

Special exercises with ropes, rubber bullets and their impact in some biomechanical variables in the 100m hurdles ran for juniors

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Abstract

The rubber ropes exercises affected muscle groups, which in turn affects the corners of the conditions of the body before and over the barrier where affected the time passed. To change the angle of the approaching and payment impact on passing each times the barrier 1-5. That passed over the barrier land gate 5 impacts on the nature of the achievement, where time has become less. Find the values of cruise missiles and other phases and stages of pitch angle other categories which it enshrines stood as compelling rejection men's 110m hurdles. Find the value of the instant messaging distances between different barriers and stages. Studies by adding rubber sling barriers race categories, measurement of kinematic variables. Emphasis on the development of the force by means of various tools and resistances added to during the designated as performance similar to affect the physical abilities of biomechanical variables for each of the normal step outdistancing jogging former stages.

Keywords: Special exercises, rubber bullets, biomechanical, hurdles ran, juniors

Introduction

The speed of events exciting events which have physical requirements for mechanical requirements for the achievement of events which ran the barriers installed in performing then ran a step in the performance of different barrier normal jogging this continuing difference between normal step outdistancing jogging make this effective special advantage in the level of need for speed for the special force during the different stages of the race, (Larsson.2003) and effectiveness of 100m hurdles championship events which require physical capabilities for biomechanical variables of the conditions of the body and the power produced by the player during the upgrade before passing most important variables affecting the corners of the conditions of the body before and after and click as affect the smoothness achieved by the thrusts teams follicle happens impetus and momentum of the first moment of approaching the second The moment of payment where whenever a few of these differences indicates the flow better since the stage of the upgrading of the most important stages that must be emphasized because they affect the nature of outdistancing mention (Radoslav,2008).

Literature review

Phase begins when the hostility of the earth located under the influence of the gravitational force and resistance are driven air as the lead man movement continues forward to the barrier rising knee football with the rise of the barrier this affected largely for a moment before leaving the ground whenever the center of gravity of the body at the beginning of the fly (i.e. at the end of the first stage is the focal point of the) high whenever the center of gravity of the body is low in flight (Mufti,

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1998) and must be a man upgrade (man), which will become the focal point of the rear man later after the last step in Muscat, the center of gravity of the body almost as the performance of these variables well, have a great role in the possibility of best in penetration and therefore the time of achievement comes through training Stretching exercises with the addition of opponents rubber bullets during performance added to the muscles working to improve the force levels of these muscles and thus increase the qualification and output efficiency is increasing the player's speed (Intisar, 2009), and the researchers found that the weaknesses in the times outdistancing due to weak some biomechanical variables in the upgrading of the moments of payment as a force and angles 2012 outdistancing and affected by the nature of the outdistancing so should the special exercises to develop partial times per a barrier and thus positively affect achievement. Therefore, knowledge of the influence of special rubber rope exercises in some variables kinematics and ran the 100m hurdles for juniors (Qassem, 1985) realized the importance of this study through the rubber ropes exercises added to the body designated as player performance and the impact of these exercises on the kinematic variables certain stages of the completion of the 100m hurdles for juniors, so every step of crossing the barrier requiring changes in enemy step starting to transfer the center of gravity of the body from its normal course during the enemy to the path of the highest moment outdistancing despite the negative impact on the speed of the moments of pay to pass the barrier landing moments after crossing the barrier (Sareeh, 2014)) in order to overcome this influence the speed at the moment of crossing the barrier solver must perform outdistancing the shortest possible time and horizontal as possible without high amounts in the center of gravity of the body (Radoslav,2008) which took into account the moment before outdistancing after outdistancing and engage the enemy between the barriers so starts a step cross the barrier last moment invoked the next step and preparing took into account to maintain high center of gravity of the body as much as possible to maintain the speed this occurs when the center of gravity of the body at the moment of the start passing is high it would help in this is the last step, which is shorter than its predecessor before outdistancing. It is know that the specifications of the movements of parts of the body to control the line of horizontal curved Center body weight men barrier one after the other and this was confirmed by (Larsson, 2003)

Methodology

Researchers used the experimental approach to the design group. Runners sample search and they are the elite of the effectiveness of the 100m hurdles championship of 2019 registered in the country clubs championship with converged levels of (6) players from out of (8) players for this category represent the percentage (67%) of the community of origin. and the use of Arab and foreign sources and references the international information network and the Internet, observation and experimentation and interviews.as was the use of kinesthetic analysis program to find a biomechanical variables from the corners of the 2012 speed camera, high frequency (1000p./THA) Sony 3 camera holder number (3) Use the speed of 120 p.) that to portray a sample search jumpsuit rubber ropes of the two men, the hands and the number 2.

