

The Impact of Using Distributed Practice on Some Elements of Physical Fitness and Some Anthropometric Variables among the Students of the Physical Education Courses at Al-Zaytoonah University of Jordan

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Abstract

This study aimed at identifying the impact of the use of distributed practice on some of the elements of physical fitness (transitional speed, muscle ability, maximum strength, flexibility, agility) and some anthropometric variables (body weight, abdominal fat, below the blade bone, behind the hummers). The researcher used the empirical method, and the study sample included 15 students enrolled in the course of physical education at Al-Zaytoonah University. After measurement was conducted, and then the training program was applied for a period of 8 weeks at a rate of three training units per week. The results of the study showed improvement and development in the physical fitness elements (transitional speed, muscle ability, maximum strength, flexibility, agility) and in the anthropometric variables (body weight, abdominal fat, upper arm fat). According to that, the researcher recommends the use of distributed practice to improve and develop physical fitness elements and anthropometric variables. The researcher also recommends conducting other studies regarding the rest of physical fitness elements and physical and anthropometric variables.

I. INTRODUCTION AND SIGNIFICANCE OF THE STUDY

Sport training is defined as a special and organizational process of comprehensive and balanced physical education that aims at reaching the highest possible level in the type of chosen physical activity; it also contributes a significant portion in preparing the individual to work, produce and defend the individual's homeland [1]. From a biological point of view, sport training is considered a process of preparing the individual to do severe muscle actions and activities, whereas the result of the trainings obtaining advanced muscular strength to overcome the violent acts of unusual endurance [2]. Sport training methods are the means and the steps necessary to implement the training program in order to develop the training situation for the player to the maximum possible extent to achieve the desired goal. It can also be said that it is the masterly planned system to create an interaction between the coach and the player in aims of reaching the goal of the training [3]. Despite the difference in training methods depending on the difference of the philosophy and the objectives of training in different communities, there are several common factors that allow reference to two major training methods: One of which is constructed on the basis of (Massed practice), and the other is based on having rest periods through training, which is known as Distributed practice [4]. Distributed practice is considered one of the main methods that aim at raising the level of physical attributes. This method is characterized by constant, regular exchange between work and incomplete rest periods, unlike the continuous model of action that is not punctuated by rest periods. When using this method, it is vital to take into account the limitation of rest periods in order to comply with the capabilities of practitioners. The reason behind calling it "distributed practice" may be because it is characterized by having rest periods separating each practice, or each group. This training depends on an alternating planning process between effort and rest periods, as the purpose of rest period is to benefit from the amount of blood pumped per impulse to eliminate the oxygen debt resulting from training [5]. Modern resources in sports training science indicate that the pulse rate is the proper scientific index through which we can identify the limits of incomplete rest periods, i.e. setting the starting point of the new effort [6].

Distributed practice is used in most sporting events in general, as it affects the aerobic and anaerobic capacity. Therefore, this kind of training depends on the Alphasvegene system to produce energy, as well as the lactic acid and oxygen system; it thereby contributes a great amount to inducing an adjustment process by controlling the variables in all athletic activities [7]. The current study is a scientific attempt by the researcher to describe the effects of distributed training in improvement and development of fitness elements and weight loss, and making change in some of the anthropometric variables.

[8] Clarifies that the distributed training method can be used in all sports events whether individual or team sports. This method is characterized by delaying the symptoms of fatigue for longer periods. It is also possible to maintain the rapidity of the pulse rate to a certain extent, whereas the player's need for calories becomes slower. In this type of training, the measures of control include the entire training variables such as time, performance, redundancy, rest period, and pulse rate.

2. PROBLEM OF THE STUDY

The distributed training method is considered one of the main methods that aim at elevating the level of physical attributes and vital organs in the body. The physical effort has drawn the attention of scientists and specialists when studying the means by which the body functions while performing physical efforts, as they realized the changes that occur in the body, wrote them down and studied them.

The current study investigates the impact of using distributed training on some physical fitness elements and some anthropometric variables, due to the importance of these elements and variables in the individual's life. Clearly, these elements and variables have an effect on the individual's achievements. As a result, this study has come to the mind of the researcher.

3. OBJECTIVES OF THE STUDY

The objective of this study is to identify:

- 3.1 The impact of distributed training on improving the level of transitional speed, muscle ability, maximum strength, flexibility and agility of the students of the physical education course at Al-Zaytoonah University.
- 3.2 The impact of distributed training on some anthropometric variables (i.e. weight, abdominal fat, below the blade bone, behind the hummers) among the students of the physical education course at Al-Zaytoonah University of Jordan.

