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Cross-training and its effect on endurance of speed and strength for youth basketball players

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Abstract

The study aimed to Develop a program using the occasional recreational training method during the transition period; Knowing the effect of the transverse training method on endurance of speed and strength of basketball players. The researcher used the experimental method And select the search community _ They are the players of Al- Khatiya Sports Club in Basketball, the youth category under (18) years, and their number is (12) players. Some procedures were adopted to achieve the objectives of the study. The study came out with the following conclusions: The transverse training method achieved positive results in maintaining the level of training the speed carries the strength of the arms and legs of the research community members.

Keywords: Cross-training, speed, basketball players

Introduction

Transitional period is one of the periods that are no less important and important than the periods of other numbers during the planning process for sports training. Where it begins after the end of the sports competitions period and ends with the beginning of the general preparation period for the separation between one sports season and another or a championship and another, as it aims to get rid of the internal load as a result of the external load on the functional organs of the body and resulting from the loads Training and sports competitions to maintain physical fitness For the player, during which period he is given an active positive rest in which recovery is restored Each body has the aim of preparing it to receive the training curriculum in preparation for the next competition period, and this is achieved by engaging in physical activities that are contrary to the activity of effective practice Which will maintain the level of fitness.

The researcher believes in the philosophy of continuity and recreation and its importance during the transitional period as it is suitable for analyzing the training curriculum for the previous period and completing the subsequent training plan and that the player is not exposed to stress and boredom in the future, for this the use of the casual training method that includes various sports activities that are legalized And planning to work to maintain the level of physical fitness of basketball players by transferring them from the routine and constant pressure of training loads and competitions to another training period characterized by reducing pressures for training and matches, which may work in maintaining the level of endurance of speed and strength or relatively upgrading them, For this and that, it will take into account the practice of various sports activities of a recreational nature different from the specialized sports activity and their performance in a freer degree in order to reduce the risk of injury and the use of the elements of suspense and excitement to advance the reality of the players and from the above, the research acquires its importance.

Research problem

It is known that a complete cessation of physical activity during the transitional period leads to a decline Or a decrease in the level of the elements of the physical aspect As a result of the negative rest given to the players during that period, which is reflected negatively on the level of technical performance, hence the importance of the period The transitional period as one of the important training periods that must be planned and that did not receive attention and focus International Journal of Physiology, Nutrition and Physical Education

focus by those in charge of basketball, and this leads to a loss of physical level, which negatively affects the skillful performance of the players, which called the researcher to direct the compass to target that period and find appropriate solutions for it because of its importance for For the special physical characteristics of basketball players, including endurance of speed and strength.

Research Objectives

- 1. Preparing a program using the casual recreational training method during the transitional period.
- 2. Knowing the effect of cross training method on endurance of speed and strength of basketball players.

Research Assuming

- 1. The method of transverse training positively affects the endurance of speed and strength for basketball players.
- 2. Research methodology and field procedures

Research Methodology

According to the nature of the problem, the researcher used the experimental one-group approach as it is the best and easiest method to achieve the research objectives.

Research community

And information is often resorting to defining the research community based on the phenomenon or problem to be studied. Basketball and for the season 2020-2021, the number of which is (12) players, and their percentage was (100%). Where homogeneity was made in (height, body mass, training age) on the research sample members as shown in Table (1)

 Table 1: Shows the homogeneity of the sample in the mean, standard deviation, and skew coefficient

Т	Variables	measruing unit	s	±	skewness
1	Length	poison	173.82	0.831	0.421
2	body mass	kg	67.34	0.978	0.386
3	training age	Month	36.6	1.22	0.654

Tools, devices and means used in the research

- Tests and measurement.
- Arab and foreign references and sources.
- Medical scale.
- stopwatch.
- whistle.

- tape measure.
- Airplane bats and blades.
- Tennis rackets and balls.
- Flying balls.
- foot balls.
- hand balls.

Tests and measurements used in the research:

Speed endurance test of the arms: (Zainab, 2011)

Speed endurance test for the muscles of the legs: (Nada, 2012)

Strength endurance test of the muscles of the arms: (Resan, 1989)

Leg strength endurance test (30 seconds): (Frederic, 2002)

Field Research Procedures

Tribal tests

Conducted speed and strength endurance tests for the arms and legs in the Mansour indoor gymnasium hall at three o'clock. Thursday afternoon, 5/8/2021.

