



The effect of fitness exercises on some body composition indicators in body 370 s

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Abstract

The sport of the disabled and its many sports activities is one of the mathematics that witnessed a wide-ranging scientific renaissance based on scientific research and objective study aimed at integrating the disabled individual into society and interacting with him and caring for him in all physical, psychological and functional and mental indicators. It is the best and best way to speed up the return of the disabled to their society and its brilliance again and its success as a productive member of this society integrated into it and interacting with it.

Knowing the physiological changes that occur within cells is important and resulting from the increased activity of the proportion of some variables from the natural proportion in the body leads to some health problems from the down category. Healthy fitness is those elements that relate or affect health and include cardio-respiratory fitness (periodic and respiratory adequacy), body composition (fat, salts, proteins, water ratio in the body), muscle fitness (muscle strength, muscle endurance, flexibility, etc.). In the development of healthy fitness elements, adaptations that occur at the beginning of the effort, such as increased heart rate and respiratory rate, are only a reaction called instant response and enable the importance of researching the impact of health fitness exercises in the body's composition to measure some physiological and physical variables with the significance of a device that is inbody370s for people with special needs (down class).

Research methodology and field procedures:

Research approach:

The choice of the appropriate approach to discussing the problem is one of the steps that results in the success of the research, on the basis that the scientific approach is: "A method of thinking and work on which the researcher relies to organize his ideas, analyze them, present them, and then reach reasonable results and facts about the phenomenon (subject of study)(H. S. Ibrahim et al., 2020)"

The researcher therefore adopted the experimental method," which is an attempt to control all the basic factors affecting the variable or variables of the experiment, except one factor, controlled by the researcher and changed in a certain way, with the intention of determining and measuring its effect on the variable or dependent variables,(Lateef et al., 2020)"

using the design of the single group with Pre- and Post-testing.

The research community and its sample:

It is the sample chosen by the researcher that determines the nature of the research objectives: "A procedure aimed at representing the indigenous community with a limited share and amount of vocabulary through which measurements and data related to study or research are taken, for the purpose of circulating the results reached from the sample to the original community(L Ismael Ibrahim et al., 2020)" withdrawn from the sample), so the researcher chose A deliberate search sample of players with special needs category (Darn Syndrome) by taking a book facilitating a mission from the Faculty of Physical Education and Sports Sciences/Diyala University, Supplement (4), and the number (10 players) representing the champions of the Iraqi Special Olympic Federation, and make up 50 percent. From the original community, the exploratory experiment was conducted on (2) players, and the researcher conducted homogeneity of the sample to look at variables that may have an impact on the results of the research.

Sample homogeneity in search variables:

For the purpose of ensuring the homogeneity of the members of the experimental sample, and to prevent indicators affecting the results of the experiment in terms of existing differences, require

sample homogeneity (through the natural distribution curve), the researcher used the law of twisting of the research variables studied, and table (4) shows the value of twisting in sample variables, as well as functional variables And physical, where values ranged from (0.054-) - (0.621), all of which are limited to (± 3), since whenever the values of the twisting factor are limited to (± 3), this indicates that the grades are distributed Moderately, if it increases or decreases, it means that there is some flaw in the selection of the sample.

Functional indicators tests using a device (In body 370s):

In Body 370s is the latest in body series device that analyzes body components and gives a detailed report on:

- Amount of water
- Protein and mineral mass
- Fat and muscle mass in five different parts of the body: (arms - legs - torso)
- The proportion of salts in the human body

In addition, it measures the circumference of each part of the body from (arms, thighs, neck, chest area, abdominal area - buttock area) in centimeters, and other different body measurements that help you diagnose obesity and describe a diet and athlete commensurate with the condition of the client's body.

All of this is done by using 8 touch electrodes (2 per hand and 2 in each man) leading to correct and accurate results that reflect the actual body components and actual changes in them, and the shape (3) demonstrates the device(Inbody370s):



There are two ways to enter, save and print customer data:

Method 1: You can connect your In Body 370s device to any Computer or Laptop via Bluetooth and through Software Jay with the device, and this is of course easy for you because you will enter the data of any customer through laptop and the results appear to you on the screen and appreciate its reservation and print it and return it at any time.

