



NUTRITIONAL KNOWLEDGE AND PERCEIVED HEALTH PROMOTION AMONG ATHLETES IN TEAM SPORTS IN UNIVERSITY OF CALABAR OF CROSS RIVER STATE, NIGERIA

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ABSTRACT

This study adopted correlational design to nutritional knowledge and perceived health promotion among athletes in team sports in University of Calabar, Cross River State, Nigeria. Two research questions were posed which were translated into two null hypotheses. The population for the study consists of all the 120 students in team sports which include football, basket ball, volley balls, hand balls in University of Calabar of which a sample of 120 athletes was used through Census approach. The instruments titled "Nutritional knowledge and perceived health status questionnaire(NKPHSQ)" was developed by the researcher and validated by experts and used for data collection. The reliability of the questionnaire using Alpha Cronbach Method gives an average index of .82. The hypotheses were tested using Pearson Product Moment Correlation Coefficient at .05 level of significance.. The findings of the study revealed that micro Nutritional Knowledge, micro Nutritional Knowledge, significantly relate with perceived Health Promotion among athletes in team sports in University of Calabar, Cross River State Nigeria. It therefore concluded that Perceived Health Promotion among athletes in team sports in University of Calabar depend on proper knowledge of micro and macro Nutrition. Proper knowledge of micro and macro nutrition can enhance athletic performance, improve recovery, and promote overall health.. Based on finding and conclusion of the study, it was recommended amongst others that sport manager of the university should implement comprehensive nutrition education programs tailored for student-athletes, focusing on both micro and macro nutritional knowledge in order to promote health status of athlete in team sports.

KEYWORDS: Nutritional Knowledge, Perceived Health Promotion, athletes, team sports, Micro nutrition Macro nutrition

INTRODUCTION

The relationship between Nutritional knowledge and health promotion is essential for athletes at the University of Calabar to optimize their performance and overall well-being.

Proper nutrition is fundamental for athletes to achieve peak performance. Johnson, and Adams, (2021) stated that athletes with higher nutritional knowledge tend to have better dietary habits, leading to improved physical performance.

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Athletes who understand the importance of macronutrients and micronutrients are better equipped to maintain their health and reduce the risk of injuries (Maughan et al., 2018; Akpa, Anam, & Akah, 2024). Adequate nutrition with Nutritional knowledge can help in injury prevention and recovery among the athletes and educational initiatives regarding nutrition have been shown to improve athletes' perceived health. Research conducted by García, et al. (2018) indicates that athletes with higher nutritional knowledge exhibit better dietary habits, resulting in enhanced physical performance. Martinez and Robinson (2023) stated that adequate knowledge of Nutritional knowledge plays a vital role in the health promotion and performance of athletes. A balanced diet with Nutritional knowledge promote mood and cognitive function, both of which are critical for success in team sports (Ogar, Ibok, Odey, Joseph, Unimuke, & Ungie, 2023; Schaal, et al. (2018; Gwebuike, Okri, & Obi, 2022). A study by Okon, Udo, and Effiong, (2020) found that athletes who engaged in nutritional workshops significantly increased awareness and positive dietary changes. Smith, et al. (2019) found that nutritional knowledge significantly impacts athletes' dietary choices, promoting healthier eating behaviors. According to Johnson, and Adams (2021), the collective nutritional understanding within a team can create a supportive atmosphere that promotes Athletes nutritional knowledge that can influence each other's dietary habits, enhancing both team performance and individual health. Athletes who recognize the importance of nutrition are more likely to adopt beneficial dietary practices (Anam & Ahueeansebhor, 2017). The relationship between nutritional knowledge and perceived health promotion among athletes at the University of Calabar is critical. Ongoing education and awareness initiatives are necessary to cultivate a culture of health and performance within team sports.

