

# The Reality and High-Level Requirements for Preparing Football Players

## A Comparative Study of the Sports System in Algeria and Abroad

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### Abstract:

This study aimed to compare the requirements of high-level Physical conditioning with its reality within and outside the Algerian sports system. To this

end, a purposive sample of 10 physical trainers working both within Algeria and abroad (in the Saudi and Qatar Gulf leagues) was selected. A questionnaire was administered to them to measure differences across three axes. After data collection and

analysis, the study revealed differences between the requirements for physical conditioning and their reality within the Algerian football system, including technological resources, continuous education, and the presence of trainers on the technical staff.

**Keywords:** Physical conditioning; High-level sports; Football

## 1. Introduction:

The field of sports has become much broader in scope and importance today, thanks to experience gained through scientific and practical applications and training, as well as through scientific research and experiments that significantly impact athletes' performance during competitions.

Football is one of the most popular sports, enjoyed and practiced by most of the world's population. It has garnered considerable attention from researchers and scientists striving for excellence. Experts, researchers, and coaches have focused on the game, incorporating all the latest advancements in sports training and modern technology. Given the ever-increasing demands of this sport, coupled with the growing number of competitive events used to measure progress on the international stage, one of the most important aspects is physical conditioning, alongside the technical and tactical aspects. Players can now participate in up to three matches per week, thanks to the body's adaptation to heavy training loads. Physical conditioning is considered one of the most crucial and influential aspects of football preparation.

Experts believe that Physical conditioning has a positive effect on physical fitness, as Abu Ubaida Hussein Al-Sayed defines it as the process by which an athlete acquires it. He also defines it as an applied process that improves the player's training conditions by developing physical and motor fitness, thereby qualifying him to adapt to the requirements of skill, tactical, mental, and volitional performance (Abu Ubaida, 2001, p. 27).

In football, physical conditioning, in its simplest form, refers to the exercises designed to help players achieve the highest possible level of fitness essential to the game, improve the efficiency and performance of the body's systems, and conduct year-round conditioning. These exercises are a core component of training programs, integrated into training modules (Al-Basati, 1995, p. 74; Sayed, 1996, p. 337). Cazorla defines it as a set of procedures that allow for the of performance in a specific sport, taking into account both the physical capabilities required for that sport and the athlete's individual abilities and maximum adaptability (Cazorla, 2005).

aspect of the training process, it is the first stage in coaches' training programs. It takes considerable, carefully considered time to improve a player's physical fitness. The physical conditioning period is also one of the most important phases of the annual plan, as the success or failure of sporting results and match wins depends on it. Therefore, it is essential to make the most of this period, as it is crucial to achieving positive results. One of the general objectives of this period is to develop the players' training status by cultivating and improving their physical attributes. (Darwish & Hussein, 1980, p. 26)

Many countries have sought to develop specialists in physical conditioning tailored to specific sports and athletic activities. These specialists (physical trainers) are equipped with the latest technological tools for measuring and evaluating athletes' abilities, as well as the most recent research in biological sciences such as exercise physiology, biomechanics, kinesiology, and other related fields. In a study published in the *Journal of Strength and Conditioning Research*, researchers described technological tools as devices and equipment that help measure and monitor physical performance and analyze data, thereby guiding training processes and improving athletes' performance. (Haff, G. G., & Nimphius, S., 2012)

Therefore, developing the physical attributes of football athletes requires a highly qualified football fitness coach with expertise across all scientific, technological, and practical aspects. However, this cannot lead to the desired physical development or results unless the coach is integrated into the sports system and their presence is mandated within the coaching staff of all categories and at all levels, without exception. This allows them to gain practical experience through practice and to update their knowledge through continuous specialized training. The neglect we observe in the field regarding the role of the fitness coach in the sports system, in general, and in football in particular, contradicts the aforementioned standards that must be considered in developing our athletes' physical conditioning. This prompted us to research the current state of physical preparation in football relative to the requirements of high-level physical conditioning, especially in the current era marked by significant scientific and technological advancements in this field. We aim to identify the most significant obstacles and problems hindering the development of this aspect.

