continuation of behavior (Luthans, 2008; Davis & Newstrom, 1999).

In this regard, Vroom's model proposes that an individual's motivation is shaped around three key concepts: valence, instrumentality, and expectancy (Tevrüz, 1999).

Valence refers to the value an individual assigns to a particular outcome; a positive valence indicates that the outcome is desirable, while a negative valence suggests that the outcome is something to be avoided.

Instrumentality refers to the individual's assessment of how effectively organizational goals serve to achieving their personal goals (Küçüközkan, 2015).

Expectancy refers to an athlete's belief in whether the effort they exert will lead to the desired success. This belief represents a cognitive process that directly influences the individual's willingness to perform. A structural distinction can be observed between expectancy and instrumentality: expectancy focuses on the perceived relationship between the effort invested and the achievement of a specific outcome (e.g., winning a match or earning a ranking), while instrumentality evaluates the extent to which that achievement contributes to personal goals—such as being selected for the national team, obtaining a scholarship, or accessing professional career opportunities (Luthans, 2008).

b) Lawler and Porter's Extended Expectancy Theory: The model developed by Lawler and Porter is based on Vroom's Expectancy Theory but presents a more comprehensive framework by focusing on the relationship between performance and satisfaction (Mirze, 2002). According to this model, it is not sufficient for the expected outcome to be desirable for an individual to exert effort; the individual must also believe that their effort will translate into performance, and that this performance will lead to the desired rewards.

However, according to Porter, the relationship between effort and performance is not direct; variables such as ability, personal characteristics, and role perception act as mediators in this process. Even if an individual exerts great effort, performance improvement will not occur if their level of competence or understanding of the task is insufficient (Tevrüz, 1999).

An important contribution of the model lies in how rewards are perceived. For an individual to experience job satisfaction, it is not enough merely to receive a reward; the reward must also be perceived as fair. If the individual perceives an imbalance or injustice—particularly when comparing their outcomes to those of others—this perception may lead to a loss of motivation and dissatisfaction (Küçüközkan, 2015).

c) Equity Theory (Theory of Perceived Fairness in Rewards): Developed by Adams, Equity Theory aims to explain individual motivation through cognitively based evaluations, offering a valuable explanatory framework within the field of sport psychology as well. From an athletic perspective, the perceived balance between an individual's contributions (inputs)—such as physical effort, technical knowledge, training discipline, and experience—and the outcomes provided by the club, federation, or coach—such as playing time, rewards, captaincy, scholarships, or recognition—can have a direct impact on motivation (Mirze, 2002).

When an individual compares their own input-output ratio to that of a teammate in a similar position and perceives an imbalance, this is considered a sense of "inequity," which can lead to a loss of motivation (Tevrüz, 1999). Such perceptions often result in behavioral consequences such as decreased performance, reduced intrinsic motivation, or interpersonal tension within the team (Eren, 2004; Oksay, 2005).

In studies conducted by Adams at General Electric, it was demonstrated that individuals consistently compare their rewards with those of others, and that their motivation is shaped based on these evaluations (Eren, 2004). From a sport psychology perspective, this indicates that athletes are not only attentive to their own individual efforts, but also to the opportunities and rewards provided to their teammates within the team context.

The Relationship Between Anxiety, Stress, and Performance

Individuals are not always able to perform at their best when under pressure. This is often associated with performance anxiety, which arises when the pressure—typically caused by performance-related or competitive stressors—is perceived as threatening (Mellalieu et al., 2006).

Athletes are subjected to intense physical and mental pressure during training, competition, and match processes. The stress and performance anxiety experienced in these contexts are considered significant barriers to athletic performance. Performance anxiety typically arises from athletes' fear of failure and concerns related to their performance, and it is commonly manifested through both cognitive and physiological symptoms (Martens et al., 1990).

In this context, stress management is recognized as an effective tool for controlling performance-related anxiety. It has been shown that using appropriate stress management strategies, athletes are able to maintain performance at a sustainable level. Exposure to stress affects not only athletic performance but also physical health (Simms et al., 2020), psychological

well-being (Roberts et al., 2019), and overall quality of life (Arnold et al., 2017; Arnold & Fletcher, 2021).

Therefore, it is emphasized that athletes should possess a broad repertoire of effective coping strategies to deal with stressful situations encountered both in sporting environments and in daily life. These strategies are reported to play a fundamental role in regulating suboptimal levels of anxiety (Lazarus, 2000).

