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# **El desentrenamiento deportivo en atletas jóvenes del Atletismo de alto rendimiento en Villa Clara**

## ***Sports detraining in young athletes of High Athletics Performance in Villa Clara***

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### **Resumen**

La inmensa mayoría de los atletas que se retiran no son conscientes, ni conocen realmente los efectos que pueden provocar la falta del ejercicio físico luego de su retiro del deporte activo. No se constata en investigaciones anteriores a las que se tuvo acceso la selección de actividades, elaboración de macrociclos para el desentrenamiento de atletas jóvenes del atletismo que causan baja de los Centros Provinciales de alto Rendimiento en Villa Clara, no se confirma la realización de diagnósticos médicos y funcionales como punto de partida en la proyección del desentrenamiento. De ahí que en la presente investigación se da respuesta a ¿cómo concebir actividades que garanticen el desentrenamiento de atletas jóvenes de Atletismo que causaron baja de centros provinciales de alto rendimiento de Villa Clara? Se direcciona la misma a caracterizar el retiro deportivo de estos atletas y proponer una solución a su desentrenamiento. El objetivo del trabajo es diseñar actividades para la concreción de la individualización del desentrenamiento deportivo en atletas jóvenes del Atletismo que causan baja del alto rendimiento en Villa Clara. Se utilizan diferentes métodos y técnicas de investigación científica como: el analítico sintético, inductivo deductivo, análisis de documentos, entrevista semiestructurada, socialización de ideas, estudio de casos y estadístico- matemáticos, que permiten seleccionar adecuadamente las actividades para el desentrenamiento sin descuidar su individualización. El principal resultado es la caracterización del retiro deportivo de los atletas jóvenes que causaron baja del alto rendimiento como premisa para la elaboración de las actividades de individualización de su desentrenamiento.

**Palabras clave:** desentrenamiento, atletismo, retiro deportivo, actividades

### **Abstract**

*The vast majority of athletes who retire are not aware, and do not really know the effects that a lack of physical exercises can cause after their retirement from the active sport. It is not verified in previous investigations accessed, the selection of activities, the elaboration of macrocycles for the detraining of young athletes of athletics that cause discharge from the Provincial High Performance Centers in Villa Clara, the carrying out of medical and functional diagnoses is not confirmed as a starting point in the projection of detraining. Therefore, in this research, an answer is given to how to devise activities that guarantee the detraining of young Athletics athletes that caused the discharge from high-performance provincial centers in Villa Clara? It is aimed at: characterizing the sports retirement of these athletes as a starting point to validate the usefulness of the methodological guidelines and to develop activities for the detraining of these athletes who caused disengagement from the provincial centers. Different scientific research methods and techniques are used such as: synthetic analytical, deductive inductive, document analysis, semi-structured interview, socialization of ideas, case studies and statistical-mathematical studies, which allow the activities to be properly selected for detraining without neglecting their individualization. The main results are the characterization of the sports retreat of these young athletes who dropped out of the High Athletics Performance as a starting point for the preparation of activities for the individualization of their training.*

**Keywords:** *detraining, athletics, retirement from active sport, activities*

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## **Introducción**

High performance sports try to maintain to the maximum allowed level the capacity of athletics performance by means of an accuracy application of physical charges; to fulfill and to maintain this purpose by a long periods of time is only possible by means of the significant adaptations and transformations in different systems, as bioadaptive answers to the high work in the sports preparation and contests.

In this paper is assumed the structured stated by Matveev 1983 in which three phases with its related stages in sports training are identified, they are:

1. Basic preparation phase.
2. Maximun realization of sports possibilities phase.
3. Sports longevity phase.

Sports longevity phase is organized into two stages, one on the preservation of the achievement reached and the other the maintenance of the general training, in the last one the level of the sports activity must be reduced, to assure a high general activity, the content of the training has a reactive healthy character, the permanent qualities of the organism and of all the values offered by the sports practices of many previous years are tried to be fixed, serving this phase as a joint between sports training and detraining.