The main experience

Relied on sporting events that are different from basketball, which are (badminton, football, tennis, volleyball, handball, and five-a-side football), as their application continued during the transitional period for (4) weeks (see Appendix (1)), where the first training unit was implemented using the transverse training method on Sunday Corresponding to (8/8/2021), the last training unit was on Sunday agree (9/20/21) at a rate of (3) training units per week on days (Sundays, Tuesdays and Thursdays), which reached the number of units during the period (12), and the intensity of sports effectiveness was calculated (50-60%) according to the requirements of the transitional period for basketball players.

Post tests

tests of the research sample for the aforementioned variables were conducted on Tuesday 7/9/20/21.

Statistical means: The researcher used the statistical package (SPSS) version (2-3). Presentation and discussion of the results Show results

 Table 2: It shows the arithmetic means, standard deviations, the calculated (T) value, the level of significance, and the significance of the differences in the speed and strength endurance test of the arms and legs (tribal - dimensional) of the research community

Statistical processors	measruing unit	s	±	Calculat	ed T val	ue S
speed endurance test for two ar	ms					
Tribal			0.052083	3 6	54.1	203
after me	repeat/second	37.33.00	0.51	0	4.1	20.
speed endurance test						
Tribal	Tha	17.16	0.052083		5 1	
after me	Tha	17.05	0.057639		5.1	_ 0
Arm endurance test _						
Tribal	Repetition 7.83 2 0.05		0.052083	33 .	1	0
after me	Repetition	28.16	0.052083	3	1	- 0
Leg strength endurance test						
Tribal	report/cocord	25.66	0.81	- 85.1	5 1	_ 0
after me	repeat/second	26	0.89		5.1	

Table (2), it was found that the speed and strength endurance

test of the two arms And for the two men in the tests (before - after) there were no significant differences for the members of the research sample.

Discussing the results

Discuss the results of endurance speed and strength

See researcher _ The lack of improvement in endurance of speed and strength of the arms and legs that occurred among the members of the research sample due to the nature of the implementation of the recreational casual training method, which included the use of medium stresses during the transitional period, Which led to the occurrence of muscular responses during the practice of some sports other than basketball, which were characterized by the nature of fun and suspense with the aim of giving players a positive rest to relax and recover. This was confirmed by "the transitional period is invested positively through the practice of recreational sports activities away from the basic activity to maintain the training state and recovery." (Mufti, 1998)^[5] And also what he confirmed (Mohamed Sabbar and Ehab Fawzy) "Crossprofessional training is the use of different sports activities that contribute to maintaining the athlete's physical performance capabilities of his original sport for the transitional phase of sports training planning.

The researcher also believes that the effect of this stress led to the stability of the characteristic of endurance (speed and strength) during muscle work because it did not take its sufficient share during that period, as the different activities did not allow Which was adopted by the method of accidental training by bringing about the great and required effect for the muscles of the arms and legs, although it did not leave a great effect, but it made a slight improvement in the dimensional tests of the research community. This is consistent with what was stated by (Sorour Khal and Muhammad Al-Jad) " Incidental training is one of the training methods that includes various sports activities whose main objective is It is to relieve the player and move him from the stage of feeling boring and constant pressure during competitions to another stage during which he feels fun, comfort, enjoyment and performance more freely until he receives the next sports season with complete readiness to participate in the preparation period." (Surour, 2008) And also what (Brad Walker) confirmed, "Eventual training is an effective training method in which activities outside specialized training are used to provide a break for the body from special sports activity while maintaining the level of physical fitness." (Brad, 2007)^[2] from here The researcher believes that the method of transverse training and its implementation in the transitional phase during the sports season helped the research sample to maintain the qualities of endurance of speed and strength of the arms and legs through training in other sports different from basketball and with low training loads .

Conclusions

- 1. The effect of the transverse training method had a positive effect in maintaining the speed endurance of the arms and legs among the members of the research community.
- 2. The episodic training method achieved positive results in maintaining the level of The strength of the arms and legs of the members of the research community.

Recommendations

- 1. Positive results it has achieved in order to maintain the elements of physical fitness in the transitional period.
- 2. The necessity of adopting physical and skill tests in

determining the training status of athletes.

3. Conducting similar studies on age groups, different sporting events and other variables.

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