

Original article

Characterization of the preparation of high-performance baseball coaches for decision making from a psychological perspective



Caracterización de la preparación de entrenadores de béisbol de alto rendimiento para la toma de decisión desde una perspectiva psicológica

Caracterização da preparação de treinadores de beisebol de alto desempenho para a tomada de decisões a partir de uma perspectiva psicológica

Reinier Acosta Cruz¹  0009-0005-7490-6248  anet2210@nauta.cu

Juan Lázaro Márquez Marrero¹  0000-0001-9632-9350  marqmarrero@upr.edu.cu

Pedro Alberto Martínez Hernández¹  0000-0002-2744-1215  pedro.martinez@upr.edu.cu

¹ University of Pinar del Río "Hermanos Saíz Montes de Oca". Pinar del Río, Cuba.

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ABSTRACT

Characterizing the preparation of the high-performance baseball coach for decision making from a psychological perspective establishes a significance for achieving adequate sports performance. The research is aimed at presenting the current state of the preparation of high-performance baseball coaches for decision making from a psychological perspective in the province of Pinar del Río. It was carried out with 27 high-performance baseball coaches from the province of Pinar del Río. The theoretical methods used were: inductive-deductive, analytical-synthetic; and empirical methods: document analysis, interview, observation, decision-making questionnaire (adapted) and descriptive

statistics. The results obtained reflect cognitive deficiencies in 59.25% of the coaches regarding knowledge of the particularities of decision making in training. In the procedural dimension, 70.37% of the coaches show a lack of knowledge in the ways of imparting knowledge from a psychological perspective and in the attitudinal dimension; 81.48% of coaches lack psychological counseling regarding attitudinal management of decision-making. The research concludes that the preparation of the high-performance baseball coach for decision-making from a psychological perspective presents deficiencies in the knowledge of: motivation, concentration of attention, volitional qualities and control of emotional response, analysis and management of situations, in the interpretation and selection of decisional responses, with deficiencies regarding orientation, commitment and responsibility in their attitudes.

Keywords: preparation; baseball; decision making; psychological perspective.

RESUMEN

Caracterizar la preparación del entrenador de béisbol de alto rendimiento, para la toma de decisión desde la perspectiva psicológica, establece una significación para el logro de adecuados rendimientos deportivos. La investigación está dirigida a presentar el estado actual de la preparación de los entrenadores de béisbol de alto rendimiento para la toma de decisión desde la perspectiva psicológica en la provincia de Pinar del Río. Se realizó con los 27 entrenadores de béisbol de alto rendimiento de la provincia de Pinar del Río. Se empleó como métodos teóricos: el inductivo-deductivo, analítico-sintético; y métodos empíricos: análisis de documentos, la entrevista, la observación, el cuestionario de toma de decisión (adaptado) y la estadística descriptiva. Los resultados obtenidos reflejan carencias cognoscitivas en el 59,25 % de los entrenadores en cuanto al conocimiento de las particularidades de la toma de decisión en entrenamiento. En la dimensión procedimental, el 70,37 % de los entrenadores presentan desconocimiento en las formas de impartir el conocimiento en perspectiva psicológica y en la dimensión actitudinal; el 81,48 % de los entrenadores carecen de un asesoramiento psicológico en cuanto al manejo actitudinal de la toma de decisión. La investigación concluye que la preparación del entrenador de béisbol de alto rendimiento para la toma de decisión desde la perspectiva psicológica, presenta falencias en los conocimientos de: motivación, concentración de la atención, cualidades volitivas y control de la respuesta emocional, análisis y

manejo de situaciones, en la interpretación y selección de respuestas decisionales, con carencias con respecto a la orientación, compromiso y responsabilidad en sus actitudes.

Palabras clave: preparación; béisbol; toma de decisión; perspectiva psicológica.

RESUMO

Caracterizar a preparação do técnico de beisebol de alto rendimento para a tomada de decisões sob a perspectiva psicológica estabelece uma importância para a obtenção de desempenhos esportivos adequados. A pesquisa tem como objetivo apresentar o estado atual da preparação dos treinadores de beisebol de alto rendimento para a tomada de decisões a partir da perspectiva psicológica na província de Pinar del Río. Foi realizada com 27 treinadores de beisebol de alto rendimento na província de Pinar del Río. Os métodos teóricos utilizados foram: indutivo-dedutivo, analítico-sintético; e os métodos empíricos: análise de documentos, entrevista, observação, questionário de tomada de decisão (adaptado) e estatística descritiva. Os resultados obtidos refletem deficiências cognitivas em 59,25% dos treinadores em termos de conhecimento das particularidades da tomada de decisão no treinamento. Na dimensão procedimental, 70,37% dos treinadores demonstram falta de conhecimento nas formas de transmissão de conhecimento em perspectiva psicológica e na dimensão atitudinal; 81,48% dos treinadores carecem de aconselhamento psicológico em termos de gerenciamento atitudinal da tomada de decisões. A pesquisa conclui que a preparação do treinador de beisebol de alto rendimento para a tomada de decisões a partir da perspectiva psicológica apresenta deficiências no conhecimento de: motivação, concentração da atenção, qualidades volitivas e controle da resposta emocional, análise e gestão de situações, na interpretação e seleção de respostas decisórias, com deficiências em relação à orientação, compromisso e responsabilidade em suas atitudes.

