

## Knowledge, Opinion and Practices; A Survey of National Coaches Regarding Diet Plan for Young Athletes in Pakistan

Amir Junaid Shah<sup>1</sup>, Muhammad Iftikhar<sup>2</sup>, Mumtaz Ulhaq<sup>3</sup>, Arshad Khan<sup>4</sup> and Khizra<sup>5</sup>

<https://doi.org/10.62345/jads.2023.12.3.127>

### Abstract

*The study aimed to assess national coaches' knowledge, opinions, and practices regarding the perception of diet plans for young athletes in Pakistan. A sample of 45 national coaches was selected through a convenient sampling technique during Pakistan's 33rd National Games. The researchers developed a Likert-type scale for the collection of data from respondents. The collected data were analyzed through the SPSS 20.0 version. As a result of the data analysis, no significant difference was found among the respondents regarding knowledge of diet for young athletes ( $p$ -value was .079, which is  $> 0.05$ ). No significant difference was found among the respondents regarding coaches' opinions about diet plans for young athletes ( $p$ -value was .091, which is  $> 0.05$ ). No significant difference was found among the respondents regarding the current diet plan practice of young athletes ( $p$ -value was .086, which was  $> 0.05$ ). Based on the analysis, the researchers recommend that the concerned authorities organize a diet awareness program and its role in sports performance.*

**Keywords:** Coach, Athlete, Diet awareness.

### Introduction

Different factors affect athlete performance. Diet awareness and plans are the most important factors affecting an athlete's performance. Similarly, an athlete's diet requirements depend on the nature of the sport, the athlete's goals, and the condition. The human body requires progressive energy expenditure depending on age, gender, and activity level. The human body needs nutrition for growth, strength, and development. Diet is vital for becoming a champion in any sport, whereas the strategies paved by the coaches are equally essential. An adequate diet is an integral aspect of a satisfactory athletic performance. As the most critical factors, the researcher intended to conduct a study titled Knowledge, opinion, and Practices: A survey of national coaches regarding diet plans for young athletes in Pakistan.

In the training and competition phase, the athlete's body requires balanced energy, which is obtained from carbs, fats, and protein, as well as essential elements in the form of water, vitamins & minerals. An athlete's peak performance concerns a balanced diet (Peri, 2006). The coach needs to provide a balanced diet plan for athletes before, during, and after the competition as well as in the training phase. Coaches have an architect's role in designing and laying the groundwork for

<sup>1</sup>Instructor RPDC (M), Ghoriwala, Bannu, Pakistan.

<sup>2</sup>Lecturer, Government Degree College No 2 Mardan, KP, Pakistan

<sup>3</sup>HOD (Health and Physical Education), Islamabad Model Postgraduate College of Commerce H-8/4, Islamabad.

<sup>4</sup>Deputy Director Colleges, Attock.

<sup>5</sup>Teacher, GGHSS Kakki, Bannu.



Copyright: © This is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license.

Compliance with ethical standards: There are no conflicts of interest (financial or non-financial). This study did not receive any funding.

future athletes, and further, they will rule on the international stage (Farrow & MacMahon 2013). The coach must understand the effectiveness and importance of diet for aerobic and anaerobic athletes in the training and competition phase (Howell et al., 2001). To achieve a successful outcome, the coach might conduct scientific training sessions and endorse a balanced diet, which can achieve the ultimate performance (Bompa & Buzzichelli, 2015). In speed, endurance, and strength sessions, athletes utilize energy, which may be recovered from an adequate diet as per the training required by the body (Ray et al., 2004). Every coach recognizes that each athlete has a unique muscular capacity and ability. Therefore, athletes should be trained according to their athletic capacity and provided with an adequate diet. Understanding the biomechanics muscles of every sport is a crucial connection to achieving superior performance and a healthy lifestyle (Sharkey et al., 2006).

