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Original article

Diagnosis of knowledge regarding sports detraining among highperformance soccer coaches and directors

[Diagnóstico del conocimiento sobre desentrenamiento deportivo a los entrenadores y directivos de la alta competencia en el fútbol]

[Diagnóstico do conhecimento sobre destreinamento esportivo para treinadores e dirigentes de alta competição no futebol]



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ABSTRACT

Introduction: The detraining process at the end of an athlete's active life offers many benefits for both physical and mental health in high-performance athletes. However, it is known that in most cases, this process is not carried out correctly. Therefore, there is a need to investigate the knowledge that high-performance coaches and directors have about preparing first-division soccer players in Camagüey for the next stages of their lives. Current guidance is known to be insufficient, inadequate, and untimely.





Objective: To determine the level of knowledge of high-performance coaches and directors regarding the detraining process in soccer.

Materials and Methods: Methods used included analysis and synthesis, inductive-deductive reasoning, surveys, interviews, and an observational control guide to diagnose the current state of knowledge on the subject and the theoretical-practical results offered.

Results: Deficiencies were identified in the knowledge about the detraining process in high-performance soccer, related to the established steps of Guidance, Planning, and Detraining, as confirmed by the results obtained.

Conclusions: Deficiencies exist among high-performance soccer coaches regarding the detraining process, and a training program for high-performance soccer coaches in Camagüey is required.

Keywords: detraining, soccer, high-performance coaches.

RESUMEN

Introducción: el proceso de desentrenamiento al terminar la vida activa del deportista tiene muchos beneficios que respaldan la salud tanto física como mental del practicante de la alta competencia, aunque se sabe que en la mayoría de los casos no se lleva a cabo correctamente. Es por ello que existe la necesidad de investigar los conocimientos que tienen los entrenadores y directivos de la alta competencia sobre cómo preparar a los jugadores de la primera categoría de fútbol en Camagüey en función de las próximas etapas de vida, en este sentido se conoce que la orientación es insuficiente, inadecuada e inoportuna.

Objetivo: determinar el nivel de conocimientos de los entrenadores y directivos para la alta competencia sobre el proceso de desentrenamiento en el fútbol. Materiales y métodos: se utilizaron métodos como: análisis y síntesis, inductivo-eductivo, encuestas, entrevistas y guía de control observacional que propiciaron diagnosticar el estado actual sobre el conocimiento del tema y los resultados teórico-prácticos ofrecidos.





Resultados: se indicaron deficiencias en los conocimientos sobre el proceso de desentrenamiento en la alta competencia en el fútbol relacionados con los pasos establecidos de orientación, planificación y desentrenamiento, lo que se ratifica en los resultados brindados.

Conclusiones: existieron deficiencias en los entrenadores de la alta competencia de fútbol sobre el proceso de desentrenamiento y se requiere un proceso de preparación a entrenadores de la alta competencia de fútbol en Camagüey.

Palabras clave: desentrenamiento, fútbol, entrenadores de la alta competencia.

RESUMO

Introdução o processo de destreinamento no final da vida ativa do atleta traz muitos benefícios que apoiam tanto a saúde física como mental do praticante de alta competição, embora se saiba que na maioria dos casos não é realizado de forma correta. Por isso é necessário investigar o conhecimento que treinadores e dirigentes de alta competição possuem sobre como preparar jogadores de futebol de primeira categoria em Camagüey com base nas próximas etapas da vida. Nesse sentido, sabe-se que a orientação é insuficiente, inadequada e inoportuna.

Objetivo: determinar o nível de conhecimento de treinadores e dirigentes de alta competição sobre o processo de destreinamento no futebol.

Materiais e métodos: foram utilizados métodos como: análise e síntese, indutivodedutivo, pesquisas, entrevistas e guia de controle observacional que ajudaram a diagnosticar o estado atual do conhecimento do tema e os resultados teórico-práticos oferecidos.