Method 2: You can also enter your customer data through the device In Body 370s itself because it contains Touch screen and Keypad in addition to internal memory absorbs 100 thousand test in order to keep all the data of your customers, and in the second way you can print directly through the device on its character.

Result Sheet can be printed a4 size by connecting the Laptop to any type of printer or by connecting the device itself to its printer.

Pre- tests:

Pre- tests of the research sample were conducted at the Specialized Center of the Iraqi Special Olympics in Baghdad province.

The main experience:

When implementing the main experiment on the members of the research sample it is necessary to follow the proper scientific methods and means, relying on the basis of planning for this process, which each trainer must see when building the training curriculum for each sports event, and after informing the researcher of many scientific sources available in the field of sports training science for the disabled, the researcher prepared a set of special exercises, supplement (5), intended to develop the variables under study, the researcher took into account the matters related to the training unit according to their divisions, as well as The equipment and tools available, it took 8 weeks to apply special exercises, at the rate of (3) training units per week, and took the main part of the full training unit to apply these exercises, as the training days (Saturday, Monday, Wednesday), bringing the total training units (24) units, which is consistent with the opinion of KtinzingandSharky,as well as the method of training used islow-intensity period training.

-Training intensity is (60-80%) From the extreme intensity.

-Pregnancy formation is (1-1).

- The number of units per week is between (2-3) training units, and the number of weeks is at least (6) weeks so that the development can appear.

- I used the method of low-intensity period training.

- In order to ensure the safety of the work, special exercises or exercises were presented to a group of experts and specialists in sports training and private sports, to give guidance and exchange views on the appropriateness of these exercises for such a sample, thus applying the exercises forthe duration of theexperiment.

3-9 post-tests:

After completing the implementation of the duration of the proposed training curriculum, the research conducted post-tests on the members of the research sample taking into account the same conditions and measurements applied in the Post- tests, and the researcher made sure that they were as identical as possible.

Statistical means:

The researcher used the statistical bag (SPSS) to extract the results of the research using statistical means

View, analyze and discuss results

This section of the research includes the presentation and analysis of the results of the Pre- and Post- tests of the research sample, and their discussion by presenting the computational circles and standard deviations in tables after conducting a series of statistical processes necessary for them.

It shows the values of the computational medium and the standard deviation in the functional variables of the Pre- and Post- tests of the research sample.

| N | Variables | audition | arithmetic medium | Number | Standard deviation | Standard error |
|---|-----------|----------|-------------------|--------|--------------------|----------------|
| 1 | fats | Previous | 10.595 | 10 | 2.892 | 0.914 |
| | | Next | 8.534 | 10 | 2.291 | 0.724 |
| 2 | Protein | Previous | 10.050 | 10 | 2.712 | 0.858 |
| | | Next | 12.785 | 10 | 3.022 | 0.956 |

| | | | | | | |
|---|-------|----------|--------|----|-------|-------|
| 3 | salts | Previous | 3.075 | 10 | 0.512 | 0.162 |
| | | Next | 2.218 | 10 | 0.466 | 0.147 |
| 4 | Water | Previous | 32.776 | 10 | 3.879 | 1.227 |
| | | Next | 36.980 | 10 | 5.030 | 1.591 |

That the Pre- arithmetic medium of the fat variable was (10,595) with standard deviation (2.892), the standard error rate (0.914), and the Post- computational medium (8,534) with standard deviation (2,291) and the standard error ratio (0.914) 0.724), the Pre- arithmetic medium of the protein variable was (10.050) with standard deviation (2.712), the standard error ratio (0.858) and the Post- computational medium was (12,785) with standard deviation (3) The standard error rate (0.956), the Pre- arithmetic medium of the salt variable was (3,075) with a standard deviation of (0.466), the standard error rate (0.147) and the Pre- test of the water variable was (32) (775) standard deviation (3,879), standard error ratio (1,227), and the computational medium of the Post- test was (36,980) with standard deviation (5,030) and the standard error ratio (1,591).