Every muscle has different functions in the human body, which varies from athlete to athlete and gender and physical activity. Athletes have fast and slow twitch muscle fibers, which proved helpful in sports performance (French et al., 2003). An athlete reduces the chance of muscular injuries. It may help to take the adequate level of required diet. Muscle needs rebuilding, which for voidness of injuries, explosive strength, and performance need the help of nutrition and diet (Myer et al., 2011). According to Heinke and Mullner (2014) the athlete's balanced diet helps reduce the risk of injuries such as muscle tear, cramps, soreness, strain, sprain, fatigue, as well as fever and weakness, which may cause a decrease in the level of competitive performance.

Given the above discussion, it is certified that peak performance is strongly connected with a proper diet. Keeping this in mind, the researchers intend to explore the present situation of the coaches, how much they know about a balanced diet, and their opinions and practices in this regard.

In addition, female athletes in the menstruating cycle who fail to take adequate nutrition may have health problems. At the same time, the coach prepares a balanced diet plan to avoid issues in training and during competition (Manore et al., 2007). A balanced diet helps reduce muscle damage and improves recovery time, which causes better adaptation to training over the long term in the said cycle (Kreider et al., 2010). However, nutrition supports training and recovery in the menstruation cycle, which may be necessary for the human body to maximize an individual's athletic ability (Zaryski et al., 2005).

### **Problem Statement**

In a few decades, sports competitions will become faster and more competitive. Diet awareness of coaches is obligatory for enhancing athletes' physical and mental performance (Hanin & Hanina, 2009). Lacking or improper nutritional intake can cause failure of athletic performance. Focusing on competitive performance and diet knowledge, the researcher intends to investigate the current scenario of coaches.

### **Study Objectives**

The main objectives of the study were as follows:

1. To evaluate coaches' knowledge about diet effectiveness for young athletes in Pakistan.
2. To investigate coaches' opinions regarding diet's efficacy for young athletes in Pakistan.
3. To assess the current practices of coaches regarding the diet plan for athletes in Pakistan.

## Methodology of the Study

This section refers to the method the researcher used for sure. The researchers follow the below mentioned steps:

### Study Population

A research population refers to an extensive collection of individuals, groups, objects, or organizations with shared characteristics such as gender, health, and tasks for the focus of a scientific query (Atieno, 2009). The study respondents comprised all national coaches working with teams during the 33<sup>rd</sup> national games. The total number of respondents in this study was 45.

### Data Collection

In research terms, a sample refers to a group of people, objects, or organizations taken from a larger population for measurement (Okoli & Pawlowski, 2004). At the limited time of the games, the researchers personally approached 59 respondents through a convenient sampling technique and distributed a questionnaire, but only 45 were returned in all aspects.

### Research Tools

As the study is quantitative and for assessing coaches' knowledge, opinions, and practices regarding the diet plan for elite athletes, the researchers developed a proper self-made questionnaire. Similarly, anecdotal records were considered to obtain the requisite information on the knowledge, opinions, and diet practices of different young athletes at the national level.

### Validity and Reliability

The developed questionnaire was validated with the help of physical educationists, coaches, and a review of related literature. The feasibility evidence was gathered through pilot testing. A Cronbach's alpha method was applied to estimate the items' external consistency.

### Data Analysis Technique

The collected data from the respondents were processed through SPSS version 22.0 and one sample t-test, mean and standard deviation.

### Analysis of the Study

H1. No significant difference will be found among coaches regarding knowledge of diet plans for young athletes.

**Table 1: One sample t-Test showing the significance knowledge regarding diet plan for young athletes of coaches**

Testing Variable	n	Mean	Std. Dev	df	t	Sig.
Coaches Knowledge Regarding Diet Plan for Young Athletes.	45	2.8511	.43178	44	42.566	.079

$\alpha=0.05$

According to above table the mean of the tasting variable i.e. 2.8511 and SD is 0.43178. Accordingly, the  $t(44) = 42.556 = P\text{-value } .079$  which is greater than to the alpha level 0.05. The

acceptance of hypothesis conforms that no significant difference among coaches was found regarding knowledge of diet plan for young athletes.

H2. No significance difference will be found among coaches regarding opinion of diet plan for Young athletes.

