Performance in sports

Relationship between emotional competencies and decision-making in young sports talents

Relación entre competencias emocionales y toma de decisiones en jóvenes talentos deportivos

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ABSTRACT
This study analyzes the relationship between emotional competencies and decision-making in young sports talents through an emotional development program applied in real training and competition contexts. Seventy-four athletes aged 13 to 18 completed the Emotional Intelligence Questionnaire (IE) and the Decision-Making Style Questionnaire (CETD) at two time points: pretest and posttest. Improvements were observed in decision-making competence and emotional regulation, especially in athletes who attended 4 to 7 sessions, in younger categories, and in individual sports. Significant correlations were found between self-control and decision-related anxiety. These findings support the inclusion of emotional competence training in systematic sports development programs.
Keywords: emotional intelligence, decision-making, sport, talent.

RESUMEN
Este estudio analiza la relación entre las competencias emocionales y la toma de decisiones en jóvenes talentos deportivos, mediante un programa de desarrollo emocional aplicado en contextos reales de entrenamiento y competición. Participaron 74 deportistas de entre 13 y 18 años, quienes completaron los cuestionarios de Inteligencia Emocional (IE) y de Estilo de Toma de Decisiones (CETD) en dos momentos: pretest y postest. Se encontraron mejoras en la percepción de competencia decisional y en el manejo emocional, especialmente en los participantes que realizaron entre 4 y 7 sesiones, en categorías inferiores y en deportes individuales. Se observaron correlaciones significativas entre autocontrol y ansiedad al decidir. Estas evidencias sugieren que el entrenamiento emocional potencia la toma de decisiones y el rendimiento en jóvenes talentos, lo que justifica su inclusión en programas sistemáticos de formación deportiva.
Palabras clave: inteligencia emocional, toma de decisiones, deporte, talento.

INTRODUCTION

Sports performance at Training age depends not only on Physical and Technical Abilities, but also on Psychological variables such as Emotional Competencies and Decision Making (Goleman, 1996; Salovey & Mayer, 1990). In highly demanding environments such as competition, athletes must make effective decisions under intense emotional conditions. Therefore, in recent years, the study of emotional intelligence (EI) and its training in sport contexts has gained prominence (Montenegro-Bonilla et al., 2024; Álvarez, 2020).

Emotional intelligence can be defined as the ability to perceive, understand and manage one's own emotions and those of others (Salovey and Mayer, 1990; Goleman, 1996). This Ability includes Skills such as self-control, self-motivation, empathy and emotional regulation, which have been shown to have a direct impact on sports performance and the psychological well-being of the athlete (Ros Martínez et al., 2013; Reyes-Bossio and Vásquez-Cruz, 2024).

Decision-making, understood as the cognitive process by which an action is chosen among several alternatives, is affected by the athlete's emotional state. Ruiz and Graupera (2005) have shown that adequate emotional control facilitates more effective decisions in pressure situations. Thus, the concept of emotional competence arises, understood as the set of Skills learned that allow the effective management of emotions in sporting contexts. This competence can be trained and can contribute to more adaptive decision-making (Buñuel et al., 2020).

Unlike the general concept of emotional intelligence, which refers to a more stable disposition, emotional competence is conceived here as a set of situational Skills that can be promoted through specific intervention programmes. Given this conceptual framework, it is relevant to examine how emotional training affects decision-making in young sports talents, who are at a critical stage of their psychological and competitive development (Arruza et al., 2005; Leal, 2022; Pereira, 2017). Therefore, this paper aims to provide empirical evidence on the effectiveness of an Emotional Competencies development programme, applied in real sport contexts, and its influence on the decision-making skills of young talents. Sport talent must consider technical skills, motivation and psychological aspects, integrating these factors in a multidisciplinary approach to encompass the diversity of attributes that lead to success in sport (López, 2020; Lapuente et al., 2017).

The main objective of this research is to analyse the impact of such a programme on variables associated with emotional competence and decision-making, also assessing differences according to the number of sessions received, the sport category, and the type of sport practised.

