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Effect of blended training on some physical variables, body measurements and body mass index for non-practitioners aged (17-16) years

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Abstract

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The most important thing in the study is the need to build a healthy society free of the diseases of the times because of the wrong daily practices and habits such as eating more food than the body needs and lack of movement, which leads to obesity. Hence, the importance of research lies in providing a new training vision targeting an age group that has not been highlighted by researchers trying to lay the foundation stone for building an integrated health free of pathogens, the most important of which is obesity. The problem of research lies in treating some of the problems resulting from obesity because sports programs target only those who This age progressed first , and one of the objectives of the research was to prepare a training curriculum and identify its impact on bodily measurements and body mass index. The hypothesis of the research is that there is a statistically significant relationship between pre and post-tests of the study variables. The researcher adopted the experimental approach in the one group method because of its suitability to the nature of the problem. The research community consisted of (15) obese individuals. Homogenization was carried out to identify extraneous variables and the researcher used means, devices and tools in her procedures. The results reached by the researcher were analyzed and discussed through conducting the experiment The most important conclusions were:

Appropriateness of the training program integrated into the training of young non-practitioners.

The blended training program achieved a remarkable development in the strength-bearing trait of the arms, legs, and abdomen.

According to the findings and conclusions, Al-Baha recommends that:

The need to use non-traditional training means that are characterized by elements of suspense with emerging individuals who are not practitioners.

Definition of research

1.1 Introduction and Importance of the Research

One of the most important aspects of the advancement of societies in the time of technology and its accelerated achievements is the achievement of the comprehensive development of individuals to reach the state of integration and walk at a parallel pace to build human beings in all fields of life, scientific, cultural, health and others.

Neglecting any area of care in the lives of individuals may indicate a clear imbalance in society as a whole, and this can only be done through the use of the results of scientific research in diagnosing and solving problems, despite their diversity. Hence, science has overlapped and its results have been pursued in various disciplines to achieve the supreme goals, the most prominent of which is building human beings from early childhood to old age.

Perhaps one of the most prominent building blocks of that construction is the sound health construction, which leads to the numbers of individuals as good citizens capable of facing the difficulties and challenges of life. This is only done by the overlap of sciences related to human health and benefiting from their twinning, such as medical and other sciences on the one hand and physical education sciences on the other hand.

Because of the change in lifestyle and the large number of preoccupations andtomaintain the sustainability of physical activity using several means, including training in direct and indirect communication remotely through electronic platforms, to maintain an appropriate amount of physical fitness and health and to prevent the risks resulting from some practices of bad daily habits such as eating quantities of food that exceed the need of the body and lack of movement and physical activity, which leads to obesity and related diseases such as diabetes, hypertension and cardiovascular diseases.

Through this, the importance of our research lies in providing a training vision represented in the rationed external pregnancy and based on its internal effects on some physical variables, physical measurements, body mass index and its target for an emerging age group, through which the

researcher tries to lay the foundation stone for an integrated health building free from the pathogens of the era, the most important of which are pandemics and obesity, perhaps this will provide a new addition to the sports academic library.

Research problem:

The rapid rhythm of life and technical progress represented by smart phones and other wrong practices in our society, which over time and daily practice have become a habitual behavior that we adhere to with the lack of exercise and its regular form and the accompanying bad eating habits, which increased health problems, most notably obesity and overweight, for different ages and led to an increase in the prevalence of diabetes, cardiovascular disease, hypertension and others.

A person may reach the age of puberty with chronic diseases that prevent him from practicing his daily life in its normal form and performing his duties as an active member of society. This leads to a noticeable imbalance in the productivity of society in addition to the financial cost of undergoing medical treatment. Through the above, the problem of our research lies.

1-3 Research Objectives

Preparing a curriculum for blended training for non-practitioners aged 16-17 years.

Recognize the impact of the integrated training approach on some physical variables, body measurements and body mass index.

1-4 Hypothesis of Research

There are significant differences between pre- and post-tests in the study variables.

1-5-1 Human field: Non-practicing persons aged (16-17) years

1-5-2 Time Range: For the period from 1/7/2024 to 1/10/2024

1-5-3 Spatial field: Gymnasium in the Faculty of Physical Education and Sports Sciences – University of Maysan and some open places and houses.

