Description of Burnout levels in a sample of young athletes and its relationship with leadership perception and preferences
Descripción de los niveles de Burnout en una muestra de jóvenes deportistas y su relación con la percepción y preferencias de liderazgo

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Abstract. Burnout in competitive athletes has received considerable attention from researchers. However, the number of studies conducted in the sport of athletics is limited, despite its high potential to cause negative consequences on both performance and the physical and mental health of the athlete. In the present study, the level of symmetry and congruence between the perceptions and preferences of leadership behaviors in athletics and the burnout levels of athletes is quantified. This study aims to:1- Describe the levels of burnout in young high-performance athletes; 2.- Describe leadership preferences and perceptions; 3.- Establish possible relationships between burnout and leadership preferences and perceptions. A quantitative methodology with a descriptive and correlational cross-sectional research design was used. The study is made up of a total of 146 competitive athletes. The instruments applied are adaptation of the sociodemographic and sports questionnaire for athletes to the sport of Athletics (Ruiz, 2004), adaptation of the scales LSS-1 (leadership preferences of athletes) and LSS-2 (leadership perceptions of athletes); the Athletes Burnout Inventory (BDI, Garcés de los Fayos, 1999, 2004). The results show a prevalence of burnout of 7.96%. Furthermore, athletes with burnout or with a higher level of risk, present significantly greater asymmetry and incongruence. In conclusion, the leadership behaviors effect on the probability of the appearance of burnout, and on the well-being and mental health of the athletes. May be, this asymmetry detected on athletes, could be affect other persons like employees in work environment.
Keywords: Leadership; Burnout; FIT Model; Symmetry; Well-being; Athletes

Resumen. El burnout en atletas competitivos ha recibido considerable atención por parte de los investigadores. Sin embargo, el número de estudios realizados en el deporte del atletismo es limitado, a pesar de su alto potencial para causar consecuencias negativas tanto en el rendimiento como en la salud física y mental del deportista. En el presente estudio, se cuantifica el nivel de simetría y congruencia entre las percepciones y preferencias de los comportamientos de liderazgo en atletismo y los niveles de burnout de los atletas. Este estudio tiene como objetivos: 1.- Describir los niveles de burnout en jóvenes atletas de alto rendimiento; 2.- Describir las preferencias y percepciones de liderazgo; 3.- Establecer posibles relaciones entre el burnout y las preferencias y percepciones de liderazgo. Se utilizó una metodología cuantitativa con un diseño de investigación descriptivo y correlacional de carácter transversal. El estudio está compuesto por un total de 146 atletas competitivos. Los instrumentos aplicados son: adaptación del cuestionario sociodemográfico y deportivo para atletas al deporte del atletismo (Ruiz, 2004), adaptación de las escalas LSS-1 (preferencias de liderazgo de los atletas) y LSS-2 (percepciones de liderazgo de los atletas); el Inventario de Burnout para deportistas (BDI; Garcés de los Fayos, 1999, 2004). Los resultados muestran una prevalencia de burnout del 7,96%. Además, los atletas con burnout o con un mayor nivel de riesgo presentan una asimetría e incongruencia significativamente mayor. En conclusión, los comportamientos de liderazgo influyen en la probabilidad de aparición del burnout, así como en el bienestar y la salud mental de los atletas. Es posible que esta asimetría detectada en los atletas pueda afectar a otras personas, como los empleados en el entorno laboral.
Palabras clave: Liderazgo, burnout, Modelo del FIT, Simetría, Bienestar, Atletas.

Introduction

Burnout has been widely studied as a construct in the sports context, both at the national level (Cantú-Berrueto et al., 2015; Carlin et al., 2012; García-Parra et al., 2016) and at the international level (Dale & Weinberg, 1990; Eklund & DeFreese, 2020; Goodger et al., 2007; Madigan, 2021; Madigan et al., 2021a, 2021b; Schaffran et al., 2016), mainly due to its impact on performance, health, and athletes' well-being (Carlin & Garcés, 2010; Weinberg & Gould, 2010).

It is important to highlight how sports activity can be a source of rewards and personal fulfillment, a way to train, compete, spend free time, and socialize (Desiderio et al., 2021; García-Naveira & Locatelli, 2016; Tanné, 2023). However, sports can also become a source of frustration and exhaustion, where Burnout has been widely studied as a construct in the sports context, mainly due to its impact on performance, health, and athletes' well-being (Gallegos-Sánchez et al., 2023; González-García et al., 2020; Madigan, 2021; Madigan et al., 2021).

Burnout is a state of physical, emotional, and mental exhaustion that arises from prolonged exposure to high levels of stress and demands, typically occurring in the workplace, but also in other contexts such as sports (Arian et al., 2023; Parker et al., 2023; Pate et al., 2023). While there are multiple definitions of burnout (Cox, 2008; Freudenberger, 1974; García-Parra et al., 2016; Raedke & Smith, 2001), authors like Weinberg & Gould (2010, p. 492) define burnout as 'a psychological response to frequent, sometimes extreme, and generally ineffective efforts to achieve both training and competitive goals that are excessive. These and other definitions of burnout involve the delineation of its indicators and components. Authors like Weinberg & Gould (2010) highlight three key indicators and symptoms to determine burnout syndrome: 1- The presence of both physical and emotional exhaustion; 2- Low self-esteem; 3- Depersonalization and lack of personal accomplishment.

More specifically, Gould et al. (1996) identified several factors that characterize an athlete with burnout: the appearance of physical problems (pathologies, illnesses, and injuries); high levels of dissatisfaction with the sports activity performed; partially or completely unmet expectations; reduced levels of satisfaction and enjoyment; attention and concentration problems; emotional distress and a negative affective state; a sense of loneliness, increasing the likelihood of isolation.

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Some researchers have not only attempted to identify the main indicators and symptoms of burnout in athletes in a merely descriptive and cross-sectional way but have also sought to analyze burnout as a dynamic, non-static process, attempting to sequence and determine the order of their appearance. From a developmental perspective, authors like Loehr (1990) propose three phases in the development of burnout: reduced enthusiasm; the onset of distress and thoughts related to quitting; and the loss of confidence and self-esteem.

Regarding the possible consequences of burnout in athletes, the following are highlighted (Cox, 2008; Weinberg & Gould, 2010): reduced levels of motivation, reduced performance and outcome expectations, objective reduction in athletic performance, tardiness or unjustified absences from training, dissatisfaction and loss of the initial sense of purpose in sports practice, partial withdrawal from sports (only from competition) or total withdrawal (from both training and competition), increased likelihood of changing to another sport (especially to sociomotor, interactive, or team sports), and a sense of stagnation, lack of progress, and even performance decline. These manifestations may be accompanied by deterioration in the athlete-coach relationship, more complaints and conflicts, and possible mood disturbances, aside from any changes caused by psychobiological maturation processes or external problems unrelated to sports practice (Weinberg & Gould,

2010). Additionally, authors like Garcés et al. (2006) point out that burnout leads to a series of consequences, highlighting the indicators specific to the sports context, the athlete's closest external environment, and those related to personal components. Meanwhile, authors like Smith (1986) differentiate between primarily behavioral consequences and those with physiological manifestations.

A relevant aspect to consider when analyzing burnout in athletes is the potentially harmful effects of burnout when prolonged over time, as many athletes with burnout indicators and symptoms continue training and competing despite being psychologically and/or physically impaired. This persistence may increase not only the likelihood of reduced athletic performance but also the vulnerability to developing psychosomatic disorders (López et al., 2015) and physical problems (illnesses and injuries; García-Parra et al., 2016; Gould et al., 1996).

Authors like Dale & Weinberg (1990), Goodger et al. (2007), and Garcés de los Fayos et al. (2007) emphasize how the significant research interest generated by burnout in the sports field is reflected in the creation of multiple theoretical models for analyzing burnout in athletes. García-Parra et al. (2016) highlight the existence of five models: 1.- The theoretical model by Smith (1986), the first proposed model fundamentally based on burnout being a direct consequence of continuous, chronic, and sustained stress in athletes; 2.- The theoretical model by Silva (1990), which posits that burnout syndrome is the result of excessive and inadequate training loads, appearing when the consequences of training are especially negative, leading to the syndrome of overtraining; 3.- The theoretical model by Schmidt and Stein (1991), based on sports commitment, differentiating between athletes who remain engaged in sports practice and those who quit and suffer from burnout; 4.- The theoretical model by Coakley (1992), where the fundamental factor is the sports organization at a sociological level, which can psychologically affect the athlete; 5.- The theoretical model by Garcés de los Fayos and Cantón (2007), which is characterized by its focus on the prevention and intervention of burnout and the various symptoms that affect it.

Each of these models offers a unique perspective on the causes and development of burnout in the sports context, considering factors such as chronic stress (e.g., constant pressure to perform well), training load (e.g., excessive training and insufficient recovery time), social relationships (e.g., negative environments and conflicts), sports organization (e.g., excessive demands for results and lack of a sports project), and other personal (e.g., maladaptive perfectionism) and contextual aspects (e.g., difficulties in maintaining a balance between sports and studies). These theories contribute to a multifactorial perspective and a more comprehensive understanding of burnout and can guide prevention and treatment approaches.

The significant theoretical development of burnout in sports, and specifically in athletes, has been reflected in the creation and design of multiple tools for its evaluation.

From this perspective, the evaluation of burnout in sports has evolved over time; firstly, the evaluation consisted of the administration of general questionnaires designed in the field of general psychology such as the MBI by Maslash & Jackson (1981). Subsequently, and based on this instrument, authors such as Garcés de los Fayos (1994, 1999) adapted the Maslash Burnout Inventory questionnaire; MBI; Maslash and Jackson, 1981) to a representative sample of athletes. This adaptation is based on the transfer assumption proposed by Caccse & Mayerberg (1984), stating that the MBI instrument from the organizational field can be adapted to the sports field. In this way, the BDI (Burnout Inventory in Sports; Garcés de los Fayos, 1999, 2004) emerged, which was reviewed, perfected and reduced in subsequent studies (BDI-R; De Francisco, 2015; Garcés de los Fayos et al., 2012). In parallel, authors such as Arce et al., 2010) adapted the Anglo-Saxon ABQ questionnaire (Raedeke & Smith, 2001) to Spanish, adapting it first to samples of soccer players, and subsequently validating it in other sports (Arce et al., 2012). Subsequently, De Francisco (2015) has developed a reduced version of the ABQ with only 12 items of the 15 initially proposed.