Resultados: foram apontadas deficiências no conhecimento sobre o processo de destreinamento na alta competição no futebol relacionado às etapas estabelecidas de orientação, planejamento e destreinamento, o que se confirma nos resultados fornecidos. **Conclusões**: houve deficiências nos treinadores de competições de futebol de alto nível no que diz respeito ao processo de destreinamento e é necessário um processo de preparação para os treinadores de competições de futebol de alto nível em Camagüey.







Palavras-chave: destreinamento, futebol, treinadores altamente competitivos.

INTRODUCTION

Sport detraining is the complete or partial loss of adaptationsphysiological, anatomical, and performance-related produced by training, resulting from a reduction or cessation of training (Suazo, 2020, p. 1). On the one hand, it is a pedagogical process based on scientific principles, aimed at systematically, multidisciplinary, and comprehensively reducing the level of training achieved by the athlete, from a medico-biological, psychological, and social perspective (Aguilar, 2020, p. 1). On the other hand, it is "a pedagogical process that should be part of the athlete's preparation" and "should be aimed at preserving their health by inducing organic, physical, and psychological readjustments" (Mena, 2020, p. 9).

These principles, grounded in biological and pedagogical sciences, form the fundamental basis of this article's approach. The authors strongly believe that ending peak performance does not signify the end of an athletic life; therefore, prior preparation for this new life stage is necessary. This highlights the importance of understanding this process, where both coaches and directors require prior knowledge to provide the best guidance to soccer players who, due to age and performance, are reaching the end of their sporting careers.

Existing research on sport detraining has focused on various aspects. Some studies have focused on conceptualizing the process (Aguilar, 2020; Hernández, 2020; Frómeta, 2020; Suazo, 2020); prominent authors have investigated the potential health effects of detraining on athletes (Mena, 2020; Segalés, 2020; Russinyol, 2020; Suazo, 2020); while others have studied the psychological impact of sudden retirement from sport (Padilla, Ramírez, & Frómeta, 2022). Authors such as Pérez, Zaldívar, and López (2019) and Mena (2020) have contributed their knowledge through proposed detraining programs and related methodological aspects. However, there is limited evidence of research dedicated to the prior preparation for detraining before the culmination of high-performance athletic careers.





In recent years, we have gradually witnessed the death of athletes at the end of their active sporting life. As well as the presence of serious illnesses such as pulmonary, cardiac and cerebral problems. In addition to the physical health impacts, athletes also experience psychological and social difficulties. According to Frómeta (2022), regarding retirement from sports, "it can have positive effects on some athletes, but in other cases, it has disastrous consequences ranging from depressive episodes to suicide" (Fernández, 2018, p. 2). This evidence not only justifies the need for lifelong detraining but also highlights the need for prior preparation for the next stage of life.

Considering the attention given to sports detraining in our country, 2003 marked a crucial period of significant focus on this issue, with a noticeable increase in political will to institutionalize a national program for sports detraining in high-level competitive athletes. In this regard, 2009 saw the introduction of a meta-program for physical training in the detraining of high-level competitive athletes, preceding the single annex of Resolution No. 82/2015 (Becali, A., 2015: 1), which established the National Program for Sports Detraining in elite athletes, titled "Detraining Procedure for High-Performance Athletes Linked to the Cuban Sports Movement." This initiated the national scientific research project of the Institute of Sports Medicine (IMD by its acronym in Spanish) in the same year, called "Sports Detraining in High-Performance Athletes of Cuba," currently generalized throughout all provinces of the country. The objective is to enhance the work carried out in recent years and to create a National Group for Sports Detraining and Comprehensive Care for Retired Athletesa foundational principle for the authors of this article.

Finally, the study has shown that in most cases, research is conducted directly on the preparation of post-performance athletes without considering that the knowledge and approach of our coaches are the fundamental basis of this process, which is inextricably linked to the pedagogical work that characterizes sports training. Therefore, there is a need to pay special attention to the first division through knowledge enhancement and the professional development of our coaches on the detraining process. This will foster prophylactic work to preserve the health of soccer players and guarantee their continued societal roles after their retirement from sports.





