

Evaluation of Third Degree Football Referees' Physical Fitness at the Referees' Football Training Centre in Baghdad City

الخلاصة:

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خلفية البحث: ان ارتباط اللياقة البدنية بالتدريب الممنهج في المركز التدريبي للحكام من الأساسيات المهمة التي يجب ان يتبعها كل رياضي يمارس اي نشاط رياضي. ان النقص الحاصل في مستوى اللياقة البدنية نتيجة عدم أتباع التدريبات المنهجية لدى حكام الدرجة الثالثة في المركز التدريبي لحكام كرة القدم في مدينة بغداد أدى الى هبوط مستواهم العملي من ناحية اللياقة البدنية و العناصر المهمة التي تتبع اللياقة البدنية. **الهدف:** تهدف هذه الدراسة هو تقويم مستوى اللياقة البدنية لحكام الدرجة الثالثة في المركز التدريبي للحكام في مدينة بغداد.

المنهجية: أجريت دراسة شبه تجريبية استخدمت فيها عينة لمجموعة واحدة تم فيها قياس الاختبار و اعادة الاختبار و تمت هذه الدراسة للفترة من 25 / تشرين الاول / 2019 الى 10 / آذار / 2021، اختيرت العينة على اساس عدم الاحتمالية ل40 حكم من الدرجة الثالثة و الذين يرتادون المركز التدريبي لغرض إجراء التدريبات الخاصة بالحكام، الاستمارة الاستبانة تكونت من جزئين، الجزء الاول: المعلومات الديمغرافية الاقتصادية و كذلك قياس كتلة الجسم والحالة الاقتصادية اما الجزء الثاني: شمل مقياس اللياقة البدنية. تمت قياس أهلية الاستبانة من خلال عرضها على مجموعة من الخبراء كذلك استخدام الاختبار و إعادة الاختبار لقياس مدى استقرار الاستبانة.

النتائج: اثبتت الدراسة ارتفاع ملحوظ في مستوى اللياقة البدنية للحكام الذين يرتادون المركز التدريبي اي ان الدراسة اثبتت وجود علاقة ذات دلالة إحصائية موجبة، لا توجد اي دلالة إحصائية للعلاقة بين اللياقة البدنية للحكام، العمر، الحالة الاقتصادية، كتلة الجسم، و المستوى التعليمي.

الاستنتاجات: ان الحكام من الدرجة الثالثة ارتفعت لياقتهم البدنية بشكل ملحوظ من خلال التزامهم و تواصلهم في التدريب بطريقة منهجية في المركز التدريبي للحكام في مدينة بغداد.

التوصيات: أوصت الدراسة بضرورة متابعة و تقييم اللياقة البدنية للحكام بفترات زمنية متقاربة كذلك اجراء بحوث اخرى تحمل عنوان الدراسة الحالية بعينة اخرى و متنوعة من الرياضيين.

الكلمات المفتاحية: اللياقة البدنية، المركز التدريبي لحكام كرة القدم الدرجة الثالثة.

ABSTRACT

Background: The link between physical fitness and systematic training in the referees training center is one of the important basics that every athlete must follow in any sporting activity. The shortage in the level of physical fitness as a result of not following the systematic exercises of the third class referees in the training center for football referees in the city of Baghdad led to the decline of their practical level in

terms of physical fitness and the important elements that follow physical fitness.

Objective: The present study aims at evaluating 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 25 \ October \ 2019 to 10 \ March \ 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. Self-report questionnaire is constructed out of the program for the purpose of the study. Such instrument is comprised of two parts; part I: Socio-demographic Information which include age, education, body mass index (BMI) and socioeconomic status (SES) and part II: Third Degree Football Referees' Physical Fitness Scale. Content validity of the questionnaire 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 have dramatically and positively changed while they are

involved in the training center. Furthermore, there is no significant relationship between these referees' physical fitness and their socio-demographic characteristics of age, education, body mass index and socioeconomic status.

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 training.

Recommendation: The study recommends that regular and periodic investigations should be carried out to monitor the third degree referees' physical fitness and further research can be conducted on the same topic with wide-range sample size, variety of variables and different settings.

Keyword: Evaluation, Third Degree Football Referees, Physical Fitness, Training Center.