The main objective of this study is to identify the differences between the requirements for physical conditioning at the highest level and its actual implementation within the Algerian football system. This will be achieved by: a) identifying the differences between the technological resources necessary for physical conditioning and their actual availability in Algerian football clubs; b) identifying the differences between the minimum continuing education programs required for physical trainers, as approved by the relevant authorities in high-level leagues, and the continuing education programs for physical trainers within the Algerian football system; and c) identifying the differences between the presence of specialized physical trainers within the technical staff of clubs outside Algeria and their presence within Algerian football clubs. To achieve these objectives, our general hypothesis is as

follows: There are statistically significant differences between the requirements for physical conditioning and its actual implementation within the Algerian football system. Our sub-hypotheses are as follows: a) There are statistically significant differences between the technological resources necessary for physical conditioning and their actual availability in Algerian football clubs. b) There are statistically significant differences between the minimum continuing education programs required for physical trainers, as approved by the relevant authorities in high-level leagues, and the continuing education program for physical trainers in the Algerian football system. c) There are statistically significant differences between the presence of specialized physical trainers in the technical staff of clubs outside the country and their presence within Algerian football clubs.

## **2. Methodology Procedures of the Study**

**Pilot Study:** We conducted an exploratory study with two (2) physical trainers affiliated with Algerian clubs. The objectives of the Pilot study were:

- To determine the feasibility of conducting the research from a field perspective (physical trainers working at the highest level, both within and outside the country).
- To identify the size and characteristics of the research population.
- To test the validity of the research instrument (the feasibility of applying the questionnaire to the sample).

**Study approach:** The researchers adopted the descriptive approach in their study because it was suitable for the nature of the study.

**Study Sample and Selection Method:** Our study population was defined as physical trainers holding a federal physical trainer certificate and affiliated with high-level clubs within the country, as well as those who had previously been affiliated with clubs outside the country (in some Gulf leagues), or conversely, physical trainers working in clubs outside the country who had previously worked within the country.

Our study sample consisted of 10 physical trainers selected purposively. The following table shows the selected sample distributed by Years of experience.

**Table (1):** Represents the selected sample distributed by Years of experience.

Years of experience	n	Percentage %
5 – 10 years	4	40
10 years and more	6	60
Sum	10	100

**Study Delimitations:**

- Thematic Delimitations: The study compared the requirements of high-level physical conditioning with its reality within the Algerian sports system.
- Human Delimitations: The study included 12 physical trainers, two for the pilot study and ten for the main study, distributed as follows: (three physical trainers working in the Saudi League who previously worked in Algerian clubs, three physical trainers working in the Qatar League who previously worked in Algerian clubs, and six physical trainers working in the Algerian League who previously worked in Gulf leagues).
- Temporal Delimitations: The study instrument was administered and the results analyzed between August 2024 and September 2024.

**Study Instrument:**

The researchers developed a questionnaire as the instrument for this study. It comprises 18 items distributed across three axes:

- Axis 1: Includes items 1, 2, 3, 4, 5, and 6, measuring the availability of technological resources.
- Axis 2: Includes items 7, 8, 9, 10, 11, and 12, measuring continuous education.
- Axis 3: Includes items 13, 14, 15, 16, 17, and 18, measuring the presence of physical trainers within the technical staff.

Each item has a three-category Likert scale, as shown in the table.

**Table (2):** Shows the response categories to the questionnaire items

category	degree
exists	3
sometimes exists	2
does not exist	1

The questionnaire was presented to a group of referees (a group of university professors working or who have previously worked in the field of physical conditioning with sports teams), and all the referees confirmed that the questionnaire was valid for measuring what it was designed to measure.

**The statistical methods used in the study are:**

- Paired samples t-test.

**3. Presentation and discussion of the study results:**

**Table (3):** Means, and t test values for each axis.

axis	availability of technological resources	continuous education	presence of physical trainers within the technical staff
Mean 1	3	2.70	2.66
Mean 2	1.33	1.10	1.16
t	18.10	18	13.50
p	0.012	0.021	0.033

Statistical conclusion	Significant at 0.05	Significant at 0.05	Significant at 0.05
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**\* First Sub-Hypothesis:**

The mean score of the physical trainers surveyed regarding the availability of technological equipment in the clubs they supervised abroad was 3, while the mean score for their responses on the same topic within Algeria was 1.33. The t-test value was 18.10, with a significance level of 0.012, which is less than 0.05. Therefore, there is a statistically significant difference between the two means, favoring the first mean. This result confirms the first hypothesis, which posits a statistically significant difference between the technological equipment necessary for physical conditioning and its actual availability in Algerian sports clubs compared to high-level clubs abroad. This result demonstrates a clear gap between what is practically necessary for modern physical conditioning and what is available in Algerian sports clubs. As is well known, modern physical conditioning requires diverse technological tools to regulate and control training loads and monitor training status. These tools include GPS and Polar devices, strength measurement platforms, and motion analysis equipment. This ensures that training is managed according to scientific principles to prevent injuries and improve athletes' physical performance.