**Table 2: One sample t-Test showing the no significance difference regarding opinion of diet plan for young athletes of coaches**

Testing Variable	n	Mean	Std. Dev	df	t	Sig.
Coaches have Opinion Regarding Diet Plan for Young Athletes	45	2.9515	.50162	44	26.380	.091
$\alpha=0.05$						

The above table show the mean of the tasting variable is 2.9515 and the SD is 0.50162. The  $t(44) = 26.360 = P\text{-value } .091$  which is greater than to the alpha level 0.05. As the alpha level is greater than 0.05 the formulized hypothesis is accepted and found no significant difference among coaches regarding opinion of diet plan for young athletes.

H3 No significance difference will be found among coaches regarding practices of diet plan for Young athletes.

**Table 3: One sample t-Test showing the significance practices regarding diet plan for young athletes of coaches**

Testing Variable	n	Mean	Std. Dev	df	t	Sig.
Coaches have Practices Regarding Diet Plan for Young Athletes.	45	2.678	.5981	44	79.649	.086
$\alpha=0.05$						

The above table show that mean of the tasting variable is 2.269 and the SD is .5981. The  $t(44) = 79.64 = P\text{-value } .086$  which is greater than to the alpha level 0.05. As a result of alpha value the acceptance of hypothesis conforms that no significant difference among coaches was found regarding practices of diet plan for young athletes.

## Discussion

After analysis of the results and acceptance of the hypothesis, the researcher found no significant difference between male and female coaches regarding diet plans and the needs of athletes. The findings of the study conducted by (Pettersson et al., 2012) and Jeukendrup et al. (2018) showed that the coaches, both male, and female, working at various levels in New Zealand, have a significant awareness of the nutritional intake of athletes. Therefore, the finding also seems in line with the present study findings.

It is concluded that sports coaches play an important role in providing their athletes with diet plans before, during, and after activities. If the trainer needs more knowledge about diet and nutrition, the athletes may need to understand a balanced diet. However, various research studies of sports coaches regarding nutrition have recommended that in order to improve, an athlete must take a balanced diet plan (Smith et al., 2014). However, Lack of diet awareness can cause opposing effects on overall athlete health and athletic performance (Sundgot et al., 2013).

## Findings

Based on the analysis of data, the researchers made the following findings.

1. No significant difference among the respondents regarding diet knowledge plans. Therefore, hypothesis No one is at this moment rejected, and the findings link with other findings that uneducated trainers are properly trained to prepare adequate diet levels (Montecalbo & Cardenas, 2015).
2. No significant difference is found among coaches regarding the opinion of diet plans for young athletes. Therefore, hypothesis two is currently rejected, although, to our knowledge, no such data is available on coaches' opinions towards diet.
3. No significant difference is found among coaches regarding current practices of diet plans for young athletes. Therefore, hypothesis three is at this moment rejected, and the connection of the findings is that athletes often view coaches as familiar with balanced nutrition practice. They look for the coach's advice, but if the trainer does not have effective practices about diet, the athletes have to misunderstand diet (Benari, 2010).

## Conclusion

Based on the analysis, the researcher drew the following conclusions. An accurate diet aids in improving the effectiveness of muscle workouts and a healthy body.

In the current world of sports, it is recognized that a balanced diet plays a vital role in sports performance, health, and development. The importance of a coach's diet knowledge, opinion, and practices have played an essential role in overall sports according to the energy requirements depending upon the training and competition phase.

The current study further suggested that sport for nutritional education is necessary for modern sports. Coaches have an excellent opportunity to direct the athletes toward a balanced diet. However, various need to gain more knowledge about diet to provide proper diet plans to their athletes, which may cause a decrease in sports performance.

## Recommendations

The researcher made the following recommendations based on the findings of the study:

1. The concerned authorities may organize diet awareness programs and their role in sports performance.
2. The higher authorities may create particular vacancies for sports nutrition experts for coaching centers.
3. The higher authorities may preserve and maintain unique diet plans for young athletes.
4. Special diet funds may be included in the training camps implemented successfully to improve athletes' quality performance.

