

# Evaluation of Third Degree Football Referees' Health Behaviors at the Referees' Football Training Centre in Baghdad City

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## Abstract

**Objective(s):** The present study aims at evaluating third degree football referees' Health behaviors 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. 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' Health Behaviors Scale that measures the third degree referees' health behaviors. It is comprised of (4) sections that include body care and general health, smoking, drinking and drug use, psychosocial well-being and abusive behaviors. 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 third degree football referees have experienced positive health behaviors with respect to studied aspects. Further, there is no significant relationship between their health behaviors and the socio-demographic characteristics of age, education, body mass index and socioeconomic status.

**Conclusion:** The study concludes that the third degree football referees' health behaviors are improving as far as they are involved in the referees training center.

**Key Words:** *Evaluation, Third Degree Football Referees, Health Behaviors, Training Center*

## Introduction

Health behavior is the activity undertaken by individuals for the purpose of maintaining or enhancing their health, preventing health problems, or achieving a positive body image. It is not limited to healthy people trying to stay healthy, but also includes the physically handicapped and persons with chronic diseases who seek to control, minimize, or contain their affliction through positive forms of health behavior, such as diet, exercise, and avoiding smoking <sup>(1)</sup>. Health behaviors are also defined as those behaviors that people undertake in the

belief that they will prevent disease or ensure detection prior to symptoms <sup>(2)</sup>. Health behaviors are increasingly recognized as multidimensional and embedded in health lifestyles, varying over the life course and across place and reflecting dialectic between structure and agency that necessitates situating individuals in context <sup>(3)</sup>. A variety of behaviors fall within such a definition including smoking, alcohol use, diet, physical activity, sexual behaviors, physician visits, medication adherence, screening and vaccination. It is believed that the study of health behaviors in both healthy and unhealthy populations is an important area where health

psychology can and has made important contributions to improving health (4). Based on the early stated evidence, the present study attempts to Health Behaviors of third degree referees’ health behaviors 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. 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’ Health Behaviors Scale that measures the third degree referees’ health behaviors. It is comprised of (4) sections that include body care and general health, smoking, drinking and drug use, psychosocial well-being and abusive behaviors. 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

Results out of this table depict 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): Overall Evaluation of Third Degree Football Referees’ Health Behaviors at the**

<b>Poor (89-178)</b>	<b>Fair (179-267)</b>	<b>Good (268-356)</b>
0 (0.0%)	0 (0.0%)	40 (100.0%)

Results, out of this table, have depicted that all the third degree football referees have experienced good health behaviors post the program implementation (100.0%).

**Table (3): Relationship between Third Degree Football Referees’ Health Behaviors and Their Socio-demographic Characteristics**

<b>Model</b>	<b>Sum of Squares</b>	<b>Degree of Freedom</b>	<b>Mean Square</b>	<b>F-Statistics</b>	<b>Significance</b>
Regression	115.587	3	38.529	1.116	0.355
Residual	1242.388	36	34.511		
Total	1357.975	39			
a. Dependent Variable: Health Behaviors					
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’ health behaviors and their socio-demographic characteristics except that of the pre-test which is highly significant.					

## 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 <sup>(5)</sup>.

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 <sup>(6)</sup>.

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) <sup>(7)</sup>.

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 <sup>(8)</sup>.

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 <sup>(9)</sup>.

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 <sup>(10)</sup>.

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 <sup>(11)</sup>.

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 <sup>(12)</sup>.

## **Part II: Discussion of the Overall Evaluation of the Third Degree Football Referees' Health**

### **Behaviors**

Analysis of such overall evaluation depicts that third degree football referees have experienced good level of health behaviors as a result of their being exposed to the training program at the Football Referees' Training Center (Table 4-2).

A study is carried out to verify current eating habits and resulting body composition of a group of elite

international soccer referees. At an international FIFA seminar 60 elite international soccer referees are enrolled. The body composition showed a normal weight condition with a fat content of  $11.4 \pm 2.5\%$ . Macronutrients showed a low level of carbohydrates ( $43.6 \pm 5.4\%$ ) and a high level of fat ( $40.0 \pm 4.5\%$ ). Micronutrients showed a low level of calcium, potassium, zinc, magnesium, iodine, vitamin B12 and vitamin B9. Even though their body composition was within the normal range, the current eating habits of elite international soccer referees do not appear to follow the nutrition guidelines <sup>(13)</sup>.

It has been stated in the literature that diet and exercise could be negatively affected if people don't look after their sleep. If people practice better sleep they will improve their wellbeing, and the benefits will boost your energy levels and dietary habits. All of the habits around sleep time are called sleep hygiene and they're part of something bigger called cognitive behavioral therapy. But sleep hygiene can be adapted by anybody to change their sleep behavior, which can be very useful, and which can result in better sleep quality and quantity <sup>(14)</sup>.

Professional football referees have been recently characterized by an increase in game speed and complexity. From this, it follows that football referees also need to improve their skills to keep up with players and adequately respond in various disputed situations. Most referees prefer the game method. For a football referee or referee's assistant during a game, physical activity is similar to that of runners/athletes. Football referees are engaged in performance that is more intense, as compared to their assistants, at the international level especially. Such conditions are close to extreme and are characterized by an intense physical load dictated by game duration. This study suggested using athletics in comprehensive sustainable training of football referees. As it turned out, athletics-based training significantly improved the motor activity of football referees <sup>(15)</sup>.