4. STUDY HYPOTHESIS

- 4.1 There is a statistically significant effect of distributed training on the members of the study sample indicated by the differences between pre and post measurements in fitness elements in favor of the post measurements.
- 4.2 There is a statistically significant effect on the members of the study indicated by the differences between pre and post measurements in some anthropometric variables (i.e. weight, abdominal fat, below the blade bone, behind the hummers)

5. AREAS OF THE STUDY

5.1 Spatial area: The sports arena (gym) in the Sports Activity Department/ Al-Zaytoonah University.

5.2 Temporal area: The second semester of the year 2012/2013 within the period from 4/3/2013 to 29/4/2013.

5.3 Human area: The student of the physical education course.

6. TERMINOLOGY OF THE STUDY

- 6.1 Distributed training: A training method, that is characterized by the successive alternation between effort and rest. This method aims at upgrading the functionality of the circulatory and respiratory systems and heart capacity. This method employs medium and high severity with rest periods of 1-2 minutes [9].
- 6.2 The muscular ability: A composite of muscle strength and speed. The provision of the components of muscle strength and speed is imperative to bring out the strength distinguished by speed (Speed Strength). Others tend to use the term of muscle ability rather than the term strength distinguished by speed (Speed Strength), and it is considered one of the necessary physical attributes in most types of sports activities [10].
- 6.3 Maximum strength: The ability of the muscles to produce the maximum force in the shortest time after stretching the muscle in an inverse direction of the basic required movement [11].
- 6.4 Flexibility: The dynamic range of the joint; this range is affected by muscle length and joint structure among other factors. A person who attains a high fitness level has the ability to move the joint in its full dynamic range during play or work [12].
- 6.5 Transitional speed: The competence during rapid movement and moving the body through short distances as in the (50-100 meters) race (procedural definition).
- 6.6 Agility: The ability to change the direction of the body at or close to the maximum speed (procedural definition).
- 6.7 Skin fold: [13] defined this term as the body's stockpile of energy located beneath the skin. The amounts of fat accumulate in the body due to the lack of energy consumption and eating energy-rich foods (carbohydrates, fats).

7. LITERATURE REVIEW

[14] Has conducted a study that aimed to identify the impact of low-intensity distributed training and continuous training on the development of circular respiratory effort of field hockey players. The researcher used the experimental method in the manner of pre and post measuring for two equivalent experimental groups. This program was adopted for 12 weeks at a rate of (3) units per week. The results of the research have shown that both continuous and distributed training do improve the circular respiratory effort for field hockey

players with an apparent advantage for the distributed training method. [15] conducted study that aimed to identify the impact of low-intensity distributed training and continuous training on some physical abilities and the concentration of lactic acid L.A and dehydrogenized. Ousting circular organization. An experimental method was used with the design of three equal and equivalent groups; two experimental groups and one control group. The two experimental programs were applied for (12) weeks, twice a week. The results of the study showed that the method of circuit training using continuous training is better than distributed and traditional training in terms of developing the elements of physical fitness, the speed of eliminating lactic acid, and improving the physical efficiency.[

[16] conduct a research on the effect of distributed training and continuous training on the time of performance in (50 m) front crawl swimming. The researcher used the experimental method, and the study sample included 30 students from the Faculty of Physical Education who were divided into two equivalent groups. The two training programs were applied on the individuals of the sample for eight weeks at a rate of (3) units per week. The results of the study showed that distributed training has a positive impact on the time of performance in (50 m) front crawl swimming with an advantage for the distributed training method.

[17] Conducted a study that aimed to identify the impact of circularly organized low-intensity distributed training in physical preparation on some physiological, physical, psychological and of-skill variables. Both researchers used the experimental method. The sample of the study included (100) sophomore female students of the Faculty of Physical Education in Alexandria. The sample was divided into two experimental groups and one control group. The experimental program was applied for (12) weeks at a rate of two units per week with the unit period being (90) minutes. The results of the study showed that low-intensity distributed training has a positive impact on the functional efficiency of the study sample, and that was apparent in the results of the physiological variables. The training method also grew to improve the physical and of-skill test results for the procedural courses undertaken at the time.

[18] have studied the impact of high intensity distributed training on the response of maximum oxygen consumption Vo_2 MAX during violent exercises with fixed exercise intensity. The study was conducted on a sample of 10 female players from fitness centers. The individuals were tested as to determine the maximum consumption of oxygen and the lactic sample. The training lasted for 8 weeks, three days a week. The study arrived at the existence of an improvement in the maximum oxygen consumption response that increased after the training, and a significant shrinkage of cumulative oxygen deficit and anaerobes contribution. Thus, the researchers concluded that the high-intensity distributed training has maximized the oxygen consumption in fixed-intensity exercises and has reduced the cumulative deficit of oxygen during the fixed running exercises.

The study of Hamori [19] aimed at identifying the impact of a proposed program on some physiological variables and some physical variables among volleyball players. The study sample included (18) volleyball players at the University of Science and Technology of Jordan. Some physiological and physical measurements were taken (i.e. heart rate, respiratory rate, systolic and diastolic blood-pressure, blood sugar and hemoglobin, red blood cells and white blood cells (weight, fat areas of hummers, and the bottom of the board, and abdomen) from the sample before and after the application of the program. The program consisted of eight weeks, three training units per week, and an hour and a half per training unit. The study results showed an improvement in all of the variables of the study in terms of pre and postal measurement in favor of the postal measurement, except for the diastolic blood pressure variable, which did not indicate any statistically significant differences between the two measurements.

8. PROCEDURE OF THE STUDY

The researcher has utilized the experimental method to comply with the nature of the study in one of his designs called pre/postal measurement for each of the experimental groups [20]

8.1 Variables of the Study

8.2 Independent Variable

The training program using low-intensity distributed training.