Palavras-chave: preparação; beisebol; tomada de decisão; perspectiva psicológica.

INTRODUCTION

The preparation of sports professionals since ancient times has been one of the tasks of greatest impact in sports institutions to guarantee high-level competitive performance and the training of coaches from a generalized perspective.

The commitment and responsibility of the institutions in the preparation of coaches is a very important factor, highlighted as an element of connotation for high-performance baseball coaches, who need a psychic vision based on current knowledge to make decisions. In the study of the theoretical references that support the definition of preparation, they can be grouped into trends.

Theoretical trends in the study of preparation are viewed as institutional tasks that impact the results of professionals; many spheres have addressed preparation as a necessary process in achieving the proposed goals.

Mahama *et al.* (2023) investigation addresses the preparation, which was helpful in the formation of the trends:

- Preparation as a result of the pedagogical process.
- Preparation as an action aimed at the appropriation of knowledge, skills and values.
- Preparation as a historical social practice of growth and autonomy, from the commitment to learning.

The preparation It integrates activities with instructive and educational actions, with a contextualized, personalized, systemic character, with perfected labor resources; it strengthens knowledge and skills not previously acquired, it is organized and complex, it is planned, structured, coordinated, in order to achieve achievements efficiently from educational actions.

It is conceived by a logical order that encourages knowledge in professionals through the systematic nature of its implementation, with a practical sense that fosters new habits that improve their daily actions, nurtures skills and abilities, and is based on real and prospective needs of an entity that transforms from a critical and independent perspective.

Concepts related to preparation, Due to their importance, they have an impact in terms of professional performance, training, improvement, and professional development.

Preparation impacts professional performance, where Arencibia *et al.* (2018) states that it is the capacity of an individual to carry out actions, duties and obligations inherent to his or her position or professional functions, expressed in real behavioral behavior, in relation to the tasks to be performed during the exercise of his or her profession. It is a permanent, systematic and planned study and work process, which is based on real and prospective needs of an entity, group or individual, oriented towards a change in the knowledge, skills and attitudes of the trainee, enabling their comprehensive development.

In this sense, training has preparation and improvement as components and is nourished by both to carry it out; in essence, it is more individual, direct elements are conceived to influence or train the professional on a certain subject.

Self-improvement in a contemporary context is a social phenomenon of a general nature, encompassing all human spheres, being an educational, systematic, continuous and stimulating element of independence of creative pedagogical thought, assuming new concepts that integrate the teaching process.

When referring to the criteria for improvement, the importance of perceiving professional improvement is conceptually reflected.

Professional development, recognized as a continuous, transformative process, has the mission of preparing professionals and turning them into human beings endowed with greater knowledge, skills, better behavior, and more effective in order to achieve the transformations that society requires (López Chaviano & Diéguez Batista, 2022, p. 87).

In addition, the improvement of sports professionals encourages the learning of new sports knowledge and its application in their professional performance.

training, according to Sandoval *et al.* (2022), presents a holistic view of the vocational training process. It has to do with its conception as a non-uniform process; since the breaks and continuities

in training for work require preparation for its realization, achieving comprehensiveness and due to the broad spectrum of knowledge, it is extremely complex in its execution and formative impact.

In the sports field, the training of Physical Culture professionals is essential, from a holistic perspective, attached to the current environments in which the professional operates. The professional must be trained in the acquisition of necessary and current knowledge of his/her work performance, which allows him/her to have adequate criteria in the management of different problems.

The relationship between preparation, training and improvement In the development of Physical Culture professionals in the formation of knowledge necessary for their performance, it is essential to delimit the differences in concepts.

Preparation: permanent pedagogical process aimed at the appropriation of knowledge, procedures and attitudes, in order to perfect professional performance and improve its performance through training or improvement.

Training: process oriented towards a change in knowledge, skills and attitudes with the purpose of enabling them for their performance, implies preparation and training in and for qualified or technical work.

Improvement: process of updating and perfecting current and/or prospective professional performance, addressing deficiencies in training, or completing knowledge and skills not previously acquired, which implies preparation for performance.

In short, training and improvement from the authors Mahama *et al.* (2023) and Veitia *et al.* (2023), in their concurring criteria, state that they are forms of preparation, with a much more specific character. Preparation, in its essence, is much more comprehensive and inclusive of all professionals at whatever level or category they possess.

The aspects that affect preparation, from different concepts, imply and impact the levels of the coaches and their knowledge, reflected in the sports training process and the learning of the athletes.

The term preparation, in the context of Physical Culture, is the deepening of the studies carried out that strengthen the preparation of Physical Culture professionals from the scientific contributions of professionals who perform in high-performance sports.