The study of burnout has had different lines of research, some of which include: the relationships between burnout and sports dropout (Garcés de los Fayos & Cantón, 1995); the study of burnout and leadership in sports (Álvarez, 2021; Altahayneh, 2003, 2013; Rad & Ghalenoei, 2013); burnout and athletic performance (García-Parra et al., 2016; Goodger et al., 2007); predictors of burnout in sports (Garcés, 1999, 2004; Nixdorf et al., 2020). Furthermore, the study of burnout in sports is of great importance primarily due to its relationship with multiple factors in the sports domain. Numerous studies have analyzed the prevalence in specific sports (Contreras, 2018; Bartolomé, 2015; Ruiz-Barquín & Bartolomé, 2016, 2017; Redondo, 2019) or groups of sports (Álvarez, 2021; De Francisco et al., 2014; Olivares, 2021); the study and analysis of the role and influence of personality traits as protective or facilitating factors for the onset of burnout (Álvarez, 2021; Garcés de los Fayos, 1999, 2004); the study of the relationships between burnout and the possibility of sports dropout (García-Parra et al., 2016; Weinberg & Gould, 2010); the studies on the relationships between burnout and leadership (Altahayneh, 2003, 2013; Rad & Ghalenoei, 2013); the study of the relationships between burnout and overtraining (Weinberg & Gould, 2010; Suay et al., 1998); the study and analysis of behavioral indicators of burnout as mechanisms for identification and prevention by coaches themselves (García-Parra et al., 2016); burnout in sports coaches (Pulido et al., 2017; Valadez et al., 2019); the study of burnout in senior athletes and young athletes (Álvarez, 2021; the study and analysis of the psychological and physiological consequences of burnout in athletes (Suay et al., 1998); studies on the relationships between burnout and athletic performance (Carlin & Garcés, 2010); the design of questionnaires, tests, and methodologies for assessing burnout in sports (Arce et al., 2010; De Francisco et al., 2014;

Garcés de los Fayos et al., 2012); the study of the relationships between burnout and other psychological constructs (Marín et al., 2013; Saquero et al., 2018); the study of coping strategies and prevention of stress and burnout in sports (Carlin et al., 2012); the role of parents/guardians in the onset of burnout (Carlin et al., 2010); the establishment of differences in burnout levels based on the type of sport, age category, gender categories, and competitive level (Álvarez, 2021; Garcés, 1999, 2004); and biological markers of burnout (Gómez-Alcaina et al., 2013).

Some of the main studies developed on the prevalence of the syndrome are: Silva (1990), developing a survey on the Atlantic Coast, the results showed that 66% of athletes have at some point thought that they have been overtrained; that 50% have had a particularly unpleasant experience in their practice; that 72% report having had some degree of exhaustion; that almost half of those surveyed (47%) had at some point felt worn out; Álvarez (2021), in a sample of 135 federated men and women athletes belonging to four team sports and the cadet, youth and senior categories, found that at the end of the season, 11.9% of the players had a high risk of suffer Burnout; Olivares (2021), applying two differential evaluation methodologies (BDI-R and ABQ; De Francisco et al., 2014, 2015), respectively reached percentages of 4.2% and 3.3% of burnout in a representative sample of athletes. Spanish people; De Francisco, Garcés de los Fayos and Arce (2014) found a 3.8% burnout rate applying the ABQ questionnaire and 3.4% with the BDI-R; Authors such as Isorna, Vázquez, Pérez, Alias and Vaquero (2019) described 3.9% of athletes with Burnout applying the ABQ questionnaire; Sánchez-Alcaraz & Gómez-Mármol (2014) describe a 4.8% burnout rate applying the ABI questionnaire.

Internationally, Olivares (2021) highlights how in North America and Europe burnout values are found in the sports population between 1 and 9% (Gustafsson et al., 2007; Orleans, et al., 2014; Ziemainz et al., 2004); Olivares (2021) highlights how in Latin America, the prevalence is between 2% and 10% (Medina & García, 2002; Sierra & Abello, 2008; Reynaga, 2009).

In the sport of football at the amateur level, Redondo (2019) evaluated 187 football players from different age categories, by gender, and performance levels. Applying the BDI burnout questionnaire, a 10.2% prevalence of burnout was found. With smaller but specific representative samples in certain sports and considering professional and high-performance levels, Bartolomé (2015) and Ruiz-Barquín & Bartolomé (2016) reported a 5.6% prevalence of burnout in professional women's football teams. Meanwhile, Contreras (2018) described a burnout prevalence of 14.3% in high-performance judokas.

With special implications for the research carried out, authors such as Weinberg and Gould (1996; p. 533) highlight some of the factors that promote burnout in young athletes: "overtraining; very high expectations, both self-imposed and imposed by others; attitude of winning at all costs; parental pressure; long repetitive training sessions

with little variety; inconsistent training practices; injuries due to overtraining; excessive time demands; high travel demands; distribution of others' affection based on victories and defeats; perfectionism".

For its part, together with the family and closest environment, the figure of the coach constitutes a key aspect as a buffering element, of prevention or increase in the appearance of burnout in athletes, with the leadership style exercised being one of the fundamental elements as an amplified or reducing element in the appearance of burnout in athletes (Altahayneh, 2003; 2013; Leguizamo et al. 2023; Rad & Ghalenoei, 2013; Weinberg & Gould, 2010).

Burnout in young athletes

Young athletes represent an important study population due to the moment of changes they are in (physical, hormonal, psychosocial…) and the greater permeability they have to the environment (coaches, family…), being a neglected stage in research. mental health (Walton et al, 2020). The field of sport offers a context that can have a protective and supportive effect on both the physical and mental health of young people. However, this environment can also expose them to various stressors of a psychosocial nature and negative sports experiences.

In this sense, sport-specific experiences during the development of young athletes influence the appearance of burnout. Authors such as Cox (2008), Fawver et al. (2023), Sorkkila & Aunola (2020), and Weinberg & Gould (2010) highlight some factors of burnout in young athletes: excessive training; very high expectations, both self-imposed and imposed by others; win-at-all-costs attitude; parental pressure; long repetitive workouts with little variety; inconsistent training practices; injuries from overtraining; excessive demands on time; high travel requirement; distribution of others' affection based on victories and defeats; personality characteristics such as maladaptive perfectionism and obsessive passion; having to combine studies and sports activity; etc

The bibliographic review carried out on burnout studies in sports shows how a high percentage of studies use multisport samples (individual sports, collective sports), covering different ages (athletes in the training process, senior athletes, veteran athletes), category by sex (men, women) and different levels of sports and competitive performance (amateur athletes, federated athletes, high performance, and semi-professional and professional athletes). This observation is especially relevant in the design and adaptation of questionnaires for the burnout evaluation system in sport

With special implications in the present study, there are few studies of burnout in adolescent athletes, and especially considering a single sport, and constituting high-level athletes based on their sporting age category.

The majority of burnout studies in adolescents have been carried out from the academic field (Garcés de los Fayos, 1995; Moyano & Riaño-Hernández, 2013), where the school context must be formative, enriching, avoiding

generating difficulties such as anxiety, depression or burnout (Eccles, 2004), and where the figure of the teaching staff is key to achieving adequate levels of academic performance.

Determining burnout risk levels in athletes

From a methodological perspective, and considering the traditional Burnout model of Maslash and Jackson (1981) and some of the adaptations made of this questionnaire to the sports field (BDI; Burnout Inventory in Sports; Garcés de los Fayos, 1999, 2004), The evaluation of Burnout in Sports is determined by the presence or absence of the syndrome, that is, a dichotomous descriptive analysis with two levels where it is determined which athlete has burnout and which athlete does not have burnout. This evaluation obeys the theoretical and empirical model developed initially by Maslash and Jackson (1981), and later, for example, by Garcés de los Fayos (1999, 2004), where to determine that a subject has burnout, they must have high scores in Emotional Exhaustion (EE), Depersonalization (DES), and reduced scores in personal achievement or sports achievement (RPA).

However, recently and from the sports field, authors such as De Francisco et al. (2014, 2015), Bartolomé (2015), Ruiz-Barquín & Bartolomé (2016), Contreras (2018), Redondo (2019) and Álvarez (2021), introduce the term and in prevalence analysis the term "risk levels". From this perspective, the study of burnout in sport is analyzed more precisely, determining not only the presence or absence of burnout. From this perspective, there would be four levels of risk, and not just the two traditionally (burnout/non-burnout), although the determination of the risk levels are calculated differentially depending on the authors:

1.- De Francisco et al. (2014), determine the burnout risk levels at four levels based on a methodology based on the scales resulting from the athlete's Total Burnout Score for the BDI-R (De Francisco et al., 2014) and ABQ questionnaires (Arce et al., 2010): (1) Low risk of suffering from burnout (athletes whose T score is equal to or less than 50); (2) Moderate risk (athletes with T scores between 50 and 60); (3) High risk (athletes with T scores between 60 and 70), (4) With burnout (athletes with T scores greater than 70).

2.- In the present study and in previous studies (Álvarez, 2021; Contreras, 2018; Bartolomé, 2015; Ruiz-Barquín & Bartolomé, 2016; Redondo, 2019), the risk levels are determined by the degree of compliance with the three factors that define burnout from the Maslash and Jackson (1981) model and followed by Garcés in the design of the BDI questionnaire (1999, 2004). This last author proposes the determination of burnout based on the following cut-off points obtained by a specific sample in the study: "Reduced Personal Achievement" factor: scores ≤ 33rd percentile; "Depersonalization" and "Emotional Exhaustion" factors: scores ≥ 66th percentile. In this way, the risk levels are as

follows: 1.- Very low level of risk (no indication of burnout); Low level of risk (at least one of the three factors is met); Medium level of risk (at least two criteria are met); High level of risk (all three criteria are met).

De Francisco et al., (2014), they obtain the following prevalence percentages for athletes in BDI-R and ABQ: low risk (level 1), 55% (55.7% for BDI-R and 55.4% for ABQ); moderate risk (level 2), 27.8% and 28.7% respectively; high risk (level 3), (12.7% and 12.4% respectively); burnout (level 4), 3.8% and 3.4% respectively.

In the study developed by Olivares (2021) applying the same methodology as De Francisco et al. (2014), show values very similar to those obtained by De Francisco et al. (2014), where high-risk athletes reach a prevalence of 12.7% with the ABQ, and 10.4% with the BDI-R.

Chelladurai's Multidimensional Model of Leadership (1978, 1990)

One of the most relevant external variables that can exert the greatest influence directly on the athlete is the coach's leadership style (Cox, 2008; Chelladurai, 1978, 1984, 1990, 1993, 2007; Chelladurai & Carron, 1983; Chelladurai & Saleh, 1978, 1980; Chelladurai, 1978, 1990; Chelladurai et al., 1988; García-Naveira & Jérez, 2012; Price & Weiss, 2000; Weinberg & Gould, 2010). Regarding their work with children and young people, especially in beginner or grassroots sports, coaches are reference models and have a high degree of influence on them, which is why their work takes on special value from a technical perspective. sports, training, education and health (García-Naveira % Jérez, 2012; Pérez & Llames, 2010).

