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EVALUATION OF ATHLETES' NUTRITIONAL NEEDS IN UNIVERSITY OF ILORIN, ILORIN KWARA STATE

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ABSTRACT

This study evaluated of athlete's nutritional needs for sports performance among athletes in University of Ilorin, Kwara state. The population consisted of 500 athletes of University of Ilorin while the sample included 54% of athletes that have represented the University of Ilorin in one or two games. A simple random sampling was used to select respondents and a total of one hundred (100) respondents were used, a researcher structure questionnaire was adopted and the reliability was also ascertained. The objectives of this study were to find out how nutrition, muscular strength, weight, endurance level and body flexibility contributes to sport performance among athletes. The data collected was analyzed using Pearson Product Moment Correlation Co-efficient at 0.05 alpha level.

The finding of the study revealed that nutrition, muscular strength, weight of the body, level of endurance and body flexibility of the athletes contributed to their performance in sport. It was therefore recommended among others that athletes should adopt nutrition strategies, strength training, endurance training and the flexibility training that will optimize physical performance and support good health which will lead to enhanced performance in sport and reduce the risk of illness and injury.

Key Words: *Nutrition, Nutrient, Diet, Balance Diet, Athlete, Physical Dexterity*.

INTRODUCTION

Optimal nutrition is of great importance to athletes in attaining peak performance in sport, most of the nutrition requirements are easily met by eating a large variety of food in the proportions of dietary guidelines. Athletes and their coaches are often misinformed regarding nutrition and are therefore prone to feed on quackery food that at least provide no additional benefit. For this reason, the evaluation of nutritional needs for athletes should be greatly looked into. Ajala (2006) defined nutrition as the combination of processes by which the living organism receives and utilizes the material (food) necessary for the maintenance of its functions and for the growth and renewal of its components. Good nutrition is necessary for good health, and concern with food is important. The word "nutrition" is often paired with the word "food" because the two go together.

Nutrition has different meaning to different people, and many people identify it with that portion of nutrition that arouses their own interest. To some nutritionists, the word nutrition is only biochemistry, to nurses, dieticians, and physician's nutrition means meals for the sick in terms of calories, proteins, carbohydrate, fat, minerals, and vitamins. To the layman, it represents food or it may mean a "special diet". Williams (2002) defined nutrition as the sum total of the processes involved in the intake and utilization of food substances by living organisms including ingestion, digestion, absorption, transport, and metabolism of nutrients found in food. This definition stresses the biochemical or physiological functions of the food we eat, but the American Dietetic Association notes that nutrition may be interpreted in a broader sense and be affected by a variety of physiological, sociological, and economic factors.

Although, food selection may be influenced by these latter factors, particularly economic ones in the case of University students. The physiological and biochemical roles of many types of food are similar, and from a stand point of nutrition and sport performance, it is the biochemical and physiological role of food that is important. Nutrition is present in all processes of life. Anything that involves life and chemical or biochemical movement has nutrition at its core. Anything that lives is dependent on energy which results from the combustion of food. (Abass, 2011) also defined nutrition as the sum of the body processes whereby the body takes in food and uses it for growth, development, well-being. Good food is a food which is rich in nutritional value, is the key to proper growth, mental and emotional development of all human beings.

Food is so important to man to the extent that without it, man would not be able to carry out his normal daily activities and live a healthy life. The primary purpose of the food we eat is to provide us with a variety of nutrients. Williams (2002) defined nutrient as a specific substance found in food that performs one or more physiological or biochemical functions in the body. Whitney, Elanor, and Sharon Rolfes (2005) defined nutrients as a chemical that an organism needs to live and grow or a substance used in an organism's

metabolism which must be taken in from its environment.

The amount of nutrients needed by individuals vary according to age, sex, activity, and climate. Quality nutrition is gotten through balanced diet. A balanced diet should contain the seven major types of nutrients which are protein, carbohydrate, vitamins, fats, minerals, salts, and water. Since nutrition is very essential in the upkeep of the body organ and system, the effect of nutrition on the performance of athletes cannot be over-emphasized because athletes need a balanced nutrition which provides all essential nutrients to meet the needs of the body.