It is also considered that the knowledge of high-performance soccer coaches in the province of Camagüey is not optimal to contribute to better guidance and direction towards the detraining of their players. Therefore, there is a need to investigate this topic. The premise is that understanding the goal of one's actions is the first step in decision-making.

This study provides a diagnosis of the level of knowledge about sports detraining among the surveyed coaches and directors. They report that their knowledge level on this subject is poor, a critical aspect for a multifactorial approach to the correct guidance and planning of this process. This will contribute to a better life expectancy for our athletes in the final stage of their active sports careers. Therefore, the objective of this research is to determine the level of knowledge of high-performance soccer coaches and directors regarding the detraining process.

MATERIALS AND METHODS

A retrospective study was conducted to determine the level of knowledge of highperformance soccer coaches in Camagüey regarding the detraining process.

Population and Sample

Total of 19-surveyed coaches, representing 100%, were included. This comprised 6 coaches from the first category and 13 coaches from the municipalities of the province.

The sampling method was purposive, characterized by the inclusion of first-category coaches with more than five years of experience as technical directors and a history of high-performance playing. Various directors also constituted the sample, as their opinions could be valuable in assessing the existing knowledge level.

In addition to mathematical methods (percentage calculation) and theoretical levels based on cognitive processes, the following was applied:





Review of official documents using an observational control guide. This guide allowed for an exploration of the Integral Sports Training Program (PIPD by its acronym in Spanish) for soccer to determine if there was any methodological support on detraining. As well as existing studies on specific and/or special populations or groups that had undergone a detraining program, and how this topic was addressed in the work plans of involved institutions and professionals.

The survey, administered in writing, aimed to determine the level of knowledge of high-performance soccer coaches regarding the detraining process. Twenty-six professionals were surveyed: 19 coaches, 2 provincial methodologists, and 5 psychologists from the Provincial Center for Sports Medicine, CEPROMEDE by its acronym in Spanish.

Interviews: Interviews were conducted with five experienced professionals holding various administrative positions and possessing extensive experience in areas related to professional development. These included the provincial director of sports, the director of CEPROMEDE, the vice-dean of Continuing education and postgraduate studies at the Faculty of Physical Culture, the head of the department of Training, Development and Ministry of Science Technology and Environment (CITMA in Spanish) at the Provincial Directorate of Sports. As well as the methodologist from the Provincial Office for Athlete Care (OPAA in Spanish).

RESULTS

The results are based on surveys, interviews, and an observational control guide to assess the knowledge levels of coaches and directors involved in soccer, as well as official documents.

Survey 1: Survey of high-performance soccer coaches in Camagüey

Estimated coach: The purpose of this survey is for you to participate in research on detraining. To do this, it is necessary to know your opinion on the aspects required in this instrument. Your collaboration is appreciated in advance. Thank you.







Survey Objective: To determine the level of knowledge of high-performance soccer
coaches in Camagüey regarding the detraining process.
Sport: Gender: M F Academic Level: Scientific Level: Years
dedicated to sports as: Athlete Coach Other (specify)
1. Do you know what detraining is? If yes, explain. Yes: _ No: _ Explanation:
2. Have you taken any actions concerning detraining with athletes nearing retirement?
(If yes, explain the characteristics). Yes: _ No: _ Actions:
3. Are you aware of the health consequences for former athletes who do not detrain? (If
yes, explain). Yes : _ No: _
Explanation:
4. Do you consider yourself prepared to guide and direct the detraining of the athletes
you coach? Yes: _ No: _
5. In your opinion, who should direct the detraining of athletes? (Mark with an "X"):
Doctor Family Psychologist
Coach Athlete _Methodologist_ Other Explain:
6. In the methodological preparations for your sport, is the topic of detraining
addressed? Yes: _ No: _ who addresses it?
7. Would you like to receive training on this topic? Yes: _ No: _
8. If you were a high-performance athlete, state whether you detrained, where, and for
how long:
Survey 2: Survey of Provincial Methodologists of High-Performance Soccer in
Camagüey





Dear Colleague, this survey is part of a scientific study aimed at improving existing knowledge about detraining in Camagüey to provide future high-performance former athletes with a service that helps them improve their quality of life. Therefore, it is considered very important to know your opinion on this matter. Thank you.

