Section A-Research paper

# NUTRITIONAL KNOWLEDGE AND ATTITUDE OF MALE VOLLEYBALL PLAYERS IN THE PREMIER LEAGUE OF ETHIOPIA

**Wabina Girma Balcha[1], Dr. Sisay Mengistu[2] & Dr. Zerihun Birhanu[3]**
[1] Phd Research scholar, Bahir Dar University Sport Academy, Bahir Dar, Ethiopia
[2] Associate Professor, Department of Sport Science, Hawassa University, Ethiopia
[3] Assistant Professor, Bahir Dar University Sport Academy, , Bahir Dar, Ethiopia
*Corresponding author:* ***Wabina Girma Balcha*** *Email: wabinagirma@gmail.com*

## Abstract:

*Nutrition is a vital part of every successful training Schedule. To perform its many complex functions, the human body requires constant energy supply, and when an athlete's training and competition level rises, so do the body's energy demands. The purpose of this work was to evaluate the knowledge and attitude, of male volleyball players in Ethiopian premier league. This premier league was containing seven (7) teams and in each team 12 players and totally 84 players have participated in this study. For proper data management, the researcher used a cross-sectional survey study design with quantitate approach, and data would be gathered using standardized sport nutritional knowledge and attitude questionnaires.The collected information was analyzed by means of both descriptive statistics (mean, frequency and percentage) and inferential statistics (chi-square). Every statistical measure was performed using a statistical package for social science (SPSS). P 0.05 was used as the criterion of significance for all statistical analyses. The results were show that the Ethiopian Premier League team's athletes have good knowledge and attitudes, acts as an advantage for team performance. However, the Bahir Dar city and National Army force don't have any significant changes in all nutritional areas; this may lead to a high chance of reflection in their team performance. While assessing the performance rank order declared by the Ethiopian national volleyball federation, the above-mentioned teams are at a low level due to insufficient nutritional knowledge and attitudes among the athletes. Therefore, it was recommended: the clubs owner of Bahir Dar city and National army force should give more attention to knowledge and attitude, towards sports nutrition that plays a great role in enhancing athletic performance.*

***Keywords:*** *Ethiopia Premier league, Nutrition knowledge, Attitude, Volleyball players.*

**Introduction:**

Sports Nutrition is the integration and utility of scientifically based totally diet and workout physiology ideas that aid and decorate performance. The human body must be supplied continuously with energy to perform its many complex functions and as an athlete's training and competition level increases, the body's energy demands also increase (Endalamaw, 2018). These ideas additionally assist athletes acquire and preserve good health (Dunford & Doyle, 2015). According to the definition of Andati (2020), the practice of dietary concepts with the aim of enhancing training, recovery, and performance is known as sports nutrition. Nutrition and health are also closely related, especially in terms of exercise, because of the increase in energy and nutrition nutrient demands (Saura, et al., 2019) According to Zinn, Schofield & Wall, (2005), sports nutrition information is important in order to evaluate the knowledge of those players who practice and disseminate sports nutrition knowledge. The importance of sports nutrition knowledge is to avoid myths and misinformation, to ensure accurate information and optimal sports nutrition are practiced by the athletes (Elias, Saad, Taib, & Jamil, 2018). For an athlete, nutrition is crucial because it supplies the energy needed to carry out the exercise (Mashuri, Mappaompo, & Purwanto, 2022). In terms of strength, training, performance, and recovery, what they consume has an impact. Timing is equally as important in sports nutrition as food type in determining what athletes eat throughout the day. Their degree of performance and their body's capacity for post-workout recovery are also impacted. Good nutrition habits cannot be ensured by knowledge alone because attitudes also influence behavior. Nutritional attitudes are psychological causes of eating forms in dietary choices, as well as other factors including physiological and dietary requirements (Kinyua, 2013). Prior to a game or competition, an athlete needs to pay special attention to what, when, and how much he eats and drinks (Shirreffs, 2011). Because there is a positive and strong correlation between nutrition knowledge and attitudes, more nutrition education typically leads to more favorable attitudes about nutrition (Perron & Endres, 1985).