Preparation, according to Veitia *et al.* (2023), is the training process of Physical Culture professionals, thus influencing preparation. It is a process that provides them with knowledge in the different spheres of sports activity, in the appropriation and updating of knowledge, which is adjusted to the components of sports training, whether theoretical, physical, technical, tactical, pedagogical or psychological.

In general terms, psychological preparation is essential as a driving factor in the interweaving of knowledge in the management of psychological information of athletes and sports environments.

preparation, according to Castillo and Hernández (2021), it benefits competitive performance and work skills from new knowledge, where essential aspects of the psychological stance in high-level sports are established, in the ideal sports states and forms, due to the indissoluble link with the sports performances that the coach must assume. In a broad view, the sports coach advised by the psychologist is perceived as responsible for carrying out the psychological work.

The sports coach is responsible for the preparation of his sports teams and, therefore, for the educational aspect of his athletes, which is a complex process. That is why the baseball coach needs specific information from current trends, which will enable a greater impact on his professional work.

The high-performance baseball coach, according to the authors Martín *et al.* (2021); Garcés *et al.* (2020), is the person who directs, supervises, controls and inspects the pedagogical process of sports preparation. He achieves results, with the ability to distinguish, organize; sets goals to achieve; dominates the sport; concentrates the group; evaluates and compares the states achieved; perceives and modifies physical states, defining him as a sports coach or teacher.

In meaning, the coach is key to the sport of baseball. In the meantime, García *et al.* (2022) consider it a sport with a high integration of sporting components, of a variable and contextualized nature of the "ball sports" group, of cooperation-opposition, of use of force on the offensive, offensive and defensive plays based on traditional tactical schemes, of a high level of psychological skills at the competitive level, from strategic plans regarding sports performances.

Baseball is considered a high-performance sport, considering the physical capabilities to perform at a higher level. Several authors such as Pozo and Córdova (2023) and Quijano Rojas (2022) state that high performance is the height or high level, with a high level of training execution and competition with systematicity, with high disciplinary rigor, tensions, physical and psychological loads, with an impact on their lives given the sporting demands.

From the demands of baseball, the high-performance coach focuses on achieving technical and tactical improvements, perfecting game systems, and understanding the basic concepts of the sport.

In the view of the high-performance baseball coach, focused on the importance of acquiring higher levels of technical-tactical performance of his students, the sporting results from the competitiveness are already a transcendent aspect, since they can be measured after the sporting results, physical forms and states that are important for the coaches. Consequently, defining what high performance is helps to understand this term, in which it is possible to conceive and delimit established ranges.

Sports Initiation Schools (EIDE) are the first and most important link in the chain of high-performance sports. They are specialized centers within the national education system, where the teachings corresponding to the established study plans and programs are offered, being the basis of high sports performance; where their decision-making tends to become more acute, depending on the competitive rigor and the sports demands faced by the coaches.

Without a doubt, due to the sporting demands of high performance, it can be argued that the decisions of baseball coaches show a high tendency towards psychological interpretations, influencing the behaviors to be assumed after handling sporting situations that are difficult and under a lot of pressure.

The definitions from the theoretical references of Castillo *et al.* (2021); Castillo and Hernández (2023) allow to encompass the different definitions of decision-making, grouping them into trends that make it possible to understand this process from its complexities. The authors' criteria show the diversity of aspects of decision-making, which allows them to be unified into three trends.

- Decision-making as a complex cognitive process.
- Decision-making as a professional tool (capacity or ability).
- Decision-making as an emotional response, with a changing informational character.

Decision-making is, by nature, complex. It requires knowledge to elucidate the ideal variants, and making decisions requires a high cognitive load in the interpretation of the different moments; the interpretations will have a marked subjective character for the coach, with memory being involved in the information stored.

The detection of signals or the ability to process perceived information more quickly are highlighted. It is the relationship with the cognitive capacities and skills to interpret the game situation, from the flexibility of changing environments with quick mental solutions, to modify strategies, from the scientific, technological and neuroscientific support in information processing.

Decision-making is an individual and subjective process, in which the term psychological perspective is perceived, which is interpreted as a specific perspective or point of view that is adopted to understand some aspects, focusing on behavior, cognition or its capacity for self-determination.

It includes responses from the cognitive aspects that characterize individuals and their particularities, which contribute positively to their work performance, due to their self-knowledge, from their abilities to solve problems in the environments in which they work.

The responses conceived in everyday situations are essential to understanding certain functions. The development of its approaches makes it possible to delimit ranges of action and, consequently, find more elaborate responses. Five main psychological approaches used today are perceived in it: behaviorist, cognitive, psychodynamic, neuropsychological and humanist; each of them provides a unique and complementary understanding of the mind in human behavior, allowing an interdisciplinary approach.

High-performance baseball coaches in the province of Pinar del Río have shown deficiencies in their preparation from the cognitive, procedural and attitudinal point of view to make decisions from a psychological perspective in sports training. In this sense, the objective is declared: to characterize the current state of preparation of high-performance baseball coaches for decision making from a psychological perspective in the province of Pinar del Río.