INTRODUCTION

Maintaining a good level of physical fitness is something that we should all aspire to do. But it can be difficult to determine what fitness entails. Here we answer the question: what does being physically fit mean? According to the United States Department of Health and Human Services, physical fitness is defined as a set of attributes that people have or achieve that relates to the ability to perform physical activity ⁽¹⁾.

There are well-identified fast facts through which fitness can be guaranteed. Such facts include maintaining physical fitness can help prevent some diseases; with exercise, body composition can change without changing weight; athletes' hearts show different changes dependent on their chosen sport; muscle strength increases by fiber hypertrophy and neural changes; and stretching to increase flexibility can ease a number of medical complaints ⁽²⁾.

When it comes to overall health, physical fitness plays a significant role. In fact, the Centers for

Disease Control and Prevention (CDC) links regular physical activity to reduced risk of cardiovascular disease, type II diabetes, some cancers, improved bone health, enhanced mental health, and improved quality of life with age. Besides those are just a few of the benefits. Research published issue of Interface Focus found that physical fitness improved mental and physical resilience, as well as cognition, while another study published in Sports Medicine found that muscular fitness in children is associated with improved self-esteem, bone health, and reduced risk of cardiovascular disease and metabolic risk factors ⁽³⁾. Based on the early stated evidence, the present study attempts to the third degree referees' physical fitness at the Referees' Football Training Centre in Baghdad City.

AIMS OF THE STUDY

The present study aims to evaluating 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 25th 2019 through March 10th 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. Self-report questionnaire is constructed out of the program for the purpose of the study. Such instrument is comprised of two parts; **part I:** Socio-

demographic Information which include age, education, body mass index (BMI) and socioeconomic status (SES) and **part II:** Third Degree Football Referees' Physical Fitness Scale. Content validity of the questionnaire is determined through panel of experts and test-retest reliability for equivalence is obtained throughout a pilot study.

Data are collected through the use of the study instrument as self-report measure 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 multiple linear regression analysis and all of these analyses are done at p-value of 0.05.

RESULTS

Table (1): Third Degree Football Referees' Socio-demographic Characteristics

Socio-demographic Characteristics	Frequency	Percent
1. Age (Years)		
22-25	40	100.0
Total	40	100.0
2. Body Mass Index		
Underweight (Below 18.5)	11	27.5
Normal (18.5-24.9)	29	72.5
Overweight (25-29.9)	0	0.0
Obese (30-34.9)	0	0.0
Morbid Obese (35-39.9)	0	0.0
Total	40	100.0
3. Education		
Intermediate School	1	2.5
Secondary School	9	22.5
Bachelor Degree	29	72.5
Master Degree	1	2.5
Total	40	100.0
4. Socioeconomic Status		

Low = (7-10)	8	20.0
Moderate = (11-25)	30	75.0
High = (26-29)	2	5.0
Total	40	100.0

Table 1 show that all the third degree football referees are (22-25) year old (100%) and most of them have normal weight (72.5%); bachelor degree graduates (72.5%), and having moderate socioeconomic status (75%).

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

A/

Parameters	Frequency	Percent
>6second	0	0%
<6second	40	100.0
Total	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.

Table (3): Relationship between Third Degree Football Referees' Physical Fitness and their Socio-demographic Characteristics

Model	Sum of Squares	Degree of Freedom	Mean Square	F-Statistics	Significance
Regression	0.216	3	0.072	0.334	0.801
Residual	7.759	36	0.216		
Total	7.975	39			

a. Dependent Variable: Physical Fitness

b. Predictors: (Constant), Age, Education, Body Mass Index and Socioeconomic Status

Result, out of this table, presents that there is no significant relationship between third degree football referees' physical fitness and their socio-demographic characteristics at the pre-test, post-test I and post-test II episodes.

DISCUSSION

Part I: Discussion of Third Degree Football Referees' Socio-demographic Characteristics.

Analysis of such characteristics depicts that almost all of the third degree football referees are late age adolescents with few young adults. Concerning the remaining socio-demographic characteristics, most of the referees are well-educated as bachelor degree graduates; experiencing normal weight and

derived of families who have experienced moderate socioeconomic status (Table 1). Such findings provide empirical evidence about the nature of their own demography.

