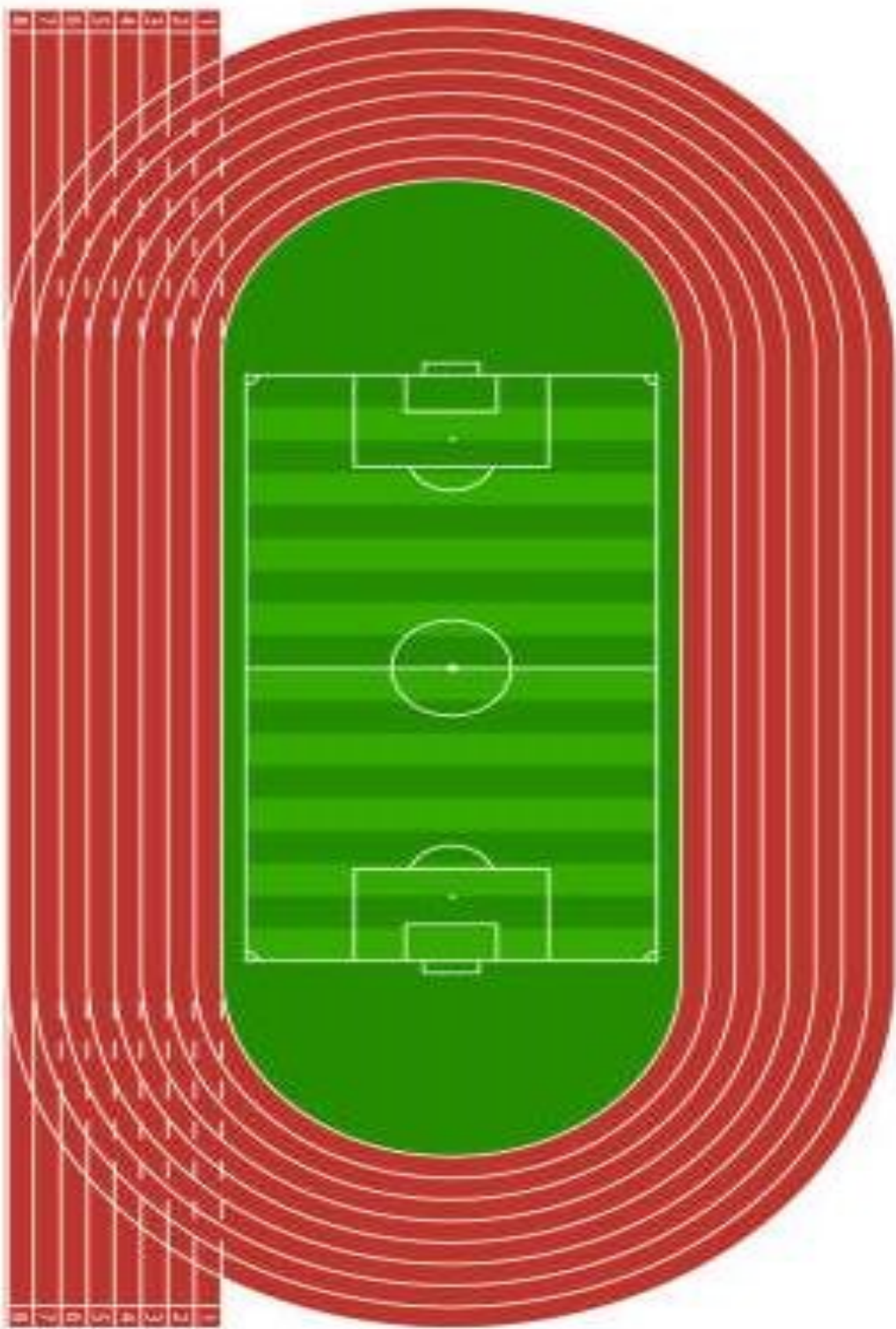




Bahir Dar University
Sport Academy

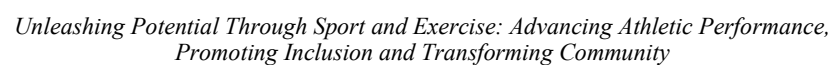
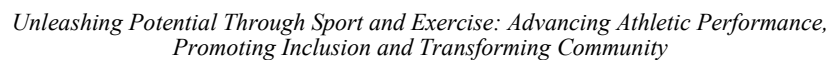
**The 8th National and 2nd International
Research Conference
on Sport Science**

