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The effect of compound exercises according to the Edwards TRIMP model to develop some biomotor abilities of volleyball team players at the University of Thi-Qar

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ABSTRACT

1- Preparing exercises with the Edwards TRIMP model to develop some of the physical abilities of volleyball players.

2- Identify the effect of exercises using the Edwards TRIMP model to develop some physical abilities of volleyball players

3- Identify the effect of exercises using the Edwards TRIMP model to develop some physical abilities of volleyball players.

The research community was determined by the players of the volleyball team at the University of Dhi Qar, and the research sample was selected from the players of the football team at the University of Dhi Qar, which numbered (10) players from the volleyball team, the University of Thi-Qar if the experimental design was used with one group with a pre- and post-test, and the sample was selected in a deliberate way from the players of the volleyball team at the University of Dhi Qar, and (3) players were taken for the purpose of conducting the exploratory experiment on them, and the percentage of the sample was (100%) of Dhi Qar volleyball team players.

·The complex exercises that were carried out according to the model Edwards TRIMP greatly affected the development of the biomotor abilities of the players effectively ıd quickly.

·The model Edwards TRIMP Achieve the goals for which it was set from the evelopment of biomotor abilities, which is a pillar of the rest of the physical abilities ıd others.

·Shares Model Edwards TRIMP In the development of biomotor abilities better than ıe usual methods as the differences were observed that their development was rapid ıring the training modules.

·Illustrate a form Edwards TRIMP Its importance through its adoption in the training ıits and achieved real tangible success and solved the problem of weakness in

·The researcher's reliance on the training units developed by the researcher because ıey can contribute as a basis for the preparation of units for other biomotor capabilities.

3-Work on finding new models to solve the problems that arise during the period of work in the sports seasons.

1-Definition:

1-1 Research Introduction and Importance:

Training is the science that is based on experience and proof in the training arena and when the various modern methods and methods are used that coaches work to discover their impact on their players by applying their own philosophy during the duration of the experiment, they work to confirm the data that comes out and achievements by documenting and re-experimenting them to put forward a new method for the world through which a certain variable can be developed in the players and this method emerges and spreads relative to the coach who worked hard to draw his results widely and scrutinize Deep.

There are many modern training methods and methods that .

The process of moving in form and work depends entirely on biomotor abilities and one of the most important capabilities is strength, speed and balance andmuscles are the main engine in conjunction with the skeleton, which acts as a basic pillar on which the muscles are based and physical capabilities are common abilities between the muscles and skeleton.

The importance of the research lies in the use of the Edwards TRIMP training model to develop some biomotor abilities of volleyball players, as well as providing the library with modern models in sports training.

1-2 Search problem:

The Edwards TRIMP model is one of the training models to solve many of the problems that arise during the period of public or private training, because of the current circumstances in training, a quick and radical solution to certain problems, the presence of problems during training is normal because of the difference in individuals or the difference in the training goal or a number of factors that hinder the normal conduct of the training process, and therefore different training models were found to suit or solve the problems that occur to trainers during the conduct of their training units Daily, weekly, monthly and even annual, so the researcher decided to use the Edwards TRIMP model to develop some biomotor abilities among the players of the futsal team for basic education.

1-3 Research Objectives:

1- Preparing exercises with the Edwards TRIMP model to develop some of the physical abilities of volleyball players.
2- Identify the effect of exercises using the Edwards TRIMP model to develop some physical abilities of volleyball players
3- Identify the effect of exercises using the Edwards TRIMP model to develop some physical abilities of volleyball players.

1-4 Imposing Research:

1- The existence of statistically significant differences between the pre- and post-test of the experimental group and in favor of the post-test.

1-5 Research Areas:

1-5-1 Human field: Players of the volleyball team at the University of Thi-Qar for the season 2024-2025.

1.5.2 Time Domain: From 26/ 12 /2024 to 30/ 3 /2025.

1.5.3 Spatial field: volleyball court at the university.

2- Research Procedures:

2-1 Research Methodology and Field Procedures:

The researcher used the experimental method to suit the nature of the problem.

2.2 Research community and sample:

The research community was determined by the players of the volleyball team at the University of Dhi Qar, and the research sample was selected from the players of the football team at the University of Dhi Qar, which numbered (10) players from the volleyball team, the University of Thi-Qar if the experimental design was used with one group with a pre- and post-test, and the sample was selected in a deliberate way from the players of the volleyball team at the University of Thi-Qar and (3) players for the purpose of conducting the exploratory experiment on them, and the percentage of the sample (100%) of the players of the Dhi Qar volleyball team.

For the purpose of ensuring the homogeneity of the sample members and the validity of the normal distribution among its members, the researcher used the arithmetic mean, standard deviation and torsion coefficient for homogeneity of the results of the field survey in measurements (biological age, training age, weight and height).