All the values that have improved have been increased in the above, due to the nature of the special exercises used, “which have led to a development in the computational circles of the functional variables of the sample members, which came through the impact of the special exercises prepared by the researcher”(Layth Ismael Ibrahim, Allaw, et al., 2020).

Shows difference values for computational circles, deviation of differences, value (t) and error ratio for functional variables

| to | Variables | Media teams | Standard deviation | Standard error | Value (t) | Error rate |
|----|-----------|-------------|--------------------|----------------|-----------|------------|
| 1 | fats | 2.061 | 0.639 | 0.202 | 10.204 | 0.000 |
| 2 | Protein | 2.735- | 0.884 | 0.279 | 9.786 | 0.000 |

| | | | | | | |
|---|-------|--------|-------|-------|-------|-------|
| 3 | salts | 0.857 | 0.403 | 0.127 | 6.725 | 0.000 |
| 4 | Water | 4.205- | 2.095 | 0.663 | 6.346 | 0.000 |

The difference in fat variable computational circles was (2.061) and the standard deviation of differences (0.639), and the calculated value (T) was (10.204), which is a moral function value, because it is below the standard error rate (0.000), which is less than (0.05) The difference in the computational circles of the protein variable (2.736) and the standard deviation of differences (0.884), while the calculated value (T) (9.786), which is a moral function value, because it is below the standard error rate (0.000), which is less than (0) (05), the computational teams of the salt variable (0.587) and the standard deviation of differences (0.403), while the calculated value (T) (6.725), which is a moral function value, because it is below the standard error rate (0.000), which is less than (0.05), the calculation teams of the water variable (4.205) and the standard deviation of the difference (12.095), while the calculated value (T) (6.346), which is a moral function value, because it is below the standard error ratio (0.000).

The researcher attributes this to the quality of the exercises prepared for this purpose by the researcher, because these exercises were aimed at developing the process of adaptation to the performance of motor duties with a certain degree of strength for a longer period in the face of fatigue, and this is associated with the occurrence of some effects that are in two directions, one: “related to the efficiency and functioning of the nervous system, and the other: associated with the development and development of anaerobic energy production systems”(Jaffer et al., 2020). Increasing the amount of energy consumed by a greater amount of energy entering the body, as a result of which energy is certified at the expense of the body's stock of fat, resulting in weight loss

Discuss the results of differences between Pre- and Post- tests of functional variables:

That the results of the computational circles of Pre- and Post- tests that there is an improvement in the tests of functional indicators, the researcher believes that above-average intensity training and medium-intensity and structured training are the main focus of the program to control the high percentage of functional indicators under study, and that it is possible to practice normal

and regular training weekly help to increase the ratio regularly leads to morale in the development of fitness elements, as well as some indicate Studies indicate that "medium training aimed at developing endurance leads to the process of adaptation to the performance of physical actions with a certain degree of strength for a longer period in the face of fatigue, requiring some physiological, chemical and neurological effects, and the effects are eliminated in two directions, one related to the nervous system, and the second: improved anaerobic and anaerobic energy production systems"(Layth Ismael Ibrahim, Abdulrazak, et al., 2020).

Conclusions and recommendations:

5.1 Conclusions:

In light of the results of the research and scientific facts, the researcher reached the following conclusions:

1. Special exercises applied to sample members have led to an improvement in the level of special strength of the arms and legs.
2. Special force has affected a development in the level of functional measurements when compared to Pre- and Post- tests.
3. Special exercises have affected a decrease in the level of fat in the research sample when compared to Pre- and Post- tests.
4. Special exercises have affected an increase in the level of proteins in research sample members when compared to Pre- and Post- tests.
5. Special exercises have affected a decrease in the level of salt in the research sample when compared to Pre- and Post- tests.
6. Special exercises have affected an increase in the water level of research sample members when compared to Pre- and Post- tests.

5.2 Recommendations:

In light of the researcher's conclusions, he recommends:

1. Use special exercises to develop strength and withstand force.

2. Conduct periodic tests on players by using the In baby 713 device, for the purpose of verifying the success of the training process.
3. The need to take care of these groups of disabled people by sports federations and specialized agencies.

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