Athletes who recognize the importance of nutrition are more likely to adopt beneficial dietary practices. Athletes who recognize the importance of nutrition are more likely to adopt beneficial dietary practices. Despite the recognized importance of nutritional knowledge in enhancing athletic performance and promoting health, many athletes at the University of Calabar exhibit insufficient understanding of nutrition and its

implications for their health and performance (Ibok, & Ntibi, 2020; Idaka, Arikpo, Mendu, Imo. & Obi, 2024; Ibok, Ogar, Olofu, Masor, Etura & Ukoh, 2023). This gap in nutritional knowledge poses significant challenges, including suboptimal dietary practices, increased risk of injuries, and hindered athletic performance. Most of them lack comprehensive knowledge about essential nutrients and their roles in performance and recovery. Any athletes who do not fully understand the nutritional requirements necessary for optimal performance, may lead to poor dietary choices (Oluseyi, Anam, Obi, & Ajibola, 2022). An athletes who do not prioritize nutrition may experience diminished performance and prolonged recovery periods due to improper dietary habits. Inadequate nutrition can adversely affect physical performance and recovery times. Some athletes often rely on their peers for dietary guidance, which can perpetuate misinformation and unhealthy eating practices if not properly addressed (Ibok, Ogar, Bassey, James, & Udo, 2024). The mental well-being of athletes can also be compromised by poor nutritional choices. Lack of nutritional knowledge can lead to increased stress and anxiety, further impacting athletic performance. There is a pressing need for structured nutritional education programs tailored to the specific needs of athletes at the University of Calabar. The lack of adequate nutritional knowledge among athletes at the University of Calabar presents a significant barrier to achieving optimal health and performance. Addressing this issue through comprehensive educational programs and interventions is essential to enhance athletes' understanding of nutrition and its critical role in health promotion. Some the nutritional examined in this study that can promote health among athletes in team sports in University include micro nutritional knowledge and macro nutritional knowledge (Akpa, Ekpenyong, & Emmanuel, 2024)

Micro-nutrient are vitamins and minerals essential for various bodily functions which plays a pivotal role in the health and performance of athletes. Awareness or knowledge of macronutrients such as carbohydrates, proteins, and fats, and their roles in diet and health can promote health status of athletes. Micro-nutrients knowledge are crucial for energy metabolism, immune function, and recovery in athletes.

Maughan, Burke, and Dvorak (2018) stated that deficiencies in vitamins and minerals can lead to reduced performance and increased susceptibility to illness. A study conducted by Okon, Udo, and Effiong, (2020) found that many athletes at the University lack adequate knowledge regarding the importance of micronutrients. This deficiency significantly result in poor dietary choices that do not meet their nutritional needs. Research conducted by Johnson, and Adams, (2021) found that athletes who possess a better understanding of micronutrients report higher levels of perceived health. The study indicated that athletes who are aware of the benefits of micronutrients are more likely to engage in dietary practices that promote overall well-being. García, Martínez, and López, (2018) conducted a study that demonstrated the effectiveness of educational interventions aimed at improving athletes' knowledge of micronutrients. The results showed that structured workshops significantly increased athletes' awareness and understanding of micro-nutritional requirements, leading to healthier dietary choices. Okon and Udo,(2022) found that health knowledge significantly associated with athletes' perceived health status. Schaal, Montmollin, and Robillard (2018) explored the relationship between micronutritional knowledge and mental health in athletes. Their findings shows that better knowledge of micronutrients correlates with improved mood and cognitive function, further enhancing athletic performance. The empirical evidence indicates that micro-nutritional knowledge is crucial for promoting health among athletes at the University of Calabar. Enhancing athletes' understanding of micronutrients through targeted educational interventions can lead to improved dietary practices and better health outcomes.

Macro-nutritional knowledge is another nutritional knowledge that can promote health status among athletes in university. Macronutrients consisted of a—carbohydrates, proteins, and fats that are vital for the energy needs, performance, and recovery of athletes. Macronutrients play a crucial role in fueling athletic performance and recovery. Maughan, Burke, and Dvorak,(2018) stated that an adequate intake of carbohydrates, proteins, and fats is essential for maintaining energy levels and optimizing performance during training and competition. Ogunleye, and Afolabi, (2020) conducted a study on Hygiene awareness and its

effects on athletes' health outcomes and found that hygiene awareness among athletes significantly impacts on their health outcomes. Research conducted by Thomas, and Patel (2021) found that many athletes at the higher institution have limited knowledge about the specific roles of macronutrients. This lack of understanding can lead to ineffective dietary practices that do not support their training regimens. Carter, and Nguyen (2017) found that athletes with a better grasp of macro nutritional principles reported higher levels of perceived health. The study highlighted that informed athletes are more likely to make dietary choices that enhance their overall well-being and performance. Davis and Wilson (2022) conducted a study on Health Promotion and Nutritional Awareness in University *Sports Teams*. The results showed that nutritional awareness significantly increased athletes' understanding of macronutrient requirements, leading to healthier eating habits. Williams, and Green, (2019) explored the correlation between macro nutritional knowledge and both physical and mental health in athletes. Their findings suggested that better knowledge of macronutrients is linked to improved physical performance and mental well-being, reinforcing the importance of nutrition in sports. The empirical evidence underscores the importance of macro nutritional knowledge in promoting health and enhancing performance among athletes at the University of Calabar. Targeted educational interventions can significantly improve athletes' understanding of macronutrients, leading to better dietary practices and health outcomes.