Theme on:

**Unleashing Potential Through Sport and Exercise:
Advancing Athletic Performance, Promoting
Inclusion and Transforming Community**

May 24 - 25, 2024

Bahir Dar, Ethiopia



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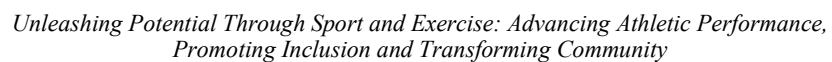
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The Bahir Dar University Sport Academy was first established as a physical education department. In order to plan and carry out co-curricular activities, the department worked under the supervision of the dean of students from 1974 until 1981 E.C. In 1982 E.C., it was upgraded to a full-fledged unit with the status of an academic and service-providing department under the name of the department of health and physical education.

In 1993 E.C., the department began to award diplomas next to Kotebe College of Education for the first time in Ethiopia's history of professional training in sports science. In 1996 E.C., the department became the third institution after Kotebe and Addis Ababa Universities to provide a bachelor's degree in physical education. The Ethiopian Universities Sport Festival was hosted by the Department of Physical Education and Sport in 2003 E.C., which led the department being promoted to a sport academy.

The sport academy is also quite active in both research and community services. The sport academy has well-equipped sports facilities and is now offering quality instruction to more than 350 project trainees in various athletic disciplines and age categories in order to successfully complete its objective.

By 2030, Bahir Dar University Sport Academy hopes to rank first in Ethiopia and be one of Africa's premier sports hubs.

- ☞ Produce graduates with relevant knowledge, skills, and attitudes.
- ☞ Enhance research on sport science.
- ☞ Deliver relevant and scientific youth development and sport training on the basis of national interest.
- ☞ Promote and ensure the community's participation in sport, health, and physical exercise.
- ☞ Provide relevant and necessary capacity-building and certification programs in sport coaching.

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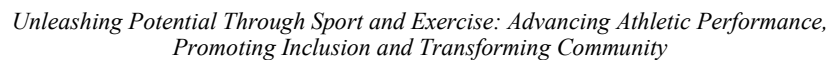
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Table of Contents

No.	Titles	Page
1	Organizational Problems and Organizational Capacities of Disability Sports Participation of Secondary School Students with Special Needs in Ibadan. Oluwaseyi Samson Oladipupo	1
2	Ethiopia and Kenya at the Summer Olympic Games: Comparisons of Performances. Dr.. Zerihun Birhanu	2
3	A New Mathematical Formula to Determine the Number of the Games in Sports Tournaments. Changkuoth Jock Chol	3
4	Prevalence of sport betting and its relationship with young and adults' psychosocial behavior in Hawassa City and nearby towns of Hawassa university technology villages. Wondimagegn Girma Abebe	4
5	Event Data, Formation and Match Out-come in Ethiopian Football. Dr. Belayneh Chekle	5
6	Associations of Physical Literacy, Physical Activity Behavior, and Physical Wellbeing among Primary School Children: In the Application of Structural Equation Modeling. Dr. Getu Teferi Hailu	6
7	Why do fans attend football games? Investigating motivational factors in Ethiopian Premier League competition in 2024. Daniel Getnet , Dr. Zelalem Melkamu, Dr. Sisay Mengistu	7
8	Organizational and Management Factors as Determinants of Effective Sport Service Delivery in Ethiopian Sport Governing Bodies. Wasihun Abate Sentie, Andrew Olu Fadoju, Dagnachew Nigeru Kebede	8
9	Examining Primary and middle School Physical Education Teachers' Professional Practice Competence: Amhara Region, Ethiopia. Yeshiwas Dereb	9
10	Metabolic Impact of Exercise Modalities in Inactive Obese Adults: A Randomized Controlled Trial. Firew Amare	10
11	The Examining Ethiopian Youth Athletes Development: Contextual Factors and Olympic Games Performance. Dr. Demisse Gashu Walle	11
12	Unveiling Physical Activity Patterns: Exploring Behavioral Drivers through a Comprehensive Framework. Chalachew Yenew, Eyob Getachew, Yosef Wasihun, Hordofa Gutema, Eyob Ketema, Anteneh Mengist	12
13	Validity and Reliability of the Sport Motivation Scale-II for Ethiopian athletes. Getabirhan Getinet Melesse, Dr. Zelalem Melkamu, Dr. Sangeeta Ranni Bhatt	13
14	Examining the Impact of Physical Fitness Program on the Reduction of Anxiety, Stress, and Depression Levels among Freshmen University Students. Daniel Getnet Tasew	14
15	Assessment of Macronutrients Intake and Energy Balance of Football Players. Abebe Chekol Zerihun	15
16	Acute response and chronic biomechanical adaptations to hill training: A systematic review. Yehualaw Alemu	16
17	Effect of continuous, interval, and combined training methods on distance running performance. Yared Tegegne Nigussie, Dr. Zelalem Melkamu Tegegne	17
18	Exploring relationship between team cohesiveness and team building activities in Amhara National League Football Clubs, Ethiopia. Getachew Teshome	18
19	The effect of Aerobic and Combined Aerobic-Anaerobic Exercise on Obese Diabetic patients. Tamagne Awoke Sisay , Dr. Alemmebrat Kiflu Adane, Dr. Aschenaki Taddese	19