As Morales (2011) says and it is cited by Rodriguez (2018) the sports athletes that have been practicing from scholarship ages to youth have accumulated physical and psychological charges, that's why the necessity of reducing these effects in the way they obtain a good health, so it is necessary sports athletes recognize the importance of detraining before their retirement from active sports.

Frometa and Zamora (2013) considered that the sports athletes must be aware that detraining is a benefit for their organism and for that reason there must be persons prepared to educate them and propose an alternative to a professional overcome for the development of a culture about sports detraining in Santiago de Cuba.

Frometa (2016) designed a Pedagogical strategy for the attention to Sportsmen about detraining; he leads the attention to the insufficient following of the pedagogical attention of the sportsman for detraining and the need to prepare detrainers to guide this process in a correct way. It is seen that there is a lack of actions directly involved with the education of sportsmen to assume the detraining.

Rodriguez (2018) considers the family as another fact of change in sportsmen because it has a great influence over them, so it is considered of great importance in the educative process of the young sportsmen of the EIDE in their detraining. Family should be prepared and know the risks that the abrupt retirement should carry out for them.

Caballero (2019) designed an Activity program for young tennis player of Villa Clara where activities to prepare trainers and athletes in relation to sports detraining, are included, activities leaded to the preparation of tennis players, activities about the general work and some elements of the sport and its techniques, various activities from other sports, with middle intensity aerobic work

in first place and minitennis games but taking into consideration duration, dimensions, intensity, work-rest relation and other varieties of the game according to its aim: detraining of tennis players.

Other authors, like Gerardo (2016) focus their attention on the Olympic wrestling of San Carlos, Cojedes and offer a manual to this aim, Gomez (2016) in Mexico also approaches to the theme but in swimming sport, on the other hand (Gomez y Barroso, Sebastião e col y Fernando y col, 2019) deeply studied detraining in Angolan sports and state in practice the importance and need of detraining and offer actions to prepare retired athletes from handball, a detraining program for swimming athletes retired from active sport. In the case studied in this research the behavior of young athletes is analyzed that cannot be compared to those kept for many years in the sport activity, which not limit the need to detrain.

Here the role of the sport trainer is very important in the preparation of the athletes since the training itself to be conscious of the limited athletes life and the need to submit to detraining programs when their active sports life finishes to shorten the physical charges accumulated during their active sport life from which the real life of the high athletic performance in Villa Clara province cannot run away.

All the previous statements joint to the poor preparation athletes receive from the sports training itself to face the retirement moment and the sports detraining as well as the lack of information of trainers and directors regarding this theme, keeps alive the need to concrete the individualization of sport detraining in young athletes of high athletics performance in Villa Clara EIDE and answer this question:

How to concrete in the practice the individualization of sport detraining in young athletes that leave the high athletics performance in Villa Clara province?

The objective of this paper is ti design activities to concrete the individualization of sport detraining in young athletes that leave the high athletics performance in Villa Clara province.

It is very important and of great relevance because it makes the characterization of the young athletes retirement from active sports life that leave the high athletics performance in Villa Clara province to elaborate the activities of individualization of their detraining to be really effective.

## **Materials and methods**

### **Samples under study**

The samples were intentionally selected considering the nature of the research, its object of study, and the interests of the researchers, where it is intended, in addition to seeking representativeness, to obtain information. A first sample made up of 3 Athletics athletes who stopped being EIDE registration: Héctor Ruiz Pérez, during the 2015-2016 academic year, all of them male with an average age of 16 years. A second sample formed by the coach of these athletes with an average of more than 10 years of experience.

### **Methods and techniques**

Analytical-synthetic: it allows the description of retirement and detraining in the main elements that compose it, to determine its particularities and through synthesis to discover its relationships and characteristics in the athletes being studied.

Survey: It made it possible to provide data from the perspective of the young retired athletes being studied and the coach in relation to the subject.

