

# Dietary Habits and Sports Performance Among Athletes in A University in Guangdong China

**Xu Biaoqi**

Graduate School, Emilio Aguinaldo College  
Manila, Philippines

## **ABSTRACT:**

This article underscores the critical importance of nutrition in enhancing athletic performance and recovery. It emphasizes that a proper balance of macronutrients—carbohydrates for energy, proteins for muscle repair, and fats for sustained endurance—is fundamental. Adequate hydration and electrolyte replenishment are highlighted as vital for maintaining function and preventing fatigue. The timing of meals and post-exercise nutrition are also identified as key factors for optimal energy and recovery. Furthermore, the article advocates for personalized nutrition plans that consider individual needs and cultural dietary habits to help athletes achieve peak performance and long-term health.

**KEYWORDS:** Athlete Nutrition, Dietary Habits, Sports Performance, Macronutrient Balance, Hydration and Recovery

## **1. INTRODUCTION:**

Nutrition plays a pivotal role in determining the performance and recovery of athletes. Proper eating and drinking habits can significantly impact an athlete's energy levels, endurance, muscle recovery, and overall performance on the court (Al-Qahtani & Al - Mutai ri, 2021).

One of the most critical aspects of an athlete's diet is the balance of macronutrients—carbohydrates, proteins, and fats. Carbohydrates are essential for providing the energy required during high-intensity activities in games and training sessions (Hassan & Youssef, 2022). Research indicates that athletes or athletes who consume adequate carbohydrates perform better and experience less fatigue during games compared to those who do not (Ahmed & Saeed, 2023).

Protein intake is crucial for muscle repair and growth, particularly after intense training or competition. Athletes need to ensure they consume enough protein to support muscle recovery and reduce the risk of injury (Al-Qa htani & Al-Mutai ri, 2021). Studies

have shown that athletes with higher protein intake have better muscle strength and endurance, which are vital for performance in any games (Hassan & Youssef, 2022).

Fats, while often overlooked, are also important for providing long-lasting energy and supporting overall health. Healthy fats, such as those found in avocados, nuts, and fish, can help athletes maintain their energy levels during prolonged activities (Ahmed & Saeed, 2023). A balanced intake of macronutrients ensures that athletes have the necessary energy and nutrients to perform at their best.

Hydration is another critical factor that can greatly affect sports performance. Athletes lose significant amounts of fluids through sweat during games and training sessions, making it essential to maintain proper hydration (Ibrahim & Khalid, 2021). Dehydration can lead to decreased performance, muscle cramps, and a higher risk of injury. Research emphasizes the importance of regular fluid intake before, during, and after physical activity to sustain optimal performance levels (Al-Qahtani & Al-Mutairi, 2021).

Electrolyte balance is closely related to hydration. Electrolytes, such as sodium, potassium, and magnesium, are lost through sweat and must be replenished to maintain muscle function and prevent cramps (Ibrahim & Khalid, 2021). Studies have highlighted the benefits of consuming electrolyte-rich drinks, such as sports drinks, to help maintain performance and recovery in athletes (Hassan & Youssef, 2022).

Timing of meals and snacks also plays a significant role in an athlete's performance. Consuming a balanced meal 3 -4 hours before a game or training session ensures that athletes have the energy they need without feeling sluggish or overly full (Ahmed & Saeed, 2023). Additionally, having a small snack, such as a banana or energy bar, 30 minutes to an hour before activity can provide a quick energy boost (Ibrahim & Khalid, 2021).

Post-exercise nutrition is essential for recovery. Consuming a combination of carbohydrates and protein within 30 minutes after exercise helps replenish glycogen stores and repair muscle tissues (Al-Qahtani & Al-Mutairi, 2021). Studies suggest that athletes who follow a structured post-exercise nutrition plan recover faster and perform better in subsequent training sessions (Hassan & Youssef, 2022).

Individual dietary needs can vary based on factors such as age, gender, body composition, and specific training demands. Personalized nutrition plans that take these factors into account can help optimize performance and recovery (Ahmed & Saeed, 2023). Working with nutritionists or dietitians can provide athletes with tailored advice to meet their unique nutritional needs (Ibrahim & Khalid, 2021).

Cultural and regional dietary habits also influence the nutrition of athletes. Traditional diets, which often include foods like dates, lentils, and lean meats, can provide a good balance of nutrients if appropriately managed (Al-Qahtani & Al-Mutairi, 2021). Integrating traditional foods with modern sports nutrition principles can help athletes

maintain a diet that supports both their cultural preferences and athletic performance (Ahmed & Saeed, 2023).