MATERIALS AND METHODS

The team worked with all the high-performance baseball coaches from the EIDE "Ormani Arenado" in Pinar del Río, in the different categories, such as: male under-15, under-18, under-23 and First Category, both sexes; as well as Five baseball in the province of Pinar del Río, with 27 coaches, 81% with a higher level; 19% with a Medium Technical level in Physical Culture teachers; 18% with postgraduate studies; 11% with diplomas.

Several scientific methods were used, which favor the acquisition of knowledge about the object of research, being descriptive and, consequently, benefit the characterization in the preparation of high-performance baseball coaches in the province of Pinar del Río.

Consequently, the following theoretical methods were applied: inductive-deductive, to identify the problem from practice, to make necessary generalizations; analytical-synthetic, during the research process, from the study of the theoretical foundations, from the bibliographic and documentary study.

As empirical methods, document analysis was used: programs for coaches (PPID), undergraduate, graduate and coaches' work plans.

Observation: To obtain direct information on the phenomenon or object investigated, in 50 training sessions, to characterize the current state of preparation of high-performance baseball coaches in the province of Pinar del Río.

Interview with coaches: to obtain, directly or indirectly, information on the job performance of coaches in the province of Pinar del Río.

Decision-making style questionnaires (adapted): To determine the level of knowledge in decision-making from a psychological perspective in preparation.

The research was carried out on the three dimensions and their indicators.

Dimension 1. Cognitive

- Level of knowledge of the normative programs (PPID) of coaches in their sport for decision-making from a psychological perspective.
- Level of analysis of certain sporting situations for decision-making from a psychological perspective.
- Level of information management for decision making from a psychological perspective.
- Level of selection of responses to be executed for decision-making from a psychological perspective.

Dimension 2. Procedural

- Level of mastery to assess the characteristics of the environment for decision-making from a psychological perspective.
- Level of interpretation of situations for decision-making from a psychological perspective.
- Level of selection of the most appropriate alternatives for decision-making from a psychological perspective.
- Level of modification of the decisional alternative for decision-making from a psychological perspective.

Dimension 3. Attitudinal

- Level of guidance for decision-making in training from a psychological perspective.
- Level of commitment to the results to be achieved for decision-making from a psychological perspective.
- Level of responsibility shown in performance, to make decisions from a psychological perspective.

RESULTS

Main results of the analysis of documents for high-performance baseball coaches in the province of Pinar del Río

The analysis of the working documents of high-performance baseball coaches in the province of Pinar del Río was carried out by reviewing the Comprehensive Athlete Preparation Program (PPID), the study of the undergraduate and graduate preparation program, as well as the work plan.

Comprehensive Athlete Preparation Program

The Comprehensive Athlete Preparation Program (PPID; 2011, 2013, 2016-2020), is one of the few pedagogical procedures in baseball, it is one of the tools for high-performance sports coaches as a systematic guide to the sports training process; it has guidelines regarding the work of game situations at different times of sports training, touching in a simple way on the decision-making aspects, without interfacing it from the psychological perspective, lacking an individualized behavioral approach.

The program reflected from the cognitive dimension a work on simplified game situations, from the tactical significance model, which reflects a set of tactical actions to be addressed in sports training, resulting in a weak level of knowledge on conceptual decision-making, which influences the selection of weak responses based on the analysis and management of decisional variants from the psychological perspective.

From the analytical perspective of the program, in the procedural dimension that high-performance coaches must assume, there are limitations in terms of mastery and interpretation of complex situations, which make it possible to interpret and select appropriate alternatives that benefit the preparation of baseball coaches from a psychological perspective.

In the evaluations provided by the program from the attitudinal dimension, the importance of intending adequate guidance with respect to decision-making was shown in a simple way. No guidance or indications are perceived for the management of decision-making from the attitudes and values that professionals must assume from the commitment to the results to be achieved and the responsibility that they must assume in their performance.

Physical Culture degree curriculum program

In accordance with the guidelines and regulations issued by the Ministry, the following curricula are drawn up: "A", "B", "C", "D" and "E", with their corresponding programs, with four spheres of action for Physical Education professionals: Physical Education, Recreation and Sports, Therapeutic and Prophylactic Physical Education, supported by the country's sociocultural and sports development, from a broad-based pedagogical model, in the in-depth basic training of professionals to solve problems, achieving transformations in basic and specific learning and skills in their professional sphere.

In the program, from the cognitive dimension, it was possible to see a continuous work of knowledge, which concatenates information with a comprehensive physical educational approach, with the use of Information and Communication Technologies with psychological and psychopedagogical aspects from the integrative perception of professionals from the capacity of self-learning, which maintains an adequate level in cognitive handling. Decision making is perceived as significant, but the level of knowledge regarding the selection and informational handling of situations from the psychological perspective is shown in a simple way.

In the procedural dimension of the program, there are various actions established in the training of professionals, but the assessments that must be considered in competitive environments are palpable in a slight way, as well as in the interpretations and selections of alternatives, where in turn the important self-assessment or modification of the same must be educated.