Dependent Variables

Physical characteristics: Transitional speed, muscular ability, muscular endurance of abdominal muscles, maximum power, flexibility, and agility.

Anthropometric variables: Weight, upper arm fat, the scapula, and the abdomen.

8.2 STUDY SAMPLE

The sample of the study included (15) students who registered for the course of Physical Education for the second semester of the academic year 2012/2013 from different faculties chosen vertically. Table no. (1) Shows the statistical data (average, standard deviation) for age, height, and weight of the sample.

Table No.1
 Description of the Sample

Variables	Arithmetic Average	Standard Deviation
Age	19.9	0.64
Height	5.2	2.58
Weight	174.4	3.06

N = 14

8.3 DATA ACCUMILATION TOOL

Weight: By using the medical scale to the nearest weight.

Height: By using "Rest meter" to the nearest arrow.

Fat: Body-fat measuring device.

8.4 TESTS USED

1. Transitional speed: 50m.
2. Muscular ability: front long jump from a state of fixation.
3. Maximum power of hands: power fist (dynamometer).
4. Agility: rebound running 4 × 10m.
5. Muscle endurance: sittingupfromback prone position.
6. Flexibility: bending the torso front and down standing on the heels.

9. TRAINING PROGRAM

The researcher has conducted pre-physical tests to identify the participants'abilities and determine the training program in accordance with their abilities and potentials. The physical trainings were chosen (appendix 1) after reviewing the scientific references. The training exercises were distributed through the training program for 8 weeks by adopting three training units per week that stretched over the period from 4/3/2013 to 29/4/2013.

The following training principles were taken into consideration during the implementation of the program:

- Increasing the effortduring the periods of units.
- The gradual incrementby means of a change in the degree of endurance every two weeks.
- Considering individual differences in terms of running distances and number of repetition per exercise.
- Continuity of the training program for students.

10. POST MUSUERMENT

After finishing the duration of the application of the training program (by using distributed training), the researcher applied the same tests applied in pre-measurement in 3/5/2013 in the gym at Al-Zaytoonah University Jordan.

11. STATISTICALPROCESSING

The researcher used the statistical packages software (SPSS) to find the arithmetic mean and standard deviation values. The difference between means, The T-tests was used to calculate the indication of differences between the means of pre and postal measurements and an indication level of 0.05 was chosen.

Table No.2

Shows arithmetic mean, standard deviation, and T-value between pre and postal measurements of physical fitness elements.

Variable	Test	Measure unit	Pre-measurement		Postal measurement		Above Average	T-value
			Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation		
Transitional speed	50 m run	Second	7.90	0.49	7.51	0.30	0.39	4.85
Muscle ability	Stability and forward Jump	Cm	1.66	0.175	1.77	0.239	4.90	2.261-
Maximum power	Power fist	Kg	47.65	8.63	51.3	7.28	3.38	3.19
Agility	Rebound run 4x10m	Meter	11.65	0.79	10.57	0.45	0.58	2.26
Flexibility	Bend the trunk, long sitting	Second	13	6.8	14.76	6.85	1.76	1.52
Muscle endurance of Abdominal muscles	Sit, starting from lie down,	How many per 30 sec	25.73	3.467	35.18	3.763	9.45	8.480

N=14

T value indication level 1,753= 0.05

Table No. 2 shows that there are statistically significant difference sat ($\alpha = 0.05$) in the physical tests between pre and postal measurements in favor of the postal measurement for the variables (transitional speed, maximum power, agility, Muscle endurance of Abdominal muscles). This can be explained by deducing the positive impact of distributed training resulting from the effectiveness of the selected physical exercise and their correct application. This conclusion complies with Allbani & Tantawis' study [17] ; the study indicated that low-intensity distributed training has a positive impact on improving the physical qualities, while there were no statistically significant differences between pre and postal measures in the flexibility variable at ($\alpha=0.05$).

Table No.3

Shows means and standard deviations and T value between pre and postal measures of anthropometric variables

Variable	Measure	Mean	Standard deviation	T value
Upper arm fat	Pre	11	1.22	3
	Post	8.4	1.14	
Scapula fat	Pre	12.4	1.30	13.880
	Post	9.4	1.51	
Abdominal fat	Pre	16.9	1.30	17.963
	Post	12.5	0.89	
Weight-kg	Pre	75.2	2.586	6.5
	Post	72.8	1.22	

This table shows differences in the means in favor of post measure as the T-value shows. There are statistically significant differences in favor of post measures of the anthropometric variables (weight, upper arm fat, and abdominal fat).

12. DISCUSSION AND RESULT

12.1 Physical variables:

According to the T-value in table no.2, there are statistically significant differences in favor of postal measures of the following physical attributes (transitional speed), (muscular strength), (maximum power), (muscular endurance) and (agility); this indicates that the proposed training program which utilizes distributed training method has had a positive effect in improving these physical attributes, due to the training program and the special exercises in the main section of the training units implemented for 8 weeks, 3 days per week. This has caused the adaptation of the working muscles while performing exercises, and this result complies with the first hypothesis of this study. The results of the study also agree with the studies of Al-widyan [16] ,Allbani and Tantawi [17] and Defiladed althea researcher explains that the fact that there are no statistically significant changes that occur at the level of 0.05 of element of the flexibility variable despite the fact that there are differences in the means, may be due the 8-week period of the training program, which may not be enough to cause changes in the joints and the tendons; a statistically significant change may require longer training periods.