METHOD

Design and procedure

A longitudinal quasi-experimental design with pretest and posttest measurements was used. The aim was to assess the effectiveness of an intervention programme in emotional Competencies on variables related to decision-making. The assessments were carried out before and after the intervention, through

On-campus sessions in spaces provided by the clubs. The questionnaires were administered on paper, under the direct supervision of the researchers, guaranteeing the anonymity and confidentiality of the data.

The study was approved by the ethics committee of the Universidad Autónoma de Madrid and conforms to the ethical principles of the Declaration of Helsinki. All participants, or their guardians in the case of minors, signed an informed consent form.

Participants

The sample consisted of 74 athletes aged between 13 and 18 years (72.97% female and 27.03% male), belonging to clubs in the municipality of Alcobendas, with competitive experience at regional and national level. The participants played individual sports (triathlon, athletics, swimming, rhythmic gymnastics) and team sports (basketball, roller hockey, rugby).

The sample is distributed in percentages as follows.

Table 1.
Percentage according to sport

Sport	Percentage (%)
Triathlon	13,51
Athletics	13,51
Swimming	12,16
Rugby	10,81
Basketball	14,86
Rhythmic Gymnastics	20,27
Roller Hockey	14,86

Table 2.
Percentage according to type of sport

Type of sport	Percentage (%)
Individual	59,46
Team	40,54

Table 3.
Percentage according to category

Category	Percentage (%)
Children	25,67
Cadet	28,38
Youth-Junior	45,95

Table 4.
Percentage according to competition level

Level of competition	Percentage (%)
National	32,43
Autonomous	56,76
Local	10,81

Instruments

The following validated questionnaires were used:
- Arruza et al. (2001) Emotional Intelligence (EI) Questionnaire (2001), consisting of 16 items with 5-point Likert scale, which assesses four dimensions: self-awareness, self-control, self-motivation and knowledge of others. Reliability studies report α coefficients above 0.80 for each factor.
- Decision-making Style in Sport Questionnaire (CETD) by Ruiz and Graupera (2005), consisting of 30 items on a 4-point Likert scale, with three factors: perceived decisional competence (PDC), anxiety and anxiety when deciding (AAD), and commitment to decisional learning (CAD). It shows adequate convergent validity and internal reliability ($\alpha > 0.75$).

Intervention

The intervention programme was developed over three months, with fortnightly sessions. Each group had between 3 and 7 sessions of 60 minutes, based on group dynamics focused on self-awareness, emotional regulation, empathy and self-motivation. The assessments (pretest and posttest) were carried out in spaces provided by the sports clubs and supervised by the research team. The sessions included group and individual dynamics oriented towards emotional self-knowledge, emotional regulation, empathy and self-motivation. The contents were adapted to the sporting context of the participants and a record was kept of attendance and participation.

Data analysis

SPSS v21.0 software was used. Student's t-tests for related samples (pretest-posttest) and Pearson's bivariate correlations between CETD and EI factors were applied. Significant differences were considered significant for p-values < 0.05.

RESULTS

The results show a positive evolution after the intervention, especially in athletes who performed between 4 and 7 sessions.
As for the Emotional Intelligence (EI) test, the overall mean score of the EI questionnaire went from 72.99 (pretest) to 73.19 (posttest). Although the difference was not statistically significant ($p > 0.05$), sustained increases in self-motivation and self-control were observed.

For the Decision Making Style (CETD), the Decision Anxiety and Distress (DAD) factor decreased significantly in the 4-7 session group ($p < 0.05$), indicating an improvement in emotional regulation. In the 1-3 session groups, no significant differences were found.

Comparisons by category show that in the children's category there is a significant improvement in PDC (Perceived Decisional Competence) (p = 0.039). And for the cadet category there is a significant reduction in AAD (Decision Anxiety and Distress) (p = 0.010).

Comparisons by sport type Individual sports showed a significant improvement in AAD (p= 0.053). In particular, triathlon stood out with a significant decrease in decision anxiety (p = 0.040).

