The effect of a Proposed Program of Modified Tae Bo Exercises on the level of Some Physical Fitness, Physiological and Skillful Elements of Basketball Players

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Introduction:

Basketball is characterized by high intensity, especially after shortening the time of the attach to 24 seconds, as speed of performance increased. And thus the players are required to perform with high efficiency during the games and delay the onset of fatigue. Tae Bo exercises are of the modern training means that delay the onset of fatigue, lead to the upgrading of physical level and make the process of adaptation on the players, blanks, the first innovator of the Tae Bo exercises, indicated that Tae Bo exercises program is an integrated program of fitness and physiological efficiency. It is also characterized by continuity in performance without feeling bored or tired, the practitioners feel happiness during the performance with music. It works to improve strength, flexibility, endurance, agility and increased consumption of oxygen and therefore, aerobic capacity.(11)

In a study for Bojana et al., a new Tae Bo aerobic model was experimented as a part of the physical education and sport syllabus of the secondary schools. They examined the effectiveness of the new Tae Bo model on the 11- 15 years olds on the basis of tests, specific criteria and indexes. The most important results were that the physical ability of the participants improved and interest, motivation and aspiration for independent training and self-improvement through physical education and sport increased.(12)

According to the researchers through a literature review, Tae Bo exercises (A set of exercises consists of a

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mixture of boxing and karate movements and is performed smoothly by jumping with feet and accompanied by music for the performance of those exercises) were not addressed with study in the team games, so the researchers addressed the research with the study in order to design a training program of modified Tae Bo exercises (A set innovative exercises by the researchers derived from basic Tae Bo exercises. They consist of a combination of movements that take the form of skillful performance with jump and music accompanies these exercises) performed in the motor course of the skillful performance of basketball players using the music in order to overcome the traditional methods of training that give rise to boredom and fatigue in addition to what demonstrated in studies of Tae Bo exercises contributions to the development of physical attributes and physiological efficiency and delay the onset of fatigue among the players, this prompted the researchers to develop a program of Tae Bo exercises in a modified way to suit the skills of basketball and in a codified way characterized by diversity and innovation.

The Research Aims to:

- Design a program of modifies Tae Bo exercises for basketball players.
- Identify the effect of the modified Tae Bo exercises program on some special elements of the fitness of the basketball players (ability, cardiovascular endurance, speed and agility), some physiological variables (aerobic capacity, anaerobic ability and v ital. capacity) and some of the offensive skills (dribbling, shooting and passing)
- There would be significant differences between pre and post measurements in some special physical, physiological and skillful variables under discussion for the experimental group in favor of post-measurement.
- There would be significant differences between control and experimental groups in the post measurement in some special physical, physiological and skillful characteristics under discussion in favor of the experimental group.

In a study by Lysenko, it has been assumed that some

specific characteristics are related to efficient competitive activity and are manifestations of endurance: power of cardiorespiratory system (CRS), economy, mobility, stability and ability to realize the potential of the system for specific workload, the results shower that basketball players of various game functions have different levels of functional fitness and components of aerobic capacities. (24)

Hoffman et al,conducted a study on strength, speed and endurance changes during the course of a division I basketball season. (22)

Boatwright and Todd did a study to identify the effect of use of interval training during the preparation period for the basketball players. (10)

Hassan did a study to identify the effect of a proposed training program for the setup on the ability of aerobic and anaerobic work for football beginners. (19)

Timmons conducted a study aiming to compare the effects of two training programs to increase the vertical jump, the first with deep jump and the second by the plyometric exercises. (38)

Mousa also conducted a study to identify the effect of a Tae Bo exercises program on the activity of the thyroid gland and basal metabolic rate and some elements of motor fitness and skillful level to perform some jumps. (29)

A study of Ramadan was to identify the effect of the development of anaerobic and aerobic work on some physical attributes and basic skills of basketball for beginners of 14-16 years. (34)

Shams El-Din studied the effect of a proposed program of Tae Bo exercises to improve some elements of physiological fitness and the level of performance in modern dance. (36)

Yusuf also studied the impact of Tae Bo exercises on the activity of the thyroid gland and some of the physical elements and their relationship to the level of athletic performance of fencing. (40)

Abou-taleb conducted a study to compare among some of the methods of training doses combinations and its effect on the level of physical performance and skills of basketball players. (4)

Researchers benefited from the related studies in

determining the research methodology and experimental design and identify variables of the training program and the tests used in research and statistical treatments. It also turned out that Tae Bo exercises were not used in the team games in the Arabic and foreign studies, they were therefore, dealt the study by the researchers.