12.2 Anthropometric variables:

Table no.3 shows statistically significant differences in the fat of (upper arm fat, scapula and abdomen) and the weight variables. These differences were in favor of post measurements due to the positive effects of distributed training on fat and weight variables, whereas the fat rate of the upper arm was reduced from (11) ml to (8.4) ml, scapula fat from (12.4) ml to (9.4) ml and abdomen from (16.9) ml to (12.5) ml.

Regarding weight, there were statistically significant differences between pre and post measurements in favor of post measurements; the weight reduced from (75.2) kg to (72.8) kg, and this confirms that distributed training reduces fat percentages and reduces body weight. The results of this study agree with that of Hamori [19], in which the results indicated that there were statistically significant differences between the pre and post measurements.

13. CONCLUSION

In light of the presentation and the discussion of the results, the researcher has arrived at the following points:

- The training program using the distributed training method enhances the level of physical fitness (transitional speed, muscular strength, maximum power, muscular endurance and agility) of the study sample.
- The training program using the distributed training method did not induce any improvement in the flexibility element.
- The training program using the distributed training method reduces body weight and fat percentage in the abdomen, upper arms and scapula.

14.RECOMMENDATIONS

In light of these results, the researcher recommends the following:

1. Emphasizing the use of the distributed training method in developing physical fitness elements among players.
2. Emphasizing the use of the distributed training method at schools, universities and clubs, due to the effectiveness of this type of training in weight loss and the reduction of the fat percentage.
3. Conducting further elevated studies and researches on distributed training in the future.

REFERENCES

- [1] Harre. U.u.a (1973) Eifuhrg indie allgemine Trainings u. Wettkamp-flehre. U.verb.Auflage, UHfK Leipzig.
- [2] Al Harhori, Ali (1994) Science of sports training, Karyounis University publications, Benghazi, Algeria.
- [3] Beshtawi, Muhanad Hussen and Khawaja, Ahmed Ibrahim. 2010, Precebles for physical training. Dar wail for pupliching. Amman. Jordan.
- [4] Allawi, mohammad Hasan 1975. Psychology in Sports Training. Dar Al-maaref, Cairo, Egypt.
- [5] Almowala ,Amer Mohammad 2004. The Effect of Using Aerobic Endurance Training in Low-intensity Distributed and Massed Training in some Functional Variables and Achievement in 800 meters running. Master Thesis. University of Mosul, Iraq.
- [6] Othman, Mohammad 1990, Athletic Wikipedia, Dar Alilm for publishing and distribution, Kuwait.
- [7] Albassati, Amrellah 1998, Rules and Principles of Sports Training and Its Applications, Almaaref. Alexandria. Egypt.
- [8] Albakkal, Yassir Muneer 2002. Effect of Using Repetitive, Distributed and Mixed Training in completing and healing athletic of specific distances 100m runners, unpublished Mater thesis m faculty of physical Education, University of Mosul, Iraq.
- [9] Allawi, Mohammad Hasan 1972. Science of Sports Training, Dar Al-maaref, Second Edition, Cairo. Egypt.
- [10] Abo Almajd, Ahmed Mohamed 2005. Effectiveness of aerobic and anaerobic capacity and their impact on some physical components and their relationship with the level of skill managements for junior basketball players, master thesis, University of Zagazig, Egypt.
- [11] Naji, Asad 1991 Book of Physical Education Science & sports, Bahrain Institute, Almanamah, Albahrain 2.
- [12] Corbin, And lindsy. R:(1994) concepts of physical Fitness with La-bortories Dibque, Lowa:wm C. Brown & Benchmark Publishers.
- [13] Al-awadi, Ali Ahmad Najeeb 2006, The impact of a proposed Oxygenic Training Program on some Physiological variable so High Blood Pressure Patients, Diwanayah Province Centre, Iraq. Unpublished Master Thesis, Yarmouk University, Irbid, Jordan.
- [14] Ali, Salama (1988). Influence of two ways of one way of training to develop the sting of breathing in Houki. *Asyot Journal for Science and physical Education*. Asyot University . Vol. 2 Issue 8.
- [15] Sultan, Nadya. & Harrowni, Eman. (1998). The influence of two ways to training of some physical appearance and biological changes in sport, lessons for primary students. Al-Elexandaria University. *Journal of Theories and Applications*. Physical Education Faculty for Boys. Vol. 31
- [16] Al-wedyan, Hasan 1999. The impact of Distributed and Massed Training their effect on 50m front crawl swimming performance. *Theories and Application Magazine*, Faculty of Physical Education for Boys, Alexandria University, No. 34
- [17] Allabani, Soheer & Tantawi, Sozan 2001. The Impact of Low-intensity Distributed Training for Physical preparation on some physiological, physical, psychological and skill variables for students of Faculty of Physical Education in Alexandria, International Scientific Conference 14th, Alexandria University, College of Education for Girls.
- [18] Duffield R, bishop D.(2005) Responses to Running Speeds above Vo2 max .In. t y sport t Med .yun .29(6):494-01 .
- [19] Alhamori, Ahmad Mahmood 2003. The impact of proposed training program on some Physiological and Physical variables for volleyball players, unpublished Master Thesis, Yarmouk University, Irbid, Jordan.
- [20] Ahmad, Owdih, Fathi, Malkawi, Fundamentals of Scientific Research in Education and Human Sciences alkittani library 1992.P 119