It is important to highlight that the coach's leadership style has been addressed from multiple perspectives and theoretical models (Balaguer, 1994; Cox, 2008; Dosil, 2008; Weinberg & Gould, 2010). Despite the existence of various leadership models developed specifically for sports (Cox, 2008; Garcés et al., 2006; Weinberg & Gould, 2010), the model that has received the most theoretical and empirical support to date is the Multidimensional Model of Leadership in Sports (Balaguer, 1994; Chelladurai, 1978; 1990; Chelladurai & Carron, 1981; Chelladurai & Saleh, 1980; Coma-Bau et al., 2022; Crespo et al., 1994; Marcén et al., 2016; Nieto & García, 1999; Noce et al., 2013; Ruiz, 2007; Ruiz-Barquín, 2016; Ruiz-Barquín & de la Vega, 2015). This model constitutes an interaction between situational and environmental variables, the personal characteristics of athletes and the coach, and the leadership behaviors exhibited by the coach, generating a series of leadership consequences, primarily highlighting the level of performance/results and athlete satisfaction, although other consequences are also presented (such as motivation and team cohesion, among others; Weinberg & Gould, 2010).

"Although Chelladurai's Multidimensional model (1978, 1990) was developed in the 1970s, it continues to exert an important influence on current research, as reflected in a large number of investigations and publications (Álvarez, 2021; Bohorquez & Checa, 2020; Coma-Bau et

al., 2022; Marcén et al., 2016).

Regarding other leadership models present in the sports field, the application of Chelladurai's Multidimensional Model (1978, 1990) offers several advantages over other models: it is configured as an interactional model that considers variables derived from situational or behavioral models, as well as models based on personal characteristics (such as personality) and traits; it is a model that synchronously encompasses both the organizational characteristics where the coach develops their competencies and the characteristics of the team members or training group (homogeneous or heterogeneous group; age of the athletes; level of motor and technical competence; physical conditions; motivational aspects; sex/gender of the athletes; experience in the sport and time as a member of the club, team, or training group); and the characteristics of the coach themselves (age, sex/gender; motivation; previous experiences of success/failure; education; general training and specific training in the sports domain; experience with age categories and sports level).

The model generates specific questionnaires and tests for quantifying the degree of fit of the model (LSS-1; questionnaire on athletes' leadership preferences; LSS-2; questionnaire on athletes' perceptions of the coach's leadership behaviors; LSS-3; questionnaire on the coach's self-perception of their leadership behaviors). It is a sequential model that integrates antecedents, the development of actual leader behavior based on the demands of the situation, organization, and the objective needs of the training team or group, and the consequences derived from the leadership behaviors exhibited. While it focuses on the coach as the leader of the model, it does not dismiss the existence of other leaders and their potential influence (Garcés et al., 2006; Weinberg & Gould, 2010). The model has been applied in multiple sports and was designed from its inception to also be applicable in physical education, not just in sports (Balaguer, 1994; Chelladurai & Saleh, 1981; Crespo et al., 1994; Garcés et al., 2006; Weinberg & Gould, 2010).

Different authors highlight the existence of deficiencies (Mendo and Ortiz, 2003; Ruiz-Barquín, 2016), it is established as a widely validated and agreed model both at a theoretical and practical level (Álvarez, 2021; Cox, 2008; Gómez, 2017; Weinberg & Gould, 2010).

Although multiple descriptive and correlational studies have been carried out on the evaluation of leadership in sport, a smaller number of studies have been developed that specifically analyse the relationship between the leadership exercised by the coach and the presence of burnout in athletes (Álvarez, 2021; Altahayneh, 2003, 2013; Rad & Ghalenoei, 2013). Most of the studies developed using Chelladurai's Multidimensional Model are of a descriptive and correlational type of transversal nature, describing in isolation the descriptive levels of the characteristics of leadership and burnout, to subsequently develop correlational analyses between both variables. To a lesser extent, longitudinal and not only transversal studies of Leadership and Burnout have also been developed not only in athletes, but

also in coaches (Álvarez, 2021; Pulido et al., 2017).

The bibliographic review carried out in this work regarding studies carried out that relate leadership styles and burnout in the sports field, shows the need to carry out studies that specifically analyze the relationships between leadership and burnout using a precise methodology and respecting the theoretical assumptions of the models involved in it. From this perspective, an attempt is made to develop a study that specifically analyzes the relationships between leadership and burnout, using measures based on the Chelladurai Multidimensional Leadership Model and the traditional model of burnout in sport (Garcés de los Fayos, 1999, 2004) initially based on the model of Maslash & Jackson (1981).Therefore, from the present study, the aim is to determine the possibility of incorporating into Chelladurai's Multidimensional Leadership Model, how the leadership behaviors developed by the coach and perceived by the athletes, can be incorporated as consequences of the Model, the increase in the levels of Burnout, affecting other consequences already widely described in the Model such as the levels of manifested sports performance, the results obtained, and the levels of satisfaction of the athletes.

Levels of Congruence and Symmetry

Studies such as that of García-Mas et al., (2019), highlight the importance of the study and analysis of the levels of congruence and symmetry in the effectiveness of leadership styles and in the behavior of employees' members of a team. The assumptions of the congruence and symmetry models for description and subsequent intervention, whether in the field of leadership and work teams at the organizational level (García-Mas et al, 2019), whether in the levels of congruence between coaches and athletes, entails a series of implications not only at a theoretical level, but also at a methodological and empirical level.

According to García-Mas et al. (2019) the level of congruence or symmetry is a dynamic process between the person and the contextual and environmental conditions of their actions. The level of adjustment and level of congruence between the person and the environment of action is based on the psychological consequences that the level of satisfaction-dissatisfaction or accommodation-non-accommodation that may arise from that adjustment or mismatch between the management style and the dynamics generated within the team. In the present study, the FIT theory (fit-congruence theory; Kristof-Brown, 1996; García-Mas et al., 2019) is applied from the field of organizations to the field of Sports Psychology, and specifically to scope of coach leadership behaviors and burnout in athletes.

The FIT theory of congruence and symmetry (Kristof-Brown, 1996; García-Mas et al., 2019) is fundamentally based on the Cognitive Dissonance Theory (Festinger, 1962; Kristof-Brown, 1996; Scandroglio et al., 2008), that is, the greater the reduction in cognitive dissonance, the greater the coincidence and symmetry between the two positions and the associated mutual understanding (manager-team members; sports coach-athletes).

From this perspective, Chelladurai's Multidimensional Leadership Model (MDL) is configured as a theoretical model where the level of congruence and symmetry, and therefore, symmetry between the leader's required behavior, the leader's preferred behavior and the actual behavior of the leader (Chelladurai, 1978, 1990; Cox, 2008; Weinberg and Gould, 2010), determines, among other consequences, the levels of performance and/or satisfaction of the team or sports group (Altahayneh, 2003, 2013; Álvarez, 2021; Rad & Ghalenoei, 2013), this model being applied to both the field of Physical Education and Sports (Chelladurai & Saleh, 1980).

Although the MDL is configured as a model of congruence, and therefore of symmetry, it is true that a specific methodological development in this regard has not been developed in equal proportion. From this perspective, studies such as that of García-Mas et al. (2019), calculate the level of congruence and symmetry at a statistical level between two scores by applying "the absolute difference of the Model". From this perspective, a differential score of "0" between two or more measurements would entail a symmetry level of 100%. The greater the difference in scores moves away from the value "0", the higher the levels of inconsistency will be, and therefore, the greater the probability of these consequences appearing.

From the MDL, the levels of leadership congruence are determined by the triangle of congruence or symmetry between three measures (Chelladurai, 1978, 1990): The LSS-1 (Leadership Preference Scale for Athletes), the LSS -2 (perception scale of the coach's leadership behaviors) and the LSS-3 (perception scale of the coach's own leadership behaviors).

From the present study, considering the preferences and perceptions of a representative sample of young athletes from the sports talent detection program, two continua will be determined in the analyses: the level of congruence-incongruence and the level of symmetry-asymmetry between the two. questionnaires.

Although the MDL presents, in addition to the levels of satisfaction and performance of the sports team or training group (Weinberg & Gould, 1996), other types of consequences (motivation and team cohesion among others; Weinberg and Gould, 2010). The prevalence and risk of suffering from burnout is not explicitly included as a possible consequence.

Burnout and leadership

The studies developed in this area have focused mainly on determining burnout rates in a single sport (Bartolomé & Ruiz-Barquín, 2016; Ruiz-Barquìn et al., 2017; Contreras, 2018; Redondo, 2019) or in multiple sports together (Garcés, 1999, 2004; De Francisco et al., 2014); Likewise, sociodemographic variables (Garcés, 1999, 2004) and personality variables (Garcés, 1999; García-Parra et al., 2016; González et al., 2014) have been studied that can increase or decrease the probability of appearance of Burnout. However, there are a smaller number of studies where attempts

have been made to establish relationships between the appearance of burnout and variables external to the athlete himself (Álvarez, 2001; Altahayneh, 2003, 2013; Rad & Ghalenoei, 2013).

One of the most relevant external variables that can exert the greatest influence directly on the athlete is the coach's leadership style (Balaguer, 1994; Cox, 2008; Crespo et al., 1994; Weinberg and Gould, 2010). Regarding their work with children and young people, especially in beginner or grassroots sports, coaches are reference models and have a high degree of influence on them, which is why their work takes on special value from a technical perspective. sports, training, education and health (García-Naveira & Jérez, 2012; Pérez & Llames, 2010).

Many studies have analyzed the relationships between athletes' burnout and the behaviors and leadership styles developed by coaches (Álvarez, 2021; Altahayneh, 2003, 2013; Rad & Ghalenoei, 2013; Raedeke & Smith, 2001; Sunar et al., 2009; Vealey et al., 1998).