Survey Objective: To determine the level of knowledge of Provincial Methodologists of high-performance soccer regarding the detraining process.

right performance soccer regulating the detruming process.
1. Which sport did you practice most diligently?
2. How long have you been involved in sports? (Specify in years)
Athlete: _ Methodologist: _ Academic Level: other (specify):
3. In your opinion, how is detraining carried out in the region? (Mark your answer with an "X")
Optimal: _ Regular: _ Poor: does not exist:
4. Are you aware of any document that regulates the performance of sports detraining in Cuba? (If your answer is affirmative, cite them) Yes: _ No: _
Which ones?
5. When an athlete retires from a High-Performance Center (CEAR by its acronym in
Spanish), does their provincial commission indicate who and where they will detrain?

6. When an athlete leaves the CEAR and returns to the province, is a pedagogical handover performed? Yes: No: If yes, mention some of its fundamental features:

Yes: No:

Explain: _





7. Do you know the number of athletes who have retired from high performance in the
last five years? Yes: _ No: _ Number:
8. Do you believe it is necessary to train personnel capable of working as sports
detraining specialists? Yes: _ No: _ Explain:
Survey 3: Interview with the Head of the Department of Training, Development, and
CITMA of the Provincial Directorate of Sports in Camagüey
Esteemed Department Head, the purpose of this interview is to learn about the current
state of detraining in order to create a professional development strategy on this process.
Your usual insightful response is essential to contribute to this. Thank you.
Interview Objective: To understand the current state of professional development
demands and other aspects of interest regarding detraining in soccer, for the creation of
a professional development strategy on this process.
Years in the position: _ Academic level:
1. In the professional development requests received from the various sports, has any
request been made regarding detraining? Yes No:
a) If your answer is positive, mention some sports:
2. Has the University of Physical Culture and Sports Sciences in this province offered
any form of professional development on detraining to graduates involved in high-
performance athlete training? Yes: _ No: _ which ones?
3. Do you consider it necessary to include some form of professional development on
detraining? Yes: _ No: _ which ones?
Survey 4. Interview with the Vice-Dean of Professional Development and Postgraduate
Studies. Faculty of Physical Culture, Camagüey
Dear Vice-Dean,





The purpose of this survey is to gather information on professional development related to detraining in soccer, in order to strengthen this area in the region. Your opinion is very important. Thank you.

Interview Objective: The purpose of this interview is to gather information on
professional development and other aspects of interest related to detraining in soccer.
Years in position: Academic Level:
1. Among the technological demands requested by the Provincial Directorate of Sports
to the Faculty of Physical Culture in this locality, are there any related to detraining? (If
your answer is yes, please list those you know)
Yes: No: which ones?
2. In the annual preliminary guidelines of the rector Faculty of Physical Culture regarding professional development, is there any related to detraining?
Yes: No: Explain:
3. Has the high performance professional been offered any form of professional improvement related to detraining in Camaguey?
Yes: No: which ones?
4. Do you consider the implementation of some form of professional development on
detraining necessary? Yes: No: why?
5. At the local Faculty of Physical Culture, are there teachers trained to offer professional development on detraining? Yes: No:





Survey 5. Interview with methodologists of the Provincial Office for Athlete Attention (OPAA) in Camagüey

Dear Colleague,

The purpose of this interview is to obtain your opinion on certain aspects of detraining in soccer to help solve this problem in Camagüey.