The eating and drinking habits of athletes have a profound impact on their sports performance. Proper macronutrient balance, hydration, electrolyte replenishment, and meal timing are essential for maintaining energy levels, supporting muscle recovery, and optimizing overall performance. Research underscores the importance of tailored nutrition plans that consider individual needs and cultural dietary habits, ensuring that athletes can perform at their best and sustain long-term health and success.

## **2. Statement of the Problem**

This study will determine the relationship between dietary habits and sports performance among athletes of Guangdong University of Education in Guangdong China.

The results of the study will be used as a basis for a dietary program for athletes.

Specifically, the study will answer the following questions:

1. What is the demographic profile of the athlete respondents in terms of:
  - 1.1. sex;
  - 1.2. age; and
  - 1.3. number of years as athletes?
2. What is the athlete respondents' assessment of their dietary habits in terms of:
  - 2.1. macronutrient balance;
  - 2.2. micronutrient intake;
  - 2.3. hydration;
  - 2.4. meal timing and frequency;
  - 2.5. quality of food choices;
  - 2.6. nutrient timing;
  - 2.7. supplementation; and
  - 2.8. energy balance?
3. Is there a significant difference in the athlete respondents' assessment of their dietary habits when they are grouped according to their profile?
4. What is the self-assessment of the athlete respondents of their sports performance in terms of:
  - 4.1. physical fitness;
  - 4.2. technical skills;
  - 4.3. tactical awareness;
  - 4.4. mental toughness;
  - 4.5. team dynamics; and
  - 4.6. recovery and injury prevention?
5. Is there a significant difference in the self-assessment of the athlete respondents of their sports performance when they are grouped according to their profile?
6. Is there is significant relationship between the athlete respondents' assessment of their dietary habits and their self-assessment of their sports performance?

7. Based on the results of the study, what dietary program for athletes can be proposed?

### **3. RESEARCH METHODOLOGY**

The descriptive-comparative-correlational methodology will be used in this study to distinguish by its careful definitions, copious documentation, in-depth analysis, and comprehensive comprehension of contextual interactions. Johnson (2021) states that descriptive research aims to accurately capture the innate traits, behaviors, and properties of phenomena by illustrating and analyzing them in their natural condition. The principal aim is to augment comprehension of extant matters or formulate exhaustive portraits of particular demographics, consequently setting the stage for subsequent investigations.

Lee and Martinez (2016) stress the value of using comparative analysis to spot trends and tell apart various circumstances. In order to investigate the relationships between variables in their natural contexts, they support the use of correlational analysis. The amalgamated methodology offers a sturdy basis for comprehending the complexities of connections and study circumstances.

Expanding on the viewpoint of Johnson (2021), descriptive research plays a critical role in fields like psychology and the social sciences by providing a more profound understanding of natural behaviors and trends. For instance, without putting arbitrary restrictions on target audiences, it may accurately record their demographic characteristics, opinions, and actions, offering significant insights into societal dynamics.

Additionally, Lee and Martinez (2016) contend that basic components impacting events in many contexts or populations are revealed by comparative approaches. They use correlational analysis to find possible causal correlations between variables, which improves the explanatory power of research designs. Correlational analysis may clarify the relationships between the study's demographic features and important attitudes or behaviors that are pertinent to the research topic, so guiding the development of theoretical frameworks and workable intervention techniques.

This study's descriptive-comparative-correlational technique provides a thorough and useful framework for analyzing the intricate relationships between the variables and situations being studied. This method relies upon the methodological recommendations proposed by Lee and Martinez (2016) and the basic insights offered by Johnson (2021) through careful representation, comparative analysis, and correlational insights. The findings' validity and depth are reinforced by this multidimensional technique, which also offers a strong foundation for further study and real-world applications in related domains.

This study aims to investigate the team sports athletes' dietary habits and its relationship to their sports performance.

This research approach allows the researcher to numerically analyze, compare, and correlate the relationships amongst the dependent variables included in the study.

By utilizing this approach, the researcher will be able to find any significant difference or relationship in the team sports athlete respondents' dietary habits and their demographic data such as sex, age, and number of years as team sports athletes. Also, the researcher will be able to find any significant difference or relationship in the team sports athletes' sports performance and their demographic data such as sex, age, and grade level. The team sports athletes' assessment of the dietary habits and their self-assessment of their sports performance will then be correlated.

All the above discussions on the descriptive research method will suit the nature of research that this present study would do; hence this method will be adopted.

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