2. Research Methodology and Procedures in the Field

3-1 Research Methodology

The selection of the approach depends on the nature of the problem used. In this study, the researcher used the experimental approach to suit the nature of the problem, as the experimental approach as mentioned by (Mohammed Assaf, 2002, pp. 79-80)"is based on direct and realistic dealing with phenomena and is based on two basic pillars, which are observation and experiment of all kinds." The researcher used the experimental design in a group style.

Research populationand sample:

The researcher chose his sample in the occasional sample method or (the model).

The researcher may resort to the use of non-probability sampling to choose the sample of his research because the original community is unknown, and it is sometimes called the sample at hand, and it depends on the researcher's choice of the sample that is easy to obtain (Sayhoud, 2013, p. 66).

Through this, more than (30) cases were collected and they represent the research community, but the researcher extracted (15) cases of overweight and through the specified conditions and controls in the selection of the sample, which are:

- Age (16-17years)
- Mass index (35-39.9), which is class II obesity.
- The sample was subjected to clinical examination and confirmed to be free of chronic pathological injuries.
- Demonstrate a willingness to voluntarily participate in the research sample and undergo the physical curriculum and all physical tests.

Through the aforementioned, the researcher identified (15) infected persons to whom the conditions apply.

The researcher conducted homogeneity between the totals and for each group separately in the following variables (length, mass, and body mass index).

Table (1)

Shows the arithmetic media and standard deviations of the tribal research variables for the purpose of homogenization

Statistical methods used: Variables	You will		UNITS OF MEASUREMENT	Coefficient of Variation
cluster	**86.57**	**1.90**	**kg**	0.10
Length	**161**	**1.06**	**#**	0-1
BMI (Body mass index)	73	0.64	kg	0.66

Below significance level (0.05) and degree of freedom (1-15)

3-3 Means of collecting information, tools and devices used

The researcher used a set of means:

1. Arabic Resources
2. Observation.
3. and the International Information Network (Internet).
4. Tests and Measurement.
5. Interviewing.
6. Forms for recording the results of physical tests and body measurements.

3-3-1 Devices and tools used in the research

1. Restometer
2. Runner T220 Treadmill Catty –
3. An electronic pulse oximeter of Chinese origin.
4. Electronic stopwatch (2)
5. The caliper device for measuring the thickness of the skin folds (grease) of the HaB type is of English origin.
6. A computer (Lab top) type (hp) of Chinese origin.
7. Whistle number 2.
8. Measuring tape (Surv.)

3-4 Tests and measurements used in the research

3-4-1 Physical Tests

First: The test of sitting from lying down from the position of bending the brakes (Osama and Ibrahim, 1998, p. 319)

The purpose of the test: to measure the strength and endurance of the abdominal muscles.

Tools needed: a small playground and a colleague.

Performance Description: The laboratory lies on the back with the knees bent and the arms clasped in front of the chest and then raises the torso up to about (45) degrees.

Score Calculation: Calculates the number of correct performances he has performed up to the exhaustion of effort.

Guidelines:

Stopping while performing the test is not allowed.

Straightening of the body is observed during the performance stages.

It is necessary for the chest to come into contact with the ground when performing.

Second: Testing the flexion and extension of the arms from the inclined prone position (Allawi and Radwan, 1994, p. 147)

Test Purpose: Measuring arm muscle endurance.

Tools needed: a small playground and a colleague.

Performance Description: From the inclined prone position, the laboratory rests on the knees by bending the elbows until it touches the floor with the chest, then returns again to the prone position, repeating the performance as many times as possible until exhaustion is exhausted.

Third: A half-bore test to measure the loading of the muscles of the legs(Naji and Ahmed, 1984, p. 21)

Purpose of the test: Measuring the endurance of the muscles of the legs.

Tools needed: yard – whistle – chair.

Performance Description: The laboratory takes a standing position with the arms tangled behind the head and then bends and extends the knees. The bending is at the height level of the chair and the laboratory continues to perform until the effort is exhausted.

Test Instructions: Each lab is given one attempt.

Enrollment: Enrolls the tester the correct number of times until the effort is exhausted.

Fourth: Test Name: Ohio State Test

Purpose of the test: measurement of aerodynamic power.

DEVICES USED

- treadmill

Stopwatch.

Test Specifications: After the player completes the warm-up for a period of (5minutes) at a speed of (5.6km/h) with a mile degree (10%) followed by (4-8 minutes) running until tiredness, provided that the running speed ranges between (9.6-15 km/h) and in all cases the degree of inclination of the moving belt is adjusted (2%) and gradually increased every two minutes, provided that it reaches a maximum of (8%).

