

UNVEILING NUTRITIONAL KNOWLEDGE OF THE VARSITY COACHES: BASIS FOR REFUELING ATHLETES PERFORMANCE

Yashier, T. Hadji Kasan¹, Stephen, A. Fadare^{2*}, Kungan, T. Kasan³

¹ Mindanao State University, Maguindano, Philippines

² Mindanao State University (Main) Marawi, Philippines. fadstep@yahoo.com

³ Mindanao State University, Maguindano, Philippines

Abstract

Sports nutrition plays a pivotal role in optimizing the performance of athletes, serving as a cornerstone for achieving peak physical and mental capabilities. **Study purpose.** This study aimed to investigate the knowledge level of the varsity coaches and the challenges they have encountered in the implementation of sports nutrition for their athletes and for the university as a whole. **Materials and Methods.** This employing a qualitative research approach, the study engaged five varsity coaches from a leading university in the province of Maguindanao del Norte as the main source of data. The research participants were Purposive selected as they were actively involved in focus group discussions and in-depth interviews using an open-ended interview guide questions validated by four (4) experts in the field. **Results.** The results of the interviews revealed four essential themes about the knowledge level of the coaches and the significant challenges faced by these coaches in the implementation of sports nutrition into their coaching careers: Insufficient knowledge on sports nutrition, Lack of training and seminars for varsity coaches, Athletes eat what is usual to them, and there is a shortfall in administrative support. **Conclusions.** It is imperative that school officials, coaches, trainers, and players collaborate to devise a sustainable dietary program that supports the athlete's growth and optimal potential in terms of mental, physical, and psychological domains.

Keyword: Sports Nutrition, Coaches, Refueling, Unveiling, Varsity

BACKGROUND

In the dynamic world of sports, coaches play a crucial role in shaping the physical and mental abilities of the athletes. It is in the hand of the coach on how to release the full potentials of the athlete by employing his knowledge in the different aspect of sports such as coaching abilities, training programs, and most especially proper guidance in food sports nutrition. In order for a coach to be well rounded and effective in coaching, he must have a deep knowledge in the part of sports nutrition as it will help the coaches to maximized the full potentials and performance of every athlete in every competition.

In addition, to ensure that the coach is capable and qualified to coach, the need to assess the abilities and knowledge of the coach in the areas of sports nutrition is necessary to ensure that the coach has a wide knowledge and understanding of the importance and function of sports nutrition in the performance of the athlete. Assessing is a strong way of evaluating the knowledge, experience and expertise of a person in a certain phenomenon.

Coaches with a deep understanding of sports nutrition are well-equipped to develop effective training plans tailored to individual athletes' needs. They recognized that proper nutrition is not about fueling the body, but also about optimizing recovery, preventing injuries, and enhancing overall performance.

Coaches act as integral members of an athlete's support team, he is in charge of a quality sports experience which guide the physical, technical, psychological, social development of the athlete as well as the well-being of the athlete in general (Lyle & Cushion, 2016).

Sports Nutrition play a multifaceted role in supporting athletes' success. It prevents injuries, and facilitate recovery. By providing guidance, education, and motivation, coaches empowered athletes to make informed decisions regarding their nutrition and physical well-being, ultimately enhancing their athletic capabilities and overall health.

Moreover, according to Torres-McGehee et al., (2012), adequate sports nutrition knowledge can improve the coach's standard of care (eg, injury prevention, rehabilitation), yet approximately one-third of coaches reported inadequate sports nutrition knowledge. This might be due to the magnitude of additional responsibilities (e.g., clinical evaluation and diagnosis, immediate care, treatment, rehabilitation and reconditioning of athletes, and organization and administration). The combined impact of sports nutrition and physiotherapy results in improved performance, reduced injury occurrence, enhanced recovery, and increased longevity in athletic careers.

According to studies by De Jesus (2023) and Golingay (2014), which highlight the ways in which the Philippine government emphasizes and supports proper nutrition for athletes training for or competing in sports, it is important that we support and care for each athlete individually to ensure that they are healthy and fit to compete or represent the nation in various sports, which can improve the nation's reputation and economy through sports participation. Having a healthy diet and eating enough food to replenish energy so that you can compete in sports at any moment (Palad et al., 2023; Fadare et al., 2023a).