Test Video imaging ran 5 barriers: From the beginning of the sit ran 5 Barriers .The three cameras barrier first, fifth and tenth (6m) so as to appear before barrier 3m3m after the barrier and perpendicular to the left side of the area of the jogging and at altitudes (Umm) from mid-lens cameras to wear yours in sports shoes. The test was applied to tribal on 7/1/2019 at 10 a.m. on the playground of the Faculty of Physical Education and Sports sciences and find the following variables barrier 1-5-10.The force through and time of payment, and fluidity .thrusts teams = Momentum I. Second momentum and momentum = $K \times Q$, and a start was made in the application of special rubber rope exercises on 8/1/2019 To 7/3/2019 on a sample search where the interference in the part of the main section of the training module by (4) training modules in a week for a period of (8) weeks any (32) Training Unit exercise during the time of the training Unit) 40-45) minutes in which to pass step exercises one barrier repeatedly or for more than a jog or from Rapid jogging suit, wear rubber sling added to the hands and legs graduated resistors during the module where the maximum intensity of rope is 100% of the intensity of the umbilical cord and was the starting 80% to reach 100% or intensity through the sling shot rubber bullets as a resistance of the two men and hands these ropes tied to a pole inside the stadium and is a repeat performance of the leading men of the existence of these ropes coverage on a barrier of one or more of a checkpoint or the performance of the 1964/65 ran hiking the existence of barriers with wearing a suit ropes, rubber golf athletics college of Physical Education and Sports sciences, and the application of the dimensional test on 8/3/2019 The same conditions of the tests was the use of tribal SPSS statistical bag to extract the results.

Results

Table (1) shows the calculation of standard deviations variables (the first barrier

variables	Tribal Test		Dimensional Test	
	Q	±p	Q	±p
force / Net	1177.5641	2.1769	1194.7800	3.1354
Cruise missiles.	17.17	0.354	13.83	0.354
time of payment / tha	0.1918	0.0019	0.1833	0.0018

The degree of release of 6.1= 5 the level of significance of 0,05

Table (2) shows the mathematical community teams and the value of e and t calculated and moral real meaning the first barrier

variables	P	E	T calculated	level of Mistake	level of significance
force / Net	17.2159	3.5740	4.817	0.005	Significant
Cruise Missiles	3.333	0.333	10,000	0.000	Significant
time of payment, tha	0.0084	0.0003	22.592	0.000	Significant

The degree of release of 6.1= 5 the level of significance of 0,05

Table (3) shows the calculation of standard deviations barrier variables v

variables	Tribal Test		Dimensional Test	
	Q	±p	Q	±p
force / Net	1194.7800	3.1354	1242.3670	15.1111
Cruise missiles.	16.00	0.365	12.17	0.354
time of payment / tha	0.1833	0.0018	0.1771	0.002

The degree of release of 6.1= 5 the level of significance of 0,05

Table (4) shows the mathematical community teams and the value of e and t calculated and moral connotation of the real barrier variables v

variables	P	E	T calculated	level of the Mistake	level of significance
force / Net	47.5870	17.0724	2.787	Merely 0.039	Significant
Cruise Missiles	3.833	0.354	5.808	0.002	Significant
time of payment, tha	0.0062	0.0010	Reach 12.475	0.000	Significant

The degree of release of 6.1= 5 the level of significance of 0,05

Table (5) shows the calculation of standard deviations barrier variables x

variables	Tribal Test		Dimensional Test	
	Q	±p	Q	±p
force / Net	1189.8105	3.2772	1254.0849	15.4957
Cruise missiles.	16.00	0.365	12.67	0.354
time of payment / tha	0.1865	0.0026	0.1742	0.0024

The degree of release of 6.1= 5 the level of significance of 0,05

Table (6) shows the mathematical community teams and the value of e and t calculated and moral connotation of the real barrier variables x

variables	P	E	T calculated	level of the Mistake	level of significance
force / Net	64.2668	15.8401	4.221	0.010	Significant
Cruise Missiles	3.333	0.494	6.742	0.001	Significant
time of payment, tha	0.0122	0.0016	7.508	0.001	Significant