From the elements in the attitudinal dimension of the program, the search for information was presented in a systemic way, as well as the acquisition of values that must be presented such as: dignity, solidarity, responsibility, altruism, humanism, honesty, justice, courage, combativeness and industriousness, although it is shown to be weak in the indications and orientations that the professional must assume for decision-making in the sports context, from the psychological perspective.

Postgraduate training for Physical Culture coaches

Professional development aims to contribute to the ongoing education and systematic updating of university graduates, improving professional performance in its different forms: postgraduate

academic; categorization, diplomas, specialties, master's degrees, doctorates; in these, its main exponents are: the seminar, the workshop, the specialized conference, scientific debate, self-preparation and consultation.

In the study of postgraduate training in professionals, different forms of improvement were found in the cognitive aspect, such as: courses, diplomas, masters and doctorates, which benefit their knowledge. Improvement is conceived with psychological aspects, but they weakly expose the significance of decision-making from their conceptions and, therefore, in the management of actions and interpretations to be assumed from the psychological perspective.

The interpretation of the internal aspects of the improvement of sports professionals from the procedures showed that there are aspects of training and development of new work procedures, especially in the physical, biomechanical, technical-tactical aspects, but not in the preparation of decision-making from the psychological perspective, with deficiencies in terms of mastery, interpretation, selection and modification of alternatives; therefore, its impact on professional performance.

The improvement, from the attitudinal dimension to high performance coaches, showed a fragile incidence in the orientations necessary for the decisional approach and, consequently, in the management of the emotional responses that generate decision making at the highest level, the responsibility with the learning of new knowledge, which impacts on preparation.

Analysis of the coaches' work plan

In the review of the work plans, their existence was confirmed within sports training; the planning of tactical game actions, based on the tactical simplification model, influencing tactical actions in a repetitive manner, is difficult to manage for coaches.

In the cognitive dimension of the work plan, an influence is evident in tactical situations to eradicate inappropriate decision-making. In 100% of the coaches, work plans are presented, with deficiencies perceived in the interpretative analysis and study of opponents based on alternatives of competitive situations, being superficial, emotional, empirical and lacking strategic depth; they do not focus on actions that benefit their management, indicating a regular cognitive management from the work plans.

In the procedural dimension of the work plan, 74.07% of the coaches in the different categories present deficiencies in terms of the guidelines they must deploy to work on decision-making in sports training, which impacts the selection of appropriate variants, supported by self-analysis that shows the conception of modifications due to decisional errors.

The 92.25% of coaches consider that decision-making deficiencies are eradicated through observation, educational talks, the empirical vision of experienced coaches and the intuitive aspect based on personal choice. Consequently, there is evidence of a poor use of procedures, which is why the preparation is not intended to make decisions from a psychological perspective, presenting a regular procedural state in their work plans.

Regarding the attitudinal dimension, irregularities in the state of decision-making and the conduct to be assumed are shown. The 74.07% of the coaches see this aspect as complex, requiring levels of help with specialized personnel from psychological science, who guide and advise in attitudinal management, which make it possible to provide tools and guidance. The remaining 29.62% consider approaching the work from the diligence and commitment to the result of systematic field work, which makes it possible to eradicate deficiencies from their interpretations, showing a regular attitudinal state in the work plans.

Main results of the observation carried out on high-performance baseball coaches in the province of Pinar del Río

The observation was carried out on 27 high-performance baseball coaches in the province of Pinar del Río, with 100%, allowing us to know the current state of the coaches' preparation for decision-making, from a psychological perspective.

The observation of 50 training sessions in the sports preparation of the various high-performance categories shows the current state of the preparation of the coaches.

Key points provided by baseball coaches:

- The lack of documents that regulate and intend the development of the preparation process of the high-performance baseball coach, for decision-making from the psychological perspective in the province of Pinar del Río.

- The limited use of preparation and improvement activities of the high-performance baseball coach for decision-making from a psychological perspective.

The strengths that were detected for the preparation of the high-performance baseball coach in the province of Pinar del Río consist of the presence of professionals with a level of information that enables the adequate preparation of high-performance coaches; consequently, conceiving an organized and structured improvement system from the psychological perspective and establishing the development of an improvement system.

The main weakness in the preparation of high-performance baseball coaches in the province of Pinar del Río is the deficient development system aimed at preparing baseball coaches to make decisions from a psychological perspective, evidencing the lack of an organized development system.

Below is a summary of the aspects detected in the observation applied to the training sessions (Figure 1).

