

***Set of specific exercises to improve control in pitchers category 13-15 years of the  
Combined Sports Plaza  
Conjunto de ejercicios específicos para mejorar el control en los lanzadores  
categoría 13-15 años del Combinado Deportivo Plaza***

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***ABSTRACT***

In the present investigation, a study is presented on the ineffectiveness presented by the pitchers of the Combined Plaza sports team, category under 15 years, which has been affecting the failure to obtain a better result from this group at the base level. In this sense, the researcher offers a group of elements about an activity that is considered the national pastime of all Cubans. In addition, it has been enriched by the criteria of Masters, experienced athletes and coaches. The result of this research allowed us to propose as a solution a set of specific exercises to improve control in the pitchers of the Combined Depurative Sur hospital sub category. 15 years.

***Keywords***

Specific exercises; Baseball pitchers; Pitching; Throwing.

***RESUMEN***

Este artículo, responde a un estudio sobre la ineffectividad que presentan los lanzadores del combinado deportivo Plaza categoría sub.15 años, lo cual ha venido incidiendo en la no obtención de un mejor resultado de este conjunto a nivel de base. En este sentido, el investigador les ofrece un grupo de elementos acerca de una actividad que está considerada como el pasatiempo nacional de todos los cubanos. Además, ha sido enriquecida por los criterios de Máster, atletas y entrenadores con experiencia. El resultado de esta investigación nos permitió proponer como solución un conjunto de ejercicios específicos para mejorar el control en los lanzadores del Combinado Deportivo Plaza categoría sub. 15 años.

***Palabras clave***

Ejercicios específicos; Lanzadores de béisbol; Pitcheo; Lanzamientos.

## **INTRODUCTION**

Baseball in Cuba is passion, which leads a large number of children and young people, since early ages, to embark on the path of sports activity in baseball diamonds.

Baseball is a variable sport, belonging to the games' group. They are characterized by the combination of strength, speed and resistance exercises, therefore it is a sport that from the point of view of obtaining energy combines the aerobic and anaerobic efforts. Another characteristic of these is that their practice requires a high sense of coordination of movements.

The demands of contemporary Baseball reflect the need to carry out innovations in the preparation process of the pitchers to maintain and increase the sports results in the training and competitions where they participate. Within the technological and investigative demands of the International Federation of Associated Baseball (FIBA) and the Cuban Baseball Federation (FCB) is the development of investigative studies that contribute to the improvement of the preparation of pitchers in these categories.

In this sense, the training tasks have occupied a significant place in the preparation of the pitchers, since all the intentions for the development of their preparation are defined and implemented and the methodological conceptions that the pitcher has implicitly and explicitly implemented. coach has about such preparation.

This term has been studied by authors such as: Herrán (1984), (Guerra, 1989), (House, 1993) y (Ibidem, 1993), what was expressed by Ibáñez (1999) is assumed when he states that the training task is the tool used by the coach to develop the skills and abilities of athletes, that is, it is translated into specific actions that the coach available to each player depending on their qualities. The same author affirms that the training tasks designed under a traditional, mechanistic, structuralist approach, tend to be closed motor activities, classified within the means for sports initiation as simple and complex application exercises Ibáñez (1999).

One of the areas with the greatest difficulty is that of the pitchers, since they require great coordination of movements, good control, very good concentration of attention, in addition, a high level of tactical technical thinking, in order to dominate the opposing batters.

The 90's tried to solve the old debate about pitching between traditional and contemporary scholars and followers; Is Baseball a science or an art? Members of the old traditional schools of Baseball think that each pitcher pitches in his own way (in his own way), using a finite number of pitches, given more by mother nature than by other factors, with a certain level of skills that places them at a certain level of competition.

The followers of the new contemporary baseball schools are more scientific, they think that genetic factors are the only limitations in the development of pitching skills, necessary to reach an optimum level of competition.

The human body, in its similarity with the simple mechanisms of mechanics, is a system of chains, levers, pendulums and pulleys that must be trained in a specific way to compete. It can be trained to respond to the physical demands that pitching requires, and the brain and feelings can be primed with information and experiences in such a way as to provide adequate mechanical and physical conditioning. (Ibid., 1993). Although ancient and modern schools differ philosophically on how skills are developed, they agree that casting is a skill. So we dare to say that pitching is both: "a science and an art." (Ibid., 1993).

To pitching, we can add everything; great attention to the sequence of nerve and muscle contractions that create speed and impart rotation, while delivering a calculated amount of stress to the muscles, tendons, ligaments, and bones. "The art of pitching" is simply the way an individual uses their feet, legs, torso, arms, and head to interpret information from the science of pitching. (Ibid., 1995).

The author of this work considers that the height of the pitcher can be considered based on the proposal by Professor Ealo, but the higher it is, the greater the effectiveness of the speed and control of the pitches in this work area.

Problem to solve: How to improve control in the pitchers of the Baseball team of the Combinado Deportivo Plaza under 15 category?

Objective: To develop a set of specific exercises to improve control in the pitchers of the Combined Sports Plaza sub.15 category.