The degree of release of 6.1= 5 the level of significance of 0,05

Through the above tables identify differences in the results of moral barrier biomechanical variables 1-5-10 researchers attributed the cause of this moral differences in favor of the dimensional test in these variables to the special exercises with ropes rubber hands and legs tied to the performance of the leading exercise and coverage on the premises or to wear a suit rubber ropes lead exercise performance and coverage separately or performance outdistancing completely different distances the existence of barriers of these ropes added according to stressed resistance the specific muscle groups during the performance, including the burden on the muscles during the performance and affect the force produced by the muscle moments pay running and passing and related dealings and teams in the momentum of the approaching and momentum of payment where the difference between approached zero cruise was the best time was outdistancing less

angle miles best over the barrier and thus the time of achievement. It is one of the ways the development speed way kinetic patterns of competition in which the kinetic patterns are used in the competition, which make the application of this performance in conformity with the technical and mechanical requirements (Me Clog, 1954), either in the force variable or suggestions that the moments that occur in the corners of the approaching and payments before the Barrier requires more force than the moments of running because of the change in the technique and the existence of the barrier up, which requires the hostility passed without a large decrease in speed, it must exert more force when crossing the barrier at the lowest possible any time to suit the performance (Mufti, 1998), is the main cause of changing body position and gaining the amount of momentum through the ideal performance compatible with the correct angles and conditions of the body, so the Instant Strength Training for the integration of the performance pay the moment to start to move, which depends on the amounts of the force which each can produce due to groups of runner working muscle during this performance and to try to give the body the amount of movement or momentum of the ideal body can be hostility from payment of front attempt high speed to maintain the momentum and increase the amount in the first steps to launch, which is a standard streaming through these steps and consistency of the movement of parts of the body during this stage (Ahmed, 2016) , and to remember the victory of the Rashid that improving the level of explosive force, which clearly show the moments of the focal point and push to pass every barrier runners to improve approach angles and push the focal point of passing moments as well as the corners of approaching and payment after penetration, which reduces the time of outdistancing therefore Time Macroeconomic Achievement (Intisar, 2009) , here refers, Mahmoud Othman, "to improve the speed of muscle contraction through the use of dynamic training quickly distinguished performance and power" (Yahya, 1990).

The cruise direct relationship climate variable quantity of the movement of the body and the quantity of the movement is the mass of the body multiplied by the speed since his Lumps the body fixed, the relationship is changing rapidly the body gained the moment before and after the base, which is affected by the body angles and determination of inertia, as well as payment of the renewed force moment invoked" lengthening the first step achieved as a result of the type of the stage on the basis of characteristic when get appropriate compensation payment after landing and the possibility of transferring forward movement can be relatively large step the second step would be close to the enemy clearly highway" (Qassem, 1985) "therefore logical to develop a time of performance of the barrier step, especially when recourse to the ropes, rubber bullets as the repetition of the jogging exercises and passing the existence of the sling opponents strengthen the case of contraction muscle contraction as soon as possible It gives the real course of the movement runs smoothly high performance time limits when outdistancing (Yusriz, 2003), it is mentioned explicitly as "the application of all the characteristics of time during the movement without stopping and without any sharp breaks in engineering routes blocks centers parts of the body and the body itself" (Sareeh, 2014). so "special exercises that help in the development of the work of the muscles working in the jogging and lead to improve the speed of their steps and thus speed including at least 0.6 seconds or more"(Dintiman, 1998).

Conclusions

1. The rubber ropes exercises affected muscle groups, which in turn affects the corners of the conditions of the body before and over the barrier where affected the time passed.
2. To change the angle of the approaching and payment impact on passing each times the barrier 1-5.
3. That passed over the barrier 1 and gate 5 impact on the nature of the achievement, where time has become less.
4. Find the values of cruise missiles and other phases and stages of pitch angle other categories which it enshrines stood as compelling rejection men's 110m hurdles.
5. Find the value of the instant messaging distances between different barriers and stages.
6. Studies by adding rubber sling barriers race categories, measurement of kinematic variables.
7. Emphasis on the development of the force by means of various tools and resistances added to during the designated as performance similar to affect the physical abilities of biomechanical variables for each of the normal step outdistancing jogging former stages.

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