The problematization of reality: it is the simultaneous reflection on the relationship between the process and the result, which is carried out taking into account its contextualization. In this research, the process is related to the characterization of sports retirement in young athletes of high-performance Athletics of the EIDE of the province of Villa Clara and the result with the design of activities to specify the individualization of their sports training.

The socialization of ideas: in the design of activities to specify the individualization of sports training in high-performance Athletics young athletes in the VC EIDE, which involved table work with the coach, experience and knowledge were exchanged and opinion polls were done to get closer to the activities, to know the usefulness of them.

Mathematical statistics: applied for data processing are: the empirical distribution of frequencies to describe the behavior of variables and indicators in the characterization of sports retirement and detraining of the individuals studied.

## Information processing

Based on the characteristics of the information collected through the application of different methodological instruments, the most appropriate techniques for the processing of information were selected within the mathematical statistical method, using the empirical frequency distribution

This characterization of sports retirement in young athletes of high-performance Athletics in the EIDE of Villa Clara, allows to deep into the causes that provoked their sports retirement and to know how they were in the preparation stage that is analyzed, among other important elements that will serve as a starting point for the design of activities that allow the individualization of detraining in these athletes to be specified as an aspect that directly affects the health and quality of life of these athletes.

## Results and Discussion

The method used to characterize the behavior of the indicators in the sports retirement of these athletes was the structured survey, in which the information was obtained directly from the individuals surveyed.

Survey to characterize the behavior of the indicators of the pedagogical variable in young athletes of Athletics of high performance of the EIDE of Villa Clara.

### Analysis and discussion of the results of the pedagogical variable

Survey of young athletes who ended their active life in high performance athletics with an average of four years dedicated to the practice of this sport, with results at the general provincial level.

Table 1. Question # 1

Total	Yes	No	%
3	2	1	66.6

Table 2. Question # 2

Total	High	Medium	Low	%
3	2		1	66.6

In respect to this question, for the first two athletes, who represent 66.6%, the effect that training caused on their body influenced in their decision to retire from active sports activity, while the behavior of this indicator in the third athlete did not influence his retirement. In the second question about the level of impairment caused by the effect of training loads, in the first and second athletes the level was high and low for the third athlete.

Table 3. Question # 3

<b>Total</b>	<b>Yes</b>	<b>No</b>	<b>%</b>
3	2	1	66.6

Table 4. Question # 4

<b>Total</b>	<b>Yes</b>	<b>No</b>	<b>%</b>
3	2	1	66.6

100% of the interviewed consider that in the final stage of their sports life they did not assimilate the loads in the same way as in previous stages of preparation.

At the time of the sports retirement in the investigated athletes, the development of their work capacity in two athletes (1 and 3) was at a medium level and in athlete 2 at a low level, the coach took into account recovery time during and after the training sessions, which shows that an adequate work was done in regard with this . In this question, all the athletes answered that they did not assimilate the training loads in the same way as when they achieved their best sports results, this corroborates that from the training itself it should be noted when the athlete is no longer in a position to continue receiving high training loads.

When they were asked about if the results they obtained enabled them to participate in competitions at other levels, 100% consider that they did not, since at this level they only participate in competitions at the national level at the end of the macro cycle training and this was no longer possible. , which make an alert in relation to the retirement of the active life from sports

In all of the athletes, the determining abilities in their discipline decreased, an indicator that confirms the need of these athletes to retire taking into account that the behavior of these determining abilities largely fixes the sporting result in the discipline practiced. The indicators results of the pedagogical tests and results in competitions tended to decrease in the athletes studied, so they influence their sports retirement, since they did not achieve the expected results in the competitions they participated in, aspects that psychologically affected them in relation to future efforts to continue in high performance sport. In this sense, it is evident in these athletes that the conditions they face to continue in this center were difficult because they considered that the level of the competitions in which they participated was high, however the results they did not demonstrate a high level, despite what had already been stated it should have been treated from the training itself so that they made the decision to retire, which in this case was not carried out by the coaches and it is shown by 100% of the answers.