3-4-4 Physical Measurements (Yassin, 1986, p. 329)

First: Measuring length

The length was measured from a standing position so that the heels are adjoined and the arms are placed next to the body, where the laboratory stands barefoot upright and then the ruler installed on the post descends until it touches the upper edge of the head and records the reading in a dedicated form.

Second: Weight Measurement

The weight was measured by a sensitive electro-medical scale where the laboratory stands in the middle of the scale base and the body weight is distributed on the feet and the laboratory wears light clothing and the reading given by the indicator is taken to the nearest kg.

Third: The lipid component (the thickness of the skin folds)

This is done by measuring the folds using a mechanical (caliper) device.

Measuring the thickness of the skin folds of the shoulder blade

Instructions: Skin folds are measured in the area below the scapula.

Recording: Measured to the nearest (0.5mm) and records a reading of an average of three measurements.

Measuring the thickness of the skin folds of the triceps muscle

Instructions: The leather folds located in the back of the arm and in the middle of the line between the bottom of the shoulder and the elbow are measured from the back.

Recording: Measured to the nearest (0.5mm) and records a reading of an average of three measurements.

Measuring the thickness of the skin folds in the abdomen

Instructions: Measure a vertical fold of the abdomen.

Recording: It is measured to the nearest (0.5mm) and the reading is recorded from an average of three measurements.

Fourth: Body Mass Measurement (Abdel Fattah, 2003, p. 614)

The body mass index, which is the ratio of weight to square of height, was used. A large group of bodies in the United States of America participated in the preparation of this guide. These scientific bodies have developed a guide to classify excess weight and obesity based on body mass index and as shown in Table(2)

Table (2) shows the BMI index

Body mass index:	Rating
Under weight	Less than 18.5
Natural	18.5-24.9
overweight	25-29,9
Class I obesity	30-34,9
second-rate	35-39,9

Excessive obesity (obesity)	P4 and above

3-5- The first exploratory experiment:

The researcher in the hall of the Faculty of Physical Education and Sports Sciences conducted physical and physical tests and measurements in order to know the pros and cons through:

- **The validity of the set of tests and measurements for the sample.**
- **The validity of the tools and devices used in the tests and measurement.**
- **The extent to which the auxiliary team is prepared for tests and measurement.**
- **Determine the best way to conduct tests and measurements.**
- **Identify the obstacles and difficulties facing the researcher and the assistant team.**
- **The extent to which the research sample understands the tests and measurements used.**

3-5-1 The second exploratory experiment:

The researcher conducted a second exploratory experiment in order to find out the compatibility of the sample with the single training unit, the exercises, devices and tools it contains, and the amount of intensity and repetitions that the researcher used in his approach. The experiment included the process of knowing the maximum intensity of the exercises used in the curriculum so that the researcher can determine the intensity, sizes and rest time during the units of the proposed curriculum.

3-6 Scientific foundations of the test:

3-6-1 Validity of the test:

The test is considered to be true if it "measures what it is designed to measure, that is, it measures the function it purports to measure and does not measure something else instead of or with it." (Al-Kandari and Ahmed, 1999, p. 154)

The researcher relied in extracting the validity of the test with apparent validity by presenting the tests to a group of experts and specialists during

personal interviews . The validity of the tests was proven after the experts agreed 99% that they achieve the purpose for which they were set.

3-6-2 Test stability:

Stability, as mentioned by (Hassanein, 2004, p. 145), is one of the conditions that must be met in the scientific foundations of a good test, and stability "represents the second factor in importance after honesty in the process of building and standardizing the test, which means that the test must be of a high degree of accuracy, perfection, consistency, objectivity and consistency in what is set to measure it."

The test stability coefficient was calculated by the test method and the test was reapplied. During the processing of the data obtained from the tests, the correlation coefficient (Pearson) was extracted between the results of the first and second tests, and the results showed that the correlation is high between the scores of both tests, as shown in Table (3).