Harizi's study (2020) concluded that modern electronic tools are essential during physical conditioning programs for football players, as they help reduce errors and address problems that coaches and players previously faced. These tools also help make appropriate, correct decisions quickly and with minimal effort. Furthermore, Bafa and Zamam's study (2022) found that the use of technological tools positively contributes to improving the training process. As for the study by Ben Harkat and Guia (2025), it

found that modern technology enhances players' physical and tactical skills.

**\* The second sub-hypothesis:**

The mean score of the physical trainers surveyed regarding continuing education programs for clubs outside Algeria was 2.70, while the mean score for the same topic for clubs within Algeria was 1.10. The t-test value of 18 was statistically significant at the 0.021 level, which is less than the 0.05 threshold. Therefore, there is a statistically significant difference between the two means, favoring the first. This result supports the second hypothesis, which posits a statistically significant difference between the continuing education programs for physical trainers adopted by sports bodies outside Algeria and those within the Algerian sports system. This result may be attributed to the requirement by sports bodies outside Algeria for continuing education programs linked to scientific research, field application, and diverse content that meet the modern requirements of the sport. This indicates that the modern training process, with its administrative, technical and organizational aspects, is no longer random; instead, it has become an organized process with foundations, rules, concepts and content that are fully and effectively linked with various applied sciences such as medicine, physiology, chemistry, biomechanics, psychology and other different sciences, as this link allows for the development of the level of athletic performance (Souidi & Al-Ma'moun, 2021).

**\* The third sub-hypothesis:**

The mean score of the surveyed physical trainers regarding the presence of physical trainers in the technical staff of clubs outside the country was 2.66, while the mean score for their responses on the same axis for clubs outside the country was 1.16. The t-test value was 13.5, with a significance level of 0.033, which is less than 0.05. Therefore, there is a statistically significant difference between the two means, favoring the first. This result confirms the third

hypothesis, which posits statistically significant differences in the presence of specialized physical trainers within the technical staff of clubs outside the country and in Algerian football clubs. This result indicates that clubs outside the country consider the physical trainer to be an integral part of the technical staff, with responsibilities as a key element, and give scientific and professional attention to their role within the team.

Based on the results of the sub-hypotheses, the general hypothesis, which posits statistically significant differences between the requirements for physical conditioning and their actual implementation within the Algerian football system, has been confirmed.

One limitation of this study is that it was conducted with a small number of physical trainers, thereby limiting the generalizability of the findings. Furthermore, the research instrument's reliability was not verified, potentially compromising its psychometric properties. Therefore, this issue should be addressed by verifying the instrument's reliability on a suitable sample size in future studies.

#### **4. Conclusions and Recommendations:**

Our study compared the requirements of high-level physical conditioning with its actual implementation within the Algerian sports system. Through data collection and analysis, we reached the following conclusions:

- There are statistically significant differences between the technological resources necessary for physical conditioning and their actual availability in Algerian sports clubs.
- There are statistically significant differences between the minimum requirements for continuing education programs for physical trainers adopted by high-level teams and the continuing education programs for physical trainers within the Algerian sports system.
- There are statistically significant differences between the presence of

specialized football physical trainers at the national level and their presence in Algerian clubs.

In conclusion, there are statistically significant differences between the requirements for physical conditioning and its actual implementation within the Algerian football system.

Therefore, in light of our results, we recommend the following:

- Providing physical trainers with the necessary resources, both pedagogical and technological, to facilitate and diversify their work and achieve the set objectives.
- Encouraging young professionals to pursue careers in physical conditioning, which requires a solid scientific foundation.
- Providing suitable conditions for physical trainers to continuously update their knowledge by establishing annual training programs to keep them informed of the latest developments in the field.
- Requiring sports clubs operating at the highest level to integrate physical trainers into their teams' technical staff across all age groups.

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