Materials and Methods:

Procedures:

The researches used the experimental method using the experimental design for two groups, experimental and control the research sample was intentionally selected from the players of port said University team. It was 20 players divided into two groups with 10 players each.

The researchers conducted homogeneity and equality among the members of the research sample as the values of the skew coefficient limited between -0.01 and 2.38, which indicated the homogeneity of the sample while for equality, the tabular Mann-Whitney value limited between 29 and 47.5 which is less than the tabular Mann-Whitney value 23, which indicates the equality of the sample in all variables.

The researchers surveyed the specialized scientific references in basketball, sports training, related studies and the interned in order to identify the special physical attributes of basketball, physical physiological and skillful tests in question and also to identify variables of the training program.

The researches conducted an exploratory study to determine how the modified Tae Bo exercises suitable for the research sample, adjust the variables and components of the training load and codifying the modified Tae Bo exercises.

The researchers conduct the scientific coefficients of the tests used in research before doing the pre and post-measurement through a coefficient of consistency and reliability of the tests in question as the reliability coefficient limited between 0.7 and 0.99 which shows the reliability limited between 0.7 and 0.99, which shows the reliability of all the tests in question, as for the consistency, the values of the

correlation coefficient limited between 0.69 and 0.98 indicating the consistency of all the tests under discussion.

Table (1)

Homogeneity of the research sample in the variables of age, weight, height and some elements of fitness Physiological and research skills N = 20

Variables		Measuring unit	Arithmetic mean	Median	Standard deviation	Skewness coefficient
Age		Year	19.45	1.2	18.5	2.38
Length		cm	182.6	3.51	181.9	0.60
the weight		Kg	87.8	5.23	83.6	2.41
Physiological variables	Physical capacity		704.52	147.8	709.3	-0.1
	Vox2 max	Per liter	3.42	0.32	3.51	-0.84
	Anaerobic work	W	9.31	0.62	9.41	-0.48
	Vital capacity	Milliliters	3395.21	652.1	3397.5	-0.01
physical	Running 55 shuttle	W	62.9	9.5	61.3	0.51
	Enemy 30 meters	W	4.32	1.12	4.38	-0.16
	Vertical jump	cm	23.78	3.1	23.60	0.174
	Zigzaggy run	W	13.40	1.25	13.1	0.72
Skillful	Dribbling around barriers	W	12.21	0.82	11.82	1.43
	Shooting from under baseket	the number	14.5	1.23	15.0	-1.22
	Sped &accuracy of passing	the number	16.3	1.34	17.0	1.57

It is clear from Table (1) that the torsion coefficients ranged between (-0.01 and 2.38), ie, all measurements were limited between (+3 , -3) indicating the homogeneity of the research sample in the variables of age, weight, height and physiological, Search .

Table (2)

Arithmetic mean of the **standard deviation and** the **value** of **(j) calculated between** the **control and experimental groups in age, weight, height and physiological tests and physical and skill under variables**

Variables	The experimental group		Control group		Vol $^{0.1}$	Vol $^{0.2}$	The value of Whitney Manncalculated	Level of significance
	s	P	s	P				

Age		19.6	1.3	18.85	1.6	110.5	91.5	44.5	Non-D
Length		183.3	2.9	184.5	2.62	100	110	45.0	Non-D
the weight		74.3	3.2	74.6	4.2	99	111	44.0	Non-D
Physiological variables	Physical capacity	726.2	152.3	730.6	151.2	97.5	112.5	42.5	Non-D
	Vox2 max	3.53	1.01	3.52	0.89	102	108	47	Non-D
	Anaerobic work	9.32	0.72	9.51	1.2	84	126	29	Non-D
	Vital capacity	3398.1	651.2	3410.2	641.1	91	119	36	Non-D
Physical variables	Running 55 shuttle	71.5	1.32	72	1.51	101.5	108.5	46.5	Non-D
	Enemy 30 meters	4.25	0.08	4.28	0.13	102	108	47	Non-D
	Vertical jump	22.1	1.82	23.7	1.3	102	108	47	Non-D
	Zigzaggy run	19.3	1.3	19.98	1.52	96	114	41	Non-D
Skillful	Dribbling around barriers	9.32	1.7	8.92	0.83	110.5	99.5	44.5	Non-D
	Shooting from under basket	14.3	1.4	14.9	1.32	107.5	102.5	47.5	Non-D
	Sped &accuracy of passing	16.2	1.72	17.3	1.41	96	144	41	Non-D

Mann Whitney's tabular value is at (0.05) = 23

Is evident from Table 2 that the value of (j) cal culated between the control and experimental groups in age, weight, height and tests of physiological and physical and skill variables ranged between (29.0, 47.5) which is greaterthan the value of values (j) Tabulated which is equal to (23) , which refers to The absence of a statistically significant value between the two groups, indicating the equivalence of the two groups in the variables in question .