One of the most representative studies in the sports field, and specifically in the sport of athletics, is by Altahayneh (2003). The main objective of the study is to determine the influence of the burnout levels of a sample of coaches and the behaviors developed by them on the levels of exhaustion, burnout and satisfaction of a representative sample of university athletes. The study is made up of 42 male and female coaches from 8 public universities in Jordan, and 413 male and female athletes. The instruments used were the Leadership Scale for Sports (LSS; Chelladurai & Saleh, 1980), the ABQ Burnout questionnaire (Raedeke & Smith, 2001), the ASQ Athlete Satisfaction Questionnaire (Riemer & Chelladurai, 1998), and questionnaire traditional Burnout Maslach Burnout Inventory-Educators Survey (Maslach et al., 1996). Some of the results obtained in the sample of athletes are: a significant relationship is shown between the perceived leadership behaviors of the athletes and their sports results; Athletes who perceived their coaches' behaviors with a higher frequency of Training and Instruction, Social Support, Positive Feedback and Democratic Behaviors and lower autocratic leadership behaviors showed higher levels of satisfaction and lower levels of burnout; Significant negative correlations were found between levels of burnout in athletes and their levels of satisfaction.

This same author, but 10 years later (Altahayneh, 2013), developed a study where he established relationships between the perceptions of leadership behaviors by a sample of 162 university athletes (93 men and 69 women) and burnout levels. An adaptation of the LSS-2 scale of leadership perceptions made by athletes (Chelladurai & Saleh, 1980) and the ABQ burnout questionnaire (Athlete Burnout Questionnaire; Raedeke & Smith, 2001) with three factors: emotional exhaustion/ physical (E), reduced sense of achievement (RA) and devaluation (D). The results show significant correlations between the five factors of the LSS-2 and the three burnout factors (between $rxy=.-720$, and $rxy=. 410$, both with a $p<.01$),

where the only positive correlations were found with the Autocratic Behavior factor.

At the national level, no specific studies have been developed on the influence of athletes' preferences and perceptions on burnout levels in the sport of athletics. However, important studies have been carried out considering different constructs and psychological variables related to young talents at the federative level (Ruiz, 2004, 2005, 2006, 2008). From a Burnout perspective, the sport of athletics can be considered as a sport with a high predisposition to suffering from Burnout mainly due to: it is an individual sport; unlike other sociomotor sports, where there is a greater probability of monotony in training; They obtain worse academic grades than team sports, due to a greater training load, perception of difficulty in reconciling their sporting life and studies, and individual barriers - I am usually tired, I get lazy and I lose the rhythm of the courses (López de Subijana et al., 2015). Likewise, the load, volume and dedication in training is superior to other sports; Depending on the sport modality, a lot of effort and time is required to obtain slight improvements (especially at high level and in higher categories), and burnout may appear, for example, due to "stagnation" (Cox, 2008).

Therefore, in this study, we aim to meet the following objectives: 1- Describe the levels of burnout in young high-performance athletes in national competitions; 2.- Describe the preferences and perceptions of leadership of the coaches that the evaluated athletes have; 3.- Establish possible relationships between the levels of burnout found and the differential between the preferences and perceptions of the coaches' leadership.

Regarding the study hypotheses: 1.- The prevalence rate of burnout in the athletes evaluated is higher than that obtained in previous studies carried out not specific to the sport of athletics; 2.- Athletes with burnout or with a higher level of risk of suffering from it show a profile of less congruence and greater asymmetry between the athlete's perceptions of leadership (LSS-2) and the athletes' leadership preferences (LSS -1) than athletes without burnout or with lower levels of risk. 3.- There are significant relationships between the LSS-2 and LSS-1 scales with the three factors that make up burnout and the total score of the BDI questionnaire.

Method

Participants

The sample evaluated is incidental in nature, based on the accessibility criterion. In this case, the sample evaluated was 100% of the members of the Sports Talent Program of the Spanish Athletics Federation.

The participants were evaluated in the three sports concentrations distributed in different provinces of Spain (León, Cáceres and Alicante), respecting the provisions of Section IV (arts. 33 to 38) of the Code of Ethics of Psychology of the Official College of Psychologists of Spain (Consejo General de Psicología de España, 2015), including both

the authorization to participate in the research itself and the authorization that includes the request for authorization from the family. The research complies with the ethical and deontological considerations of the Declaration of Helsinki (2000).

The sample is made up of two samples of athletes. The first and main one, made up of 113 young high-performance athletes (56 women and 57 men) belonging to the cadet (n=34) and youth (n=79) categories with an average age of M=15.09 years (SD=.94) ; an average of years practicing athletics of M=6.19 years (SD=2.10); with years of experience in official competition in athletics of M=4.88 years (SD=1.88); with a weekly dedication to training of M=9.38 years (SD=3.37); with class attendance of M=30.04 years on average (SD=4.68); with an average dedication to study outside of class of M=6.68 years (SD=4.52); The degree of perceived compatibility between sporting activity and other extra-sporting activities (0 = completely incompatible and 10 = completely compatible) is M=7.08 points (SD=2.02).

Furthermore, the sample was divided into the different modalities or disciplines to which they belonged. Taking as a reference the classification established by the Royal Spanish Athletics Federation (RFEA) when grouping specialties or tests with common characteristics in technical training concentrations, the individuals were subdivided into 21 throwers (discus, javelin, hammer and weight; 11 men and 10 women), 29 sprinters/hurdlers (110 meter hurdles, 400 hurdles, 100 meter dash, 200 meter dash and 400 meter dash; 14 men and 15 women), 8 distance athletes (3 men and 5 women), 17 middle-distance athletes (9 men and 8 women), 7 combined event athletes (3 men and 4 women; heptalon and pentathlon), 7 walk athletes (4 men and 3 women 800 meters, 1500 meters, 3000 meters , 5000 meters, 3000 meters hurdles, walking,) and 24 jumpers (pole, high, long and triple jump; 12 men and 12 women). A second sample composed of 33 athletes (28 men and 5 women) belonging to the cadet, youth, junior, promise, senior, and veteran categories from different clubs in the Autonomous Community of Castilla La Mancha (Spain) was used. This second sample was utilized to conduct the relevant psychometric analyses (reliability) of the leadership tests (LSS-1 and LSS-2). The average age of this sample is 21.18 years (SD = 7.28), with participants competing in the events of Sprinting and Hurdles, Middle Distance, Long Distance, and Race Walking, as well as Jumps and Throws. The sample consists of the following age categories: cadet, youth, junior, promise, absolute, and veterans. This sample was exclusively used to determine the functioning of the adaptation of the LSS-1 and LSS-2 scales to the sport of athletics, resulting in a total sample of 146 participants when adding the 113 athletes from the Sports Talent Program in Athletics, allowing the determination of the reliability levels of the scale.

Instruments

- Sociodemographic and sports data. Questionnaire with 15 basic questions referring to sociodemographic and sports data (adaptation to the sport of Athletics of the sociodemographic and sports questionnaire by Ruiz, 2004).

- Adaptation to Spanish of the LSS questionnaires, preferences version (LSS-1) and perceptions (LSS-2) of the Chelladurai Multidimensional Leadership Model carried out by Chelladurai and Saleh (1980) (Crespo et al., 1994; Mayo et al., 1997; Marcén et al, 2016; Nieto & García, 1999) to the sport of Athletics (adapted to the sport of Athletics; Ruiz-Barquín, 2011©). The questionnaire is composed of 40 items and five factors: Training and Instruction (EI), Positive Feedback (FP), Autocratic Behavior (AC), Democratic Behavior (CD) and Social Support (AS). The response format is divided into five steps (never, sometimes, occasionally, frequently and always). The questionnaire instructions ask athletes to indicate how they would like their coach to behave based on the five factors. The total questionnaire reliability of the LSS-1 questionnaire is: Training and Instruction, α of α=.747; Democratic Behavior, α=.664; Autocratic Behavior, α=.378; Social Support, α=.732; Positive Feedback, α=.664; total scale: α=.818.

- Regarding the LSS-2 scale: Training and Instruction α=.846; Democratic Behavior, α=.724; Autocratic Behavior, α=.617; Social Support, α=.845; Positive Feedback, α=.695; total scale: α=.866.

- BDI Questionnaire (Sports Burnout Inventory) for measuring Burnout in athletes (Garcés de los Fayos, 1999, 2004). The questionnaire initially consisted of 30 items, the final version of which consists of 26 items. The reliability levels in the study are: Reduced Personal Achievement (RPA: α=.597; Depersonalization (DES): α=.697; Emotional Exhaustion (EE), α=.773.

This study also includes the Total Burnout Score (TBS; Ruiz-Barquín, Bartolomé, and de la Vega, 2017), which is obtained by summing the factors of Emotional Exhaustion and Depersonalization and subtracting from this sum the factor of Personal Accomplishment. The exact designation of this factor is Reduced Personal Accomplishment, meaning that a lower score indicates lower personal accomplishment, while a higher score indicates greater personal accomplishment for the athlete. Considering the 26 effective items of the BDI questionnaire across the three factors (excluding the 4 non-summative items), an α of .647 is obtained.

Procedure

The objectives of the study were presented to the different coaches and athletes of the Royal Spanish Athletics Federation in the different concentrations held in the Sports Talent Program. Once the objectives of the study were stated, the corresponding informed consents were given to athletes and parents/guardians of the athletes who wished to participate in the study (only in the case of athletes under 18 years of age).

Once the corresponding informed consents were collected, the tests were administered in the three concentrations that took place in the year of administration. The tests

were carried out voluntarily, without the use of any type of financial incentive. The tests were completed in a single administration, requiring an average time between 30 and 40 minutes to complete the sociodemographic questionnaire and the three corresponding tests (LSS-1, LSS-2 and BDI).

The tests were administered by the authors themselves, complying with the appropriate environmental and material conditions for their completion by psychologists with extensive academic and professional experience in Sports Psychology.

The data were treated completely confidentially, with tests applied strictly to the field of athletics sports practice, and in no case with tests unrelated to said activity.

The study complies with the professional regulations on the application of tests of the Official College of Psychologists of Spain (Consejo General de Psicología de España, 2015), and with the deontological and ethical requirements included in the Declaration of Helsinki (2000). In turn, all aspects included in the Code of Good Practices in Research of the Universities to which the different co-authors belong have been considered.

Design of the research

The research design is descriptive and correlational of a transversal nature. On the other hand, and based on the classification developed by Montero & León (2007), it is a study based on probabilistic surveys.

Although the acquisition of the sample is intentional, based on the accessibility criterion and not drawn at random, the study greatly exceeds the number of 100 participants, so the sampling error of the study is less than $\pm$ 10% (León & Montero, 2020).

Data analysis

The SPSS 28.0 statistical package was used, applying the following data analyses (Pardo and Ruiz, 2013): measures of central tendency (means) and dispersion (standard deviation); frequency analysis and contingency tables; Kolgomorov-Smirnov normality test; calculation of reliability levels using Cronbach's α; mean difference analysis for independent samples using the Mann-Whitney U statistic; mean difference analysis for several independent samples using the Kruskal-Wallis test; correlational analyzes using Spearman's correlation coefficient (rho). To calculate the effect size, the Hedges $\hat{G}$ statistic is used (Tejero-González, 2012).