Sport is generally recognized as activities which are based on physical athleticism or physical dexterity with the largest major competitions such as the Olympic game. The awareness of participation in sport has grown over the years all over the world and the University of Ilorin in the year 1975 currently having about fifteen sports in operation is not an exception because sports play a vital role in the life of university students because apart from providing a medium of relaxation and recreation from academic activity, most students take part in sport for the purpose of recognition of for future purpose. For this reason, the nutrition of athletes in the University of Ilorin has to be looked into. Therefore, the basis of this study is aimed at assessing the level of understanding of the effect of nutrition on their sport performance.

Statement of the problem

The dwindling performance of athletes in sport is becoming increasingly alarming, the researcher has observed that most athletes neither have adequate knowledge on their nutritional needs for optimal sport performance nor have knowledge of relationship between nutrition and sport performance. Therefore, the researcher finds it imperative to examine the perception of university of Ilorin students on the influence of nutrition on sport performance. Athletes require special nutrition or diet so as to meet up to the demands placed on their bodies due to the various sports they do. It is therefore important that these athletes know about their nutritional requirements and diet in order to achieve optimum performance. This research work is carried out specifically to evaluate the nutritional needs of athletes in University of Ilorin.

Hypotheses

The following hypotheses were tested:

1. The knowledge of University of Ilorin athletes towards their nutritional needs will not have significant impact on their sport performance.
2. The knowledge of University of Ilorin athletes on the major nutrient required in the body for optimum sport performance will not have significant impact on their sport performance.

3. The rate at which the athletes of the University of Ilorin feed on a balanced diet will not have significant impact on their sport performance.
4. The knowledge of University of Ilorin athletes about pre-game meal, during game meal and post-game meal will not have significant impact on their sport performance.
5. The knowledge of the role of nutrition in the body of the University of Ilorin athletes will not have significant impact on their sport performance.

METHODOLOGY

The research design used in this study was the descriptive survey. The use of this design for this study is supported by literature because it involves a large number of respondents. The population of the study comprised of five hundred (500) male and female athletes of the University of Ilorin. The sample for this study comprised of (100) one hundred athletes of University of Ilorin. The sampling technique was simple random sampling whereby the respondents selected are students of University of Ilorin who take part fully in sporting activities or events.

Questionnaire was used to obtain information from the respondents. The questionnaire administered was divided into two sections: section A and section B. Section A was made of demographic data of the information from the respondents, while section B designed in line with variables of study. A draft of the questionnaire was presented to three (3) experts in the department of Human kinetics Education for validity and reliability. he questionnaire was administered twice to the same respondents at different time after which Pearson Product Moment Correlation coefficient was used to test the reliability of the instrument.

The questionnaire was personally distributed by the researcher with the help of three (3) trained assistants to the respondents in their various halls of residence, department and training centre. The researcher collected the completed questionnaire from the respondents on the spot of administration. The collected questionnaire was analyzed using both descriptive statistics of percentages and frequency and inferential statistics of chi-square(X^2) alpha level of 0.05

Data Analysis

The demographic data of the respondents were analyzed using frequency counts and percentage.

Table 1. Demographic information of the respondents by Gender, level of study, and sport participated.

S/N	Variables	Frequency	Percentage (%)
1.	**Gender:**		
Male		58	58
	Female	42	42
Total		**100**	**100**

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2.	**Level of study:**		
	100level	21	21
	200level	26	26
	300level	31	31
	400level	18	18
	500level	4	4
Total		**100**	**100**
3.	**Sport participated:**		
Tennis		17	17
	Football	45	45
	Basketball	13	13
	Athletics	13	13
	Badminton	12	12
Total		**100**	**100**

Table one, reveals that the majority of the respondents are male athlete 58 (58%) and that most of the respondents who participated in the study were from 300level 31 (31%); in addition, most of the respondent who participated in the study were majorly football athlete 45 (45%).

Hypothesis Testing

Hypothesis One: The knowledge of University of Ilorin athletes towards their nutritional needs will not have significant impact on their sport performance.

Table 2. Chi-square (x^2) value testing Hypothesis One.