Thank you in advance for your collaboration.

Interview Objective: To determine the level of knowledge of the methodologist from the Provincial Office for Athlete Attention (OPAA) regarding the detraining process in soccer.

Years in position:	Academic Level: _			
1. What type of atter	ntion is offered to form	er high-perform	ance athletes in	the region?
	tation accompanying the		they retire and a	re registered
with the OPAA inclu	ıde instructions for det	raining?		
Yes:	No:	_	which	ones?
3. Among the function	ons of the office, is detr	aining included	? Yes: No:	Expand on
C		<u> </u>		_ 1
4. Is there any profes	ssional in the region w	ith the mission	of directing the o	detraining of
former athletes? Yes	:No:			
5. Do you think it is r	necessary to have perso	nnel responsible	e for detraining i	n the region?
Yes: No: why	y?			
Survey 6. Interview	with the Provincial Dir	ector of Sports i	n Camagüey	
Dear Director,				





The purpose of this interview is for you to participate in a research study on detraining in soccer. We need you to provide the necessary information regarding this topic. Thank you in advance for your collaboration.

Interview Objective: To determine the level of knowledge of the Provincial Director of Sports regarding the detraining process in soccer.

Years in position: _____ Academic Level: ____

What is the current state of detraining and what actions are being carried out for its implementation in Camagüey?

Survey 7. Observational Control Guide

Observation Guide for Soccer Training Sessions.

Subject: Knowledge of the detraining process.

Objective: To determine the level of knowledge that high-performance soccer coaches have about the detraining process in order to influence their athletes educationally.

Number of observers: two

Total time and frequency of observations: 6 months, with a weekly frequency, during the 2023-2024 academic year.

Type of observation: Structured and non-participant.

Location: Provincial Soccer Academy.

Time: 5:00 pm.

Aspects to be observed in the research:

1. Thorough review of the Soccer PIPD to determine if there is any methodological support on detraining.





- 2. Level of knowledge of high-performance soccer coaches on the detraining process.
- 3. Verify if the coach properly guides the activity corresponding to the detraining process throughout each training session.
- 4. Verify if the coach plans the activity corresponding to the detraining process for their athletes in their training plan.
- 5. Use of bibliography on sports detraining in the theoretical preparation of athletes in training classes related to the instructional, educational, and developmental aspects.

DISCUSSION

Based on the diagnosis and analysis conducted to meet the objectives proposed in this article, and the methods used, a group of instruments was applied, showing the following results:

The survey of coaches reveals 100% agreement on questions 1 and 2, indicating that they do not conceptually understand sports detraining; therefore, they do not take any actions concerning detraining with soccer players nearing retirement. Regarding questions 3 and 4, 100% indicated that they are unaware of the health consequences for former athletes who do not undergo detraining, and therefore consider themselves unprepared to guide and direct the detraining of athletes in their training areas. On the question of who should direct the athletes' detraining, 100% agreed on the coach, and similarly stated that the topic of detraining is not addressed in methodological preparations (questions 5 and 6). Regarding the question of whether they wish to receive training on the subject, 100% agreed, and all similarly agreed that they were not detrained upon concluding their active sporting lives (questions 7 and 8).





Interviews were conducted with five experienced professionals holding different administrative positions and possessing extensive experience in related aspects of improvement. There was consensus among them regarding the need to include actions in improvement plans aimed at providing knowledge to coaches in high-level soccer competition in Camagüey on the application of the detraining process.

Furthermore, an exploration using a Guide for controlling the Integral Training Program for Soccer Athletes verified that none of the training stages shows evidence of how to guide soccer players through the detraining process. Therefore, it can be affirmed that there is no methodological basis on this topic.