**Statement of the Problem:**

According to researcher experience, the knowledge in the area of nutrition and attitudes in Ethiopian is very limited. Hence, this research had tried to fill the above mention gaps and also contributes a lot in finding out the nutritional knowledge and attitude of male Ethiopian premier league volleyball player in Ethiopia with the intention to develop Knowledge and attitude that could support the performance of the Ethiopian volley ball league teams.

**Objectives:**

1. To examine the nutritional knowledge and attitudes of Ethiopian Premier League male volleyball players
2. To analyse the relationship between teams' nutritional knowledge and attitude

**Hypothesis:**

1. There could be significant change in the playing level of the Ethiopian premier league male volleyball teams towards their nutrition knowledge and attitude.
2. There could be significant relationship in the Ethiopian premier league male volleyball teams towards their nutrition knowledge and attitude.

**Methodology:**

The Major objectives of this study were to assess nutritional knowledge and attitudes with the performance level of Ethiopian Premier League male volley ball teams. The research was conducted at Ethiopia among the Ethiopian Premier League male volley ball teams. The teams are Addis Ababa Police, Bahir Dar City, Madda Walabu University, Mugher cement, National Alcohol, National Army force and Wolaita Dicha. The researcher used a cross-sectional study design. The total population of the study was 84 athletes from the age of 18 to 33 years. According to the Ethiopian Premier League male volleyball team's results-2022. A standardized research questionnaire was compiled by researcher with expert's teams to assess the performance validate the level of performance that influences by the nutritional knowledge and attitudes among Ethiopian Premier League male volleyball players. The information obtained or collected from the questionnaire, was analyzed by using inferential statistics (chi-square and one sample t-test) All statistical measures were performed using a statistical package for social science (SPSS) for Windows version 16.0 (SPSS Inc., Chicago, IL, USA). All statistical analyses were conducted at a $P < 0.05$ level of significance. The Questionnaires were translated from English to Amharic and Amharic to English by language professionals.

**Data analysis:**

*Table 1: Association of Nutrition Knowledge with Performance level among the Ethiopian premier league teams*

| S.no | Name of the teams | Mean | df | Chi-square value | Asymp. Sig. (2-sided) |
|---|---|---|---|---|---|
| 1. | Addis Ababa Police, | 18.33 | 16 | 13.00 | 0.0412** |
| 2. | Bahir Dar City | 11.30 | 16 | 20.667 | 0.092 |
| 3. | MaddaWalabu University | 21.47 | 16 | 13.750 | 0.0317** |
| 4. | Mugher cement | 20.24 | 16 | 19.00 | 0.0269** |
| 5. | National Alcohol | 19.90 | 16 | 23.667 | 0.017** |
| 6. | National Army force | 15.31 | 16 | 10.00 | 0.067 |
| 7. | Wolaita Dicha | 24.51 | 16 | 14.250 | 0.0280** |

Based on the results obtained, from table1, directs that there is a significant association among the following teams are AAP (P= 0.0412 < α = 0.05), MWU (P = 0.0317< α (0. 05) MC (P = 0.0269< α (0. 05) NA (P = 0.017< α (0.05) and WD (P = 0.0280 < α (0.05) the above mentioned Asymp. Sig. (2-sided) values are less than (α = 0.05 ) level of significance, this indicates that AAP, MWU, MC, NA, and WD teams shows a significant association between the Performance level of the teams and their knowledge of nutrition for improving their performance.

Similarly from table 1, directs that there is no significant association among the teams are BDC (P = 0.092> α (0.05) and NAF (P = 0.067> α (0.05) the above mentioned Asymp. Sig. (2-sided) values are greater than (α = 0.05) level of significance, this indicates that BDC and NAF teams shows a no significant association between the Performance level of the teams and their knowledge of nutrition for improving their performance.

Roves P M G & etal (2014 ) Athletes' knowledge of nutrition is related with food consumption, eating habit and choice of meal. They are able to understand the required intake based on their energy needs, hence the choice made on food with the best nutrients. Nutritional educations to athletes are able to improve their understanding of nutrition and improve their eating.