Pitching technique has been taught for hundreds of years. During the first 90 years of baseball, coaches used their own visual experience to teach their pitchers. This error continued until the late 1970s when American, Canadian, and Japanese professional trainers adapted new technologies (film and video cameras, force platforms, photoelectric cells, electromyography, etc.) to instructional technique.

In the last 8-10 years, coaches and researchers have begun to integrate 2D and 3D (two-dimensional and three-dimensional) computer analysis into their teaching and analysis of pitching motion. Currently, it is argued that the best coaches are usually three-dimensional thinkers, and the best pitchers always develop efficient three-dimensional styles. However, we are of the opinion that there is still a lot to improve in the pitching process between instructors or coaches and athletes. For a few years now, the pitcher's preparation has motivated concerns and discrepancies between coaches and coaches at

different levels, resulting in isolated attempts to solve the problem that worsens, without convincing the specialized opinion. (War, 1989).

The vast majority of coaches believe that the shortcomings are due to a lack of physical preparation, others attribute it to a lack of mental preparation. It is mandatory to refer to the large number of injured arms, especially in the lower categories between 15 and 18 years. Just to cite an example; in our Guantanamo province of 5 pitchers who start in the pyramid; two only make it to the provincial team and in recent years none have made it to the national team, three remain on the road mainly due to discomfort in the throwing arm and control problems.

According to Ealo de la Herrán (1984) "The pitcher of a baseball team plays the most difficult defensive position in the game, not only because of the physical effort he has to make during the game, but also because of the mental activity required in each of the offensive and defensive situations in the course of the challenge". Regarding the physical constitution of the player who performs in this position, the same author refers to "A height of 183 cm." and an approximate weight of 86 kg with long arms and large hands to obtain a better grip on the ball are additional conditions that favor it".

What was previously expressed allowed us to affirm the insufficiencies that exist in the control of the pitchers of the Combined Plaza category 13 -15 years, which indicates an inefficient pitching, thus constituting a concern for the technicians, coaches and specialists of this important area that represents more than 70% in the victory of a team, so our work is aimed at carrying out a set of specific exercises to improve control in the pitchers of the Baseball team of the Combinado Deportivo Plaza category 13 - 15 years.

## **MATERIALS AND METHODS**

For the elaboration of this work, 6 pitchers belonging to the school category 13-15 years of the Combined Sports Plaza of the Guantánamo Municipality were selected as a sample. Using the purposive sampling technique. To carry out this work, theoretical, empirical and statistical mathematical investigative methods were used, among which the analytical-synthetic, inductive-deductive, systemic-structural-functional, documentary analysis, scientific observation, survey and measurement stand out. The data processing was carried out with the SSPS statistical program to determine the level of statistical significance of the changes before and after applying the training tasks.

## **DISCUSSION AND ANALYSIS**

### **Results**

After applying the set of specific exercises, a technical test was carried out with the objective of observing if there was an improvement. For this technical test, 20 throws were made, 10 in straight

lines and 10 in breaks, showing the following results: throws in straight lines, total balls (40) Less than strikes (60) all these results when they throw fastballs which shows a great improvement, in relation to the breaking pitches it behaved as follows, (47) pitches in the ball zone and (53) in the zone of strike, which demonstrates the control achieved by the team's pitchers after applying the action system. This test was applied three times after applying the set of specific exercises and the results behaved similarly. For an assessment of the practical significance of the proposal, various managers, coaches and players were questioned.

Logically, this method required carrying out a scientific-methodological activity to explain its essence, later the set of exercises was delivered for detailed study by the selected specialists.

Then, in a second moment, the survey was applied so that they could issue their criteria about the usefulness of the set of exercises previously delivered.

For information processing, the sample was structured based on the following fundamental indicators:

1. Occupational structure.
2. Years of experience working with sports.
3. Years of work in the pitching area
4. We want to give examples of some of these exercises so that you have a general idea of the work done.

- Throw short without receiver.

### Methodology

When planning to throw over the lower zone during batting practice, a catcher is not placed, instead objects are placed to serve as a reference (it can be a ball or a glove, etc.), approximately three meters away from the pitcher. home plate in the catcher's place, and the pitcher makes his pitches to try to hit the ball. This helps pitchers keep their eyes on the target when making their pitching motions.

### CONCLUSIONS

An analysis of the historical tendencies of the control of the pitchers in the Combinado Deportivo Plaza was carried out, where the need to continue deepening the development of this process for pitchers who start in this category is exposed. The theoretical foundations consulted made it possible not only to characterize the problem, but also to understand the need to improve the control of the pitchers of the Baseball team of the Combinado Deportivo Plaza category 13 -.15 years. The results of the diagnosis showed that there were insufficiencies in the control of the pitchers, as well as the need to implement actions that contribute to solving the scientific problem declared in the investigation.

The set of exercises developed made it possible to improve the control of the pitchers, evidenced in the validation, and the criteria of the specialists, which demonstrated its feasibility to be generalized in these categories throughout the province.

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