In relation to the levels they were required in the competitions, the respondents considered that they were high, which corroborates that the level they had to continue in this sport was lower. When they were asked about the decision to retire, 100% of the

interviewers replied that this was considered by the technical group, in consultation with the athletes involved.

In relation to whether they considered the moment of their sports retirement appropriate, all answers were negative, since they had aspirations in the next school course to do more for sport, by achieving better sports results.

### **Analysis of the behavior of the indicators of the medical, biological and psychological variable**

Regarding the health status of the athletes under study before retirement, the first two had no injuries, representing 66.6% and athlete three had a slight injury in the femoral biceps, which limited him from performing the movements with all the necessary amplitude.

In relation to the different psychological states that these athletes manifested at the time they were made aware of their sports retirement, it was possible to verify that athlete one and three were



depressed, all of them were frustrated without self-control of the situation they were going through, elements that corroborate they were not prepared for their sports retirement within their own training.

In regard with the aspirations of the athletes, it turned out that these were high for athlete three, and averages for one and two, elements that confirm their possibility of continuing to perform in the sport, according to their appreciation. Similar behavior, could be seen in the indicator related to self-esteem. On the other hand, in these athlete's self-assessment behaved appropriately, this confirms that the indicators of the psychological variable, despite their behavior, did not turn out to be the cause of their sports retirement, although it showed the lack of preparation they had to assume retirement.

### **Analysis and discussion of the results of the social variable**

In relation to the behavior of the indicators of the social variable, it was found that all the interviewers considered the decision to retire did not depend on their wishes or aspirations, since the coach, together with the athletics technical commission, decided, for pedagogical reasons, their sports retirement.

In the athletes studied, there were no changes in the indicators of the social variable as a limitation to continue their sports life which not affect the sports retirement of these athletes.

In general, in the athletes studied, it was observed that the behavior of the indicators of the pedagogical variable were those with the greatest weight in their sports retirement, as well as the indicators of the psychological variable, which show that these athletes were not prepared for their retirement sports from the training itself, elements that must be taken into account when selecting activities to specify their detraining.

### **Analysis of the behavior of the indicators of the pedagogical variable from the coaches' perspective**

In general, the coach considered that the high effect of training influence the sports retirement of their athletes, since they did not adapt to the physical loads that were used to in their preparation,

behavior that in their opinion constitutes the critical cause to the premature retirement of these young athletes from high-performance athletics.

It confirms that the level of development of work capacity in the athletes studied at the time their sports retirement was decided was at a medium level, behavior that alerted the proximity of the retirement.

Failure to assimilate training loads adequately also had an impact on the sports retirement of these athletes. Another important element was the behavior of their sports results that did not allow them to integrate the teams into the principal competition of this category, the main reason of sports training.

The general guidelines inform the coach if the athlete is in a position to continue the training or if it is the right time to retire from the high performance sport training. The specific ones concrete what to do to individualize sports training in terms of: content, frequency, percentage of work, duration, type and recovery time in sessions and between work sessions, among other elements.

Among them are these:

### **General methodological guidelines**

1. In the characterization of the sports retirement, the behavior of all the established variables must be known: pedagogical, medical, biological, psychological, social and economic so that the essence of the retire is known and the detraining is correctly oriented.
2. Once the athlete, with the help of the technical team (coach, athlete, doctor, sports psychologist and sometimes the National Sports Commission) decides to retire from high-performance sport, sports detraining should be carried out immediately, if it is possible, to be effective.
3. If the trend in the behavior of the variables: pedagogical, medical-biological, psychological, social and economic, is negative, they report the need for sports retire, if there are no changes in these variables, the athlete is in a position to continue with the sports preparation.
4. The behavior of the pedagogical and medical-biological variables regulate the individualization of sports detraining.