Appendix (1) **The Physical Exercises Selected for the Training Program**

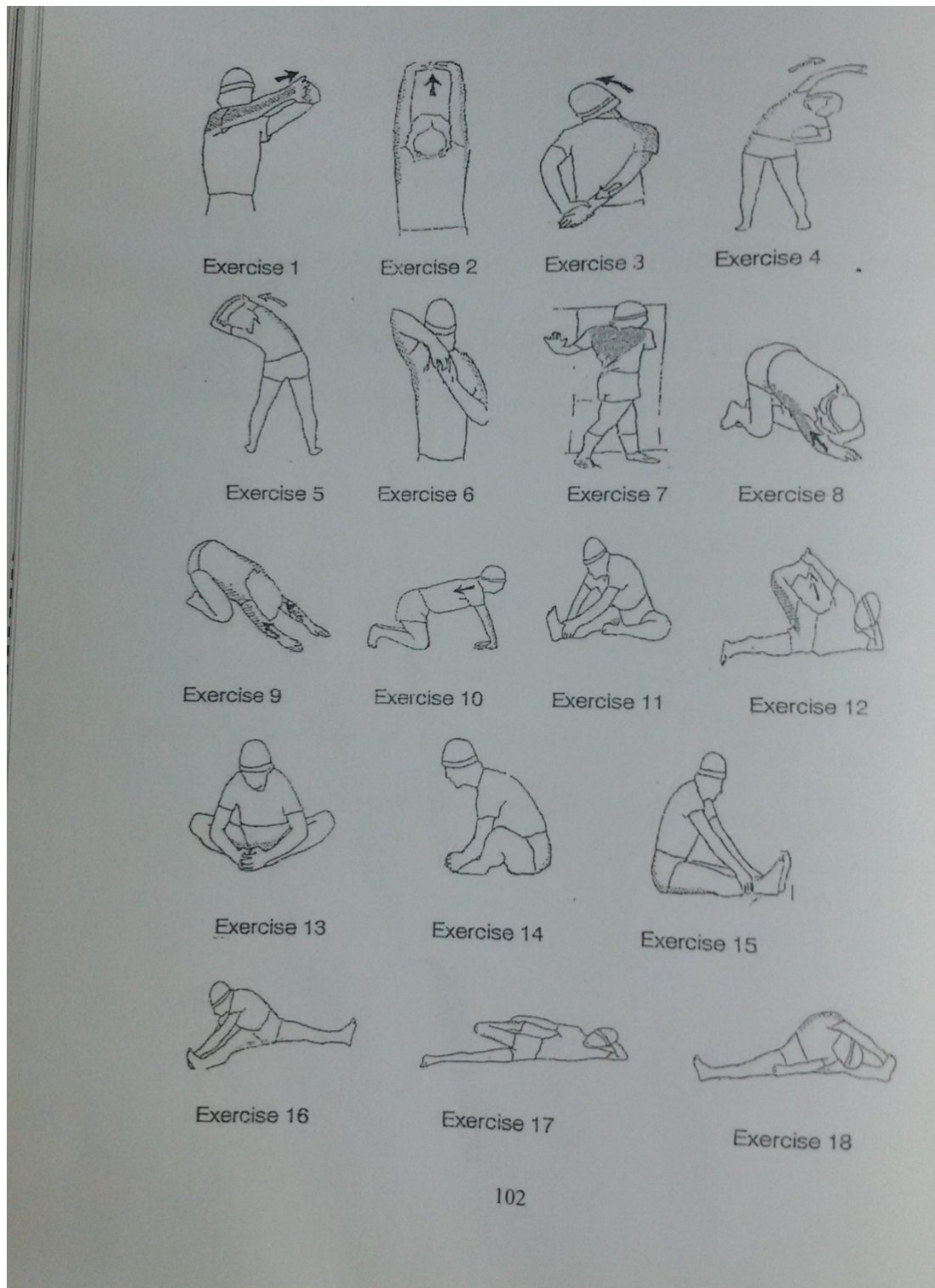
Firstly: Warming up

1. Running:
 - Running around the playground
 - Winding run (Zigzag running)
 - Running for three steps then jumping
 - Running while lifting the knees up high
 - Running and touching the ankles
 - Running with spinning the arms
 - Running with touching the ground with hands
 - Reverse running (Running backwards)
 - Side running with swinging arms
2. (Standing, waist stable) walking in place; raise the knees 90 degrees. Joining the legs.
3. Standing with spread legs, bending knees, abdomen and hips are tightened, arms on the sides, revolving shoulders forwards and backwards in small circles.
4. Standing with spread legs, bending knees, abdomen and hips are tightened, bending trunk to the left and right.
5. Standing with spread legs, bending knees, abdomen and hips tightened, turning trunk to the right then to the left.
6. Standing with spread legs, interlock hands above the head, raising heels away from the ground and extend arms up high.
7. Standing with spread legs, bending trunk forward, exchange touching feet with hands.
8. Long sitting, bending trunk forward, extend arms forward to touch instep.
9. Long sitting with spread legs, bending trunk forward, extend arms forward to touch the ground.
10. Kneeling horizontally, bending the trunk downward.
11. Kneeling horizontally, alternate between bending the trunk and extending the arms downwards.