Mindanao State University in Maguindanao, Lanao del Norte, is a hub for student-athletes, who receive allowance monthly and benefits from accommodation in dormitory from the schools

administrative. However, many of these athletes often visit fast-food restaurants, consuming unhealthy food without realizing its negative impact on their health. The study aims to understand the knowledge and challenges faced by varsity coaches in implementing sports nutrition for their athletes and the institution as a whole, as their health and longevity depend on adequate nutrition. The findings of this study may provide athletes, trainers, coaches, and sports directors at different schools and institutions with guidelines and knowledge regarding the importance of knowing good nutrition and how it affects eating habits. These should be incorporated by school officials and sports administrators into their intervention strategies, programs, and executions. It is crucial that we support and care for each athlete on an individual basis to ensure that they are healthy and fit to compete or represent the country in various sports (Montecalbo & Cardenas, 2015), which can improve the nation's reputation and economy through sports participation, especially considering the ways in which the Philippine government emphasizes and supports proper nutrition for athletes training for or competing in sports. maintaining a balanced diet and consuming enough food to refuel in order to participate in sports at any time. Hence the researcher, aimed to investigate the knowledge level of the varsity coaches and the challenges they have encountered in the implementation of sports nutrition for their athletes and for the university as a whole.

METHODOLOGY

A qualitative research design was utilized to investigate the knowledge level of the varsity coaches in terms of sports nutrition and encountered by the coaches in the implementation of the sports nutrition in to their athlete and in the university as a whole. Before the interviews, the varsity coaches who participated in the study signed a consent form indicating they were aware of the study's methods and undertakings. After securing the consent forms, a face-to-face focus group discussions and in-depth interviews was employed. Recording

using gadget, taking extensive notes, and documenting their experiences aided in collecting essential data. Informal, unstructured, and open-ended interviews was used to make research participants feel comfortable so that they could accurately determine what they were thinking and categorize their ideas into significant categories and themes.

Research Participants

The primary source of data for the study was five varsity coaches from a prestigious institution in the Maguindanao del Norte province. With their active participation in focus groups and in-depth interviews utilizing open-ended interview guide questions verified by four (4) subject-matter experts, the study participants were carefully chosen. In their selected sports, these varsity coaches have over five (5) years of coaching experience. To give detailed information regarding their degree of expertise of sports nutrition and the difficulties they encounter while applying it on their teams, five varsity coaches have been chosen. School nutritionists examined and approved the guide questions, and qualitative analysis helped gather important information.

Data Analysis and Interpretation

This approach includes word analysis, coding, and concept theme organizing (Ngulube, 2015), presented in order to analyze and comprehend data. The researcher divided the data into several sections using open coding and labeled them with "codes." The most frequently used terms and ideas among the research participants were also grouped using open coding. After open coding, a classification and sub categorizing approach was developed based on the opinions expressed by participants in the gathered data. The fundamental formulation of themes is the result of these classifications and subcategorizations. Similar to this, a thematic analysis was used following the development of the themes. The material flowed via this theme analysis, which helped formulate the study's implications and findings (Holt et al., 2017).

FINDINGS

Table 1. Essential Themes, Category, and Core Ideas on the knowledge level of the varsity coaches and challenges they have encountered in the implementation of sports nutrition.

Essential Themes	Category	Core Ideas
Insufficient knowledge on Sports Nutrition	Participants expressed them knowledge level on Sports Nutrition	<ul style="list-style-type: none"> I don't have enough knowledge in terms of sports nutrition. We had a limited ideas in sports nutrition. We don't know the proper nutritional program. We were unable to implement proper nutritional program due to lack of knowledge.
Lack of Training and Seminars for Varsity Coaches	Participants expressed that they need training and seminar in line with sports nutrition	<ul style="list-style-type: none"> The main problem is the lack of training for coaches, especially in sport nutrition and proper sports nutritional program. Our main problem is lack of accessibility on seminars and trainings. Lack of support from administration in attending seminars and trainings.
Athlete eat what is usual to them	Participants express them encountered challenges in the implementation of sports nutrition to their athlete	<ul style="list-style-type: none"> One of the most common problems is lack of proper monitoring of the food intake by the athlete. Athletes tend to eat available food into their homes and usual food they intake. One major issue is the lack of orientation and guidance to athlete in terms of sports nutrition. Parents used to serve food at home base on their budgets.