5. The behavior of the pedagogical and medical-biological variables regulate the individualization of sports detraining.
6. If the medical-biological variable presents alterations, the medical indications for the orientation and planning of the training should be taken into account whenever possible or, the insertion of the athlete in Physical Culture Programs.
7. When alterations in the psychological variable are manifested, psychological attention should be reinforced within the planning of the detraining.
8. In the athletes that present affectations of the social and economic variables, the individualization of the detraining should be projected taking into account the information that the pedagogical variable provides.

### **Specific methodological guidelines for the individualization of detraining**

1. Athletes who show alterations in recovery should be given more time to recover between exercises and work sessions, in relation to those who do not present alterations in this indicator.
2. If fatigue is frequent, the work percentages should be lowered, the work frequency should be less, as well as the duration of the work sessions.
3. If the assimilation of the loads is not adequate, the volume and intensity of the loads should be decreased, a longer recovery time should be planned, the frequency of the work sessions and their duration should be reduced.
4. If the technical skills show alterations in the indexes: coordination, economy, efficiency and fluency of movements, general exercises should be promoted during detraining. If specific exercises are used, they must have little complexity and little technical demands. The volumes and intensity of the work should be medium and low.
5. If the demands of the discipline practiced show alterations in their indexes: energy power, technical demands and necessary capacities, anaerobic exercises should be worked out and lower the level of the discipline's demands (in relation to repetitions, distance, intensity work, weight of the implements, height, among other elements). In the capacity work, percentages, volumes and intensities should be gradually lowered.

6. If there are alterations in the requirements demanded by the discipline in relation to the energy power capacity and motor capacities of the athlete, the level should be maintained or gradually reduced in correspondence with the age and level reached. If there are alterations in the technical domain, the volumes of technical work should be reduced and the general work of medium and low intensity, reinforced.
7. The general work of medium and low intensity, reinforced.
8. It is essential that the coach take into account medical guidelines when establishing strategies for detraining in the case of those athletes who present alterations in their state of health and in the functioning of the body's systems.

In the individual studied, the characterization of the economic variable did not proceed since, due to their age, they do not sustain themselves economically and in the case of families with few economic resources, the fact that their children are inmates alleviates this situation since they are fed, sports clothes, school uniforms, footwear for sports and teaching, and personal hygiene are given to them free. As part of the methodological orientation number 1, in this work it is intended to complete the second orientation through the characterization of the sports retirement itself and the design of activities that allow the individualization of their sports training to be specified.

In these athletes, due to the time they spent practicing the sport and the level reached, fatigue was frequent, so the percentages of work should be lowered (50 to 60%), taking into account that the activities that should prevail in sports detraining should be of medium and moderate intensity, if you want to reduce the loads accumulated during sports training and the frequency of work should be less (2 to 3 times per week) as well as the duration of training sessions ( 50 to 60% of the total time dedicated to this purpose).

When these athletes present difficulties with the assimilation of the loads, their volume and intensity should be decreased, a longer recovery time should be planned, the frequency of the work sessions and their duration should be reduced, information that provided the characterization of their sports retirement .

With these athletes when planning activities for their detraining, since they do not present difficulties with the technical demands of the discipline practiced, exercises for general physical development and to a lesser extent specific exercises for the sport practiced can be used. The general work of medium and low intensity should prevail, attending to the level reached by these athletes. In the case of athlete three, when planning activities for the detraining, due to the injury presented in the arm, medical attention should be given to the athlete and the corresponding attention through specific activities to rehabilitate this injury.

As it could be verified, the general methodological guidelines show the coach if the athlete is in a position to continue with his preparation or the need for sports retirement, in the case of the individual studied the behavior of the indicators of the pedagogical variable informs the coach that these athletes were in a position to retire. On the other hand, the specific guidelines allow the information provided by the characterization of the sports retreat to be used, in the appropriate selection of activities, frequencies, percentages and duration of work, forms of recovery in sessions and between work sessions, among other important elements that specify the individualization of sports training and that must be taken into account when preparing the activities to specify the individualization of sports training, taking into account their particularities and those of the sport practiced, also take into consideration some preferences of activities for which they feel affinity. In this sense, the work was organized in two workshops; in the first place the possible activities to be carried out by the athletes, while in the second workshop they were adapted to the information provided by the characterization of their sports retreat.