The study presents the results considering significance levels of $p < .05$ or lower ($p < .01$; $p < .001$), and confidence levels of at least 95% (99% and 99.9%). Specifically, levels trending toward statistical significance ($p < .10$; confidence level of 90%) are reported only as a guideline, not deterministically, while respecting the significance criteria and statistical confidence levels in the field of study ($p < .05$). The aim is to provide accurate and comprehensive information on the obtained results for researchers who wish to replicate or continue the proposed line of research, as well as to aid in the better understanding and interpretation of the effect sizes obtained.

Results

In relation to the first two objectives, "Describe the levels of burnout in young high-performance athletes in national competition" and "Describe the athletes' preferences and perceptions of leadership of the coaches. evaluated", the descriptive analyzes of the Burnout questionnaire (BDI) and the LSS-1 and LSS-2 scales are shown.

Table 1.
Descriptives of the Burnout questionnaire (BDI) and the scales LSS-1 (leadership preferences of athletes) and LSS-2 (perception of leadership behaviors) for the sample of athletes from the Sports Talents Program (n=113).

		M	SD	Min.	Max.
BDI	AEdep	12.5487	4.12525	7.00	27.00
	DESdep	15.5664	4.58039	10.00	34.00
	RPAdep	27.3097	3.91216	15.00	34.00
	Burtotaldep	.8053	8.78702	-14.00	26.00
LSS-1	Factor1LSS1.EI	4.1715	.46915	2.77	5.00
	Factor2LSS1.CD	3.4071	.51917	1.67	4.78
	Factor3LSS1.CA	2.2053	.57660	1.00	4.20
	Factor4LSS1.AS	3.9148	.57677	2.00	5.00
	Factor5LSS1.FP	3.9345	.67741	2.20	5.00
LSS-2	Factor1LSS2.EI	4.1341	.52724	2.31	5.00
	Factor2LSS2.CD	3.3019	.58653	1.78	4.67
	Factor3LSS2.CA	2.4566	.68163	1.00	4.20
	Factor4LSS2.AS	3.9270	.70981	1.88	5.00
	Factor5LSS2.FP	4.0124	.68310	1.80	5.00
LSS-2 – LSS-1	LSS2lessLSS1EI	-.0374	.50212	-2.23	1.08
	LSS2lesssLSS1CD	-.1052	.50741	-1.56	.78
	LSS2lessLSS1CA	.2513	.70598	-1.60	2.20
	LSS2lessLSS1AS	.0122	.53608	-1.63	1.38
	LSS2lessLSS1FP	.0779	.51300	-1.80	1.60

The descriptive analyzes of Table 1 show a high range of scores in the three factors that make up the BDI scale and its total score.

Within the LSS-1 and LSS-2 scales, the factors with the highest scores are Training and Instruction, Social Support and Positive Feedback, and the factors with the lowest scores are Autocratic Behavior and Democratic Behavior. In turn, a greater dispersion (standard deviation) of scores is observed on the LSS-1 scale than on the LSS-2 scale.

Regarding the differentials of LSS-2 less LSS-1, the largest differentials are Training and Instruction and Positive Feedback, being lower for Social Support, Autocratic Behavior and Democratic Behavior. The greatest standard deviations are obtained in Autocratic Behavior, with the least DT obtaining Democratic Behavior.

Considering objective n°1, according to Garcés (1999; 2004), the cut-off points are established for each of the three factors of the BDI questionnaire of the sample with the objective of determining the prevalence of burnout in the sample: Factor "reduced personal fulfillment": Scores ≤ 33rd percentile; cut-off point = 34 points; "depersonalization" factor: Scores ≥66th percentile; cutoff point=17 points; "emotional exhaustion" factor; scores ≥ 66th percentile; cut point=15 points.

Once established, athletes who meet the three cut-off criteria will have burnout. Table 2 indicates the prevalence of burnout in the sample.

Table 2.
Prevalence of Burnout in the sample (n=113)

	Frequency	Percentage
No Burnout	104	92.0
Burnout	9	8.0
Total	113	100.0

The results show how the prevalence is 7.96% (9 athletes). More specifically and considering the risk levels based on the number of burnout criteria that the sample meets.

Table 3.
Prevalence of Burnout in the sample based on risk levels (n=113)

Risk Levels		Frequency	Percentage
Very Low	RPA	0	0
	DES	0	0
	AE	0	0
	Total	33	100 %(29.2%)
Low	RPA	18	45%
	DES	12	30%
	AE	10	25%
	Total	40	100 %(34.4%)
Medium	RPA y D	6	19.4%
	RPA y AE	13	41.9%
	DES y AE	12	38.7%
	Total	31	100%(27.4%)
High	RPA	9	100%
	AE	9	100%
	DES	9	100%
	Total	9	100% (8%)

The Table 3 shows how 29.2% of athletes do not meet any burnout risk criteria, 34.4% meet one criterion, 27.4% meet two criteria, and 8% meet all three criteria. Within the subgroup with a low level of risk, the reduced personal fulfillment factor is the most prevalent, followed by depersonalization and finally emotional exhaustion. Regarding the medium level, reduced personal fulfillment together with emotional exhaustion are the two most prevalent burnout criteria, followed by depersonalization and emotional exhaustion, and reduced personal fulfillment together with depersonalization being the least prevalent.

In relation to the third objective, "Establish possible relationships between the burnout levels found and the differential between the preferences and perceptions of the coaches' leadership", the corresponding normality analyzes

are carried out using the Kolgomorov-Smirnov test for the determination of whether to perform parametric or non-parametric analyses.

Considering the factors of the BDI questionnaire, the factors "Depersonalization" (Z of K-S = 2.059; p = .000) and "Emotional Exhaustion" (Z of K-S = 1.502; p = .022) do not meet the assumptions of normality (p < .05). On the contrary, the factor "reduced personal accomplishment" (Z of K-S = .894; p = .401) and the composite factor "Total Burnout Score" (Z of K-S = .928; p = .356) do meet the assumptions.

Regarding the Leadership Preferences Scale (LSS-1), the factors "autocratic behavior" (Z of K-S = 1.632; p = .010) and "Positive Feedback" (Z of K-S = 1.418; p = .036). However, the factors "training and instruction" (Z of K-S = 1.344; p = .054), "democratic behavior" (Z of K-S = .645; p = .799) and "social support" (Z of K-S = 1.059; p = .212) if they meet the assumptions.

Finally, considering the "perception of leadership" scale (LSS-2), the assumptions of normality are met in all factors: "training and instruction" (Z of K-S = 1.029; p = .240), "democratic behavior" (Z of K-S = .610; p = .850), "autocratic behavior" (Z of K-S = 1.294; p = .070), "social support" (Z of K-S = 1.171; p = .129) and "positive feedback" (Z of K-S = 1.123; p = .160).

Given these results, the statistical decision is made to use non-parametric analyses.

Below are the results of third objective: "There are significant relationships between the LSS-2 and LSS-1 scales with the three factors that make up burnout and the total score of the BDI questionnaire". In this case, we attempt to determine whether the difference between the leadership perceived by athletes (LSS-2) and the leadership preferred by athletes (LSS-1) is related to the presence or absence of burnout (two-level consideration; no burnout/burnout) and to the risk levels of Burnout (four levels; very low risk, low risk, medium risk and high risk). To do so, descriptive analyses and analyses of the difference in means of the differential leadership scores (LSS-2 minus LSS-1) are presented based on whether or not the sample presents Burnout, and subsequently, on the four established risk levels of Burnout.

Table 4.
Descriptive and mean difference analysis of the LSS-1 and LSS-2 score differentials depending on the presence or absence of burnout (n=113)

BURNOUT	Burnout	M	SD	Average ranges	Sum of ranks	Mann-Whitney's U	Z	Sig.	Hedges Ĝ
LSS2LSS1.EI	No burnout	.0067	.44893	59.34	6171.00	225.000	-2.584	.010**	.48445
	Burnout	-.5470	.78583	30.00	270.00				
LSS2LSS1CD	No burnout	-.0780	.50192	58.87	6122.00	274.000	-2.064	.039*	.50448
	Burnout	-.4198	.48995	35.44	319.00				
LSS2LSS1 CA	No burnout	.2192	.68067	55.44	5765.50	305.500	-1.731	.083†	.70534
	Burnout	.6222	.91894	75.06	675.50				
LSS2LSS1AS	No burnout	.0337	.52724	58.17	6049.50	346.500	-1.294	.196	.53706
	Burnout	-.2361	.60739	43.50	391.50				
LSS2LSS1FP	No burnout	.1135	.49050	59.10	6146.50	249.500	-2.349	.019*	.50406
	Burnout	-.3333	.61644	32.72	294.50				

†p<.10; *p<.05; **p<.01

The results in Table 4 show statistically significant differences in the differential scores between the LSS-2 and the

LSS-1 in the factors Training and Instruction (p < .01), Positive Feedback and Democratic Behavior (all of them with p

< .05). Results with a tendency to statistical significance are only shown in the differential of Autocratic Behavior ($p <$ .10). Likewise, no statistically significant differences are found in the Social Support factor. In all the differential scores, the group of athletes with burnout obtains higher differential scores than the non-burnout group, this group having a higher level of congruence and symmetry between the scores of LSS-2 and LSS-1. Regarding the group of "non-burnout" athletes, and considering the differential scores of LSS-2 and LSS-1 in absolute score, all the average scores are between the values .0067 of the Training and Instruction factor (close to the absolute symmetry of "0", or with a high level of congruence between the scores of LSS-2 and LSS-1), and the values of .2192 of the Autocratic Behavior factor, there being a margin of .1522 points between the lowest and highest average differential scores).

However, the burnout group obtained the smallest differential between the LSS-2 and LSS-1 scores in the Social Support factor, with an absolute differential score of .2361 (the factor with the highest level of symmetry and congruence between both questionnaires, being close to the value 0). The largest differential score was obtained in the Autocratic Behavior factor, with an average differential score of .6222 points (.8581 margin between the scores referring to the mean differences with the highest and lowest values).