***Table 2: Association of Nutrition attitudes with Performance level among the Ethiopian premier league teams***

| S.no | Name of the teams | Mean | df | Chi-square value | Asymp. Sig. (2-sided) |
|---|---|---|---|---|---|
| 1. | Addis Ababa Police, | 12.33 | 16 | 17.167 | 0.0375** |
| 2. | Bahir Dar City | 9.31 | 16 | 23.733 | 0.451 |
| 3. | MaddaWalabu University | 18.47 | 16 | 16.250 | 0.03436** |
| 4. | Mugher cement | 14.24 | 16 | 24.100 | 0.027** |
| 5. | National Alcohol | 13.90 | 16 | 15.00 | 0.0125** |
| 6. | National Army force | 11.31 | 16 | 17.733 | 0.3410 |
| 7. | WolaitaDicha | 22.51 | 16 | 23.700 | 0.026** |

Based on the results obtained, from table 2, directs that there is a significant association among the following teams are AAP (P= 0.0375< α (0.05), MWU (P = 0.0436< α (0. 05) MC (P = 0.027< α (0. 05) NA (P = 0.0125< α (0.05) and WD (P = 0.026< α (0.05) the above mentioned Asymp. Sig. (2-sided) values are less than (α = 0.05) level of significance, this indicates that AAP, MWU, MC, NA, and WD teams shows a significant association between the Performance level of the teams and their of nutrition attitudes for improving their performance.

Similarly from table 2, directs that there is no significant association among the teams are BDC (P = 0.451> α (0.05) and NAF (P = 0.3410> α (0.05) the above mentioned Asymp. Sig. (2-sided) values are greater than (α = 0.05) level of significance, this indicates that BDC and NAF teams shows a no significant association between the Performance level of the teams and their of nutrition attitudes for improving their performance.

According to Azizi and colleagues (2010), men and women had good attitudes toward nutrition as evidenced by their respective nutrition attitude scores of 50.61 ± 5.1 and 52.03 ± 5.8. It was discovered that females scored significantly higher on attitude than males, which was consistent with a more positive attitude toward nutrition.

***Table3: Analyse the nutrition knowledge and attitude of different Ethiopian Premier League male volleyball teams.***

| Teams | Mean | Mean differences | Std. Error Difference | t | df | p-value |
|---|---|---|---|---|---|---|
| AAP | 18.33 | 7.03 | 2.045 | 2.26 | 22 | 0.010** |
| BDC | 11.30 | | | | 22 | |
| AAP | 18.33 | -3.14 | 2.537 | 2.73 | 22 | 0.478 |
| MWU | 21.47 | | | | 22 | |
| AAP | 18.33 | -1.91 | 2.789 | 1.77 | 22 | 0.091 |
| MC | 20.24 | | | | 22 | |
| AAP | 18.33 | -1.57 | 2.055 | 1.98 | 22 | 0.040** |
| NA | 19.90 | | | | 22 | |
| AAP | 18.33 | 3.02 | 2.053 | 2.46 | 22 | 0.039** |
| NAF | 15.31 | | | | 22 | |
| AAP | 18.33 | -6.18 | 1.906 | 1.18 | 22 | 0.251 |
| WD | 24.51 | | | | 22 | |
| BDC | 11.30 | -10.17 | 1.831 | 1.46 | 22 | 0.124 |
| MWU | 21.47 | | | | 22 | |
| BDC | 11.30 | -8.94 | 1.908 | 3.35 | 22 | 0.019** |
| MC | 20.24 | | | | 22 | |
| BDC | 11.30 | -4.01 | 1.776 | 2.39 | 22 | 0.026** |
| NAF | 15.31 | | | | 22 | |
| BDC | 11.30 | -8.60 | 1.868 | 3.25 | 22 | 0.044** |
| NA | 19.90 | | | | 22 | |
| BDC | 11.30 | -13.21 | 1.361 | 1.18 | 22 | 0.856 |
| WD | 24.51 | | | | 22 | |
| MWU | 21.47 | 1.23 | 1.984 | 0.33 | 22 | 0.740 |
| MC | 20.24 | | | | 22 | |
| MWU | 21.47 | 6.16 | 2.003 | 1.98 | 22 | 0.033** |
| NAF | 15.31 | | | | 22 | |
| MWU | 21.47 | 1.57 | 1.849 | 2.25 | 22 | 0.035* |
| NA | 19.90 | | | | 22 | |
| MWU | 21.47 | -3.04 | 1.566 | 7.74 | 22 | 0.046** |
| WD | 24.51 | | | | 22 | |
| MC | 20.24 | 4.93 | 1.658 | 0.65 | 22 | 0.032** |
| NAF | 15.31 | | | | 22 | |
| MC | 20.24 | 0.34 | 1.921 | 3.47 | 22 | 0.002** |
| NA | 19.90 | | | | 22 | |
| MC | 20.24 | -4.27 | 1.498 | 1.44 | 22 | 0.016** |
| WD | 24.51 | | | | 22 | |
| NAF | 20.24 | -4.39 | 1.943 | 1.84 | 22 | 0.049** |
| NA | 15.31 | | | | 22 | |
| NAF | 20.24 | -9.2 | 1.536 | 2.44 | 22 | 0.623 |
| WD | 19.90 | | | | 22 | |
| WD | 20.24 | -4.61 | 2.361 | 1.97 | 22 | 0.041** |
| NA | 24.51 | | | | 22 | |