## References

- Benari, A. P. (2010). *Analysis of high school coaches' knowledge, attitudes, and practices about nutrition for athletes*. Boston University.
- Bompa, T., & Buzzichelli, C. (2015). *Periodization Training for Sports, 3E*. Human kinetics.
- Farrow, D., Baker, J., & MacMahon, C. (Eds.). (2013). *Developing sport expertise: Researchers and coaches put theory into practice*. Routledge.
- French, D. N., Kraemer, W. J., & Cooke, C. B. (2003). Changes in dynamic exercise performance following a sequence of preconditioning isometric muscle actions. *The Journal of Strength & Conditioning Research*, 17(4), 678-685.

- Hanin, Y., & Hanina, M. (2009). Optimization of performance in top-level athletes: An action-focused coping approach. *International Journal of Sports Science & Coaching*, 4(1), 47-91.
- Heinke, B., & Mullner, J. (2014). Common issues encountered in adolescent sports medicine: guide to completing the preparticipation physical evaluation. *Primary Care: Clinics in Office Practice*, 41(3), 539-558
- Howell, W. H., & Going, S. B. (2001). Nutritional Status of US Elite Female Heptathletes During Training. *International journal of sport nutrition and exercise metabolism*, 11(3), 299–314. <https://doi.org/10.1123/ijsnem.11.3.299>
- Jeukendrup, A., & Gleeson, M. (2018). *Sport nutrition*. Human Kinetics.
- Kreider, R. B., Wilborn, C. D., Taylor, L., Campbell, B., Almada, A. L., Collins, R., & Kerksick, C. M. (2010). ISSN exercise & sport nutrition review: research & recommendations. *Journal of the International Society of Sports Nutrition*, 7(1), 7.
- Manore, M. M., Kam, L. C., & Loucks, A. B. (2007). The female athlete triad: components, nutrition issues, and health consequences. *Journal of sports sciences*, 25(S1), S61-S71.
- Montecalbo, R. C., & Cardenas, R. C. (2015). Nutritional knowledge and dietary habits of Philippine collegiate athletes. *International Journal of Sports Science*, 5(2), 45-50.
- Myer, G. D., Faigenbaum, A. D., Chu, D. A., Falkel, J., Ford, K. R., Best, T. M., & Hewett, T. E. (2011). Integrative training for children and adolescents: techniques and practices for reducing sports-related injuries and enhancing athletic performance. *The Physician and sportsmedicine*, 39(1), 74-84.
- Peri, C. (2006). The universe of food quality. *Food quality and preference*, 17(1), 3-8.
- Petrie, H. J., Stover, E. A., & Horswill, C. A. (2004). Nutritional concerns for the child and adolescent competitor. *Nutrition*, 20(7-8), 620-631.
- Pettersson, S., Ekström, M. P., & Berg, C. M. (2012). The food and weight combat. A problematic fight for the elite combat sports athlete. *Appetite*, 59(2), 234-242.
- Ray, T. R., & Fowler, R. (2004). Current issues in sports nutrition in athletes. *Southern medical journal*, 97(9), 863-867.
- Sharkey, B. J., & Gaskill, S. E. (2006). *Sport physiology for coaches* (Vol. 10). Human Kinetics
- Smith, J. W., & Jeukendrup, A. (2014). Performance nutrition for young athletes. In *Nutrition and Enhanced Sports Performance* (pp. 523-529).
- Sundgot-Borgen, J., Meyer, N. L., Lohman, T. G., Ackland, T. R., Maughan, R. J., Stewart, A. D., & Müller, W. (2013). How to minimize the health risks to athletes who compete in weight-sensitive sports review and position statement on behalf of the Ad Hoc Research Working Group on Body Composition, Health and Performance, under the auspices of the IOC Medical Commission. *Br J Sports Med*, 47(16), 1012-1022.
- Zaryski, C., & Smith, D. J. (2005). Training principles and issues for ultra-endurance athletes. *Current sports medicine reports*, 4(3), 165-170.