## **ORIGINAL ARTICLE**

# Effectiveness of Health Behaviors Oriented Education Program on Third Degree Football Referees' Physical Fitness at the Referees' Football Training Centre in Baghdad City

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# ABSTRACT

**Aim:** To determine the effectiveness of health behaviors oriented education program on third degree football referees' physical fitness at the Football Referee Training Centre in Baghdad City.

**Methodology:** Quasi-experimental design, using one group test-retest approach, is carried throughout the present study for the period of October 25<sup>th</sup> 2019 through March 10<sup>th</sup> 2021.

Non-probability, convenient sample of (40) third degree football referee while they are attending the Referees' Football Training Centre for the purpose of training. All subjects, who have agreed to participate in the study, have signed consent form for maintenance of their confidentiality and ethical considerations. Third Degree Football Referees' Physical Fitness Scale is adopted for the purpose of the study. Content validity of the scale is determined through panel of experts and test-retest reliability for equivalence is obtained throughout a pilot study. **Results:** Results of the study depict that physical fitness of third degree football referees has dramatically and

positively changed after they have been exposed to the education program.

**Conclusion:** The study concludes that the third degree football referees'physical fitness has been positively changed as a matter of pursuing benefits out of the education program.

Keywords: Effectiveness, Third Degree Football Referees, Physical Fitness,

## INTRODUCTION

Physical fitness refers to the ability of your body systems to work together efficiently to allow you to be healthy and perform activities of daily living. Being efficient means doing daily activities with the least effort possible. A fit person is able to perform schoolwork, meet home responsibilities, and still have enough energy to enjoy sport and other leisure activities. A fit person can respond effectively to normal life situations, such as raking leaves at home, stocking shelves at a part-time job, and marching in the band at school. A fit person can also respond to emergency situations - for example, by running to get help or aiding a friend in distress (Malina, 2010).

Physical fitness is made up of 11 parts - 6 of them health related and 5 skill related. All of the parts are important to good performance in physical activity, including sports. But the 6 are referred to as contributing to health-related physical fitness because scientists in kinesiology have shown that they can reduce your risk of chronic disease and promote good health and wellness. These parts of fitness are body composition, endurance, cardiorespiratory flexibility, muscular endurance, power, and strength. They also help you function effectively in daily activities (HK, 2020).

Most people understand that there are benefits that arise from prioritizing physical fitness. The trick understands what, exactly, "fitness" is, and how a person can go about getting fit. That's where the five components of fitness come in. These five components—cardiovascular endurance, muscular strength, muscular endurance, flexibility, and body composition—are the blueprint for the American College of Sports Medicine's (ACSM's) physical activity guidelines, and they provide a helpful tool for organizing and executing their own well-balanced workout routine (AWP, 2020; FF, 2020; Leach, 2019).

Based on the early stated evidence, the present study attempts to determine the effectiveness of health behaviors oriented education program on third degree football referees' physical fitness at the Referees' Football Training Centre in Baghdad City.

## METHODOLOGY

Quasi-experimental design, using one group test-retest approach, is carried throughout the present study for the period of October 25<sup>th</sup> 2019 through March 10<sup>th</sup> 2021.

Non-probability, convenient sample of (40) third degree football referee while they are attending the Referees' Football Training Centre for the purpose of training. All subjects, who have agreed to participate in the study, have signed consent form for maintenance of their confidentiality and ethical considerations. Third Degree Football Referees' Physical Fitness Scale is adopted for the purpose of the study. Content validity of the questionnaire is determined through panel of (10) experts and test-retest reliability for equivalence is obtained throughout a pilot study.

Data are collected through the use of the study instrument and analyzed through the application of descriptive statistical data analysis approach of frequency, percent, total scores and ranges and inferential statistical data analysis approach of t-test and analysis of variance and all of these analyses are done at p-value of 0.05.

#### RESULTS

Results, out of these tables, approve that the program has executed melodramatic influence on the third degree referees' physical fitness. Table 1: Evaluation of Third Degree Football Referees' Physical Fitness at the Pre-test Episode (FIFA, 2016)

a) Parameters	Frequency	%age
> 6.20 second	7	17.5
(6.10-6.20second)	31	77.5
< 6 second	2	5.0
Total	40	100.0

b) Parameters	Frequency	%age	
<4000 meter	7	17.5	
4000 meter completed	32	80.0	
>4000 meter	1	2.5	
Total	40	100.0	

Evaluation of third degree football referees' physical fitness indicates that most of them have moderately completed the tests (77.5%) and (80.0%) respectively at the Pre-test Episode.

Table 2: Evaluation of Third Degree Football Referees' Physical Fitness at the Post-test I Episode (FIFA, 2016)

a) Parameters	Frequency	%age
(6.10-6.20second)	5	12.5
<6second	35	87.5
Total	40	100.0

b) Parameters	Frequency	%age
4000 meter completed	6	15.0
>4000 meter	34	85.0
Total	40	

Evaluation of third degree football referees' physical fitness indicates that the majority of them have impressively completed the tests (87.5%) and (85.0%) respectively at the Post-test I Episode.