Table with 2 columns: Shortfall on Administrative Support, The shortfall of Support from Administration and The lack of budgets to send varsity coaches in national and international seminar and trainings on sports nutrition. It includes a bulleted list of points regarding budget constraints and administrative support for sports nutrition programs.

The table 1 shows the Essential Themes, Category, and Core Ideas on the knowledge level of the varsity coaches and challenges they have encountered in the implementation of sports nutrition.

DISCUSSION

The triangulation process yielded topics that are explored in depth in this part, which contains thorough descriptions, implications, and interpretations of those themes. By exploring these topics, this section seeks to offer a comprehensive knowledge of the problems and worries that the varsity coaches have, setting the stage for focused interventions and enhancements to the school's sports nutrition program.

Theme 1: Insufficient Knowledge in Sports Nutrition

This theme emphasizes the insufficient knowledge of the varsity coaches in sports nutrition. As stated by the participants, they need to engage in seminars and trainings pertaining to sports nutrition, as they admitted that in their entire life of coaching, they don't integrate sports nutrition due to a lack of knowledge on the process and implementation of sports nutrition into the training program of the coaches. This insufficient knowledge of the coaches in sports nutrition is a barrier to the integration of sports nutrition into their training programs (Trakman et al., 2016; Torres-McGehee et al., (2012). Insufficient knowledge of sports nutrition drives the coaches to focus more on physical training and practices without proper nutrition and food intake by the athletes. The training program of the coaches is centralized in the physical and mental aspects (Nelson et al., 2013).

The need to have training and seminars on sports nutrition is very significant, as it will give thorough knowledge to coaches. With seminars and training, coaches can have sufficient knowledge of sports nutrition; in this way, they can inculcate sports nutrition into their training program for the athlete. According to the participants,

"I, personally, sports nutrition is one of the aspects in unleashing the capabilities and potentials of the athlete, however, as much as we wanted to integrate sports nutrition into our training program due to insufficient knowledge in sports nutrition, we tend to skip nutrition plan of the athlete instead, we focus more on physical conditioning and practices" – Coach Sandra

"We need to have enough knowledge on sports nutrition so that we can inculcate it into our training program. The need to attend seminars,

workshops and training are very important as it will enlighten as on the process of sports nutrition" – Coach Axyl

The highlights of theme one is the insufficient knowledge of the coaches in sports nutrition and the need to be updated in sports nutrition by means of participation in trainings, seminars, and workshops related to sports nutrition. In order for the coach to optimize athlete performance, the need to integrate sports nutrition into the athlete training program is necessary. According to Klein et al., (2021) to increase athlete performance, it is necessary to educate them on the importance and impact of nutrition on their performance.

Furthermore, coaches need to be equipped in the sport nutrition aspect, as they play a primary role when dealing with athletes and the activities in which they engage (Hedlund et al., 2018; Fawver et al., 2020). There are individuals who generally have the most direct control over the athlete most of the time. Moreover, Voicu et al., (2021) emphasized that, it is required that the coaches should be aware of their legal duties and responsibilities on and off the court such as coaching education that includes sports medicine, sports therapy and sports nutrition. Lastly, coaches must be active in engaging in to seminar, trainings and workshops towards increase and update their knowledge and skill in coaching.