The International Football Association Board (IFAB), which features representatives from (FIFA), has issued the law that if anyone wants to qualify as a

referee, he will need to be at least 14-years-old and successfully complete the FA Referee Course (4).

A non-experimental correlational study aims at identifying the factors that determine the intention to continue voluntary refereeing in the context of football in Germany. The study has surveyed (n=4541) voluntary football referees. Findings of the study present supportive evidence to the current study through which it reveals that younger referees show higher intentions to continue their activity than do older referees (5).

Supportive evidence is grasped in a cross-sectional study which is conducted with (16) participants; 6 referees and 10 assistant referees to identify the relationship between referees' health and physical fitness. The Findings of the study reveal that the referees all fell under the age range (26 to 41 years) (6).

Concerning their education, referees need a minimum of a high school diploma or equivalent. Colleges that hire referees generally require them to be a graduate of a professional officiating school. To manage major league games, referees must possess 7 to 10 years of experience in minor leagues. To become a referee for professional football, a minimum of ten years of experience is required, at least five of which occurred at the college level or higher (7).

It has been reported that today, the most popular sport worldwide is football; referees are inseparable factor of this sport. Body composition is a highly important factor for officially tested. An appropriate body composition status is a mandatory prerequisite for any referee at advanced competitive levels. The overall physical demands on the referees are considered similar to those on the soccer players. However, referees are older than the players and, in most cases, are incompetent and cannot be substituted during the game (8).

An emphasis has been made that referee's body composition is of particular importance for

performance. In football BMI, fat mass and lean body mass of an athlete relates to on-field performance. Periodic measurement of body composition can be used to assess the effectiveness of training program and to monitor changes in body composition (9).

A descriptive comparative study of (21) football referee has concluded that referees aiming to excel at higher levels need to obtain and maintain an ideal body composition since elite level football is intense and requires high fitness levels (10).

With respect to their socioeconomic level, it has been documented in the literature that large number of football referees has made a decision to end their career as being linked to a higher level of expenses relative to income (11).

Part II: Discussion of the Overall Evaluation of the Third Degree Football Referees' Physical Fitness.

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 ⁽¹²⁾.

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 groups of referees relative to the physical fitness tests at the 0.05 level ⁽¹³⁾.

A descriptive comparative study aims at comparing the results of 2nd class football referees with 3rd 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) 2nd class football referee and (15) 3rd class football referees. Based on the study findings, the study concludes that there are weaknesses in speed stamina especially in 3rd class football referees ⁽¹⁴⁾.

Part III: The Relationship between Third Degree Referees' Physical Fitness and Their Demographic Characteristics

Analysis of such relationship reveals that the third degree football referees socio-demographic characteristics of age, education; body mass index and socioeconomic status have not imposed illustrious effect on their physical fitness (Table 3). This can be justified in a manner that vast majority of the referees have advanced benefits out of the training program with regard to the enhancement of their physical fitness.

A descriptive comparative study primarily aims at investigating the physical fitness of soccer

referees. Forty-five Spanish referees, a purposive sample, are grouped according to status: field (FR, n = 23) and assistant (NR, n = 22), competitive level: national (NR, n = 28) and provincial (PR, n = 17), and age: > 35 year (n = 10) and ≤ 35 year (n = 35). Results show that the > 35 year covered significantly ($p \leq 0.01$) less distance in the YYIR1 than the ≤ 35 year group and HR max was significantly ($p \leq 0.05$) lower in the > 35 year group ⁽¹⁵⁾.

A cross-sectional design is realized, sixty-one professional and semiprofessional referees from Colombia (M age = 22.5; SD = 4.1) have completed the questionnaire for Psychological Characteristics related to Sports Performance adapted for Football Referees (CPRD-AF, for its Spanish acronym). Findings reveal that performance evaluation has a significantly higher influence on postgraduate referees than college referees ($p < .036$) ⁽¹⁶⁾.

A descriptive comparative study is conducted to ascertain the football referees fitness level during the football game. The study picks (32) football Romanian referees League 1, male (36) years old. The referees are tested two times at six months. The results of the study highpoint for the two tests: there are significant statistical differences between initial and final tests with respect to their body mass index ⁽¹²⁾.

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 training.

RECOMMENDATIONS

The study recommends that regular and periodic investigations should be carried out to monitor the third degree 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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