According to the table 3, while comparing the nutrition knowledge and attitude of Ethiopian Premier League male volleyball teams by using independent sample t test, the AAP & BDC, (t

cal=2.26 & p= 0.010) AAP & NA, (t cal=1.98 & P= 0.040) and AAP & NAF (t cal=2.46 & P= 0.039) shows a significance difference, hence the obtained p value is less than the level of significance α (0.05). This finding shows that the average nutritional knowledge and attitudes among teams is different. Similarly The AAP & MWU (t cal = 2.73& P = 0.478), AAP & MC (t cal = 1.77& P = 0.091) and AAP & WD (t cal = 1.18& P= 0.251) this indicates that there is no significance difference; hence the obtained p value is greater than the level of significance α (0.05).

Likewise the BDC & MC (t cal=3.35& P = 0.019), BDC& NAF (t cal = 2.39 & P = 0.026) and BDC& NA (t cal=3.25& p= 0.044) shows a significance difference, hence the obtained p value is less than the level of significance α (0.05). This finding shows that the average nutritional knowledge and attitudes among the teams is different. Similarly The BDC& MWU (t cal=1.46 & P = 0.124) and BDC & WD (t cal=1.18& P = 0.856) this indicates that there is no significance difference; hence the obtained p value is greater than the level of significance α (0.05).

As well the MWU &NAF, (t cal =1.98 & P = 0.033), MWU & NA (t cal=2.25 & P = 0.035) and MWU& WD (t cal=7.74 & P = 0.046) shows a significance difference, hence the obtained p value is lower than the level of significance α (0.05). This finding shows that the average nutritional knowledge and attitudes among teams is different. Similarly The MWU& MC, (t cal=0.33 & P = 0.740) indicates that there is no significance difference; hence the obtained p value is greater than the level of significance α (0.05).

Finally the MC&NAF (t cal=0.65 & P = 0.032), MC&NA (t cal=3.47 & P = 0.002) MC&WD (t cal=1.44 & p= 0.016), NAF & NA (t cal=1.84 & P = 0.049 and WD & NA (t cal=1.97& P = 0.041shows a significance difference, hence the obtained p value is lower than the level of significance α (0.05). This finding shows that the average nutritional knowledge and attitude among the teams is different. Alike the NAF&WD (t cal=2.44 & P = 0.623) indicates that there is no significance difference; the obtained p value is greater than the level of significance α (0.05).

Athletes use sports nutrition (Zinn, Schofield, & Wall, 2005). Researchers have, however, frequently inquired about athletes' level of general and sport-specific nutrition expertise. Those with misinformation may make nutrition choices that negatively affect their performance (Rosenbloom et al., 2002). Athletes lack knowledge in nutrition, healthy food choices and the components of a well-balanced diet this indicating that the players with less nutrition knowledge had poorer eating habits.

According to Davar (2012), 93.3% of female hockey players believed that giving nutrition education will have a favourable effect on food choice, while the mean of the players' overall positive attitude responses was 90.6%. Thus, it has been demonstrated by a number of authors that athletes have a favourable attitude toward nutrition and may therefore be receptive to receiving nutrition information.