Organizational Problems and Organizational Capacities of Disability Sports Participation of Secondary School Students with Special Needs in Ibadan, Nigeria

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Abstract

The study examined organizational capacity and organizational problems of disability sports participation in schools of secondary school students with special needs in Ibadan, Nigeria. The tested independent variables were organizational capacity and problems variables of strategic planning, network capacity, logistics, funding sources, and sport infrastructure, interest of coaches and knowledge of organizing personnel while disability sport participation was used as the dependent variable. Strategic planning ($\beta=0.289$, $t=2.816$, $p=0.008$), logistics ($\beta=0.612$, $t=7.103$, $p=0.000$), interest of coaches ($\beta=0.536$, $t=7.795$, $p=0.000$) and knowledge of organizing personnel ($\beta=0.500$, $t=7.836$, $p=0.000$) were independently tested significant on disability sport participation while network capacity ($\beta=0.171$, $t=1.772$, $p=0.085$), funding sources ($\beta=0.082$, $t=1.360$, $p=0.182$) and sport infrastructure ($\beta=0.111$, $t=1.948$, $p=0.059$) are not independently tested significant on disability sport participation. There is a composite joint contribution of strategic planning, network capacity, infrastructure, funding, logistics, interest of coaches, and knowledge of organizing personnel on disability sports participation in schools of individuals with special needs in Ibadan, Nigeria ($F(7,39)=100.210$, $p=0.00$). The result also generated a coefficient multiple regression of $R=0.977$ and $R^2=0.955$; implying that about 95.5% of variance was accounted for by the independent variable. Strategic planning, logistics, interest of coaches, and knowledge of organizing personnel variables individually and collectively showed a positive contribution to disability sport participation, hence, there is a need to consider them on the subject of disability sport participation in schools of individuals with special needs in Ibadan, Nigeria.

Keywords: Strategic Planning, Network capacity, Funding source, Logistics, Organizing personnel, coaches

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Ethiopia and Kenya at the Summer Olympic Games: Comparisons of Performances

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Abstract

The purpose of this study was to compare the performances of Ethiopian and Kenyan at the summer Olympic Games held so far. The study has employed an empirical research design. The two countries were selected purposively due to the historical competition that exists between them and their over dominance of the rest world in endurance races. The data was collected through the internet from several sites. The number of sites for data collection depends on the number of times each country has been participated at the Summer Olympic Games. 14 and 15 sites were visited for Ethiopia and Kenya respectively. The data collected was sorted into men and women. Percentage, mean and standard deviation were used to describe the performances of athletes from the two countries. The independent sample t-test served as the statistical instrument for testing the hypotheses set out at .05 alpha levels. The result revealed, out of 113 total medals won by Kenya 84 (74.34%) came through the men athletes and the women athletes contributed 29 (25.66%) medals. Ethiopia has a total of 58 medals won by men and women athletes. As a result, 32 medals (55.17%) were won by men athletes while the women contributed 26 medals (44.83%). On the other hand, the t-test result revealed a statistically significant difference in the total medal count between Kenya ($M=4.19$, $SD=3.45$) and Ethiopia ($M=2.64$, $SD=1.53$) conditions $t(37)=-2.09$ $p=.04$. The result for across country comparison of the performance of men athletes in terms of total medal count revealed Kenyan ($M=5.60$, $SD=3.25$) significantly outperformed Ethiopian ($M=2.29$, $SD=1.38$) conditions $t(19)=-3.62$ $p=.00$. Whereas, statistically non-significant differences were observed at the women side between the two countries. Based on the result obtained it was suggested that particular attention should be paid at the Ethiopian side to work on the athlete development programmes in varied events broadly in order to perform better for the future.