Scientific Transactions :

The researchers conducted the scientific tests of the tests used before the tribal measurement by finding the coefficient of validity of the differentiation and stability of the tests in question as shown in Table (3) to find the coefficient of validity of differentiation and table (4) to find the coefficient of stability .

Table (3)
Validation coefficients for the physiological, physical and skill tests under study

Variables		The undefined group		Featured Group		The difference between the two averages	Value (T)	ETA 2plants	ETA
		S	P	S	p				
Physiological variables	Physical capacity	465.802	52.32	634.21	69.0	168.41	5.84	0.80	0.89
	Vox2 max	3.4	1.01	4.52	1.03	1.12	2.33	0.48	0.7
	Anaerobic work	7.84	0.78	11	1.01	3.16	7.35	0.87	0.93
	Vital capacity	2325.2	353.4	2725.8	565.2	400.6	2.72	0.54	0.74
Physical variables	Running 55 shuttle	103.0	10.56	Games	3.23	24	6.52	0.84	0.92
	Enemy 30 meters	5.5	0.82	4.2	0.21	1.3	4.64	0.74	0.86
	Vertical jump	22.00	2.29	35	1.4	7	5.6	0.8	0.89
	Zigzaggy run	21.31	1.12	18.72	1.03	2.59	5.08	0.77	0.88
Skillful	Dribbling around barriers	18.32	1.72	10.2	1.32	8.12	11.12	0.94	0.97
	Shooting from under basket	3.51	1.23	13.2	1.10	9.69	17.62	0.97	0.99
	Sped &accuracy of passing	8.72	1.15	15.91	1.5	7.19	11.41	0.94	0.97

It is clear from Table (3) that there are statistically significant differences in favor of the characteristic group in the physiological, physical and skill tests under study. The coefficient of sincerity of differentiation ranged between (0.7) and (0.99) indica ting the validity of physiological, physical and skill tests .

Table (4)
The arithmetic mean, the standard deviation and the value (t) of the stability coefficient for physiological, physical and skill tests are under investigation

Variables		measuring unit	The first application		The second application		Stability coefficient
			X 1	y	X 2	y	
Physiolo -gical	Physical capacity	unit	631.1	52.32	635.2	56.2	0.83
	Vox2 max	Per liter	4.52	1.03	4.81	1.2	.92
	Anaerobic work	second	11.0	1.03	11.3	1.4	0.84

Follow Table (4)

The arithmetic mean, the standard deviation and the value (t) of the stability coefficient for physiological, physical and skill tests are under investigation

Variables		measuring unit	The first application		The second application		Stability coefficient
			X 1	y	X 2	y	
	Vital capacity	Ml	2725.8	265.2	2721.9	249.1	0.69
Physical	Running 55 shuttle	second	79.0	3.23	78.3	3.10	0.91
Physical	Enemy 30 meters	second	4.2	0.21	4.0	0.52	0.84
Physical	Vertical jump	cm	35.0	1.4	35.6	1.6	0.98
Physical	Zigzaggy run	second	18.72	1.03	18.61	1.31	0.90
Skillful	Dribbling around barriers	second	10.2	1.32	9.83	1.41	0.74
Skillful	Shooting from under basket	the number	13.2	1.10	13.8	2.05	0.85
Skillful	Sped &accuracy of passing	the number	15.91	1.50	15.8	1.91	0.87

It is clear from Table (4) that the tests used have a high degree of stability, ranging between (0.69 and 0.92). This indicates the stability of all the physiological, physical and skill tests under study .

The Pre-measurement : the researchers applied the premeasure form 13/6/2018 to 15/6/2018 on the experimental and control groups through carrying out the physical, physiological and skillful tests under discussion as follows.