Table 5.
Comparisons according to number of sessions

Sessions completed	Pretest mean (EI)	Mean Posttest (EI)
1–3 sessions	71,50	71,65
4–7 sessions	75,44	75,75

The EI-CETD correlations (post-test) are:
• Self-Control ↔ CDP: r = 0.446; p < 0.001
• Self-control ↔ AAD: r = -0.570; p< 0.001
• Self-motivation ↔ PDC: r = 0.432; p < 0.001
These data suggest that improved self-control and self-motivation are associated with higher decisional competence and lower anxiety in sport decision-making.

DISCUSSION

The results of this study provide partial evidence for the efficacy of an Emotional Competencies programme applied to young sport talents. Although statistically significant differences were not observed in all factors of the Emotional Intelligence (EI) questionnaire, improvements were found in key dimensions such as self-motivation and self-control.

These findings are consistent with those reported by Lapuente et al. (2017), who observed clearer effects after three intervention sessions.

The significant decrease in the levels of Decision Anxiety and Distress (DAD) among those who completed 4 to 7 sessions indicates that the programme contributes to greater emotional self-regulation in decision-making contexts. This supports the hypothesis that emotional competence is a trainable variable that positively influences the psychological and tactical performance of the athlete (Jorge Sánchez et al., 2024).

Athletes in lower categories showed a greater improvement in both AAD and CDP, suggesting that there is greater cognitive and emotional plasticity at an early age. This effect was especially noticeable in the infant and cadet categories, which reinforces the importance of intervening during early stages of development.

Individual sports, particularly triathlon, also showed significant effects on reducing decisional stress. This difference could be explained by the more introspective and self-managed nature of these

disciplines, where the impact of emotions is more direct on individual performance (Reyes-Bossio and Vásquez-Cruz, 2024).

The correlations found between self-control and perceived decisional competence, as well as the inverse relationship between self-control and anxiety when deciding, coincide with previous research (Ruiz and Graupera, 2005; García Coll et al, 2014; Leal, 2022), reinforcing the idea that greater emotional mastery improves the quality of decision-making and that negative coping should be avoided due to its high involvement with negative mood states that, in turn, negatively influence the emotional experience of athletes (Reyes-Bossio and Vásquez-Cruz, 2024).

Taken together, these results reinforce the need to implement emotional development programmes as part of the comprehensive training of young talents, favouring both well-being and competitive effectiveness. The detection of sporting talent is a complex process that seeks to identify young people with high potential. To achieve this, it combines various methods and approaches that go beyond genetics, also assessing the technical and psychological skills and general aptitude of athletes towards sport (Cueto et al., 2023).

CONCLUSIONS

The results of this research partially confirm the efficacy of an intervention programme for the development of emotional competencies in sport. In particular, positive effects were observed in the reduction of decisional anxiety and in the improvement of self-control and perceived decisional competence, especially in young athletes who participated in more than three sessions.

The greater sensitivity to change in children and cadets suggests the convenience of starting these programmes at an early age, taking advantage of emotional plasticity and the stage of construction of the competitive self-concept.

The present study also validates the relationship between emotional Skills such as self-control and decision-making, which justifies their systematic inclusion in the training plans for technification and talent development.

It also confirms that the most evident effects occur in individual sports, where the emotional load and tactical responsibility fall mainly on the athlete.

Therefore, it is recommended that this type of programme be extended, adapting them to different sports modalities and reinforcing the coordinated work between coaches, sports psychologists and families.

The most significant didactic contributions derived from the study are the integration of emotional training as part of season planning in grassroots and performance sports; the need to develop specific sessions on self-awareness, competitive stress control and decision-making under pressure; training coaches in emotional Competencies, so that they can act as models of self-regulation. As well as the importance of assessing the emotional impact of sports practice on a schedule, with reliable tools such

as the EI and CETD; and the inclusion of group reflection sessions to facilitate the transfer of emotional skills to other vital areas of the athlete.

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