Keywords: Summer Olympic Games, Performance

A New Mathematical Formula to Determine the Number of the Games in Sports Tournaments

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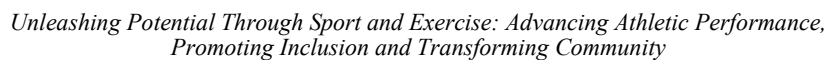
Abstract

Sports are games that goals to use, maintain, or improve physical ability and skills while providing enjoyment to participants. The words “game” and “match” are synonymous and can be used interchangeably. In sports competition format, there is single round-robin and double round-robin schedule. But many sports committees’ they are determine the total numbers of the games in group and each team by using the sequences formulas which is not understandable for participants, supporters and others. In this study, we develop the two mathematical formulas that would easy understandable to determine the total number of the games in leagues (group) and total number of the games in each team within the leagues (group) for single round-robin double round-robin or any system round-robin tournament in sports competition. The researcher was used the secondary data from Africa cup of nation and FIFA World cup websites, Ethiopia football federation and English premiere league websites, and America national basketball association website to analysis and determine the single round-robin, double round-robin and fourth round-robin competition games respectively. We was used the descriptive statistics method to analysis the data. In the results, the new mathematical formulas are working well to analysis the number of the games for every sports competition. We recommend that, these tools will be helpful for every sector in sports areas.

Keywords: Sports; Game; Match; Round-robin; Mathematical formulas

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Prevalence of sport betting and its relationship with young and adults' psychosocial behavior in Hawassa City and nearby towns of Hawassa university technology villages.

Wondimagegn Girma Abebe
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Abstract

Recently sport betting has become a way of life in most major cities and towns of the world including Ethiopia which resulted in a high rate of gambling among adolescents and young adults. Adolescents and young adults have been identified as a risk group for the problem of gambling due to their frequent internet use for the purpose of sport betting. This study was aimed to examine the prevalence of sport betting and its relationship with adolescent and young adults' psychosocial behavior. The study subjects were selected using convenience (availability) sampling. Thus a total of 146 adolescent and young adults involved in sport betting practices from Hawassa city and nearby towns of Hawassa University Technology villages namely Yirgalem, Aleta Wondo and Dilla were the study participants. In doing so, descriptive cross-sectional research design was employed. Data was produced Questionnaire and key informant interview protocols were utilized as a data gathering tools. Descriptive and inferential statistics were used to analyze quantitative data; whereas the qualitative data was analyzed thematically and using narrative mode. The findings show that betting market is engulfing in different city shores with having different modalities, Hulu and Harif sport bet are among favorite sport betting companies in the study area. Money, enjoyment and avoiding boredom were the three major reasons that trigger youths and young adults to be engaged in sport betting. Statistically significant, positive correlation was identified between frequency of betting and the social and psychological behavior of respondents. Based on the findings, it is recommended that planning and designing clear policy and capacity building programs, enhancing youth's awareness about the negative repercussions of sport betting(gambling), community monitoring, multi actor participation, strict gambling advertisement modality and moral education as a means of tackling the negative effect of sport betting (gambling).

Key words: Gambling, Psychological behavior, Social behavior, Sport Betting, Youth, Young Adult



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Organizational and Management Factors as Determinants of Effective Sport Service Delivery in Ethiopian Sport Governing Bodies

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Wasihun Abate Sentie

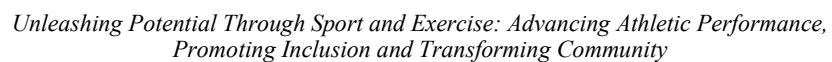
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Abstract