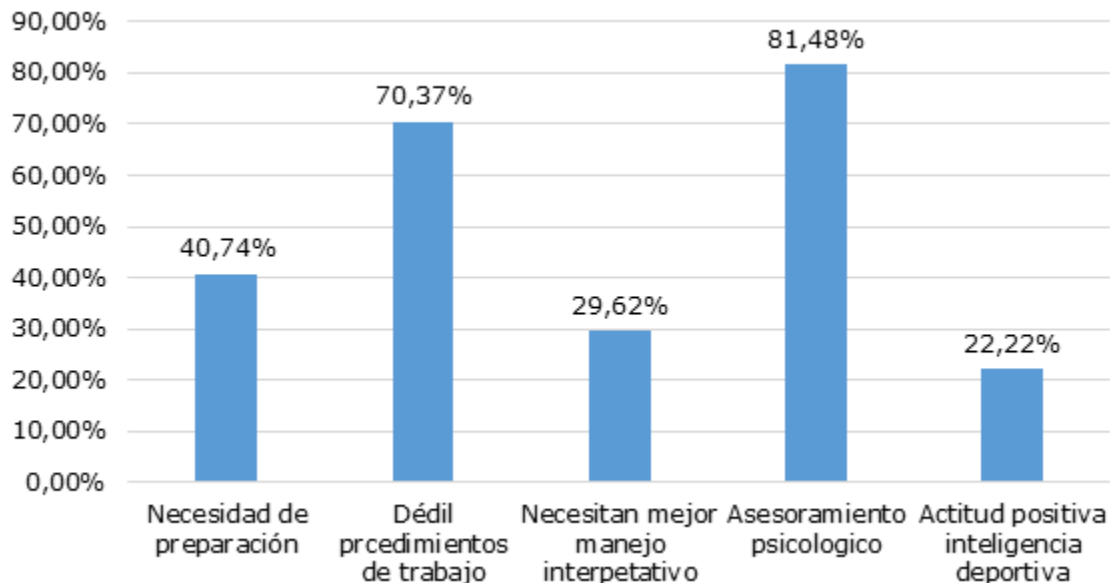


Figure 1. Observation of high-performance baseball coaches

Consequently, it is observed that there are cognitive deficiencies regarding the knowledge of the particularities of decision-making in training, reflected in 59.25% of coaches, which identifies the

need to intend the management of decision-making from the necessary analyses and management from the psychological perspective in baseball.

A weak interpretive process of situational analyses can be seen, focusing on emotional aspects, with superficial information management, influencing the decisional selection that results from weak management.

From the aspect of significance, 40.74% of high-performance baseball coaches in the province perceive that it is adequate to have preparation to make decisions, perceiving preparation as a fundamental aspect in achieving results, especially if it is intentional from the psychological perspective, with the cognitive aspect showing to be regular in the coaches of the province.

Deficiencies were found in the procedures to be carried out in sports training sessions; 70.37% of coaches lack knowledge of the ways in which they should impart knowledge, so that it impacts the improvement of competitive actions from the planning stage, in order to influence decision-making from a psychological perspective.

In the remaining 29.62% of coaches, it is considered significant to pay attention to decision-making from a psychological perspective, highlighting the importance of having greater control and analysis of situations in today's difficult sporting contexts, because they perceive interpretations from their own experiences, weakening the interpretation of situations from a more generalized vision.

They present a limited modification in their decision-making from the retrospective analysis in a psychological perspective, contemplating them from generalities and not individualities, perceiving a regular state in their procedures.

In the observational analysis of the attitudinal dimension of high-performance baseball coaches for decision-making, 81.48% lack psychological counseling regarding attitudinal management to consider decision-making from a psychological perspective, because the relationship with psychologists focuses on the attention of athletes; but does not delve into the control of emotional responses from the self-knowledge of coaches and their impact on professional results and the groups in which they work in high performance.

Baseball coaches intend to work on deficiencies in sports performance, but lack guidance that influences the attitudes and values that solve these deficiencies. Only 22.22% show positive tendencies in their attitudes based on sports intelligence and management from the orientations or statistical information.

Attitudinal management from observations shows a regular state due to the lack of knowledge and values that allow modifying the limitations of decision-making from a psychological perspective.

Main results of the analysis of interviews with high-performance baseball coaches in the province of Pinar del Río

An interview was conducted with 27 high-performance baseball coaches in the province of Pinar del Río. It revealed, in its evaluative conception, a series of information that was important for understanding their preparation for decision-making, from a psychological perspective.

During the interview, based on the input from the instrument, the following information could be detected (Figure 2)

