132 - EFFECTS BY APPLYING A PLYOMETRIC TRAINING PROGRAM IN RUGBISTA BELONGING TO THE CATHOLIC UNIVERSITY OF TEMUCO

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INTRODUCTION

Rugby is a sport where reactive actions predominate, Lorenzo (1998) "defines the rugby as a sport primarily of strength and speed , and during a game are numerous jumps performed , as the number of accelerations that occur , leaving the patent importance will acquire them in the performance of players " , and plyometrics is the method of choice for the development of these actions , therefore in this paper we use methods and resources according to maximize work and plyometric quality of assessments for the skills of the athletes.

To complement this issue we can say that as mentioned in a document of medicine and rugby fitness I found the adult player must differ according to the position occupied by the player on the pitch. Rugby is a team sport that accommodates different anatomies , from a forward 2 meters and 110 kilos of weight to an average of 1.65 and 60 kilos . It is one of the charms of this sport in which there is room for everyone. It is very difficult for a coach in one session combine all the physical work . Imposes increasingly differentiated physical work , then make gaming sessions together .

Another issue that is particularly important is the development of force in collective sports, as mentioned in his July Tous Fajardo paper strength training in team sports tells us that before the 80s was unusual conduct weight training in team sports . Many players rejected it and questioned its usefulness because of alleged loss of technical efficiency and speed. Lack of knowledge of advanced training systems by preparers made for years that the work force by bodybuilders unique tracking methods. The culture of 3x10 , reserves caused many players and coaches and players about the convenience of working force. However, no notice that the force can be worked in countless ways without using an external load and in fact the so-called technical-tactical training actually contain specific workloads force, in other words , we mean simply the using a strength training can prevent injuries and improve performance

According Inn and Ramos (2001) Plyometrics is a specific form of strength training , aimed at developing explosive strength and reactive capacity of the neuromuscular system. The benefits of a plyometric program for healthy athlete have been demonstrated in the literature

This study is part of the implementation of a plyometric training program and its impact on the reactive force , specifically in the CMJ jumps, SJ and Abalakov measured by Carmelo Bosco protocol in rugbistas of the Catholic University of Temuco with a duration of 4 weeks with 4 weekly sessions. The program will be applied to athletes during late October and November.

METHODOLOGY

The study work I selected 8 rugby team of the Catholic University of Temuco and were evaluated through test Bosco jumps: Abalakov , CMJ , SJ . The vast majority of participants had no previous experience performing plyometric workouts and its capabilities , so the use of a diving platform enables us to keep track of events.

Statistical treatment : SPSS statistical software was used for analysis of the results and the Excel program to plot the data produced . For statistical comparison in intragroup changes before and after the implementation of the training program the student t-test for related samples was used .

Procedures: The respective controls were performed at baseline training (before the first week of training, pre -test) and at the end (after the last training completed , post- test) running the test , vertical jump (CMJ, SJ and Abalakov) and as for body composition (weight and height) were taken only at the beginning of the evaluations.

RESULTS

From the assessments made then present the results , which were analyzed by the SPSS program , where through this helped us to make comparisons in the results, analyze samples either from pre -test to post- test , which is why we present tables where jumps are given their variations and jumping qualities , which helps us identify the means and improvements in each test.

Tests of normality

	EVALUACIÓN	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Estadístico	gl	Sig.	Estadístico	gl	Sig.
SJ	dimension1 Pretest	,241	8	,189	,928	8	,496
	dimension1 Postest	,291	8	,044	,857	8	,113

a. Corrección de la significación de Lilliefors

En la variable SquatJump los datos provienen de una muestra normalmente distribuida P ≥ 0,05.

Análisis Descriptivo evaluación 1 y 2 variable sj

Statistical Samples

		Media	N	Desviación típ.	Error típ. de la media
Par 1	SJ1	26,3125	8	4,06885	1,43856
	SJ2	26,5875	8	4,70272	1,66266

In the above table an INCREASE OF 0.2% in the average total SJ experimental group after completion of the training program carried out, ie after 16 sessions of plyometric training is evident, showing that most of the group met prior expectations and exceeded in some capabilities.

Statistical Samples

		Diferencias relacionadas					t	gl	Sig. (bilateral)
		Media	Desviación típ.	Error típ. de la media	95% Intervalo de confianza para la diferencia				
					Inferior	Superior			
Par 1	SJ1 - SJ2	-,27500	1,10032	,38902	-1,19489	,64489	-,707	7	,502

The values presented (sig: 0.502) were statistically significant (p> 0.05), therefore the experimental group presented no significant changes in levels of SJ after application of a training program, which is within the normal range then expect that training.

Normalidad CMJ

Pruebas de normalidad

	EVALUACIÓN	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Estadístico	gl	Sig.	Estadístico	gl	Sig.
CMJ	dimension 1 Pretest	,228	8	,200*	,828	8	,057
	dimension 1 Postest	,240	8	,193	,862	8	,125

a. Correction Lilliefors significance
*. This is a lower limit of the true meaning.

CMJ in variable data come from a normally distributed sample P ≥ 0.05.

Descriptive Analysis and Evaluation 1 2 Variable CMJ

Estadísticos de muestras relacionadas

		Media	N	Desviación típ.	Error típ. de la media
Par 1	CMJ1	27,2000	8	3,67229	1,29835
	CMJ2	28,8875	8	4,70028	1,66180

U student for related samples.