An analysis of the above results, through the interviews and surveys conducted, allows us to infer that knowledge about sports detraining, at least conceptually, is insufficient in 100% of the studied sample. Arguments used in its definition confirm this; they also do not know the effects of not detraining and do not implement actions for its application due to a lack of knowledge for its guidance. This contributes to a failure to assess adequately its importance or necessity, indicating the low level of knowledge among soccer coaches and the need to adjust improvement plans in this direction to achieve effectively the objective.

Similar results to this study were obtained by Hechavarria (2021) in a conducted investigation, which found little knowledge or misinformation about the topic of detraining, but in school-aged swimmers.

A similar situation is also addressed in the research of Hernández, Olmos, Frómeta, and Piperski (2020). It was conducted on young athletics athletes from the province of Villa Clara, which refers to the insufficient preparation these athletes receive from their sports training to face the moment of retirement and sports detraining, as well as the insufficient information they have from directors and coaches on how to put the topic into practice.





Authors such as Hernández, Olmos, Frómeta, and Piperski (2020) express that the work of the sports coach plays a fundamental role in these efforts in the prior preparation of their athletes from their training itself, so that they become aware that sporting life is limited. As well as the need to undergo detraining programs once their active sporting life is over, to reduce the accumulated physical loads during their sports preparation (Hernández, Olmos, Frómeta, and Piperski, 2020:4). The role of the coach in this regard is thus recognized as an important figure in the process of comprehensive training and preparation of the athlete.

However, to fulfill this mission, coaches must have the necessary training, which, according to some studies conducted in the national context, also requires reaching higher levels (Pérez, Crespo, Morell, 2023).

The insufficient knowledge about the topic shown by the athletes in this study could hinder the development of a positive attitude towards sports detraining, which could be one of the variables influencing these athletes' willingness to detrain. Willpower is one of the human qualities that gives individuals the capacity to make decisions. Therefore, we assume the assertion that only those with unwavering willpower can firmly set the goal of starting over and training to win; not a medal, not a title; training for life (Mena, 2020, p. 13). However, the accuracy of this statement needs to be verified in future research, which does not negate the scientific conceptions outlined by other researchers and shared by the authors of this study, which establish the value of knowledge as an important link in the formation of attitudes.

If athletes do not detrain, they could risk their physical and mental health, as well as their social adaptation to the new life conditions imposed by retirement from active sports life. Hence, the need for educational work directed towards these athletes to help create a culture of sports detraining. Without such a culture, no effort will be successful.

It was also learned that everyone agrees that the direction of the detraining process should be in the hands of the coach as the main actor in the general training of their athletes and the fundamental architect of sports training. In addition to this, it was demonstrated through an observational control guide applied to the Integral Training





Program for Soccer Athletes that none of the training stages shows evidence of how to guide soccer players through the detraining process. Therefore, it can be affirmed that there is no methodological basis on this topic. Furthermore, neither the Sports Detraining Program (Sports Medicine), training plans, nor the final competition report contain evidence confirming how to prepare coaches to guide soccer players before retirement on how to proceed and what to do to detrain.

CONCLUSIONS

Several control instruments were developed, including a survey, interviews, and an observational control guide. These were applied to coaches and directors.

Significant deficiencies exist in the knowledge of high-performance soccer coaches, methodologists, and psychologists regarding the detraining process. These deficiencies include understanding the concept itself, how to guide and proceed with the process, the actions to be taken, and the health consequences.

Deficiencies in the knowledge of high-performance soccer coaches regarding the detraining process were confirmed through interviews with coaches, the Deputy Director of Teaching at the Provincial INDER, the Vice-Dean of Postgraduate Studies at the FCF (Faculty of Physical Culture), methodologists, and directors.

Interviews with senior management indicate a need to train high-performance soccer coaches in Camagüey on the application of the detraining process.

The observational control guide applied to the soccer PIPD, training plans, and final competition reports revealed no evidence of prior preparation regarding detraining for high-performance soccer players before their official retirement.





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The authors declare having competing interests.

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The authors have participated in the redaction of the manuscript and the documentary review.



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