Regarding the effect size analyses carried out by applying Hedges' $\hat{G}$ statistic, average values were obtained in all factors (around .50 points; between .48445 and .53706), except for the Autocratic Behavior factor, which obtained

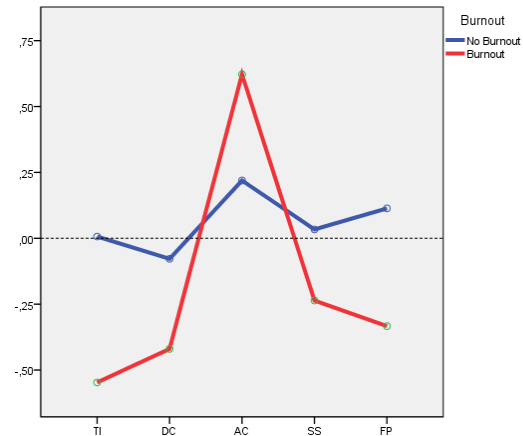medium-high or high values ($\hat{G}$=.70534; value close to .80).

Figure 1. Descriptive of the differential scores between LAS-2 and LAS-1 in its five factors for the groups of Burnout and non-Burnout athlete (n=113)

Since the dichotomous classification "no burnout/burnout" does not allow for establishing specific differences based on risk levels, the same analyses are carried out below but considering the four risk levels: very low risk (no burnout criteria met), low risk (only one criterion is met or risk indicator is indicated), medium risk (meets two risk criteria or indicators), and high risk (the equivalent of the burnout group; all three burnout criteria or indicators are met).

Table 5.
Descriptive and mean difference analysis of the LSS-1 and LSS-2 score differentials based on the four levels of burnout risk (n=113) (Very low=33; Low=40; Medium=31; High=9).

BURNOUT	Risk level	M	SD	Average ranks	Chi-cuadrado	Sig.	Man-Whitney's U Sig.	$\hat{G}$ de Hedges
LSS2LSS1ENT	Very Low	.0093	.32280	58.02	6.763	.080†	1-4* p=.012	.46358
	Low	-.0115	.51779	59.65			2-4* p=.016	.58169
	Medium	.0273	.48102	60.34			3-4* p=.020	
	High	-.5470	.78583	30.00				.57052
LSS2LSS1CD	Very Low	.0202	.50572	65.97	6.874	.076†	1-2† p=.084	.48373
	Low	-.1333	.45514	53.61			1-4* p=.015	
	Medium	-.1111	.55407	58.08			2-4† p=.086	.51228
	High	-.4198	.48995	35.44				.46878
LSS2LSS1AUT	Very Low	.2121	.66509	55.15	3.979	.264	2-4† p=.086	.81591
	Low	.1400	.77684	52.20				
	Medium	.3290	.55988	59.92				
	High	.6222	.91894	75.06				
LSS2LSS1AS	Very Low	.1212	.38715	64.53	3.545	.315	1-4 † p=.065	.44858
	Low	-.0344	.59914	54.58				
	Medium	.0282	.55968	56.03				
	High	-.2361	.60739	43.50				
LSS2LSS1FP	Very Low	.2424	.57393	68.95	10.391	.016*	1-2† p=.080	.51179
	Low	.0800	.44330	56.60			1-3* p=.042	.51824
	Medium	.0194	.43621	51.84			1-4** p=.005	.59390
	High	-.3333	.61644	32.72			2-4* p=.034	.48501
							3-4* p=.020	.48955

†p<.10; *p<.05; **p<.01

Table 5 shows how the high risk or burnout group obtains the highest differential scores in the five factors. The application of the Kruskall-Wallis test indicates how statistically significant differences are obtained in the Positive Feedback factor ($p <$ .05), although results with a tendency towards statistical significance ($p <$ .10) are obtained in the

training and instruction and autocratic behavior factors.

In order to specifically determine the differences between the subgroups at risk of suffering burnout (very low risk; low risk; medium risk; high risk), a pairwise comparison (two by two) is developed using the Mann-Whitney U test (post hoc test of the Kruskal-Wallis test). This test will

be performed for the differential scores of subtracting LSS-2 less LSS-1 for the five factors of the LSS scales (Training and Instruction, Democratic Behavior, Autocratic Behavior, Social Support and Positive Feedback). These analyses allow determining which pairs of risk groups show differences, providing complementary and more specific information to the Kruskal-Wallis.

The results of this test show a high number of statistically significant differences in the Positive Feedback factors (with significances between subgroups of $p < .01$ and $p < .05$), Training and Instruction ($p < .05$) and Democratic Behavior ($p < .05$). The Autocratic Behavior and Social Support factors only show specific results with a tendency toward statistical significance ($p < .10$).

Regarding the differential in the democratic behavior factor, statistically significant differences are only shown between the low-risk and high-risk groups ($p < .05$). Despite this, results with a tendency towards statistical significance ($p < .10$) are observed between the very low risk and low risk groups, and between the low risk and high-risk groups.

In the autocratic behavior factor, differences with a tendency towards statistical significance are only shown between the low-risk and high-risk groups ($p < .10$), although it can be seen how the medium and high-risk groups obtain the greatest score differentials.

Regarding the social support factor, only results with a tendency towards statistical significance ($p < .10$) are shown between the very low risk and high-risk groups.

Lastly, within the positive feedback factor, significant differences are found between the high-risk group and the rest of the groups ($p < .01$ and $p < .05$ respectively), being especially pronounced with the very low-risk group ($p < .01$). Likewise, significant results are shown between the medium-risk group and the very low-risk group ($p < .05$), with only results trending toward statistical significance between the very low-risk and low-risk groups ($p < .10$).

The results obtained using Hedges' $\hat{G}$ statistic are like those previously obtained with two levels of burnout (no burnout/Burnout), with most effect size values being close to .50. Despite this, the highest values were highlighted in the Training and Instruction factor in pairs 2-4 (low risk - high risk) and 3-4 (medium risk - high risk) ($\hat{G}=.57052$ and $\hat{G}=.58169$ respectively), and especially in the Autocratic factor in pair 2 and 4 (low risk - high risk; $\hat{G}=.81591$).
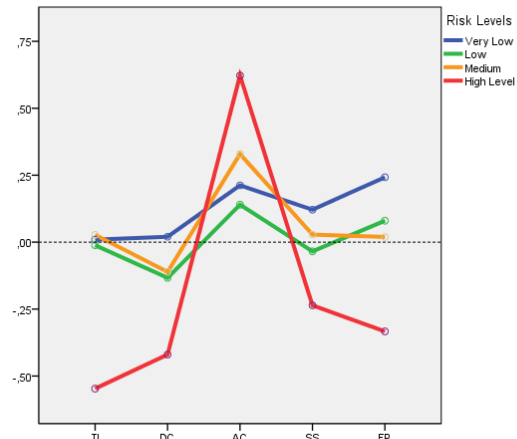

Figure 2. Descriptive of the differential scores between LAS-2 and LAS-1 in their five factors for the four levels of Burnout risk.

In order to interpret the results obtained more holistically, Table 6 presents the summary of differential values (the final differential scores obtained in absolute values) found between LSS-2 and LSS-1 for the four burnout levels, showing the minimum, maximum differentials, the range of these differentials, as well as the sum of the differentials of the five factors at once (Total Accumulated Index of Interfactor Deviation; TAIID) and its prorated score for each risk level (Total Prorated Accumulated Index of Interfactor Deviation; TPAIID). At the same time, these final values are shown considering the two burnout levels (no burnout/burnout).

Table 6.
Summary of LSS-2 minus LSS-1 differential scores considering the four levels of burnout (very low risk; low risk; medium risk; high risk) and the two levels of burnout (no burnout, burnout).

Burnout two levels	Burnout four levels	Score of the factor with the smallest differential (absolute)	Score of the factor with the greatest differential (absolute)	Amplitude Total between factors with minimum and maximum differential score (absolute)	TAIID. Sum of the score differentials of the five factors (4 levels)	TPAIID. Sum of the prorated score differentials of the five factors (4 levels)	Sum of the score differentials of the five factors (2 levels)	Sum of the prorated score differentials of the five factors (2 levels)
No burnout	Very low level of risk	.0093	.2424	.1494	.6052	.12104		
	Loe level of risk	.0115	1.400	.1285	1.1192	.22384	.8047	.1609
	Medium level of risk	.0194	.3290	.3096	.6896	.13792		
Burnout	High leve lof risk	.2361	.6222	.3861	2.1584	.43148	2.1584	.43148

In Table 6, three key results can be observed: first, the average deviation calculation of the five factors from the differential scores of LSS-2 minus LSS-1 for the four risk levels shows similar values in the very low risk, low risk, and medium risk levels (between $M = .12104$ and $M = .22384$). However, this difference triples and doubles depending on the risk level considered when the high-risk group is included ($M = .43148$). This finding is more clearly observed when only two levels of burnout (no burnout and burnout) are considered. In this case, it is evident that the burnout group almost triples the score of the no burnout group ($M = .43148$ for burnout versus $M = .1609$ for no burnout). Moreover, the analysis of the differential scores among the five factors for each risk level shows that

the medium-risk and high-risk groups have a greater range of minimum and maximum differential scores between LSS-2 and LSS-1, with very similar values found between the very low-risk and low-risk groups. Finally, it can be observed that as the burnout risk level decreases, the factor with the smallest LSS-2 minus LSS-1 differential score is closer to the value of symmetry or congruence (value "0"), with a direct and progressive relationship observed. Conversely, an inverse relationship is observed when considering the highest differential score between LSS-2 and LSS-1 for each risk factor, where higher scores are obtained with a higher risk level (except for the low-risk group, which has a lower score than the very low-risk group).

Table 7.
Correlational analyzes applying Spearman's Rho correlation coefficient between the five factors of the LSS-2 scale (perception of leadership behaviors) and the factors and total score of the BDI questionnaire (n=113).

	AEdep	DESdep	RPA dep	Burtotaldep
Factor1LSS2. Trainingandinstruction	-.264**	-.168†	.336***	-.351***
	.005	.075	.000	.000
Factor2LSS2.Democraticbehaviour	-.174†	-.022	.288**	-.228*
	.065	.820	.002	.015
Factor3LSS2.Autocraticbehavior	.217*	.119	-.136	.234*
	.021	.209	.152	.012
Factor4LSS2.Socialsupport	-.193*	.002	.336***	-.240*
	.041	.980	.000	.010
Factor5LSS2.Positivefeedback	-.143	.076	.227*	-.121
	.130	.425	.016	.203

†p<.10; *p<.05; **p<.001; ***p<.001

The results on the Table 7 show a high number of statistically significant correlations, both direct and inverse, although the correlational magnitudes are relatively small. A tendency is observed that athletes with greater Emotional Exhaustion and higher scores in Total Burnout Score (r= -.264; p < .01), perceive their coaches as developing a smaller number of behaviors related to Training and Instruction and Social Support, while finding a tendency to perceive them with the development of a greater number of autocratic behaviors. In turn, in the case of the Total Burnout Score, there is also a tendency to perceive a greater number of democratic behaviors in the coach.