Purpose of the study

The main purpose of the study was to investigate the relationship between Nutritional Knowledge and Perceived Health Promotion among athletes in team sports in University of Calabar of Cross River State, Nigeria. Specifically, the study seek to establish

- i) the relationship between micro Nutritional Knowledge and Perceived Health Promotion among athletes in team sports in University of Calabar of Cross River State Nigeria
- ii) the relationship between between macro Nutritional Knowledge and Perceived Health Promotion among athletes in team sports in University of Calabar of Cross River State, Nigeria

Statement of hypotheses

The following null hypotheses were formulated for the study:

- i) There is no significant relationship between micro Nutritional Knowledge and Perceived Health Promotion among athletes in team sports in University of Calabar of Cross River State, Nigeria
- ii) There is no significant relationship between macro Nutritional Knowledge and Perceived Health Promotion among athletes in team sports in University of Calabar of Cross River State, Nigeria

METHODOLOGY

The study area was University of Calabar in Cross River State, Nigeria. The research design used for this study was the correlational survey design. The researchers used this design to establish the relationship between Nutritional Knowledge (in terms of micro and macro) and Perceived Health Promotion among athletes in team sports in University of Calabar, Nigeria. The population for the study consists of all the 120 athletes in team sports in study area which include football, basketball, volley ball and hand balls which also form a sample for the study. Census approach was used since the population is not large for the researcher to use in conducting the research. The instrument used for data collection was the questionnaire titled "Nutritional Knowledge and Perceived Health Promotion". The questionnaire was made of 34 items, with 10 items to measure each sub-level in terms of micro nutritional knowledge and macro nutritional knowledge

and 14 items measuring perceived health promotion of athletes. The questionnaire was based on four point scale of strongly agreed, agreed, disagreed and strongly disagreed. The instruments were face-validated by four experts, 2 experts from Measurement and Evaluation, two experts in Human Kinetics and Health Education, both from the University of Calabar. Corrections were pointed out by the experts and adjusted by the researchers and the document was considered valid. The reliability of the questionnaire using Alpha Cronbach Method gives an average index of .82. Since the reliability index is above 0.50, the estimates were considered high enough for the study. The Statistical Package for Social Sciences (SPSS) computer programme was used to analyze the data collected. The hypotheses were tested using Pearson Product Moment Correlation Coefficient for the three hypotheses. All hypotheses were tested at .05 level of significance.

Presentation of results

The result of the analysis is presented in Tables 1 and 2. The hypotheses were tested at .05 significant level.

Ho₁ There is no significant relationship between micro Nutritional Knowledge and Perceived Health Promotion among athletes in team sports in University of Calabar of Cross River State Nigeria

The independent variable in this hypothesis is micro Nutritional Knowledge while the dependent variable is Perceived Health Promotion. In testing this hypothesis, mean, standard deviation of micro Nutritional Knowledge and Perceived Health Promotion were computed, compared and correlate using Pearson Product Moment Correction. The results are presented on Table 1.

Table 1: Person Product Moment Correlation of the relationship between micro Nutritional Knowledge and Perceived Health Promotion (N= 120)

Variables	N	Mean	SD	r-value	p-value
Micro Nutritional Knowledge	120	23.432	2.987	.802	.000
Perceived Health Promotion	120	33.213	4.212		

*Significant at the .05 level, df =118

The result presented on Table 1 shows that there is a significant positively high relationship between micro Nutritional Knowledge and Perceived Health Promotion among athletes in team Sports in University of Calabar ($r=.802$; $p=.000$). With this result, the null hypothesis was rejected while the alternative was retained at the 0.05 level of significance. The positive r -value indicated that the more they have good micro Nutritional Knowledge good, the better their perceived health status tend to be. On the other hand, when they do not good micro

Nutritional Knowledge, the poorer their perceived health status tend to be.. H_{02} There is no significant relationship between macro Nutritional Knowledge and Perceived Health Promotion among athletes in team sports in University of Calabar of Cross River State Nigeria. The independent variable in this hypothesis is macro Nutritional Knowledge while the dependent variable is Perceived Health Promotion. In testing this hypothesis, mean, standard deviation of micro Nutritional Knowledge and Perceived Health Promotion were computed, compared and correlate using Pearson Product Moment Correction. The results are presented on Table 2.