Secondly:

Stretching exercises

This section included different muscle stretching exercises as shown in the drawing below.



Thirdly: Main part exercises: (Power, flexibility, speed) exercises

These exercises were selected by using instruments that work on to activating more than one physical character and more than one muscle group in each exercise. The main part of training is divided into two parts:

The first part: Circuit training system. For this purpose, three training models will be adopted for the training days per week (Sunday, Tuesday, Thursday), which will be repeated throughout the program while changing the intensity and volume of the training session.

Training station model no.1 includes 8 exercises (see appendix no.2)

Training station model no.2 includes 8 exercises (see appendix no.2)

Training stations model no.3 includes 8 exercises (see appendix no.2)

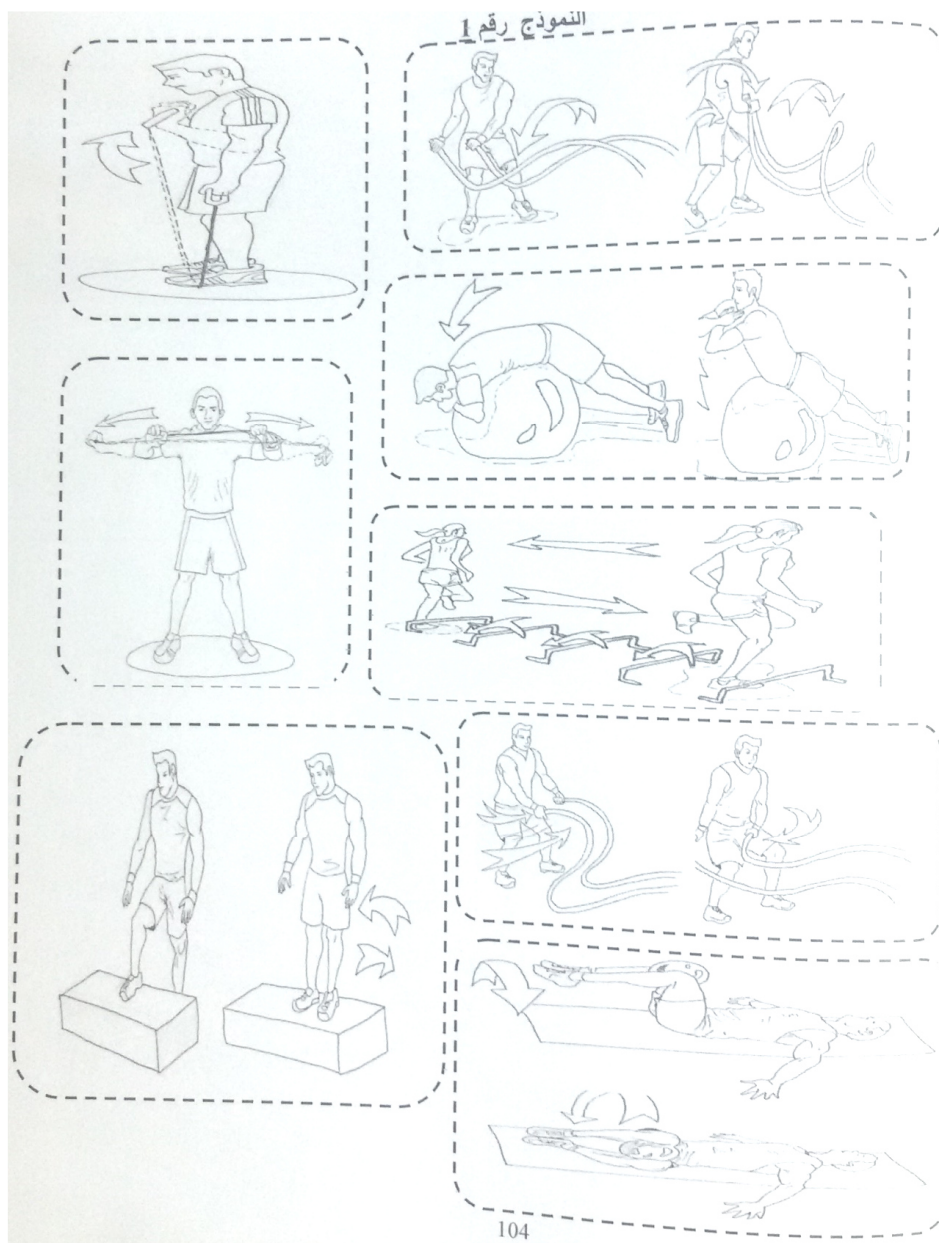
The second part: Speed exercises, which include: 30m, 50m, 60m, 100m, and 200m. running.