S/N	SA	A	D	SD	TOTAL	DF	CAL. VALUE (X^2)	TABLE VALUE	REMARKS
1	32 (32%)	29 (29%)	27 (27%)	12 (12%)	100				
2	59 (59%)	41 (41%)	0	0	100	9			
								16.92	
							111.32		
3	58 (58%)	36 (36%)	0	0	100				HO_1 rejected
4	13(13 %)	42 (42%)	18 (18%)	18 (18%)	100				
TOTAL	162	148	60	30	400				

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Table two revealed that the calculated (x^2) value of 111.32 is greater than the critical (x^2) value of 16.92 at the degree of freedom of 9 at 0.05 alpha level of significant. Therefore, hypothesis one is rejected.

Hypotheses Two: The knowledge of University of Ilorin athletes on the major nutrient required in the body for optimum sport performance will not have significant impact on their sport performance.

Table 3. Chi-square (x^2) value testing Hypothesis Two.

S/N	SA	A	D	SD	TOTAL	DF	CAL. VALUE(X^2)	TABLE VALUE	REMARKS
1	51 (51%)	39 (39%)	8 (8%)	2 (2%)	100				
2	12 (12%)	60 (60%)	27 (27%)	1 (1%)	100				
3	50 (50%)	40 (40%)	5 (5%)	5 (5%)	100	9	67.5	16.92	HO_2 Rejected
4	22 (22%)	60 (60%)	16 (16%)	2 (2%)	100				
TOTAL	135	199	56	10	400				

Table three revealed that the calculated (x^2) value of 67.5 is greater than the critical (x^2) value of 16.92 at the degree of freedom 9 at 0.05 level of significance. Therefore, hypothesis two is rejected.

Hypothesis Three: The rate at which the athletes of the University of Ilorin feed on a balanced diet will not have significant impact on their sport performance.

Table 4. Chi-square (x^2) value testing Hypothesis Three.

S/N	SA	A	D	SD	TOTAL	DF	CAL. VALUE(X^2)	TABLE VALUE	REMARKS
1	49 (49%)	41 (41%)	9 (9%)	1 (1%)	100				
2	20 (20%)	54 (54%)	25 (25%)	1 (1%)	100				

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3	53 (53%)	31 (31%)	12 (12%)	4 (4%)	100	9	51.50	16.92	HO_3 Rejected
4	46 (46%)	50 (50%)	1 (1%)	3 (3%)	100				
TOTAL	168	176	47	9	400				

Table four presents the calculated (x^2) value of 51.50 which is greater than the critical (x^2) value of 16.92 at the degree of freedom 9 at0.05 alpha level of significance. Therefore, hypothesis three is rejected.

Hypothesis Four: The knowledge of University of Ilorin athletes about the pre-game meal, during game meal and post-game meal have significant impact on their sport performance.

Table 5. Chi-square (x^2) value testing Hypothesis Four

S/N	SA	A	D	SD	TOTAL	DF	CAL. VALUE(X^2)	TABLE VALUE	REMARKS
1	70 (70%)	25 (25%)	4 (4%)	1 (1%)	100				
2	23 (23%)	60 (60%)	16 (16%)	1 (1%)	100				
3	48 (48%)	49 (49%)	3 (3%)	0	100	9	68.38	16.92	Ho_4 rejected
4	27 (27%)	54 (54%)	16 (16%)	3 (3%)	100				
TOTAL	168	188	39	5	400				

Table five reveals that the calculated (x^2) value of 68.38 is greater than the critical (x^2) value of 16.92 at the degree of freedom of 9 at 0.05 alpha level of significance. Therefore, hypothesis four is rejected.

Hypothesis Five: The knowledge of the role of nutrition in the body of the University of Ilorin athletes will not have significant impact on their sport performance.

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Table 6. Chi-square (x^2) value testing Hypothesis Five.

S/N	SA	A	D	SD	TOTAL	DF	CAL. VALUE(X^2)	TABLE VALUE	REMARKS
1	53 (53%)	35 (35%)	10 (10%)	2 (2%)	100				
2	73 (73%)	16 (16%)	9 (9%)	2 (2%)	100				
3	18 (18%)	22 (22%)	39 (39%)	21 (21%)	100	9	184.96	16.92	Ho_5 rejected
4	7 (7%)	25 (25%)	22 (22%)	46 (46%)	100				
TOTAL	151	98	80	71	400				

The table six above revealed that the calculated (x^2) value of 184.96 is greater than the critical (x^2) value of 16.92 the degree of freedom of 9 at 0.05 alpha level of significance, which implies that hypothesis five is rejected.