Table (3)

Shows the values of the Stability and Authenticity Coefficient of the research tests

This service allows customers to issue a permit	Test Name	Unit of measure	Stability Score	Self-Esteem Scale	Tabular T-value
1	Arm Strength Elongation Test	Frequency	0,95	0,97	0,72
2	Abdominal Strength Elongation	Frequency	0,96	0,98	
3	elongation of power for the two legs	Frequency	0,97	0,98	

*** Below the level of significance (0.05) and degree of freedom (1-15)**

3-6-3 Objectivity of the test:

The tests used in the research are highly objective because they are clear and easy to understand by the sample members and far from self-assessment, as they are recorded using time/second and by computer. They "describe the capabilities of the individual as they actually exist, not as we want them to be. One of the most important qualities of a good test, as explained by (Ibrahim, 1999, p. 153), is that it is a subject for measuring the phenomenon that was originally prepared to measure it,

and that there is a full understanding by all those examined of what they will perform, and that there is one explanation for all and that there is no opportunity to understand another meaning other than its intended."

3-6 Field Research Procedures

3-6-1 Sample Preparation Phase:

Before starting to prepare the training curriculum and before starting the exploratory experiments, the researcher prepared the sample for a period of two weeks by conducting exercises that contain only walking and jogging exercises in different degrees in order to raise the efficiency of the sample before starting to determine the intensity, sizes and repetitions and rationing the physical load through the exploratory experiments, considering that the sample is of a very weak level in terms of the physical aspect because it has not practiced any physical activity before.

3--6-2 Pre-tests and Measurements:

The researcher set ten o'clock in the morning as the date for conducting tests and pre-tests on the research sample, as the measurements, physical tests and physical measurements were carried out (height - weight - lipid component (thickness of the skin folds) - measuring the thickness of the skin folds of the shoulder blade - measuring the thickness of the skin folds of the triceps muscle - measuring the thickness of the skin folds in the abdomen).

3-6-3 Proposed Training Curriculum:

In order to follow the scientific context and in order to obtain the best results in the process of weight loss according to the pre-tests of the research sample, the researcher prepared a proposed training curriculum based on the relevant scientific sources and references and research, and through his interview with a number of experts and specialists who were interviewed and the appropriate observations were taken for them about the construction of the curriculum and modified according to the scientific opinions presented and then came out in the final form to be as follows:

The curriculum was built for a period of (8) units sold at the rate of three training units per week to be the total number of training boards (24) units.

The duration of the training unit in its main section ranged from (an hour) to (an hour and a half) and according to the principle of graduation in the training load.

The principle of individual differences has been adopted, and individuality in training is a key factor in the development of the components of the training load.

Diversity of training methods in the curriculum to:

The method of continuous training in the onboarding phase.

Periodic training method in the application of the training program.

Some recreational games.

Special relaxation exercises.

Tips and Advice

Due to the nature of the research sample and the objective of the research, the appropriate intensity was determined and its gradient was from mild to moderate to above moderate and large and with a intensity ranging from 60% to 100% of the maximum intensity of the individual. The training load was formed (1-1) in a continuous and low-intensity training method to suit the nature of the sample members.

3-5-5 Post-tests

After the completion of the training curriculum, post-tests and measurements were conducted for the sample members in the same manner and mechanism that was carried out in the pre-tests and in the same process of measurements, physical tests and physical measurements.

(3.7): Statistical treatments

After collecting the data and recording the various measurements of the variables used in this study, appropriate statistical treatments were carried out to achieve the objectives and ensure the validity of the hypotheses using statistical laws using SSPs version (23).

3-Presentation, analysis and discussion of the results

4-1 Presentation and discussion of the results of physical tests before and after the integrated training program

Table (4)

Between the arithmetic media, standard deviations, the value of (T) calculated and the significance of the differences for the physical tests before and after the integrated training program

Table (4) shows the results of the tests of the physical variables of the research sample before and after the integrated training program, as the arithmetic mean of the elongation of the arms for the pre-tests was (6.53) and the standard deviation was (1.18). As for the arithmetic mean of the elongation of the arms for the post-tests, it was (17.40) and the standard deviation was (1.84), while the calculated T-value was

This service allows customers to issue a permit	Indicators	Unit of measure	Pre		Post		T Calculated
			Arithmetic Mean	Standard Deviation	Arithmetic Mean	Standard Deviation	
1	Arm Lengthening	Nos	6.53	1.18	17.40	1.84	19.72
2	Abdominal Stretch	Nos	5.66	1.71	19.40	0.98	74.
3	Leg Lengthening	Nos	30.80	1.65	49.40	2.94	21.25
7	test (ability-)	Time	2.23	0.62	4.39	1.26	

(19.72) at the significance level of (0.00) at an error level of (0.05) and with a degree of freedom of (14), so the difference is statistically significant and in favor of the post-tests.