**As a result of the first workshop, the activities analyzed were:**

- Cross country races.
- General physical development exercises (jumps,throws, runs of different distances, routes).
- Specific exercises of low and medium intensity (of sport in general and of the discipline practiced in particular, with predominance of general work, in the specificity of the discipline: passing fences and low-level obstacles, reducing the distances between fences, with few technical requirements).
- Work of different capacities with general means.

- The use of varied games for different purposes (elevation of the pulse, work of abilities and capacities, for recovery).
- The use of auxiliary sports such as soccer, volleyball, basketball, swimming, cycling, among others).
- Varied activities such as aerobic exercises, sarabandas, dance therapies and other activities of Physical Culture.
- Physiotherapy sessions for the athlete who showed alterations in one of the indicators of the medical-biological variable (injuries).
- Strengthen psychological work in athletes who presented alterations in several of the indicators of the psychological variable.

In a second workshop, the activities to be used and how to specify them in the individualization of the detraining of the young athletes studied were defined. The common activities for all were selected taking into account that the discipline practiced is the same, the level reached and the years of sporting experience are similar. Individual activities will be carried out according to the changes presented in the characterized indicators.

### **Specific activities**

**Athlete one:** the work frequency will be of three sessions a week, the duration of the sessions between 50 to 60 minutes. You can incorporate psychological attention within the sessions to attend to the affected indicators such as: depression, frustration, raise the level of aspirations and self-esteem in order to raise awareness of the need and importance of detraining as a new aspiration in life. Ensuring recovery in the session and between work sessions should be greater with pulsations between 110 - 120 p / min. Considering the affectations in the indicator assimilation of loads, the work percentages up to 60%.

**Athlete two:** the frequency of work will be of three sessions a week, the duration of the sessions between 60 to 70 minutes. Psychological attention within the sessions to attend to the affected indicators such as: depression, frustration, raise the level of aspirations and self-esteem in order to raise awareness of the need and importance of detraining as a new aspiration in life should be

incorporated. Ensuring recovery in the session and between work sessions should be greater with pulsations between 110 - 120 p / min, taking into account the affectations in the indicator assimilation of loads, the work percentages should be up to 65%.

**Athlete three:** the frequency of work will be twice a week, in this case the third frequency will be dedicated to physiotherapy sessions, take care of the injury presented, until it is solved the athlete should not incorporate general launches to maintain the levels of strength, in this session you should give treatment from the psychological point of view to the changes presented in the aspiration, self-esteem and frustration indicators. The duration of the sessions must be between 45 to 50 minutes, ensuring recovery in the session and between work sessions, which should be longer, taking into account the effects on the assimilation of loads indicators.

As can be seen from the information provided by the characterization of the sports retirement of these athletes, it was reported that the pedagogical variable with its indicators were the ones that most affected the sports retire of these young athletes who left the provincial EIDE of Villa Clara, which in turn, they served as a starting point to prepare the activities for the individualization of their training, which allows reaching the following conclusions.

## Conclusions

In the characterization of the sports retirement of the young athletes of the EIDE athletics of Villa Clara that are studied, it is corroborated that the indicators of the pedagogical variable were those that influenced their sports retirement, highlighting the non-assimilation of the loads, frequent exhaustion in the training sessions, the decrease in the results in the pedagogical tests and in the competitions, did not fulfill the minimum required marks, among other elements, which confirm that the alterations of the indicators of the pedagogical variable was the main cause of the sports retirement.

The activities designed with the active participation of the trainer of the studied athletes take care of the information provided by the characterization of the sports retirement, common and individual activities are elaborated to concretely specify the sports detraining of these athletes.

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