On the other hand, athletes with higher scores in Personal Achievement, there is a tendency to perceive that their coaches develop a high number of training and instruction behaviors, democratic leadership behaviors, with a greater number of Social Support behaviors and a greater number of Positive Feedback behaviors.

The absence of statistically significant relationships between the Reduced Personal Achievement factor and the burnout and total score factors is significant.

Regarding the LSS-1 scale, it shows a differential correlational profile with respect to the results obtained in the LSS-2. Only statistically significant results of reduced magnitude are shown in Personal Achievement with the Training and Instruction factor (r = .209; p < .05) and Social Support (r = .267; p < .01).

Table 8.
Correlational analyzes applying Spearman's Rho correlation coefficient between the five factors of the LSS-1 scale (leadership behavior preferences) and the factors and total score of the BDI questionnaire (n=113).

	AEdep	DESdep	RPA dep	Burtotaldep
Factor1LSS1.Trainingandinstruction	-.080	-.048	.209*	-.157†
	.399	.615	.027	.097
Factor2LSS1.Democraticbehavior	.099	.150	.164†	.065
	.298	.113	.083	.493
Factor3LSS1.Autocraticbehavior	.074	.101	-.063	.092
	.437	.289	.507	.332
Factor4LSS1.Socialsupport	-.175†	.013	.267**	-.168†
	.064	.888	.004	.075
Factor5LSS1.Positivefeedback	-.008	.090	.090	.011
	.933	.342	.341	.904

†p<.10; *p<.05; **p<.001

Table 9.
Correlational analyzes applying Spearman's Rho correlation coefficient between the differential scores of the LSS-2 and the LSS-1 and the factors and total score of the BDI questionnaire. (n=113).

	AEdep	DESdep	RPA dep	Burtotaldep
LSS2lessLSS1EI	-.185*	-.112	.126	-.208*
	.049	.238	.184	.027
LSS2lessLSS1CD	-.206*	-.166	.100	-.243**
	.028	.079	.291	.010
LSS2lessLSS1CA	.151	.010	-.089	.148
	.111	.919	.347	.118
LSS2lessLSS1AS	-.092	-.073	.177†	-.188*
	.332	.444	.060	.046
LSS2lessLSS1FP	-.167†	-.081	.281**	-.267**
	.077	.395	.003	.004

†p<.10; *p<.05 **p<.001

The correlational analyses between the three factors and the total score of the BDI burnout questionnaire, and the five factors of the differential scores between LSS-2 and LSS-1, show significant correlations of reduced magnitude in the factors Training and Instruction, Democratic Behavior, Social Support, and Positive Feedback. The negative correlations (p < .05) between the differential scores of LSS2-LSS1 of Training and Instruction and the factors Emotional Exhaustion (r = -.185) and Total Burnout Score (r = -.208) stand out; between the LSS2-LSS1 differential Democratic Behavior and Emotional Exhaustion (r = -.206) and Total Burnout Score (r = -.243); between the LSS2-LSS1 differential Social Support and Total Burnout Score (r = -.188); and between the LSS2-LSS1 differential Positive Feedback and Reduced Personal Accomplishment (r = .281) and Total Burnout Score (r = -.267).

The inverse or negative correlations indicate a slight tendency for athletes with higher scores in Emotional Exhaustion, Depersonalization, or Total Burnout Score to have higher scores in certain factors of the LSS-1 (preferences) compared to the LSS-2 (perceptions). The only positive correlation found between Personal Accomplishment and LSS2-LSS1 Positive Feedback is because athletes with higher Personal Accomplishment tend to perceive more behaviors related to Positive Feedback than their own preferences regarding this factor.

Discussion

In relation to objective number 1 "Describe the levels of

burnout in young high-performance athletes in national competitions", the application of the BDI questionnaire has made it possible to determine the levels achieved in the three factors of the questionnaire and in the Total Burnout Score. The reliability levels reached by the LSS-1, LSS-2 scales and the Emotional Exhaustion factor of the BDI questionnaire are high, with values that far exceed α levels of .70 (Nunnally, 1978). The values found in the total BDI score, and Depersonalization are satisfactory, though slightly lower than those obtained on the LSS scales and the Emotional Exhaustion factor ($.60 \leq \alpha \leq .70$). The lowest reliability values are obtained in the Reduced Personal Accomplishment factor ($\alpha = .597$), although these values are close to those of other tests designed for the sports field (Remor, 2007). The acceptable and moderate reliability levels obtained in the total BDI score are largely explained by high discriminant validity among the three factors, even though they belong to the same construct ($r = .389$ with $p < .001$ between Emotional Exhaustion and Depersonalization; $r = -.214$ with $p < .01$ between Emotional Exhaustion and Reduced Personal Accomplishment; $r = -.164$ with $p < .05$ between Depersonalization and Reduced Personal Accomplishment), showing high levels of independence between factors.

From a perspective of the frequency of burnout in the athletes evaluated, the rate stands at 7.96%, a percentage higher than many of the previous studies at the national level (Olivares, 2021, 4.2% with BDI-R and 3.3% with the ABQ; De Francisco et al., 2014, with the BDI-R 3.8% and 3.4% with the ABQ; Isorna et al., 2019, 3.8% with the ABQ; Sánchez-Alcaraz & Gómez-Mármol, 2014, 4.8% with the BDI questionnaire; Ruiz-Barquín & Bartolomé, 2016, with 5.6%). However, the percentages obtained are closer to those obtained with Redondo (2019; 10.2%), Álvarez (2021; 11.9%), and much lower than those obtained by Contreras (2018; 14.3%).

If comparisons are made with international studies, considering the reflections made by Olivares (2021), burnout rates are obtained within the upper limit of the percentages whether North America or Europe are considered (burnout values are found in the sports population between 1 and 9% (Gustafsson, Kenttä, Hassmén and Lundqvist, 2007; Orleans, Andrade, Silveira and Itibere, 2014; Ziemainz, Abu-Omar, Raedeke and Krause, 2004, show how in North America and Europe values are found between 1 and 9%), as well as if Latin American countries are considered (Medina and García, 2002; Sierra and Abello, 2008; Reynaga, 2009; prevalence between 2 and 10%).

In turn, and in a complementary way, the prevalence of burnout in the sample has been determined based on risk levels (Álvarez, 2021; Contreras, 2018; De Francisco et al., 2014; Ruiz-Barquín & Bartolomé, 2016).

From the perspective of risk levels, it is notable that, apart from the 9 athletes (7.96%) who have high levels of Emotional Exhaustion and Depersonalization, along with low scores in Personal Accomplishment, we must add 27.4% of athletes with two burnout indicators (Emotional Exhaustion and Depersonalization, Emotional Exhaustion and Reduced Personal Accomplishment, or Reduced Personal Accomplishment and Depersonalization). In other words, more than a third of the sample (35.4%) either has burnout or is at medium risk for it, with some athletes possibly being at high risk of burnout. Additionally, it is noteworthy that at this medium risk level, there is a higher prevalence of athletes where Emotional Exhaustion is present. As Garcés de los Fayos explains (1999, 2004), in the factor analyses of the BDI scale, Emotional Exhaustion emerges as the first factor in the factor analysis, emphasizing its central role in the potential onset of burnout.

The existing differences in the determination of risk levels in the present study and other previous ones (Álvarez, 2021; Contreras, 2018; Redondo, 2019; Ruiz & Bartolomé, 2016) with those obtained from Francisco et al. (2014) & Olivares (2021), do not allow comparisons to be established in the percentages obtained except for level 4 (Burnout in De Francisco et al., 2014, and high level of risk in the present study). Despite this, even though in the present study the prevalence of athletes with a high probability of suffering from burnout is significantly higher than that obtained by De Francisco et al. (2014) and Olivares (2021) (between 3.3% and 4.2%), the percentages obtained are close (7.96% in the present study).

Therefore, based on this first objective, it can be concluded that: a) there is a significant percentage of athletes with burnout; b) the risk levels allow for a more specific determination of the athlete's psychological state, not only classifying them dichotomously based on the presence or absence of burnout (fulfilling all three indicators or symptoms) but also based on the level of fulfillment of each one (no symptoms or indicators; with one symptom or indicator; with the presence of two symptoms or indicators; with the presence of all three symptoms or indicators).

Regarding objective number 2, "describe the preferences and perceptions of leadership of the coaches that the athletes evaluated have" the adaptation of the leadership scales carried out to the sport of athletics in its version leadership perceptions of the athletes (LSS-2) and leadership preferences on the part of athletes (LSS-1), has made it possible to determine the levels of the five factors that make up the scale. In turn, it has allowed us to determine the level of congruence and symmetry of the two measurements, with differences depending on each factor. The reliability levels obtained for the total questionnaires LSS-1 and LSS-2 are satisfactory, standing at $\alpha \geq .80$. Regarding the factors of the LSS-1 and LSS-2, the levels of reliability found show values significantly lower than those obtained by Chelladurai and Saleh (1980) and like other studies carried out later (Chelladurai, 1986; Chelladurai et al., 1988; Isberg & Chelladurai, 1990; Crespo et al., 1994).

In the present study, the LSS-1 scale obtained values of $\alpha \geq .70$ in the Training and Instruction factors; values between $.60 \leq \alpha \geq .70$ are found in the rest of the factors, with the exception of the Autocratic Behavior factor, ob-

taining reduced values similar to previous studies (Chelladurai, 1986; Chelladurai et al., 1988; Isberg and Chelladurai, 1990; Crespo, Balaguer and Atienza, 1994).

Regarding the LSS-2, the reliability levels are significantly higher than those obtained in the LSS-1: values of $\alpha \geq .80$ are obtained in the Training and Instruction and Social Support factors, $\alpha \geq 70$ in the Democratic Behavior factor, and $.60 \leq \alpha \geq .70$ in Positive Feedback and Autocratic Behavior.

The results obtained in both the LSS-2 and LSS-1 scales are superior to those obtained in previous studies (Coma-Bau, et al., 2022) with the exception of the lower scores obtained in the Autocratic Behavior factor.

In this second objective, it can be concluded that: a) in comparison to previous studies, high scores are obtained in four out of the five factors in both the LSS-1 and LSS-2 scales. This conclusion implies, at least in a general sense when considering the average scores, that the perception of the coach by the athletes (LSS-2) in factors such as Training and Instruction, Positive Feedback, and Social Support reflects the development of specific behaviors aimed at improving the technical, physical, and psychological aspects of the athlete, both in instructional and emotional areas. Additionally, they reflect (even if indirectly through self-report measures and not through rigorous observational analyses) a high number of democratic leadership behaviors, which are especially relevant in individual sports and among high-performance athletes in developmental sports categories.