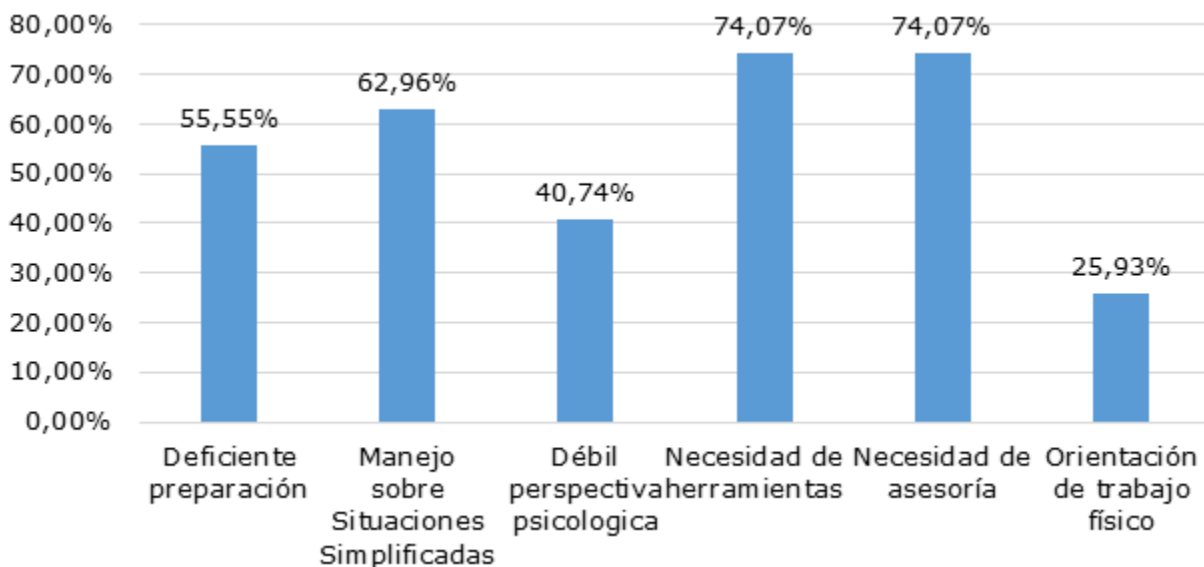


Figure 2. Results of the interview with high performance baseball coaches

Key points provided by the coaches

The absence of documents or an improvement system that direct or regulate the development of the process of preparing high-performance baseball coaches in the province of Pinar del Río from a psychological perspective was detected, with limitations on improvement activities that direct said process, evaluated in 55.55% of the coaches, deficient for decision-making from a psychological perspective, lacking actions that develop it.

In the analysis of the interview carried out, in the cognitive dimension, 62.96% stated that it is important to approach decision-making from simplified game situations as the only way to influence it. The remaining (40.74%) stated that the work on decision-making lacks perspective, due to the poor approach it presents from the self-analysis that must be carried out from the psychological perspective.

To a large extent, they value the solution of sports actions from simplified situations as a significant means, an aspect that shows a lack of knowledge, where the selection of alternatives in the situations faced has a weak intelligent informational analysis, being a factor devoid of psychological perspective.

From the cognitive dimension, it showed a regular state, since in general they reflect decision-making from psychological complexity, with a greater focus on group work, with less tendency in individual aspects based on motivation, emotional response, attention and volitional qualities that benefit the psychological perspective.

In the reflections of the coaches, from the procedural dimension, it is reflected that 74.07% need tools and skills to address decision-making from sports training, from a holistic conception, attached to the environment in which it is developed, with the analysis of situations to select adequate alternatives with psychological nuance, visualizing the complexity in their work to have an adequate management of decision-making in sports training. The interpretation of these passes through the knowledge of their internalities, for which knowing the aspects that contribute to it favors its interpretation and selection of responses according to the competitive moments.

The remaining 29.62% consider that, through postgraduate training, they have acquired knowledge that benefits decision-making to some extent, but they require a greater approach with more precise guidance from the psychological perspective, which is why coaches consider themselves to have a

regular state in terms of mastery of current tools and needing the aspects of situational self-analysis in permanent modifications.

Regarding the attitudinal dimension, 74.07% of coaches consider that they require psychological advice and guidance due to its complexity. They state that they require appropriation of instructions that benefit their emotional performance in their self-preparation, showing a positive state of commitment and responsibility with the learning of new content that enables improvement in professional performance.

The remaining 25.93% consider that their behavior is more oriented towards handling physical work, sometimes downplaying the psychological aspect that their attitudes generate in students; evidenced by attitudinal interpretations of a regular state.

Main results in the application of the adapted decision-making style questionnaire to high-performance baseball coaches in the province of Pinar del Río

The completion of the decision-making style questionnaire (adapted) shows the characteristics of the coaches in the decision-making process, for which reason an adaptation of it is made, which contributes to the level of preparation, based on the knowledge that they have on this aspect, focusing from the psychological perspective the scores of the questionnaire.

In table 1, The correlation coefficients of the aspects related to decision-making in the preparation of high-performance baseball coaches in the province of Pinar del Río are shown.

Table 1. Correlation coefficient in the application of the questionnaire

	Cognitive	Procedural	Attitudinal
Knowledge of programs	0.674453	0.567433	0.553432
Significance of decision making	0.613925	0.584312	0.597634
Quick and intuitive responses	0.456734	0.345625	0.568124
Need for procedures	0.563465	0.587427	0.465321
Impact on emotional response	0.623451	0.436521	0.79076
Need to be advised	0.534217	0.551825	0.543289

In relation to the cognitive dimension of high-performance baseball coaches, with respect to their preparation, the mastery of the documents is perceived in 62.96% of the coaches and a regular state of knowledge of the governing programs, essentially applying the PPID as a fundamental tool, which lacks updated guidelines and use from current training trends from innovative aspects.

A high significance is shown in 59.25% in the importance of assuming an adequate decision-making in high performance, in which a series of indicators must be reflected that raise the selection of a solid and well-founded decisional response on the management of different information, which is supported by plans and strategies conceived in advance from personalized preparation.