Discussion of findings

Hypothesis one stated that the knowledge of University of Ilorin athletes towards their nutritional needs have significant impact on their sport performance based on the information gathered, it was cleared that the calculated value is greater than table value. This shows that nutritional intake of an athlete determines his/her performance in any sporting activities. This finding is agreement with Dunford (2009), who reported that nutritional level of athletes increases their level of fitness and this led to excellent performance in any sporting activities. Rodrigues et al., (2009) also contended that athletes should know about sport nutrition in order to be in shape and improve their sport performance.

Hypothesis two states that the knowledge of University of Ilorin athletes on the major nutrient required in the body for optimum sport performance will not have significant impact on their sport performance, based on the data gathered, it shows that the major nutrient required in the body influences his performance towards sporting activities. This result is in line with Baker and Newton (2008), who reported that the level of performance of athletes in some sport is determined by muscular strength. ADA (2009), stated that the result of muscular strength depends largely on nutrition, if an athlete goal is to squats, increase in maximal bench press up or do unassisted pulls ups, such athlete needs adequate muscular strength.

Hypothesis three which states that the rate at which the athletes of the University of Ilorin feed on a balanced diet will not have significant impact on their sport performance, based on the information gathered which revealed that the calculated value is greater than table value, therefore hypothesis is rejected. This shows that the feeding on balanced diet will influence the performance of University of Ilorin athletes in sport activities especially throwing.

Hypothesis four which states that the knowledge of University of Ilorin athletes about the pre-game meal, during game meal and post-game meal have significance impact on their sport performance, based on the finding which shows that the calculated value is greater than table value, therefore hypothesis is rejected. In support of this findings by Malina et al., (2007) who discovered that endurance can be substantially modified by dietary intake in the pre-competition period, also further that endurance level of an athlete increases their performance in any sporting activities. Gravina et al., (2008) contended that athletes should know about sport nutrition that will sustain them during sporting activities like marathon race and cross country race.

Hypothesis five stated that the knowledge of the role of nutrition in the body of the University of Ilorin athletes will not have significant impact on their sport performance. Also, the finding clearly shows that Nutrition necessarily influences high performance in sport, nutrition has huge effect on performance in any sport activities. findings with regard to nutrition and sport performance among athletes, the majority of the sampled populations were of the opinion that there is significance impact of the role of nutrition in the body of the University of Ilorin athletes.

CONCLUSION

Based on the findings from the study, the following conclusions were drawn:

Nutritional intake of an athlete enhances sport performance, an athlete with adequate nutrition will be able to perform better in any sport because nutrition can make or mar performance of athlete in sport activities, in lay of this, and dietary intake of athletes must be put into consideration. Muscular strength contribute to high performance level in sport, this can be improve through development of muscular activities in sports like weightlifting as well as adequate nutrition. Weight of an athlete must commensurate with his/her sporting events and this can be improved through weight training with support from adequate diet. Optimum performance in sport is depending on endurance level of an athlete, athletes need endurance in order to stay in shape and improve their performance in events like marathon race and cross-country race.

Balanced diet contributes immensely to sports performance, an athlete with good balanced diet will perform better in most of the athletics events like swimming, racket games and others. This shows that balanced is very essential to athletes.

RECOMMENDATION

Based on the findings of this study, the following recommendations were made:

1. Athletes should adopt nutrition strategies that will optimize physical and mental performance and support good health. The dietary intake of an athlete that will enhance sport performance should be considered and adopted in order to boost their sport performance.
2. Muscular strength should be builds through training and well-nourished food. Also, it should be in control of some activities in order not to stress their power.
3. To enhance optimum performance in sport, the endurance level of athletes should be taking into consideration; athletes should endure in any activities they are performing in order to achieve their objective.
4. Flexibility is definitely one of the most important aspects of fitness and has a very substantial role to play in sport performance. It is recommended for the athletes to engage in adequate training that will increase flexibility in sport performance, regular stretching exercises and good nutrition should be taken in order to increase body flexibility for the attainment of objective
5. The contribution of physical fitness components to sports performance cannot be over emphasized; the athletes are encouraged to ensure adequate training as well as nutrition that will improve the development of physical fitness as well as sports performance.

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