We note from Table (4) that the arithmetic mean of abdominal elongation before the program was (5.66) and the standard deviation was (1.71) while the arithmetic mean after the program was (19.40) and the standard deviation was (0.98) and the calculated T-value was (32.74) at the level of significance (0.00). This indicates its significance at an error level of (0.05) and thus the differences are statistically significant and in favor of post-tests.

We also note from Table (4) that the arithmetic mean of the table of the two men before the program was (30.80) with a standard deviation of (1.65) while the arithmetic mean after the program was (49.40) with a standard deviation of (2.94) and the calculated T-value was (21.25) at the level of significance (0.00). This indicates its significance at an error level of (0.05), so the differences are statistically significant and in favor of post-tests.

The results of the tests shown in Table (4) On the statistical treatments of the physical variables in the research sample, there are significant indications between the tests before and after the program that indicate a state of development. The researcher attributes that development to the fact that there is a remarkable progress in the strength of the muscles of the arms, abdomen and legs, which the researcher attributes to the impact of the program used starting from the preparation period, which included walking and light running exercises and using the method of continuous training and the fact that the sample of obese non-practitioners are increasingly exposed to muscle, bone and joint injuries. Therefore, the exercises must be safe and lead to a sense of comfort and thus ensure regularity and perseverance in attending the training units without interruption, which ensures progress in achieving the objectives. This is what the researcher worked on when building the training program in terms of intensity and in proportion to the capabilities of the sample members and in light of the literature of this training science. On the other hand, the method of continuous training adopted in the integrated training program improves the efficiency of functional work towards building oxygen capacity and improving blood circulation, which means adaptations in the event The work of the cardiac muscle and its ability to provide the working muscles during performance with greater percentages of oxygen as well as rid them of the remnants of muscle work faster, and this is consistent with what was stated by (Al-Madamagha, 2009, p. 608) " The continuous training method is characterized by the use of a large training volume carried out without interruption and that its performance is carried out quickly and at a constant rhythm and is used in the training of elongation and that its goal is to improve and complete oxygen capacity building"

The researcher also found that the training of oxygen elongation had a positive impact on the development of the strength of the muscles of the arms, abdomen and legs, and this was proven by the results, which are

consistent with what was stated by (Abdel Fattah, 2003, pp. 235-236) "The training of elongation has an impact on the development of physical efficiency and as a result has a positive impact on the development of strength elongation and muscle strength."

The researcher believes that in order to achieve the best results in weight reduction programs, it is necessary to use two methods: endurance training (continuous) and

resistance training (low-intensity period). Endurance training is the most common type of exercise in weight loss and can also be easily applied to people suffering from obesity while ensuring increased energy consumption, as well as for resistance exercises that the researcher started using body weight and ended using weights consistent with the research sample, which increased the level of general strength development in the research sample in addition to stimulating the decomposition of fat in the trainees. This is confirmed by (Bray GA, Heisel, 2018, P79) "Resistance exercises may affect body weight by increasing lean mass. Resistance exercises may also improve muscle strength , which leads to an increase in the rate of metabolism during rest and thus more free physical activity and increase total daily energy expenditure."

4-3 Presentation, analysis and discussion of the results of physical measurements before and after the integrated training program

Table (5)

Shows the results of the values of (t) calculated for body measurements and body mass index before and after the integrated training program

We note from Table (5) that the mean thickness of the abdominal fat layer before the program was (36.60) and the standard deviation was (1.88), while the mean after the program was (34.00) and the standard deviation was (1.92) and the

Sr	Indicators	Unit of measure	Pre		Post		Calculated T	Significance of variances
			Arithmetic Mean	Standard Deviation	Arithmetic Mean	Standard Deviation		
1	Thickness of the grease layer of the abdomen	mm	36/60	1.88	34.00	1.92	15.92	Significant
2	Thickness of the fat layer of the shoulder blade	mm	21.46	1.92	18.80	1.26	8.00	Significant
3	Thickness of femoral adipose layer	mm	26.00	1.96	23.26	1.66	11.97	Significant
4	Thickness of the grease layer of the waist	mm	36.66	1.91	33.33	1.83	12.33	Significant
5	cluster	kg	86.57	0.49	78 – 80	0.49	20.03	Significant
6	No. of subjects	kg	73	0.64	94.	0.69	19.82	Significant

calculated T-value was (15.92) at a level of significance (0.00), which indicates its significance at an error level of (0.01) and a degree of freedom of (14), so the difference is statistically significant