Theme 2: Lack of Trainings and Seminars for Varsity Coaches

Theme 2 discusses the coaches concerns about the lack of training and seminars on the aspect of sports nutrition. According to them, one of their problems is lack of sports training and seminars related to the sports nutrition. As they stated, some of the problems in having a lack of seminars and training in sports nutrition's are Lack of accessibility in any seminars related to sports nutrition and disapproval of the administration in attending the training due to budget aspect. As a result, the varsity coaches tend to stay into traditional method of training the athletes which is more on physical training. Furthermore, many coaches relay on their own traditional training method without the integration of the sports nutrition and other aspect of sports that will fully develop the athlete performance (Burke et al., 2019; McCarthy et al., 2021). According to the participants:

"Due to lack of training and seminars, we don't have enough knowledge on the other aspect of sports, what we did is we focused on physical aspect of the athlete such as more and practice and exercise" – Coach Ronron

"As much as I wanted to be updated on sports nutrition but due to lack of

accessibility in attending seminars and trains, I stick on what I know in coaching, the training of the athlete is given more emphasis, the physical aspect is more important.” – Coach Jackson

Theme 2 implies that; one major challenges of the varsity coaches are lack of accessibility into seminars and training in sports as well as the disapproved participation of the coaches due to budget aspect. Without adequate trainings and seminars coaches tend to stay on what is usual in coaching as well as what capacity they have. This factor can affect the performance of the coaches in handling the athlete as well as the development of the athlete. According to Cassidy et al., (2023) Completion of a coach education programmed and trainings is typically contingent upon the coach successfully navigating a single assessment opportunity. Moreover, Martens et al., (2023) reveals that coaches play a vital role in an athlete's journey, providing guidance, support, and expertise to facilitate their growth and success. They serve as mentors, educators, and motivators, helping athletes develop and refine their skills and techniques. Coaches educational program including participation in seminars, trainings and workshop is deemed important as it required to help athletes learn effectively, and to possess specific knowledge about their sport (Fadare et al., (2023b). Overall, coaches' multifaceted functions are integral to the development, performance, and wellbeing of athletes, guiding them towards their full potential.

Theme 3: Athlete eat what is usual to them

Theme 3 describes that the athlete tends to eat what is usual to them and what is available food serve to them by their parents. It is a manifestation that the athlete food is depends on what is available in their homes. Usually, their foods at homes are based on the availability of parent's budget in purchasing food. Basically, athletes eat food base on what is usual available and available. Moreover, athletes' knowledge in sports nutrition is insufficient, the need to orient them on sports nutrition is important, the guidance of the coaches on the food to be taken is significant. Engaging the athlete to sports nutrition orientation serves as a guidance to them on their proper nutritional program; To wit:

“We cannot blame the athletes because their food is based on what is available in their homes, they take food base on what is usual to them and what is affordable to them.” – Coach Axyl

“The need to have a strict monitoring of athlete's food is very significant as it affects their performance, However, we cannot deny the fact that coaches and athlete don't have enough knowledge on sports nutrition including the parents of the athlete.” – Coach Sandra

“We have to conduct orientation to the athlete and parents so that they will be equipped with what is proper nutrition to be intake during and after an intense practice.” – Coach Jackson

“Athletes eat food what is usual to them and affordable to them, however with

proper orientation and guidance to them, they will know what are the affordable food that is benefitable to their health and physical condition.” – Coach Mia

The athlete is the main character of the sports competition, nutrition and food they intake play a vital role in their conditioning program especially in optimizing their performance. The need to educate the athlete and parents on the different healthy food is highly recommended because the join hand in hand of the coach and parents in monitoring and implementing nutritious food to the athlete is one of the best ways in unleashing the athletes' potentials.

An athlete who is educated with proper nutrition may obtain information to help enhance his or her athletic performance, maintain healthy eating habits, and avoid unhealthy eating attitudes that may further cause eating disorders. Furthermore, athletes who are well nourished are not only healthy but also capable of performing intensely and competing successfully without putting their health at risk of injury. As the athletes' nutrition knowledge increases their nutritional quality of food choices improve (Alaunyte et al., 2015; Riviere et al., 2021). Additionally, Klein et al., (2021) mentioned that Nutritional Education program can increase athlete sports nutrition knowledge and can be defined as understanding of nutritional strategies that are specific to training, athletic performance, and recovery from a sport beyond that of general nutrition knowledge. Sports nutrition can be defined as the application of nutrition knowledge to practical daily diet plan in order to provide energy for physical activity, repairing process in the body, optimizing sports performance in competitions and to ensure health and well-being (Contento, 2007).