Table 2.1

Shows the homogeneity of the research sample with the torsion coefficient in the variables of height, weight, chronological age and training age

Torsion coefficient	Standard deviation	Broker	Arithmetic mean	Unit of measurement	Variables
0.830	0.600	178	177.5	poison	Length
0.758-	0.454	64	63.6	kg	Weight
0.824	0.895	18	18.3	year	Chronological age
0.763	0.848	5	5.4	year	Training age

The results showed that all variables fall under the convergence of the equinox curve, which indicates good Sample distribution and homogeneity in the research variables, because one of the properties of the typical equinox curve is that the

torsion coefficient is confined between the two values (+1) (السيد، 1978، الصفحات 455-456)

2.3 Devices, tools and means used in research:

2.3.1 Means used to collect information:

Arab and foreign sources and references, questionnaires polling the opinions of experts and specialists, personal interviews, questionnaires for recording and unloading data and information.

2.3.2 Devices and tools used in research:

Volleyball (5), volleyball court with accessories, calculator with discs, rubber bands and ropes, towels (6), medical scale, Sony camera (1), electronic stopwatch (6) or a mobile device containing a counting timer, a medical ball weighing 3 kg, signs (10).

2-4 Field Research Procedures:

2.4.1 Identification of biomotor capabilities used in research:

After reviewing the sources concerned with physical abilities, the researcher selected a number of variables (physical abilities) associated with the performance of futsal football, and presented these abilities to the experts and specialists, to poll their opinions on the nomination of what they deem appropriate from the variables of physical abilities special and valid variables under study, the researcher has used the law of percentage in knowing the percentage of agreement, and took the percentage (75%).

2.4.2 Identification of research tests:

After reviewing the sources concerned with tests and measurement, the researcher selected a number of variables and tests for variables physical abilities associated with volleyball, which has a high degree of honesty, stability and objectivity, and presented these tests to the experts and specialists, to poll their opinions on the nomination of what they deem appropriate of variables and special tests and valid to measure the variables under study, the researcher has used the percentage law in knowing the percentage of agreement, and took the percentage (75%) or more.

2.4.5 Exploratory experiments:

- **The first survey experiment for the Edwards TRIMP model exercises used in the research:**

The researcher conducted the exploratory experiment on 26/12/2024 corresponding to Tuesday on three players in order to ensure the safety of the exercises developed according to the Edwards TRIMP model.

The second exploratory experiment for the tests used in the research:

The researcher conducted the exploratory experiment on 26/12/2024, corresponding to Tuesday.

Its purpose was:

1- Identify the possibility of members of the research sample to apply the tests chosen for them.

2- Identify the time required for each laboratory to complete its tests.
3- Identify the possibility of the assistant staff to conduct and measure the tests set.

2.4.4 Pre-tests:

The researcher conducted the pre-tests for two days, and the first day was for physical abilities tests, on 12/29/2024, which falls on Sunday in the sports hall of the volleyball team at exactly (10) am , and the results were recorded according to the conditions of the tests and specifications in lists prepared by the researcher, and the researcher took into account the circumstances related to the tests in terms of time, place, tools and devices used and the method Implementation and assistant team, in order to provide them in the post-tests that will be applied later.

2.4.5 The main experience:

It is the basic experiment that the researcher applies to solve or come up with methods that help solve the tagged research problem**.**

The researcher applied the exercises that were prepared on the players on 12/1/2025 corresponding to Sunday, in the volleyball hall, as the number of units reached (24) units and (3) weekly units on Sunday , Tuesday, Thursday) and for a period of two months by (8) weeks, which is a sufficient period for the emergence of the effect of training, on the research group, and the number of exercises used in one unit (5) varied exercises with a total of (25) exercises, and the duration of the units ranged between (50-60 minutes) as the researcher applied the exercises in the main part of the training unit as shown in Appendix (1), and the exercises were applied with the help of the assistant team and under the supervision of the researcher, and the training units were completed on (13/3/2025) on Thursday.

-Description of the exercises used:

The exercises varied in number and type according to the muscles involved in performance and commensurate with the capabilities studied, as the work focused on strengthening the work of the muscles and the common biomotor abilities in the performance of volleyball players , it is these exercises concerned with the development of physical abilities (explosive power, transitional speed, balance)

The exercises prepared by the researcher are easy to perform as they are applied on the ground or through appropriate training methods.

Application of exercises:

The components of the exercise load were prepared according to references and sources and concluded as follows:

- Repetitions of (5 or 10) repetitions depending on the type of exercise.
- Groups of (1-2) groups.
- Rest between groups (120-180s)
- The time per unit took (50-60 minutes).
- The emphasis was determined according to the goal of each training unit and the difficulty of the exercises chosen in that unit and ranged between (80%-95%).
- Load ripple (1:1) – (1:2) was applied.

2.4.6 Post-tests: -

The researcher conducted the post-tests on the research sample on 16/3/2025, which falls on Saturday, as he conducted the test for the selected abilities and skills and recorded the data, and the researcher followed the same procedures in the pre-tests.

2.5 Statistical means:

The researcher used the statistical bag for theoretical sciences (SPSS) version (23V) to get all the search results.