The test shows, from the procedural dimension, in 51.85% of the coaches, a regular state, in which they perceive it as necessary to have procedures in the management of decision-making, showing interest in knowing new procedures that enable them to acquire new forms of teaching, from the current sports that generate greater interpretations of sports situations, in pursuit of an adequate selection of alternatives from the interpretation of competitive situations, perceiving them as highly complex in professional performance with a high significance.

In the analysis of the attitudinal dimension, in the test for coaches, 74.07% of those evaluated considered that decision-making generates modifications in emotional and behavioral responses, with high levels of significance due to the multiplicity of factors that intervene in it.

It is difficult to have adequate attitudes to solve these problems, affecting the behavioral models to be assumed in high competitive challenges, with a high level of commitment and responsibility for the results, which is why the orientations and indications that are assumed are weak.

In the management of the attitudinal dimension, 40.74% of coaches address the rapid emotional responses in the performance of competitive actions, although they push the interpretation of these and the development of plans with an anticipated design from the studies of the opponents to a second place; these show the control of emotional states from the concentration of the sporting actions of the competitive activity, visualized from the own individualities of their athletes, since it is worked from the collectivity.

The values obtained show average levels of significance in the need for advice. According to their interpretations, 51.26% of the coaches are not well prepared to respond to these elements and therefore require specialized advice (Table 2).

Table 2. Descriptive statistics of the items of the applied questionnaire

	Dimension		Minimum	Maximum	Average	Standard deviation
	Cognitive	8	3	4	4.680	0.420
Preparation	Procedural	9	2	3	2.570	0.570
	Attitudinal	10	1	2	2.578	0.870

The integrative process, which is evidenced in table 2 of the results highlighted in the application of the decision-making questionnaire (adapted) on the decision-making of high-performance baseball coaches in the province of Pinar del Río, delves into the dimensions of their preparation in high-performance sports.

The comparative process between the dimensions reflects their relationship, which shows a high significance. This indicates that the attitudinal dimension substantially reflects the impact that emotional control has on high-performance baseball coaches during decision-making, attached to the intuitive factor that enables the deficiency in competitive actions.

The deficiencies in the attitudinal dimension due to the lack of knowledge and procedures in baseball coaches in the context in which they operate is a factor that negatively impacts their professional performance. They need to have updated knowledge for managing decision-making from the attentional, motivational process and volitional qualities that they must consider in their strategic plans, to optimize their impact on the groups in which they work.

DISCUSSION

The achievements reached with the results previously exposed reflect the need to improve the preparation of the high-performance baseball coach for decision-making from the psychological perspective, due to the connotation that the preparation of the Physical Culture professional presents, especially in high-performance sports and their performance in it.

The research shows the following main regularities:

- Deficiencies in knowledge regarding motivation, concentration of attention, volitional qualities and control of emotional response, from analysis and management of situations.
- Deficiencies in aspects associated with the mastery, interpretation and selection of decisional responses and modifications from psychological alternatives.
- Deficiencies in regard to orientation, commitment and responsibility in their attitudes.

The criteria addressed are diverse. Suárez *et al.* (2017) raise in their study of the teaching-methodological improvement of the Physical Education teacher the reference to the cognitive-instrumental dimensions, procedural performance and attitudinal performance, in the formative process from a contemporary perspective, emphasizing the need to develop these dimensions for the performance of sports professionals (p. 126).

In the criteria of the authors Moreno *et al.* (2022), the diagnosis carried out confirmed the needs for professional development of volleyball coaches, as a necessary and essential cognitive aspect for carrying out high-performance sports actions (p. 92).

For his part, Mahama (2023) corroborates teacher preparation as a continuous pedagogical process, which presents cognitive, procedural and attitudinal deficiencies that hinder professional performance and, in this sense, the strategic actions that must be developed, directly impacting the improvement of their professional performance and the achievement of objectives (p. 8).

In this way, it is necessary to perceive preparation as a systematic, pedagogical and permanent process that impacts the knowledge of coaches and, therefore, their professional performances, which are fundamental in the learning of athletes under the guidance of their coaches.

The high level of significance of the cognitive, procedural and attitudinal dimensions are necessary for the preparation of high-performance baseball coaches, in order to reach a higher level in their professional training, an aspect that correlates with the results of the research presented above.

In conclusion, Research shows that the preparation of high-performance baseball coaches for decision-making from a psychological perspective in the province of Pinar del Río is a continuous,

systemic and cognitive pedagogical process that is permanent, through a set of teaching actions to acquire knowledge, associated with their sporting needs for their professional development.

The preparation of the high-performance baseball coach for decision-making, from the psychological perspective in the province of Pinar del Río, presents deficiencies in knowledge regarding motivation, concentration of attention, volitional qualities and control of emotional response, in the analysis and management of situations, deficiencies in aspects associated with the domain, interpretation and selection of decisional responses, and modifications from psychological alternatives and deficiencies regarding orientation, commitment and responsibility in their attitudes.

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Conflict of interest

Authors declare no conflict of interests.

Authors' contribution

The authors participated in the design and writing of the article, in the search and analysis of the information contained in the consulted bibliography.



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