Theme 4: Shortfall on Administrative Support

Theme 4 shows the lack of support of the administration to the development of the varsity coaches and to the sports program of the coaches. According to the participants, administration tends to decline in terms of budget when the coaches participate into different trainings. Participants states that the administration allocation of budget in sports is little compare to other programs of the school in effect the sports program of the school is decreasing in productivity output. The full assistance of the school administration is deemed important in the sports program of the coaches because it leads to the successful productivity output of the coach and the athlete. This theme emphasizes the crucial role of the institution in empowering varsity coaches, particularly those in their early careers, to contribute effectively to school sports program and athlete development. To wit:

“We need the support of the administration in all aspect of our program because through their support we can have a very impactful program for the athlete as well as for our own professional growth but the problem is

the administration support is minimal” – Coach Mia
“Support of the admin is very important because through their support everything goes all the way, form coaches professional training to athlete professional training, in our case most of the time our sports program

usually denied as it involves budgets” – Coach Axyl

The productivity of the coaches and athletes may suffer from the administration's scant support for the coach's growth. When there is a lack of support from the administration, coaches and athletes often withdraw even if they would like to be on the team. Support from the administration is essential for coaches and players since it gives them inspiration and motivation. In addition, the administration's assistance and direction provide a foundation for coaches and players to compete successfully in all facets of sports competition. According to Fadare et al., (2021), administrative support fosters a healthy work environment that increases varsity coaches' confidence and job happiness, hence boosting their overall efficacy as athletes.

CONCLUSION

In summary, the present study has methodically explored and scrutinized tertiary varsity coaches about their degree of expertise in sports nutrition and the obstacles they have encountered while putting this philosophy into practice. Varsity coaches' knowledge of sports nutrition and the difficulties they have faced are now well understood; these difficulties include the athletes' uncontrolled eating habits, a lack of administrative support, coaches' lack of training in sports nutrition, and inadequate knowledge of sports nutrition. These difficulties brought to light the significance of an administrator-created strategy and programs meant to raise coaches' and athletes' awareness of and education about the advantages of sports nutrition. The introduction of sports nutrition necessitates close collaboration between administrators, coaches, and players since it will improve student athletes' health overall and result in improved sports performance and fewer sports-related ailments. Similar to this, coaches believe that it is critical to provide trainings and seminars on sports nutrition since they have direct interaction with the student-athlete. The athlete spends the most of their time with their coaches throughout practice and competition. Administrators should also assist the coaches by pushing them to attend sports nutrition trainings, seminars, and workshops in order to expand their expertise in the field. In conclusion, it is imperative that school officials, coaches, trainers, and players collaborate to devise a sustainable dietary program that supports the athlete's growth and optimal potential in terms of mental, physical, and psychological domains.

RECOMMENDATION

1. Institutions should prioritize in investing in sport nutrition program, trainings, and seminars. This includes proper monitoring of the nutrition plan of the coaches for their athlete.
2. School administrator should allocate budget for coaches to participate in trainings, seminars and workshop on sport nutrition for them to be equipe and knowledgeable in sport nutrition.
3. Coaches should inculcate sport nutrition in their training program for them to reach the full potentials of the athlete especially in the health and conditioning program of the athlete.
4. Institution, coaches and athlete parents should join hand-in-hand in monitoring the athlete in terms of food they take in and outside the school and courts. These include monitoring of meals in their homes and in the school canteen.
5. Coaches should orient and equip the athlete on the importance of sports nutrition into their performance and health benefits of sports nutrition into their health and conditioning process.

6. School Administration should encourage varsity coaches to strictly implement sports nutrition into their training programs as it will help the athlete unleash their optimal capabilities and performance.
7. Future research could look into the perspectives and experiences of varsity coaches. Investigating how varsity coaches deals with the challenges described in this study and understanding their suggestions for improvement can provide valuable insights.

Ethical Consideration

The team of researchers comply closely to all relevant ethical guidelines and to establish compliance at every stage of the research. Moreover, the use of human participants is in complete accordance with the three (3) pertinent research ethical standards listed in the Belmont (1979) report. These three guiding concepts are justice, beneficence, and respect for others.

Declaration of Conflict

The authors declare no conflict of interest.

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