3- Presentation, analysis and discussion of the results:

3-1 Presentation of test results (pre- and post) of the experimental group in the tests of biomotor abilities and analysis:

Table 3.1

Arithmetic media, standard deviations, mean difference value, deviations, and (T) calculated for pre- and post-tests of variables Biokinetic abilities of the experimental group

Significance	Calculated T-value	Experimental Group Post-Test		Pre-test Experimental Group		Unit of measurement	Variables
		± on	Going to	± on	Going to		
Moral	4.582	0.265	4.594	0.259	4.642	Tha	Transition speed
Moral	3.597	3.093	44.155	4.099	42.455	meter	Explosive force
Moral	5.819	5.586	57	3.495	42.500	time	Bass Balance Test

- **at a significance level (0.05) and a degree of freedom (9)**

4.1.1 Discussion of the research results for the biomotor aptitude tests of the research group:

By reviewing Table (3-1) we note the significance of the results of the research for the tests of physical abilities before and after show us the moral differences and in favor of the post-test and the researcher attributes this to The planning process for the training program was scientifically as this training model was studied carefully and know its benefits and how to harness it in particular and accurately to achieve the maximum benefit from Edwards TRIMP (Aisha Mohammed Al-Fateh, 2019), who pointed out that "good planning for an exercise program and rationing training loads

in a scientific and appropriate manner, which resulted in physical improvement reflected in the level of skill performance." (الفاتح، 2019، صفحة 155)

The training process is a process with multiple effects and we mean that it affects the muscles, enzymes and other fibers, as the effect associated with the training process is in the form of stages that increase and vary with the increase and diversity of exercises applied during the training unit and these exercises activate enzymes or increase the size of muscle fibers for muscles involved in performance, as Amin Khazal mentions "The changes in the activities of enzymes and the size of muscle fibers are a natural reaction to the exercises." (خزعل، 2018، صفحة 165).

Special exercises have been prepared commensurate with the weight of the research sample, the training of stations is one of the methods of training the ring, through which it can focus on several training points and develop various capabilities during one training unit, as confirmed by (Mahmoud Al-Shati and others) "that there is a close link between motor skills and physical character acquired by the player in the training process." (الشاطي، 1990، صفحة 42)

The researcher worked on repeating the appropriate exercises because these repetitions work to adapt the tissues and muscles of the research sample if repeating the exercises for a certain period of time has a clearly positive return and confirms this (Khairia Ibrahim Al-Sukkari and Mohammed Jaber Bariqa) "When performing exercises for certain muscle groups, it results in adaptations in specific muscle areas, for example, endurance effectiveness can be increased only with endurance training, that is, when performing specific exercises that produce specific adaptations, asnun If you want to jump up or forward, the content of the training must be based and focused on jumping exercises, and if you want speed, you must focus on speed training, and so on.... It is imperative that training programmes be developed according to the type of activity practiced."(بريقع،، 2005، صفحة 25)

As the selected biomotor capabilities have been prepared total resistance exercises accurately for being of importance in the development of variety of attack and defense of fencing players with a weapon shish has been the first interest in biomotor capabilities such as explosive power and power distinctive speed of the arms and legs because the muscular strength is the basis in building the body as a whole and the most important factor in improving and developing skills as it agrees with the opinion of (Mosker) (Metal, 2008, 37) He argues that any training curriculum must include the element of muscular strength, and I also agree with DiCarlo's view that "muscle strength is the first factor in the development of skill performance" (Decarlo, 2003, 37).

The researcher worked to develop appropriate exercises for the endurance of athletes, the impact on the muscles involved in performance and these muscles can be affected locally and controlled to avoid fatigue of the rest of the muscles and maintain the energy of the individual to work for the rest of the training unit, the advantage of the Banstir model that it is of high intensity and needs a lot of energy and this is confirmed by (Amin Khazal) "that local fatigue is a combination of aerobic and anaerobic

endurance and the requirements of sports impose that training is carried out according to those requirements, that topical training It requires getting tired, but controlled." (خزعل، 2018، صفحة 153)

4.Conclusions **and recommendations**

4.1 Conclusions:

1- The complex exercises carried out according to the Edwards TRIMP model greatly affected the effective and rapid development of the players' biomotor abilities.

2- The Edwards TRIMP model achieved the goals for which it was set in terms of developing biomotor abilities, which are a cornerstone for the rest of the physical and other abilities.

3- The Edwards TRIMP model contributed to the development of biokinetic abilities better than the usual methods, as the differences in kind were observed that their development was rapid during the training modules.

4- The Edwards TRIMP model illustrated its importance by adopting it in the training units and achieved real tangible success and solved the problem of weakness in the research sample.

4.2 Recommendations:

Based on the results of the research reached by the researcher, the researcher recommends the following recommendations:

1- The researcher recommends adopting the Edwards TRIMP model because it is a new model in the development of various biomotor capabilities in different research samples.

2- The researcher's reliance on the training units developed by the researcher because they can contribute as a basis for the preparation of units for other biomotor capabilities.

3- Work on finding new models to solve the problems that arise during the period of work in the sports seasons.

4- Work to find a study of weaknesses in the old methods and work to overcome them in a scientific and thoughtful manner.

5- Work on studying methods and methods and applying them to samples and other categories.

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