Physical Tests:

- The shuttle Run (55m x 5 times) was used as a measure of muscular endurance .(6: 208)
- The 30m sprint (one time) was used to measure speed. (14: 38)
- The vertical jump (3 times) was used to measure the muscular ability. (6: 284)
- The zigzag run (one time) was used to measure agility. (20: 288)

Skillful Tests:

- Test of the speed of dribbling around a group of barriers to measure the speed of a dribbling . (14: 176)
- Test shooting from under the basket in 30 sec to measure the speed and follow up of shooting . (14: 168)
- Test of Speed and Accuracy of Passing . (16: 407)

Physiology Tests:

- The Ruffier test was used to measure the physical capacity and maximal oxygen uptake (vo2max) as a measure for aerobic work . (3: 58- 59)
- Test of the bicycle argometer to measure the anaerobic work . (6: 50)
- Test of vital capacity (VC) to assess the lungs efficacy of inspiratory and expiratory maximums . (20: 63)

The researches prepared the program of modified Tae Bo exercises after reviewing the specialized scientific literature, where the program contains a set of Tae Bo exercises serving the aerobic and anaerobic word performed in the motor course of the skillful performance using music . (16), (11), (17), (29)

Time of performance, number of the repetition times and intensity were determined through the use of equalizing rationing the training load using the pulse. (37), (4)

The proposed training program was applied to the experimental group by three training units per week for 12 weeks form 16/6/2018 to 5/9/2018

It was taken into account when performing aerobic exercises using rhythmic movements (walking, running in place, jump, hop and movements of the arms) in intensity not less than 60% of the maximum pulse rate, but for the anaerobic exercises, they must take the form of performance during the competition for the working muscles in basketball and in intensity raging between 80%-90% of the maximum intensity within 1 to 2 minutes .(33: 22), (34: 66), (9), (17), (18), (44), (42)

The method of training by ongoing and interval load with low- intensity to develop the aerobic work and method of high-intensity, interval training to develop the anaerobic work as it leads to the development of the ability of muscles to adapt to the physical effort exerted and delay the onset of fatigues. (1), (15), (19), (11: 22)

For the degree of the weekly load, the researchers followed the formation of 1: 2, i.e. day with medium load and two days with high or maximum load.(18), (29), (31), (32), (35)

The training load was upgraded; the researchers applied the Tae Bo exercises at

the beginning of the preparation time with 15 minutes. The load was graded to 45 minutes at the end of the preparation, taking into account the fixing process of load and adaptation in each stage the players reached.

The use of the music diversity was applied so that the players could not feel bored and tired and introduce of the thrill factor, as indicated by blanks (11) that music helped to delay the onset of fatigue. (12), (43), (49), (46)

The post measurement: the researchers conducted the post-measurement from 6/9/2018 to 8/9/2018 on the control and experimental groups for the test under discussion.

The Statistical Analysis: the researchers conducted statistical analysis complied with the nature of the study, through the arithmetic mean, standard deviation, coefficient of skew, correlation coefficient, Wilcoxon value, Mann-Whitney Value and the percentage of improvement,

Result and Discussion:

It is shown in table 1 that there are statistically significant differences between pre and post tests in the control group in the physiological, physical and skillful tests in question as the calculated W value is less than the tabular Z value at the level of statistical significance 0.5.

It is shown in table 2 that there are statistically significant differences between pre and post tests in the experimental group in the physiological, physical and skillful tests in question as the calculated W value is less than the tabular W at the level of statistical significance 0.5.

It is clear from table 3 three are statistical significant differences between control and experimental groups in he post-measurement in favor of the experimental group in the physiological and physical tests and in the tests of dribbing and passing, as the calculated Mamm-Whitney value in less than the tabular value of the Mann-Whitney. As for the test of shooting, it did not have a statistical significance as the calculated Mann-Whitney value was greater than the tabular Mann-Whitney value 0.05.

Discussion of the Results of the first Hypothesis: it is clear from table 1 that a marked

improvement occurred in the physiological, physical and skillful variables under discussion for the control group in post-measurement. The researchers attribute that improvement to the traditional program, which shares its content with the experimental group program with the exception to Tae Bo exercises applies to the experimental group and the presence of a qualified trainer and the regularity of the players, in addition to the physical and skillful content exists in the traditional program as the process of permanent training works on the creation of the internal organs to adapt rapidly to any new work and leads to improve the functional and physiological ability (2). Ramadan (34) also pointed out that the training programs lead to the development of persons physical status. The researches agreed with Abu Talib (4) and Fatiha (15), as their studies demonstrated that training programs lead to the improvement of physiological, physical and skillful aspects. Thus the first hypothesis was supported.