Performance Anxiety: Performance anxiety is defined as an anxiety disorder that negatively affects individuals engaged in activities requiring performance, such as exams, dance, acting, sports, and music. This condition is typically rooted in the fear of receiving negative evaluation or reaction (Bascomb, 2019). Often considered a subtype of social phobia, this form of anxiety is understood as a process that emerges from the interaction of three core components—cognitive, physiological, and behavioral—in response to socially stressful situations (Wilson, 2002; Brownlee, 1981).

Although the intensity and combination of symptoms observed in individuals experiencing performance anxiety may vary, the types of symptoms often share common features. In some individuals, all three types of symptoms—cognitive, physiological, and behavioral—may occur simultaneously, while in others, only one component may be predominant. For example, in cases where cognitive symptoms manifest as recurring negative thoughts, there may be no observable physiological or behavioral responses (Brownlee, 1981).

Within this framework, performance anxiety is generally defined as a cognitive process but is also regarded as a complex phenomenon involving heightened physiological arousal and behavioral changes.

Physiological symptoms are regarded as the physical manifestations of performance anxiety, and varying levels of arousal are observed in nearly all individuals engaged in performance-related activities, either before or during the performance. However, in some cases, these responses have been reported to become debilitating and dysfunctional (Doğan, 2013). Individuals experiencing anxiety may enter a heightened state of panic like the "fight or flight" response. While this reaction is functional in life-threatening situations, it is noted that when it occurs during performance, it can become detrimental (Hargreaves & North, 1997).

The behavioral symptoms of performance anxiety are external and observable in nature. These symptoms can be considered as the visible aspects of the performance itself. Observable behavioral manifestations can have a

direct negative impact on an athlete's performance and may be perceived by spectators as signs of insecurity, restlessness, or tension (Giti, 2013).

The Yerkes-Dodson Law: The relationship between arousal level and performance was first introduced by Yerkes and Dodson and is explained through an inverted U-shaped model. Known as the Yerkes-Dodson Law, this theory suggests that performance increases with arousal up to a certain point, but beyond that optimal level, further increases in arousal lead to a decline in performance (Jin et al., 2015). Accordingly, the optimal arousal level is defined as the necessary condition for achieving peak performance.

However, the assumption that this optimal level is *the same for everyone* has drawn criticism. In response, L. Hardy developed the Catastrophe Theory, which offers an alternative perspective by arguing that the relationship between arousal and performance is not only non-linear but may also involve sudden and dramatic drops in performance.

Similarly, Yuri Hanin's Zone of Optimal Functioning (ZOF) Theory emphasizes individual differences in the arousal-performance relationship. This theory proposes that each athlete has a unique range of optimal arousal in which they perform at their best. Thus, peak performance is not achieved at a fixed level of arousal but rather at a psychophysiological range that varies from person to person (Kara & Özsarı, 2024).

Coping Strategies for Stress

a) *Physiological Strategies for Coping with Stress:* The first step in developing relaxation skills in athletes is considered to be gaining control over breathing. Breathing functions not only as a relaxation method on its own but also as a core component of all relaxation techniques. Acquiring proper breathing habits is said to increase the level of oxygen in the body and enable its delivery to even the most distant tissues, thereby reducing stress-induced biochemical substances (Baltaş & Baltaş, 2015).

It has been emphasized that athletes should be taught relaxation techniques such as muscle relaxation, cognitive focusing, and mental deceleration. These techniques are particularly effective for individuals prone to stress, as they are incompatible with negative emotional states like tension, anxiety, and worry—thus helping the body achieve a lower and more balanced level of arousal (Smith et al., 2015).

Progressive relaxation has been identified as a particularly effective method in this context, with studies reporting a reduction in injury rates by 52% in swimmers and 33% in football players (Davis, 1991).

Another method that supports the relaxation process is biofeedback, which allows athletes to monitor physiological responses they are usually unaware of, through the use of specific devices. This method enables athletes to become aware of their psychological states and to make conscious efforts to regulate them (Baltaş & Baltaş, 2015; Smith et al., 2015). Biofeedback training involves monitoring biological indicators such as fingertip temperature and heart rate, helping athletes voluntarily control autonomic functions such as blood pressure (Davies, 1991).

A recent study has shown that virtual reality-assisted biofeedback systems positively influence stress management in athletes and thereby contribute to performance enhancement (Morales-Tellez et al., 2021).

b) Cognitive Coping Strategies: Cognitive coping techniques are used to help athletes identify stress-inducing situations and modify their responses to these situations (Smith et al., 2015). These techniques involve the evaluation of stress and the restructuring of negative thought patterns (Gerrig & Zimbardo, 2012; Nolen-Hoeksema, 2009). The primary goal is to direct the athlete's attention toward task-oriented behaviors and reduce anxiety. This includes increasing positive self-talk and eliminating negative internal statements (Davies, 1991).