Table 2: Person Product Moment Correlation of the relationship between macro Nutritional Knowledge and Perceived Health Promotion (N= 120)

Variables	N	Mean	SD	r-value	p-value
Macro Nutritional Knowledge	120	27.221	2.823	.831	.000
Perceived Health Promotion	120	33.213	4.212		

*Significant at the .05 level, $df = 118$

The result presented on Table 2 shows that there is a significant positively high relationship between macro Nutritional Knowledge and Perceived Health Promotion among athletes in team Sports in University of Calabar ($r=.831$; $p=.000$). With this result, the null hypothesis was rejected while the alternative was retained at the 0.05 level of significance. The positive r -value indicated that the more they have good macro Nutritional Knowledge good, the better their perceived health status tend to be. On the other hand, when they do not good macro Nutritional Knowledge, the poorer their perceived health status tend to be..

DISCUSSION OF FINDING

The result of the first hypothesis shows that there is a significant relationship between micro-nutritional knowledge and Perceived Health Promotion among athletes in team sports in University of Calabar, Nigeria. The finding agreed with Maughan, Burke, and Dvorak (2018) who stated that deficiencies in vitamins and minerals can lead to reduced performance and increased susceptibility to illness.

The finding agreed with A study conducted by Okon, Udo, and Effiong, (2020) who found that many athletes at the University lack adequate knowledge regarding the importance of micronutrients. This deficiency significantly result in poor dietary choices that do not meet their nutritional needs. The finding aligned with the finding of Johnson, and Adams, (2021) who found that athletes who are aware of the benefits of micro-nutrients are more likely to engage in dietary practices that promote overall well-being. The finding agreed with García, Martínez, and López, (2018) who found that structured workshops significantly increased athletes' awareness and understanding of micro nutritional requirements, leading to healthier dietary choices. In agreement to this finding, Schaal, Montmollin, and Robillard (2018) found that good knowledge of micro-nutrients correlates with improved mood and cognitive function, further enhancing athletic performance.

The result of the second hypothesis shows that there is a significant relationship between macro-nutritional Knowledge and Perceived Health Promotion among athletes in team sports in University of Calabar, Nigeria

The finding agreed with Maughan, Burke, and Dvorak,(2018) who stated that an adequate knowledge and intake of carbohydrates, proteins, and fats is essential for maintaining energy levels and optimizing performance during training and competition. The finding is in line with a research conducted by Thomas, and Patel (2021) who found that lack of understanding can lead to ineffective dietary practices that do not support their training regimens. In line with this study, Carter, and Nguyen (2017) found that athletes with a better grasp of macro-nutritional principles have higher levels of perceived health. In line with the above finding, Davis and Wilson(2022) found that nutritional awareness significantly increased athletes' understanding of macronutrient requirements, leading to healthier eating habits. Also in support to this finding Williams, and Green, (2019) found better knowledge of macronutrients is linked to improved physical performance and mental well-being, reinforcing the importance of nutrition in sports.

CONCLUSION

It was concluded that nutritional knowledge significantly relate with perceived health promotion among athletes in team sports in University of Calabar, Cross River State Nigeria. Nutritional knowledge including both micro and macro nutritional aspects, plays a pivotal role in the health and performance of athletes, particularly in university team sports. A solid understanding of nutrition can enhance athletic performance, improve recovery, and promote overall health. Athletes with higher nutritional knowledge tend to make better dietary choices, which can lead to improved physical outcomes and a greater perception of health benefits.

RECOMMENDATIONS

Based on the finding of the study, the following recommendations were made;

1. Sport managers of the university should implement comprehensive nutrition education programs tailored for student-athletes, focusing on both micro and macro nutritional knowledge in order to promotion health status of University athlete team sports This can include workshops, seminars, and online resources.
2. Sport managers of the university should develop personalized nutrition plans for athletes that consider their specific needs, sport

3. requirements, and health goals. This individualized approach can enhance perceived health promotion and performance.

4. Management of University team sport should encourage collaboration between sports teams and registered dietitians or nutritionists to provide expert guidance on dietary practices and nutritional strategies.

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