**Conclusion:**

Based on the results obtained, states that there is a significant association among the following teams AAP (P= 0.0412 < α = 0.05), MWU (P = 0.0317< α (0. 05) MC (P = 0.0269< α (0. 05) NA (P = 0.017< α (0.05) and WD (P = 0.0280 < α (0.05) the above mentioned Asymp. Sig. (2-sided) values are less than (α = 0.05) level of significance, this indicates that AAP, MWU, MC, NA, and WD teams show a significant association between the Performance level of the teams and their knowledge of nutrition. Based on the results obtained that there is a significant association among the following teams AAP (P= 0.0375< α = 0.05), MWU (P = 0.0436< α (0. 05) MC (P = 0.027< α (0. 05) NA (P = 0.0125< α (0.05) and WD (P = 0.026< α (0.05) the above mentioned Asymp. Sig. (2-sided) values are less than (α = 0.05) level of significance, this indicates that AAP, MWU, MC, NA, and WD teams show a significant association between the Performance level of the teams and they are of nutrition attitudes.

**Recommendation:**

Based on the finding, the researcher comes up with the following recommendations are suggested to solve the problem

1. Nutritional knowledge is an integral part of peak performance, while inadequate knowledge and attitude that could limit an athlete’s potential for maximum performance.
2. This can be achieved by providing proper nutrition education awareness for the athletes and coaches of Bahir Dar city and the National army force league teams.
3. Bahir Dar city and National army force league teams should give more attention to knowledge, attitude, and practice towards sports nutrition that plays a great role in enhancing athletic performance

**Reference**:

1. Dunford, M. and Doyle, J., 2015. Nutrition for Sport and Exercise. 3rd ed. Stamford: Peter Adams, p.2.
2. Andati, B., 2020. *Sports Nutrition; A Historical Perspective – Global Food, Health, And Society*. [online] Web.colby.edu. Available at: <http://web.colby.edu/st297-global18/2018/10/28/sports-nutrition-a-historical-perspective/> [Accessed 15 May 2020].
3. Saura, R. A., Rentero, M. P., & Hernández, J. M. (2019). Sports nutrition and performance. *Nutrition in Health and Disease-Our challenges now and forthcoming time*.
4. Zinn, C., Schofield, G., & Wall, C. (2005). Development of a psychometrically valid and reliable sports nutrition knowledge questionnaire. Journal of science and medicine in sport, 8(3), 346-351.
5. Shirreffs, S. M., & Sawka, M. N. (2011). Fluid and electrolyte needs for training, competition, and recovery. Journal of sports sciences, 29(sup1), S39-S46.
6. Davar, V. (2012). Nutritional knowledge and attitudes towards healthy eating of college-going women hockey players. Journal of Human Ecology, 37(2), 119-124.
7. Elias, S. S. M., Saad, H. A., Taib, M. N. M., & Jamil, Z. (2018). Effects of sports nutrition education intervention on sports nutrition knowledge, attitude and practice, and dietary intake of Malaysian team sports athletes. *Malaysian journal of nutrition*, *24*(1).
8. Mashuri, H., Mappaompo, M. A., & Purwanto, D. (2022). Analysis of energy requirements and nutritional needs of rock climbing athletes. *Journal Sport Area*, *7*(3), 437-445.
9. Kinyua, L. W. (2013). Association of nutrition knowledge and attitude with dietary practices and nutritional status of female undergraduate students attending university colleges within Nairobi metropolis (Doctoral dissertation, University of Nairobi).
10. Mary Perron MS, R. D., & Endres, J. (1985). Knowledge, attitudes, and dietary practices of female athletes. *Journal of the American Dietetic Association*, *85*(5), 573-576.
11. Rosenbloom, C. (2006). Fueling athletes: facts versus fiction on feeding athletes for peak performance. Nutrition Today, 41(5), 227-232.
12. Endalamaw, Y. A. (2018). The Awareness and Attitude of Sport Coaches towards Nutritional Benefit for Performance the Case of Youth Sport Project in Harar City, Ethiopia.