We also note from Table (5) that the arithmetic mean of the thickness of the fat layer of the shoulder plate before the program was (21.46) and the standard deviation was (1.92), while the arithmetic mean after the program was (18.80) and the standard deviation was (1.26), and the calculated T-value was (8.00) at a level of significance (0.00), which

indicates its significance at an error level of (0.01) and with a degree of freedom (14), so the difference is statistically significant

We also note from Table (5) that the mean thickness of the fat layer of the thigh before the program was (26.00) and the standard deviation was (1.96), while the mean after the program was (23.26) and the standard deviation was (1.66) and the calculated T-value was (11.97) at a level of significance (0.00), which indicates its significance at an error level of (0.01) and a degree of freedom of (14), so the difference is statistically significant

We also note from Table (5) that the arithmetic mean of the thickness of the fat layer of the waist before the program was (36.66) and the standard deviation was (1.91), while the arithmetic mean after the program was (33.33) and the standard deviation was (1.83) and the calculated T-value was (12.33), which is greater than the tabular T-value, so there are statistically significant differences in favor of the post-test.

We also note from Table (5) that the arithmetic mean before the program was (86.57) and the standard deviation was (1.90), while the arithmetic mean after the program was (78.80) and the standard deviation was (1.90). The calculated T-value was (20.30) with a significance level of (0.00), which indicates its significance at an error level of (0.01) and with a degree of freedom of (14), so the difference is statistically significant

We also note from Table (5) that the arithmetic mean of the mass index before the program was (30.73) and the standard deviation was (0.64), while the arithmetic mean after the program was (27.94) and the standard deviation was (0.69) and the calculated value of T was (19.82) with a level of significance (0.00), which indicates its significance at an error level of (0.01) and a degree of freedom of (14), so the difference is statistically significant.

Statistical treatments of the body mass index among the members of the research sample showed significant results that we find worthwhile, that the designed training doses were carried out in interesting methods that are consistent with the nature of the non-practicing members of the sample, exceeding the traditional frameworks in the basics of sports training, as well as the careful gradient by implementing doses upwards

with training loads and changing the life system using the elements of suspense in training, which effectively contributed to reducing body mass in proportions that we see as logical and consistent, and all the literature that advises the need for gradation by reducing the mass of the particle in order to preserve On the balance of the internal environment of the body in a way that does not allow the occurrence of a functional during one of the organs, "and this is consistent with what he pointed out (Musaiqer, 2006, p. 80)"that there is an urgent need to change the unhealthy lifestyle and encourage physical activity for children and adolescents, as there are still no training programs focused on the health-promoting physical activity in which non-sporting individuals participate, "and all of this is consistent and frequent with international reports, including the reports of the World Health Organization, where the researcher adopted the application of the body mass equation based on reference to the list of the World Health Organization compared to the results.

The researcher believes that the results of the sample members were normal and consistent, the nature of the exercises carried out, and their correlation with the period of implementation of the program, where the body mass paths can deviate towards a significant decrease in body mass if the exercises continue for longer periods. Through the above, and considering that the body mass index reflects a group of body components, including the lipid component, the researcher resorted to another test to enhance her results and prove her hypotheses, which is a test to measure the thickness of the skin folds by the caliper device in order to give an impression of reducing lipid mass, as the measurements of that test indicated results indicating a significant decrease in those folds, which supports, as mentioned above, the results of the research and its hypotheses to reduce lipid mass after the program.

6. Conclusions and Recommendations

4.1 Conclusion

Through the objectives of the study, the research procedures, and the analysis and interpretation of the statistical results, the researcher came up with the following conclusions.

- Adequacy of the training program integrated in the training of non-practitioners.

- The blended training program achieved a remarkable development in the strength-bearing trait of the arms, legs, and abdomen.
- The effective impact of the approved training program in reducing body mass.
- The use of non-traditional exercise suits the category of non-exercising juniors.

4.2 Recommendations

1. The need to use non-traditional training means that are characterized by elements of suspense with emerging individuals who are not practitioners.

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