An observational prospective cohort study over a follow-up period of one season (2015–2016) was conducted among professional football referees from Belgium, Finland, France, Germany, Norway, Russia, Scotland and Sweden to explore the association of physical and psychosocial stressors (severe injuries, surgeries, recent life events, social support) with one-

season onset of symptoms of common mental disorders (CMDs) among European professional football referees. The study findings indicate that the prevalence of symptoms of CMD ranged from 5.9% for distress to 19.2% for eating disorders. A higher number of severe injuries and a lower degree of satisfaction about social support were significantly related to the occurrence of symptoms of CMD with an OR of 2.63 and an OR of 1.10, respectively. The study concludes that higher number of severe injuries and a lower degree on satisfaction about social support are found to be significantly associated with the onset of symptoms of CMD among European professional football referees. Referees suffering from severe injuries are nearly three times more likely to report symptoms of anxiety and depression. Referees who have reported a low satisfaction of social support are significantly more likely to report symptoms of eating disorder <sup>(16)</sup>.

A phenomenological, one of the qualitative research designs, is used to determine the psychological violence and pressure faced by football referees in Bolu and Düzce and to disclose the reasons of the events. Interviews are made with (4) different groups consisting of (17) football referee by focus group discussion method. In the research, it was found out that psychological violence and pressure elements faced by football referees in workplaces arise from the internal and external environment of the workplaces. The internal environment of the workplace of the referees is stated under subtopics such as social exclusion, lack of assignment, excessive number of assignments, and assignments below their capacities, etc. The external environment of the workplace of the referees is stated under the subtopics including physical violence, swearing and insults, pressure on the institution of the referee and threatening and creating pressure on the referee through public opinion. In addition to the aforementioned results, the factors leading to the psychological violence and pressure faced by the football referees are found as legal gaps, incoherencies and frequent changes in directions and, regarding as a rival, nepotism, regionalism, jealousy, etc. <sup>(17)</sup>.

It is confirmed in the literature that being a referee in a sports competition requires not only certain physical abilities, and knowledge of the rules of the game, but also a psychological efficiency, an ability to put on a successful performance during the game. A descriptive

evaluation study is conducted with (272) football city referees working under the rubric of the Turkish Football Federation, who are selected by means of random sampling in order to evaluate the factors that influence their burn-out levels according to some demographical variables. The results of the study show that marital status, referee age and crowd jeers, age, educational status, the importance of income, being happy to be a referee and the importance level of the match are found to be determiners of burn-out levels of referees, and some statistically significant differences were acquired. In this sense, the sharing of knowledge by experienced colleagues with novice referees and the provision of necessary support may be beneficial in terms of determining possible and appropriate ways of dealing with long-term problems and thanks to the presence of psychology experts within the organization <sup>(18)</sup>.

Referees are valuable contributors to the legitimacy of a sporting contest. Despite this, abuse in sport has become a growing concern and is regularly noted as an obstacle with which referees must contend. Continued abuses have been associated with referee discontinuation and have been noted as a detrimental influence in the recruitment and retention of referees. Sporting organizations, coaches, and players all feel the impact when there is an inadequate supply of referees. Coaches have been noted as a primary perpetrator of referee abuse; thus, a study utilizes a phenomenological approach to explore perceptions of referee abuse through the lens of the collegiate rugby coach. Data are collected from (15) participants, all of whom have completed two phone interviews. Five factors that influence one's perceptions of and proclivity towards referee abuse emerged from the data: (a) personal characteristics/philosophies, (b) relationships, (c) social influences, (d) organizational expectations, and (e) culture <sup>(19)</sup>.

Nearly two-thirds of football referees in England say they experience verbal abuse on a regular basis, according to a new survey seen by the BBC. Findings of a survey reveal that (22%) experience verbal abuse at every match, while (38%) say they are abused every couple of games. In addition, (19%) have been the victim of physical abuse at some time <sup>(20)</sup>.

Part III: The Relationship between Third Degree Referees' Health Behaviors and Their

## Demographic Characteristics

Throughout the course of data analysis, the study findings indicate that the third degree football referees' socio-demographic characteristics of age, education; body mass index and socioeconomic status have not imposed distinguished effect on their health behaviors (Table 3). This can be interpreted in a manner that vast majority of the referees have gained benefits out of the training program with respect to the improvement of their health behaviors.

A cross-sectional design is apprehended, 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 psychological characteristics are consistent regarding the referee role and experience. Differences are found between stress control and age [F SC (3, 57) = 3.83,  $p = .27$ ,  $\eta^2 = .38$ ], are the 28-34-year-old group is significantly higher than the 16-21-year-old group. Significant differences are found between stress control and education level [F SC (4, 56) = 3.19,  $p = .030$ ,  $\eta^2 = .14$ ], postgraduate referees have higher stress control compared with undergraduate referees ( $p < .027$ ). Performance evaluation has a significantly higher influence on postgraduate referees than college referees ( $p < .036$ )<sup>(21)</sup>.

## Conclusion

The study concludes that the third degree football referees' health behaviors are improving as far as they are involved in the referees training center.

### Recommendations:

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

**Financial Disclosure:** There is no financial disclosure.

**Conflict of Interest:** None to declare.

**Ethical Clearance:** "All experimental protocols

were approved under the Al-Farabi Private University College and all experiments were carried out in accordance with approved guidelines".

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