Table (5)

Significance of differences between both means of pre and post measures of the control group in the physiological, physical and skillful tests under discussion

Variables		Negative cases		Positive cases		N of pairs	W	Sig. level
		N	Rank sum	N	Rank sum			
Physiological	Physical capacity	-	0	9	45	9	0	Sig
	Vox2 max	-	0	9	45	9	0	Sig
	Anaerobic work	-	0	10	55	10	0	Sig
	Vital capacity	-	0	10	55	10	0	Sig
physical	Shuttle run	10	55	-	0	10	0	Sig
	30m sprint	10	55	-	0	10	0	Sig
	Vertical jump	-	0	10	55	10	0	Sig
	Zigzag run	9	45	-	0	9	0	Sig

Follow Table (5)

Significance of differences between both means of pre and post measures of the control group in the physiological, physical and skillful tests under discussion

Variables		Negative cases		Positive cases		N of pairs	W	Sig. level
		N	Rank sum	N	Rank sum			
Skillful	Dribbling around barriers	9	45	-	0	9	0	Sig
	Shooting from under basket	-	0	10-	55	10	0	Sig
	Speed &accuracy of passing	-	0	10	55	10	0	Sig

Tabular W value at the level of statistical significance 0.05= 8

Table (6)

Significance of differences between both means of pre and post measures of the experimental group in the physiological, physical and skillful tests under discussion

Variables		Negative cases		Positive cases		N of pairs	W	Sig. level
		N	Rank sum	N	Rank sum			
Physiological	Physical capacity	-	0	10	55	10	0	Sig
	Vox2 max	-	0	10	55	10	0	Sig
	Anaerobic work	-	0	10	55	10	0	Sig
	Vital capacity	-	0	10	55	10	0	Sig
physical	Shuttle run	10	55	-	0	10	0	Sig
	30m sprint	10	55	-	0	10	0	Sig
	Vertical jump	-	0	10	55	10	0	Sig
	Zigzag run	9	45	-	0	9	0	Sig
Skillful	Dribbling around barriers	10	45	-	0	10	0	Sig
	Shooting from under basket	-	0	10	55	10	0	Sig
	Speed &accuracy of passing	-	0	10	55	10	0	Sig

Tabular W value at the level of statistical significance 0.05= 8

Table (7)

The arithmetic mean and the significance of statistical difference for both control and experimental groups in the pre-measurement of physiological, physical and skillful variables under discussion

Variables		Measure unite	Mean of con. group	Mean of exp. Group	Rank sum of exp.	Rank sum of con	Mann whitney	Sig. level
Physiolo-	Physical capacity		821.3	1015.5	57	153	18	Sig
	Vox2 max	Liter	3.630	4.6	73	137	18	Sig
	Anaerobic work	Se	11.5	13.14	56	154	1	Sig
	Vital capacity	Milliliter	3542.2	3950	60	151	5	Sig
physical	Shuttle run	Sec.	61.3	58.42	59.5	15	4.5	Sig
	30m sprint	Sec.	3.5	3.1	135	75	20	Sig
	Vertical jump	cm.	45.8	47.2	69	141	14	Sig
	Zigzag run	Sec.	18.2	16.42	143	67	12	Sig
Skillful	Dribbling around barriers	Sec.	8.1	7.83	147	63	8	Sig
	Shooting from under basket	N	18.7	18.8	104.5	105.5	41.5	Sig
	Speed &accuracy of passing	N	17.5	19.9	75	135	20	Sig

Mann-Whitney value at 0.05= 23

Table (8)

The percentage if improvement between the control and experimental groups in the physiological, physical and skill tests under discussion

Variables		Control		% improve.	Experimental		% improve	Dif	Notes
		pre	post		pre	Post			
Physiologica	Physical capacity	726.2	721.3	13.1	730.6	1015.5	38.99	25.9	In favor of exp.
	Vox2 max	3.53	3.63	2.82	3.52	4.6	30.68	27.85	In favor of exp.
	Anaerobic work	9.32	11.5	23.4	9.51	13.14	38.17	14.77	In favor of exp.