Test Samples

		Diferencias relacionadas					t	gl	Sig. (bilateral)
		Media	Desviación típ.	Error típ. de la media	95% Intervalo de confianza para la diferencia				
					Inferior	Superior			
Par 1	CMJ1 - CMJ2	-1,68750	1,13192	,40020	-2,63381	-,74119	-4,217	7	,004

The values presented (sig: 0.004) are statistically significant (p ≤ 0.05), so the experimental group presented a significant improvement in CMJ levels after application of a training program. Which is because this assessment corresponds on average to the mostly suffers positive changes in the results, being a leap that involves all members of the body, and the domino Control best technical group, being very accessible to strengthen with longer training program, these results should increase even more improved results.

ABALAKOV

Pruebas de normalidad

	EVALUACIÓN	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Estadístico	gl	Sig.	Estadístico	gl	Sig.
Abalakov	dimension 1 Pretest	,159	8	,200*	,937	8	,586
	dimension 1 Postest	,235	8	,200*	,860	8	,120

a. Correction Lilliefors significance
*. This is a lower limit of the true meaning.
In Abalakov Variable data come from a normally distributed sample P ≥ 0.05.
Descriptive Analysis and Evaluation 1 2 Variable Abalakov

Estadísticos de muestras relacionadas

		Media	N	Desviación típ.	Error típ. de la media
Par 1	ABALAKOV 1	30,0500	8	4,01639	1,42001
	ABALAKOV 2	30,5625	8	4,01744	1,42038

T student para muestras relacionadas.

Prueba de muestras relacionadas

		Diferencias relacionadas							
					95% Intervalo de confianza para la diferencia				
		Media	Desviación típ.	Error típ. de la media	Inferior	Superior	t	gl	Sig. (bilateral)
Par 1	ABALAKOV1 - ABALAKOV2	-,51250	,98624	,34869	-1,33702	,31202	-1,470	7	,185

CONCLUSIONS

To provide further substantiating the results we will present conclusions which may verify that the results have a positive character in relation to training applied to rugby players from the Catholic University of Temuco, where we compare Alerts investigations of plyometric training and documents that can validate the existence of improvement to make this type of training .

Statistically positive increase in CMJ and Abalakov after applying the t-test for related samples, SJ no significant improvement was found, but if you have % increase in the revised literature raises is not a leap with reactive capabilities which generates the plyometrics not potentiate significantly. On the other hand the diving platform allows us to have indicators for planning of training of athletes , so the record of the changes that occur in the various assessments , using it in conjunction with statistical programs allows us to analyze scientifically the data athletes.

We can also say that there is abundant evidence that regular participation in a training program with over load or plyometric training program can improve measures of strength and power in athletes. Several studies also suggest that changes in motor skills performance resulting from participation in a combined program of resistance training and plyometric training are higher than with a type of training alone , so it is recommended that athletes participate both a training program on cargo and plyometrics when gains are desired engine performance. Referring directly to the results delivered the leap that a higher percentage increase was the CMJ and then Abalakov both jumps have elastic components are influenced by plyometric training , the SJ is a jump where the reactive components are not involved and increase percentage is not large .

Horacio Anselmi (2007) , the importance of being strong is essential and that is why this research supports such as these for the benefit of the players plyometric training will be very beneficial to your development as an athlete , as people are physically powerful , this means being able to apply a force at high speed and in a very short time, which is why before starting training is very necessary to have the following points in mind : the age of the athletes and the size physical development of athletes , body symmetry, energy use , injuries and sequelae thereof , adequate preparation, the performance requirements of the sports field, in the face of the annual periodization training , absolute respect the principle of progressivity, the information provided by evaluations, these bright spots in the successful development of the activities will take . To complement our research and support the type of training results were made based on appropriate levels of plyometrics which reached Level 3 , indicating the number of hops per week , and the height of the jumps and we must do this way to have a intensity , adequate working volume accordingly, a corresponding pause, volume and density suitable training work which each of these steps are fulfilled , that is why positive results were achieved at the end of research.

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ABSTRACT

In this study we present the results to the application of a plyometric program to rugby players of the Catholic University of Temuco, where after 16 training sessions to 8 players selected by one of the Bosco test seeks to find significant improvements in the ability of jumping to the players, where your physical abilities be heavily improved after training. This corresponds to evaluate three types of hops as the CMJ, SJ and Abalakov, with the aid of a jump platform through which accurate records indicate whether or not there is an improvement, and thus demonstrate and verify that the training influences plyometric jump improvements.

KEYWORDS: Training, test Bosco, plyometrics, jump

EFECTOS DE UN PROGRAMA DE ENTRENAMIENTO PLIOMETRICO EN RUGBISTAS PERTENECIENTES A LA UNIVERSIDAD CATÓLICA DE TEMUCO

RESUMEN

En la presente investigación se presentan los resultados ante la aplicación de un programa de entrenamiento pliometrico a jugadoras de rugby de la universidad Católica de Temuco, donde tras 16 sesiones de entrenamiento a 8 jugadoras seleccionadas por medio una del test de Bosco se busca encontrar mejoras significativas en la capacidad de saltabilidad de las jugadoras, donde sus capacidades físicas se vean altamente superadas tras el entrenamiento. Para esto corresponde evaluar tres tipos de saltos como el CMJ, SJ y ABALAKOV, con la ayuda de una plataforma de saltos la cual por medio de registros exactos nos indican si existe una mejora o no, y de esta forma evidenciar y comprobar que el entrenamiento pliometrico influye en las mejoras de salto.

PALABRAS CLAVE: Entrenamiento, test de Bosco, pliometria, salabilidad