Regarding objective number 3, "establish possible relationships between the levels of burnout found and the differential between the preferences and perceptions of the coaches' leadership", analysis of difference of means has been carried out to determine possible differences in the differentials of LSS-2 and LSS-1 for athletes with and without burnout, as well as for the four risk levels of suffering from burnout. It is clearly observed how athletes with Burnout show higher levels of asymmetry and lower levels of congruence between the LSS-2 and LSS-1 scales. On the contrary, athletes without burnout show higher congruence and symmetry scores between both scales in the five factors, with the differentials close to the value of "0".

Considering the analyses based on the presence or absence of burnout, the five factors show higher levels of asymmetry in the group of athletes with burnout compared to the sample of athletes without burnout, although significant differences are observed in three factors (Training and Instruction, Democratic Behavior, and Positive Feedback), with a tendency toward statistical significance in Autocratic Behavior. When analyzing based on the four risk levels, the differences between group 4 (high level of risk) and the remaining three groups (very low risk, low risk, and medium risk) are confirmed. Additionally, factors such as Positive Feedback, and to a lesser extent Democratic Behavior, also show differences among the medium, low, and very low-risk groups. These results are confirmed when the same comparison analyzes are developed between LSS-2 and LSS-

1 based on the four risk levels: the higher the risk level, the less congruence and the greater asymmetry between the two scales; the lower the level of risk, the greater congruence and symmetry.

On the other hand, the analysis of the sum and averages of the differential scores (LSS-2 minus LSS-1) for the five factors simultaneously for each risk level has confirmed the results obtained for each of the LSS scale factors individually. Additionally, the analysis of the range of maximum and minimum scores of the LSS-2 minus LSS-1 differentials for each risk level has allowed for a more specific determination of the behavior of the LSS scales based on the level of burnout exhibited by the athlete.

Carrying out correlational analyzes between burnout levels and the LSS-2 scale show correlations of relatively small magnitude but with a high number of significant correlations (reaching significance levels of $p < .001$), showing how athletes with greater scores on the Total Burnout Score perceive fewer training and instruction behaviors, fewer democratic behaviors and fewer social support behaviors, as well as a greater number of autocratic behaviors. On the contrary, athletes with greater professional and sporting development show a tendency to perceive their coaches with an opposite profile: greater Training and Instruction behaviors, Democratic Behaviors, Social Support and Positive Feedback.

The results obtained are in the same line as those obtained by Altahayneh (2013), with university athletes. In the present study, lower correlation magnitudes are obtained than those obtained by Altahayneh (2003). Some of the possible interpretations of these differences are: 1.- in the present study, the average age of the sample is much lower than that of Altahayneh (2003); 2.- the academic and cultural level with a sample of university athletes is much higher than that of Spanish adolescent athletes; The questionnaire to measure burnout is differential: with athletes, the BDI by Garcés de los Fayos (1999, 2004), and the ABQ with the sample of university athletes from Jordan; 3.- the existence of possible cultural and generational cohort differences.

Although the present study has not evaluated the satisfaction levels of the athletes, the results obtained are in the same line as those obtained by Altahayneh (2003): athletes who perceived the behaviors of their coaches had a higher frequency of behaviors of Training and Instruction, Social Support, Positive Feedback and Democratic Behaviors and less autocratic leadership behaviors, showed higher levels of satisfaction and lower levels of burnout.

These trends in correlations are confirmed between certain factors of the BDI questionnaire (EE and RRP) and their total score, with the differential scores of the LSS-2 minus LSS-1 (in the factors EI, CD, AS and FP).

Therefore, with the sample of athletes evaluated, the level of symmetry between the perceptions of the coach's leadership behaviors (LSS-2) and the athletes' preferences (LSS-1) reduces the probability of burnout or the risk level of burnout. On the contrary, a high level of discrepancy between the two scales leads to an increase in the risk level of

burnout.

Finally, and considering the initial working hypotheses:

1.- The first hypothesis is partially confirmed: the prevalence rate of burnout in the athletes evaluated is higher than that obtained in previous studies carried out not specific to the sport of athletics. In most of the studies considered, the athletes evaluated show a higher prevalence rate of Burnout when comparisons are made with large samples belonging to different sports (De Francisco et al., 2014; Olivares, 2021). However, with studies based on samples with a smaller sample number and specific to certain sports (Álvarez, 2021; Contreras, 2018; Ruiz & Bartolomé, 2016; Redondo, 2019) the burnout levels found in athletes show similar or significantly lower values.

2.- The second hypothesis is confirmed, "athletes with burnout or with a higher level of risk of suffering from it show a profile of less congruence and asymmetry between the athlete's perceptions of leadership (LSS-2) and leadership preferences. of athletes (LSS-1) than athletes without burnout or with lower levels of risk." The results clearly show how the higher the levels of burnout risk, the greater the asymmetry and lower level of congruence between the two scales.

3.- The third hypothesis is partially confirmed: "there are significant relationships between the LSS-2, LSS-1 scales and the LSS-2 minus LSS-1 differential scores with the three factors that make up burnout and the total score of the BDI questionnaire.". Although the magnitude of the correlations between the LSS-2, the three factors and the total score of the BDI questionnaire are relatively small, a high number of correlations is shown. On the contrary, the results obtained with the LSS-1 are differential, where although certain significant correlations are shown, these are specific.

The correlational analyzes between the differential scores of LSS-2 minus LSS-1 show a high number of significant relationships between the Total Burnout Score and the rest of the factors (except for Autocratic Behavior), although their magnitude is relatively small. For its part, those found between Emotional Exhaustion and the differentials of Training and Instruction and Democratic Behavior, and Reduced Personal Achievement with Positive Feedback, stand out. All the correlations found are negative, because there is a slight tendency for athletes with higher scores in Total Burnout Score and EA Emotional Exhaustion, in certain factors, to obtain higher scores in preferences (LSS-1) than perceptions (LSS-2); That is, they prefer and desire a change in the coach's leadership styles. The positive relationship between Reduced Personal Fulfillment and Positive Feedback is that athletes with greater personal fulfillment are satisfied with the Positive Feedback, not preferring a higher Positive Feedback.

Conducting studies of the relationship between leadership preferences and perceptions, controlling variables such as gender category, sporting age category, and performance level (Ruiz, 2004, 2005), and using larger and more heterogeneous samples, can significantly increase the magnitude of the correlations found. In turn, it is proposed to carry out multivariate analyses and not only univariate ones such as binary logistic regression analyses, and certain Structural Equation Models can be applied (Altahayneh, 2013; Rad & Ghalenoei, 2013) that allow a more specific determination of the relationship between Burnout scores and leadership preferences and perceptions.

Limitations of the study and future lines of research

Although the application of the LSS-1 and LSS-2 scales in their version adapted to the sport of athletics has been applied to 146 athletes (113 athletes belonging to the Sports Talents Program), it would be advisable to carry out future studies with a larger sample number so that a more specific psychometric analysis is carried out in depth.

On the other hand, it is necessary to carry out burnout prevalence studies with a sample of athletes belonging to higher and senior categories, so that the prevalence in the sport of athletics is determined accurately globally, considering different levels of performance, category by category. sex and sports modality.

At the same time, it is relevant to carry out studies of a longitudinal nature and not just transversal (Álvarez, 2021; Contreras, 2018; Bartolomé, 2015), given that the time of the season where the evaluation is carried out can significantly fluctuate the determination of the prevalence of burnout.

At the same time, the determination of the ascending, descending or stabilized trend of burnout risk levels is relevant (Álvarez, 2021, Contreras, 2018; Bartolomé, 2015), and can be constituted as a predictor of the possibility of total abandonment (inactivity)) or partial (competitive activity, or even sports activity, also at the training level), or even change (club, sport, etc.).

From a leadership perspective, it is important to carry out studies where congruence and symmetry analyzes are developed not only based on the LSS-1 and LSS-2 scales of the athletes, but also on the coach's own perception of leadership (LSS-3) from the collection and analysis of information through expert observational records (directly or by video) and its relationship with the scores obtained in burnout (Álvarez, 2021).

It is noteworthy that in the present study the corresponding exploratory and confirmatory analyses of each of the instruments administered have not been carried out. Although they are not shown in the study objectives, it is important to determine the behavior of the three tests to check the level of specificity of response of the Athletics athletes in the present study, with the behavior of the instruments with other samples and sports previously carried out. In turn, and specifically for the BDI burnout questionnaire, it could allow a specific psychometric analysis that could improve the psychometric properties of the instrument, especially in the Reduced Personal Accomplishment factor, and in the total score of the questionnaire BDI.

Applied and professional implications

The determination of burnout risk levels in the sample of athletes evaluated allows not only a better delimitation of the probability of the burnout level in the athletes evaluated, but also allows not only to establish psychological intervention measures in high-risk athletes or those who present burnout (tertiary prevention), but also with those who have one or two symptoms or indicators of burnout (secondary prevention) and those who do not present an indicator or symptom (primary prevention). In turn, longitudinal and not only cross-sectional evaluations will allow determining trend analyses of burnout levels (ascending, stabilized and descending; Álvarez, 2021).

On the other hand, this article shows the usefulness of carrying out global analyses (the sum and average calculation of the differential scores of the LSS-2 and LSS-1 considering the five factors at the same time; ITADI and ITAPDI) and the convergence and divergence analyses between the factor with the lowest differential scores LSS-2 minus LSS-1 and the one with the highest score (score amplitude calculation).

From another perspective, the study highlights the importance of analyzing the leadership skills of sports coaches with high-performance athletes but belonging to sports categories in development and training. The importance of adequate training and selection processes for the most suitable coaches is decisive, with the aim of having high psychological skills directly or indirectly related to the development of adequate leadership styles. These coach skills must be oriented towards the improvement and development of the athlete's potential, and ultimately, to the prevention of sports abandonment derived directly or indirectly from high levels of burnout sustained temporarily. The analysis of symmetry and congruence of the LSS-1 and LSS-2 scales and their relationship with the three factors and total score of the BDI burnout questionnaire, has allowed the sample under study to determine the influence of leadership behaviors on the probability of the appearance of burnout (presence or absence) or its risk levels.

The questionnaires used allow a precise evaluation of the levels of congruence and the evaluation of burnout with the sample of athletes evaluated. The sports psychologist can analyze the results not only at the level of global scores or factors, but also at the level of items, which could allow a possible more effective intervention with the sports technician with the objective of not only limiting the possible elevation of levels. burnout risk, but also to even adopt appropriate, personalized and individualized leadership styles that allow to prevent burnout risk situations to a certain extent.

Funding

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