Follow Table (8)

The percentage if improvement between the control and experimental groups in the physiological, physical and skill tests under discussion

Variables		Control		% improve.	Experimental		% improve	Dif	Notes
		pre	post		pre	Post			
	Vital capacity	3398.1	3542.2	4.24	3410.2	3950	15.83	11.59	In favor of exp.
physical	Shuttle run	71.5	61.3	14.27	72	58.42	18.86	4.59	In favor of exp.
	30m sprint	4	3.5	12.5	4.12	3.1	24.76	20.64	In favor of exp.
	Vertical jump	43.7	45.8	4.81	42.1	47.2	12.11	7.3	In favor of exp.
	Zigzag run	19.3	18.2	5.7	19.98	16.42	17.82	12.12	In favor of exp.
Skillful	Dribbling around barriers	9.32	8.1	13.1	8.92	7.93	12.22	0.88	In favor of exp.
	Shooting from under basket	14.3	18.7	30.77	14.9	18.8	26.18	4.59	In favor of con
	Speed &accuracy of passing	16.2	17.5	8.03	17.3	19.9	15.03	2.27	In favor of con

Discussion of the Results of the Second Hypothesis: it is clear from table (5, 6, 7, 8) that a marked improvement happened in the physiological, physical and skillful variables under discussion for the experimental group in the post-measurement. The researches attribute that improvement to the training program which includes the modified Tae Bo exercises performed in the motor course of skillful performance in the form of aerobic and anaerobic training in addition to the scientific methods in codifying the training load and the use of methods of interval and continuous training because of their positive impact, Ali (7) indicates that interval and continuous training lead to improvement of aerobic and anaerobic capacity and cause physiological changes, including all parts of the body, Blanks (11) also referred that the program of Tae Bo exercises work on improving strength, flexibility, endurance, agility and increase oxygen consumption and thus improve

aerobic capacity and respiratory efficiency of the circulatory system. According to the researchers the application of Tae Bo exercises regularly and permanently by 3 training units per week for 12 weeks and gradually upgrading training load and fluctuations in intensity and performance associated with the music in the motor course of skillful performance let to the development of physical and skillful attributed of the players. (12), (29), (36), (8, (9), (20), (18)

Discussion of the results of the third hypothesis: It is clear from table 3 the existence of statistically significant differences between the control and experimental groups in the post-measurement in favor of the experimental group in the physiological, physical and skill variables under discussion, the researchers attributed these signs to the program of modified Tae Bo exercises with all their aerobic and anaerobic exercises inside the training unit, this contributed to delay the onset of fatigue in conditions, of lack of oxygen and this improve the efficiency of the circulatory system and strengthen the respiratory muscles of breathing and increase air flow to and from the lungs, this contributed to the improvement of vital capacity as well as increasing the ability to transfer oxygen to the parts of the body, this agrees with blanks (11) as he indicated that Tae Bo exercises work on pumping the blood and improving the efficiency of work of the heart and reducing stress through performance with music and raising the functional efficiency of the player. (12), (3), (2), (5)

In the view of researchers, increase in the functional capacity of the player led to the development of physical and skillful performance of the players since the modified Tae Bo exercises endurance, strength, flexibility, agility and speed (11). Anaerobic exercises lead to significant improvement in the physical characteristics which reflects positively on skillful performance, especially if the development was in the motor course of the skillful performance. (34), (6), (17), (31), (40), (35), (39), (17)

This is consistent with the findings of the study that

the Tae Bo exercises should be performed in the motor course of the skillful performance in basketball and the movements should be characterized by continuity with the jumping, hopping and changing the direction accompanied by music to introduce the element of fun, thrill and getting rid of the routine performance of exercise.

Conclusion:

- The traditional program of the control group had a positive effect which share its parts with the experimental group in the content except for the Tae Bo exercises, on the physiological, physical and skillful variables under discussion.
- The pilot program had a positive effect on the experimental group, which contains the modified Tae Bo exercises, on the physiological, physical and skillful variables under discussion.
- There have been statistically significant differences in the post-measurement between the control and experimental group in the physiological; physical and skill variables under discussion.
- The improvement percentage of the experimental group is higher than the improvement percentage of the control group in physiological; physical and skill variables except for shooting and passing under discussion.

Recommendations:

- The researches recommend the need to use the modified Tae Bo exercises in the development and improvement of the physiological functions of the basketball players under discussion.
- The modified Tae Bo exercises are recommended to be used in the development of some special physical qualities in basketball.
- Exercises for the development of accuracy are needed to be added in the program of Tae Bo exercises for basketball players.
- Further studies should be conducted to understand how the Tae Bo exercises affect the other motor skills in basketball, especially the skills of possession and control over the ball.
- Further studies should be done on younger levels of age, especially the beginners, as it has an active effect by using

music, which is likable for the beginners in basketball and various activities.

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