The literature identifies a variety of cognitive coping strategies. Cognitive reframing involves changing the meaning of negative experiences, while thought-stopping and rational thinking techniques challenge maladaptive cognitive patterns. Stress inoculation training (SIT) helps athletes recognize sources of stress and manage their physiological responses to these stressors. Techniques such as imagery and systematic desensitization allow athletes to mentally rehearse stressful situations, thereby reducing anxiety (Pargman, 2013).

These strategies have been shown to be effective in managing situations such as anxiety and loss of confidence following injury (Davies, 1995). The modeling strategy, which involves observing successful athletes in stressful situations, enables athletes to learn adaptive behaviors; increasing intrinsic motivation also helps athletes shift their focus away from external rewards and toward performance.

Additionally, de-emphasizing the importance of competition outcomes is recommended as an effective way to manage stress. Athletes should be valued not only for their results but also as individuals, and external pressure should be minimized (Burton & Raedeke, 2008).

Finally, preparation is highlighted as one of the most critical factors. When athletes are physically, mentally, and emotionally prepared, the detrimental effects of competitive stress can be significantly reduced. In this context, success is understood to be closely linked not only to talent but also to the level of preparation (Davies, 1991).

c) Behavioral Coping Strategies: Behavioral coping strategies involve practical methods used by individuals to manage stress effectively. These strategies include altering Type A behavior patterns, controlling anger, and practicing effective time management (Baltaş & Baltaş, 2015). Type A behavior is characterized by traits such as excessive competitiveness, impatience, ambition, and hostility, and has been linked to heart disease (King, 2021). This behavioral pattern is known to contribute to stress responses (Pargman, 2013). However, it has been suggested that such behaviors are modifiable, and through behavioral adjustment, both stress levels and associated health risks can be reduced (Weinberg & Gould, 2023).

Time management helps individuals identify priorities and use their time more efficiently, thereby reducing stress (Zimbardo et al., 2017). Anger control is another important technique, especially in preventing stress from escalating into aggression. Bernstein and colleagues (1994) defined behavioral coping techniques as the elimination of stressors through lifestyle changes and structured time planning.

In the context of sports, replicating stressful conditions during training is considered an effective method. Through practice matches, athletes can be gradually exposed to competitive pressure, which helps build their stress tolerance (Davies, 1991).

Another key component in managing stress is social support. Social support helps individuals maintain emotional balance by making them feel loved, respected, and part of a supportive network (Gerrig & Zimbardo, 2012). This support may consist of emotional support (feeling understood and cared for), tangible support (assistance with daily life), and informational support (guidance and advice). It has been emphasized that a lack of social support, especially in team sports, can leave athletes vulnerable to stress (Williams & Krana, 2021). In this regard, not only the quantity but also the quality of supportive relationships plays a decisive role in the coping process (Williams, 1995).

Conclusion and Recommendations

Scientific research in the field of sport psychology has demonstrated that athletes can achieve success not only through physical abilities but also

through psychological preparation. Factors such as stress, anxiety, motivation, self-confidence, and psychological resilience have been shown to have a direct impact on athletic performance. Relaxation techniques, including breathing control, progressive muscle relaxation, and biofeedback—are commonly used to manage stress, reduce anxiety, and enhance mental resilience in athletes. These techniques contribute to both physical and psychological relaxation, helping athletes maintain a balanced mental state before and during competition, while also reducing the risk of injury.

In addition, cognitive coping strategies such as positive self-talk, cognitive reframing, imagery, systematic desensitization, stress inoculation, and modeling enable athletes to evaluate stressful situations more constructively and to restructure thought patterns that might hinder performance. Behavioral strategies, including the modification of Type A behavior patterns, anger control, and effective time management, support more controlled and adaptive responses to stress. The presence of social support systems also strengthens psychological resilience; in team sports in particular, the quality of social relationships plays a decisive role in athletes' ability to cope with stress.

Moreover, increasing intrinsic motivation allows athletes to perform not merely for rewards or social approval, but for personal satisfaction and growth, thereby fostering long-term success. In conclusion, sport psychology is not only a domain aimed at enhancing athletic performance but also a holistic discipline that supports the psychological well-being of athletes and promotes a sustainable sporting career. Therefore, it is essential to expand access to psychological training for athletes, raise awareness among coaches, and integrate evidence-based psychological strategies into sports practice.

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