Fourthly: Cool down exercises.

1. (Standing spreading legs, waist fixed), pushing chest forward and inhaling.
2. (Standing spreading legs, arms forward) moving arms to the side and backwards while inhaling.
3. (Long sitting), inhale, bend trunk forward, bend knees then get back while exhaling.
4. (Lying down) lift your arms up while inhaling then lie back while exhaling.
5. (Lying down) raise head while exhaling.
6. (Long sitting) inhale, bend trunk forward, arms touching ground, then back while exhaling.
7. (Lying down) raise trunk while inhaling, then back to the main position while exhaling.
8. (Sitting with crossed legs, arms front) inhale, bend trunk forward, touch the ground, then get back while exhaling.

Appendix no.2
Training model stations

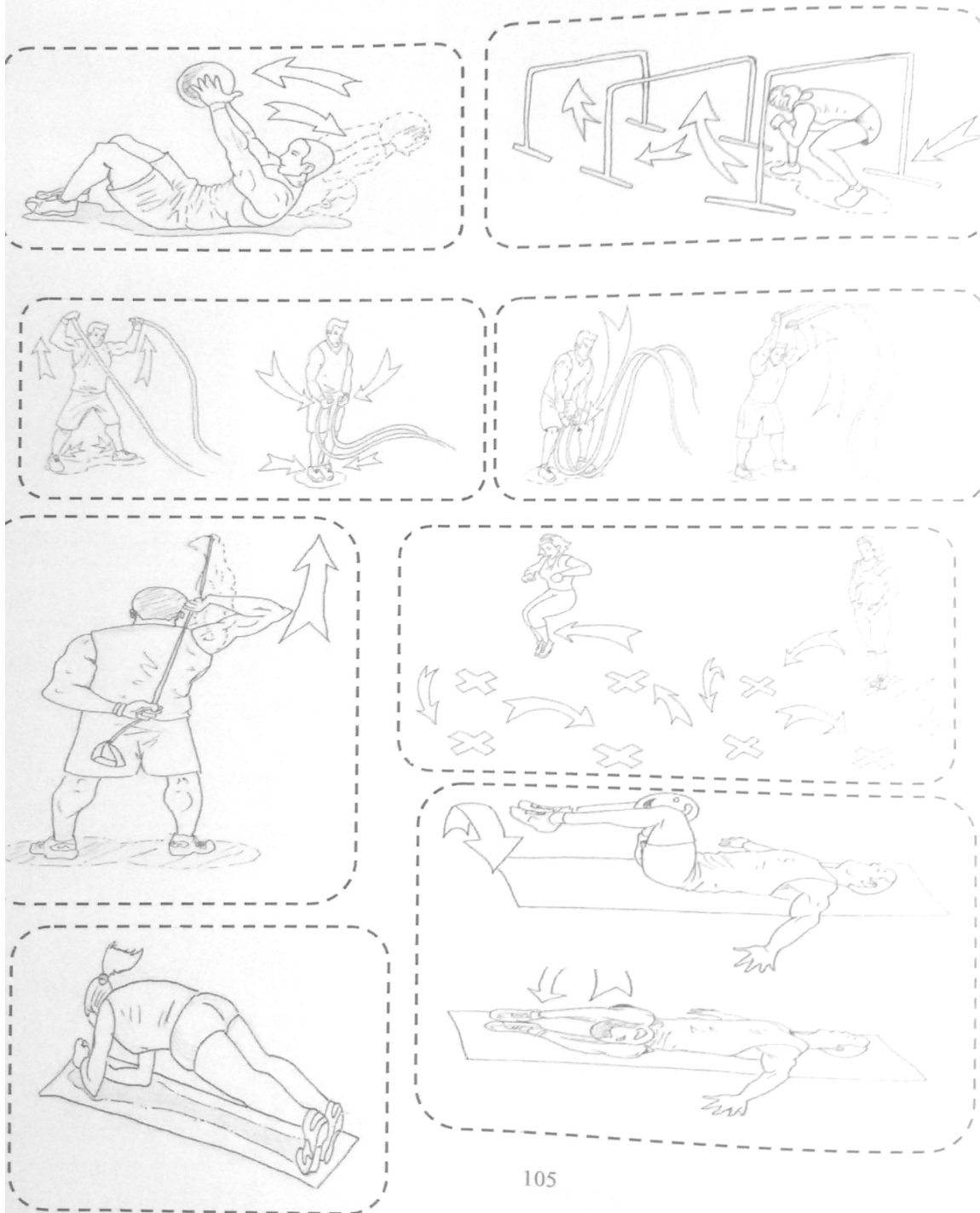
No.1



Appendix no.2
Training model stations

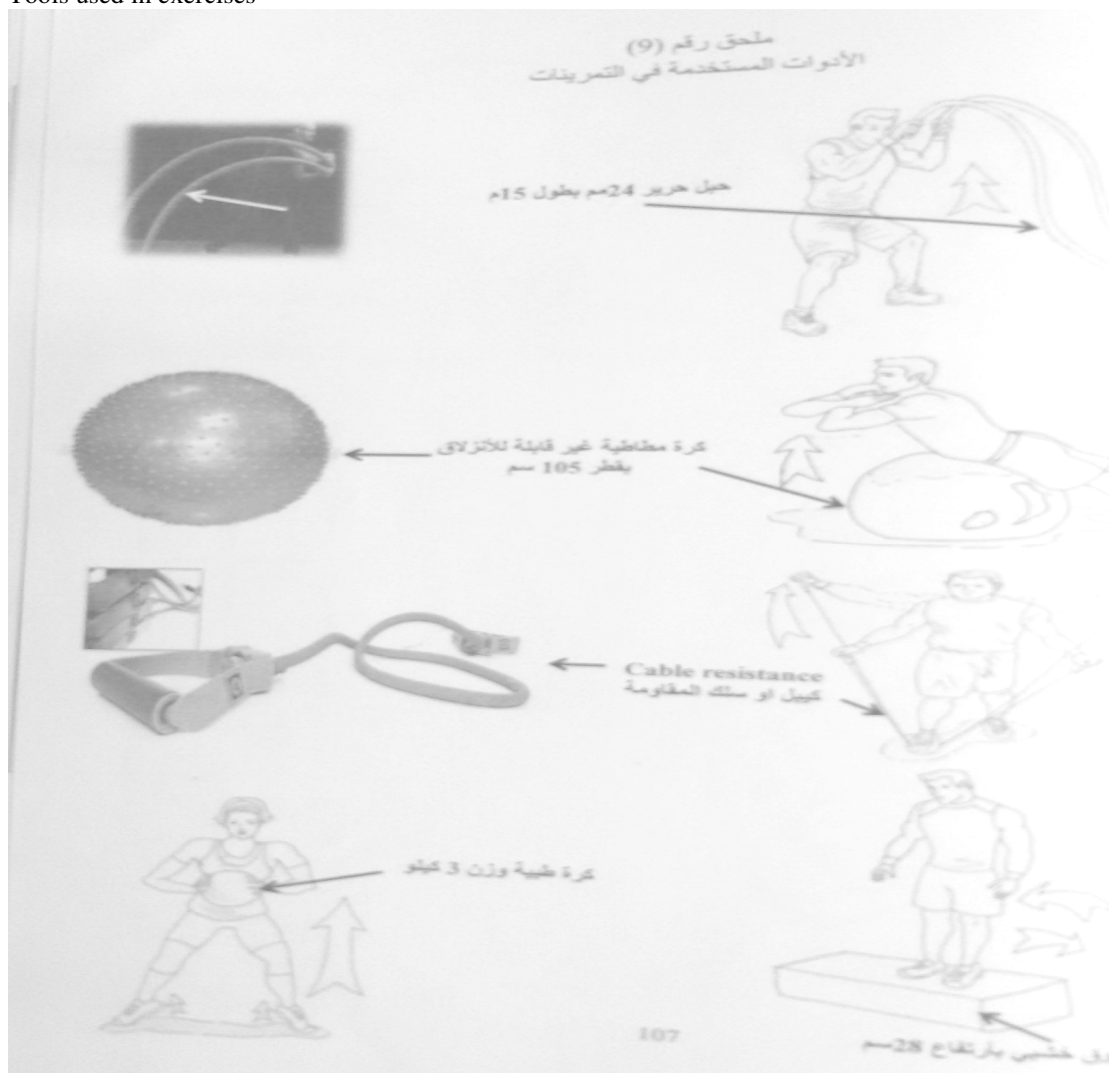


Appendix no.3



Appendix 4

Tools used in exercises



Appendix 4
 Intensity and Size Distribution Model
 1st & 2nd weeks of the training program

Components of training portion	Time	Pulse	Component of training amount		Number of groups	Training component	Organization method	Notes
			Intensity	Rest between groups				
Preparation part	Warming up and muscle stretching	10 min	110/120	30-50%		1	General cooling exercises for all body muscles Appendix7	Collective
Main part	Exercises of developing elements of physical fitness related to health	18 min	140/150	40-60%	30 sec	3	Appendix7/8	Circular training
	Cardiorespirat-ory endurance exercises	12 min	150/160		30 sec	3	Appendix7	Collective
Final part	Recovering and healing	10 min	100-120	30-40%		1	Appendix7	Collective

3rd & 4th weeks of the training program

Components of training portion		Time	Pulse	Component of training amount		Number of groups	Training component	Organizing method	Notes
				Intensity	Rest between groups				
Parts of training units									
Preparation part	Warming up and muscle stretching	10 min	110/120	30-50%		1	General cooling exercises for all body muscles Appendix7	Collective	
Main part	Exercises of developing elements of physical fitness related to health	18 min	140/150	40-60%	30 sec	3	Appendix7/8	Circular training	
	Cardioresp-iratory endurance exercises	12 min	150/160		30 sec	3	Appendix7	Collective	
Final part	Recovering and healing	10 min	100-120	30-40%		1	Appendix7	Collective	

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