Table 3: Evaluation of Third Degree Football Refe	rees' Physical
Fitness at the Post-test II Episode (FIFA, 2016)	-

a) Parameters	Frequency	%age
<6 second	40	100.0

b) Parameters	Frequency	Percent
4000 meter completed	1	2.5
>4000 meter	39	97.5
Total	40	100.0

Evaluation of third degree football referees' physical fitness indicates that the majority of them have remarkably completed the tests (100.0%) and (97.5%) respectively at the Post-test II Episode.

Table 4: Effectiveness of the Program on Third Degree Football Referees' Physical Fitness Pre-test and Post-test I

Physical fitness	Group size	Mean	St. deviation	T value	Degree of freedom	Significance
Equal variances assumed	40	3.73	0.847	-13.175	78	0.000
Equal variances not assumed	40	5.73	0.452	-13.175	59.565	0.000

Pre-test, Post-test I and Post-test II

Physical fitness	Group size	Mean	Sum of squares	Degree of freedom	Mean square	F statistics	Significance
Between Groups	40	3.73	121.667	2	60.833	192.756	0.000
Within Groups	40	5.73	36.925	117	0.316		
	40	5.98					
Total	120	5.14	158.592	119			

## DISCUSSION

**Part I: Discussion of the Overall Evaluation of the Third Degree Football Referees' Physical Fitness:** Analysis of such overall evaluation shows that third degree football referees have experienced poor to moderate level of physical fitness prior to the program implementation (Table 1). While their fitness has been changed and upgraded as consequence of their being wide-open to the program and the quality of this fitness leftovers effectively oriented for the lengthy course (Table 2 and 3). This empirical evidence can be interpreted in a way that these referees' physical fitness is improved as far as their health behaviors have been seriously and positively changed as a matter of the program effectiveness.

Football is a team sport between two teams of (11) players each. The goal of the game is to score goals by placing a ball in the opponent's goal area. The football player must have a good physical condition. The most important abilities for a football player are: speed, coordination, strength, endurance. In the same time football players can deal very well with the ball. The football match is supervised by the referees. Referee effort in the game is similar to the football player without the ball. Football referees must develop according to the current demands in order to manage the modern-day game. They must have a

good biological support and an optimal motor condition. A study attempts to identify the football referees fitness level during the football game. Subjects of the practical study are (32) football Romanian referees League 1. All of them have different jobs and they deal with refereeing in their spare time. The study uses some investigations, as: BMI, 4x40m test, Yo-yo intermittent test level 1. The referees are tested two times at six months. The results of the study high spot that there are significant statistical differences between initial and final tests. It can be concluded out of the study results that these referees have qualified the physical fitness prerequisites for being eligible ones (Monea, 2019).

A descriptive comparative is carried out to investigate physical fitness for futsal Referee of Football Association in Thailand and Compare of the Physical Fitness for first, second and third level futsal Referee of Football Association in Thailand. The sample is comprised of futsal Referee of Football Association in Thailand of (97) person; first level futsal referee (22) person; second level futsal referee (11) person and third level futsal referee (64) person. The instrument is comprised of Endurance Test (1,000 meter), Speed Test (4x10 meter) 2 times, and Agility Test (80 meter) 2 times. The results reveal that there is significant difference between the three group of referees relative to the physical fitness tests at the 0.05 level (Koeipakvaen, 2018). A descriptive comparative study aims at comparing the results of  $2^{nd}$  class football referees with  $3^{rd}$  class football referees in physical fitness test Yo – Yo test. Furthermore, the study aims at finding the differences in distances covered in yo – yo tests. The subjects are (15)  $2^{nd}$  class football referee and (15)  $3^{rd}$  class football referees. Based on the study findings, the study concludes that there are weaknesses in speed stamina especially in  $3^{rd}$  class football referees (Insaif, 2017).

Part II: Effectiveness of the Program on Third Degree Football Referees' Physical Fitness: Throughout the course of data analysis, the study has revealed that the health behaviors oriented program is justified to be an effective mean in enhancing third degree referees' physical fitness. Such enhancement can be determined throughout the comparative significant differences between the pretest, posttest I and posttest II episodes of the groups by whom the model is executed (Table 4).

A descriptive comparative study is carried out to identify the football referees fitness level during the football game. Subjects of the study are (32) football Romanian referees League 1, male 36 years old. The referees have been tested two times at six months. The results of the study highlight for the four tests: there are significant statistical differences between initial and final tests (Monea, 2019).

#### CONCLUSION

The study concludes that the third degree football referees' physical fitness has been improved as a result of their being exposed to the health behaviors oriented education program.

**Recommendations:** The study recommends that the health behaviors oriented health education program can be utilized as an effective mean in enhancing the third degree football referees' physical fitness and further research can be conducted on the same topic with wide-range sample size, variety of variables and different settings.

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