There is an observed general low performance of Ethiopian Sport Governing Bodies (SGBs) in service delivery. Evidence shows that the trend can be corrected with proper understanding and insight into the process of organisational and management factors of these SGBs. This study aimed to investigate the contribution of organisational and management factors as determinants in effective service delivery in SGBs. For this study, a cross-sectional research design was employed. Purposive sampling was used to choose 350 samples from 154 internal and 196 external stakeholders. The instruments used for the study were the key informant interview and the questionnaire. Pearson Product Moment Correlation Coefficient and multiple regression were used to analyse the data at the 0.05 significant level while qualitative data were content analysed. The findings confirmed that organisational and management factor variables had a significant positive relationship with sport service delivery (organisational structure ($r=0.515$), organisational capabilities ($r=0.701$), communication ($r=0.549$), management practice ($r=0.571$), materials & resources ($r=0.527$) and stakeholders satisfaction ($r=0.742$). Management factors jointly predicted effective sport service delivery ($F_{3, 329} = 165.868$, $R^2 = 0.612$); organisational factors had a joint significant contribution to effective sport service delivery ($F_{3, 329} = 148.743$, $R^2 = 0.576$). Further, organisational and management factor variables had a joint relative significant influence on effective sport service delivery in Ethiopian SGBs ($F_{6, 326} = 130.81$, $R^2 = 0.707$). Interviews revealed that there are weak relations with stakeholders, an unaligned structure of regional sport bodies with federal bodies, and managers with improper experience and knowledge in sport which influences effective sport service delivery in Ethiopian SGBs. Therefore, working together with stakeholders, structural advancement, designing rules and regulations that can serve a longer time, taking correction based on feedback from stakeholders, networked structures and collaborations with local sports organisations as means of improving service delivery employing shared burden and coordinated effort are recommended.

Keywords: Management, Organisation, Service delivery, Sport governing bodies





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Yeshiwas Dereb

Debire Birhan University

Abstract

In this study, the professional practice competency (PPC) of primary school physical education (PE) teachers in the Amhara Region, in Ethiopia was examined. For this a mixed method, explanatory sequential design, data were gathered from 405 randomly selected PE teachers. Results revealed that, with the exception of their lesson planning (LP), PE teachers' instructional assessment (IA), creating and maintaining a safe and supportive learning environment (CMSSLE), and overall PPC were judged to be low. However, female PE teachers were more competent in LP than their counterparts. On the other hand, females, degree-holders, novice teachers, and rural PE teachers performed IA with reduced proficiency. Yet, there was no discernible difference between male and female teachers in CMSSLE. As a result, the concerned education actors have to pay due attention and precaution when hiring, training, and deploying PE teachers in different areas of the nation.

Key words: Lesson planning, safe and support learning environment, instructional assessment, professional practice competence, physical education

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Metabolic Impact of Exercise Modalities in Inactive Obese Adults: A Randomized Controlled Trial

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Abstract

Background: Data on the impact of Aerobic, resistance or concurrent training on glucose tolerance and lipid profile while controlling dietary practice in obese adults are inconclusive.

Methods: Twenty healthy physically inactive men (49.15 ± 2.581 years) participated in an 8-month training programme involving concurrent exercise, resistance training, and aerobic training program to determine the effects on glucose tolerance and plasma lipids in obese adult persons. This study adopts a mixed-methods design, combining a repeated measures component to capture within-subject changes over time with a three-arm parallel-group randomized controlled trial (RCT) to assess between-group differences.

Results: Pre to-post mean values of body fat percentage, area under the curve, low-density lipoprotein, high-density lipoprotein and total cholesterol decreased. The main effect of exercise modality on the AUC was significant, Post hoc analyses revealed that RT (-30.653 ± 6.766 , $p = 0.001$) and CT ($M = -0.896$, $SE = 3.347$, $P = 0.015$) had greater effects than AT. LDL was significantly lower in the AT and CT ($MD = 4.783$, $SE = 1.563$, $P = 0.002$) and ($M = 4.57$, $SE = 1.284$, $P = 0.008$) than in the RT, respectively. There was a significant difference in TC between training modalities; AT significantly reduced TC on RT ($MD = -17.716$, $SE = 5.705$, $P = 0.02$).

Conclusion: The type of exercise that is used has become important in glycaemic management and chronic lipid profile optimization. Notably, resistance training and concurrent training were more successful in lowering the AUC, and both aerobic and concurrent training showed a superior ability to modify the lipid profile. As a result, it was discovered that the best method for enhancing an obese person's lipid profile and glucose tolerance control was concurrent exercise training.

Keywords: glucose tolerance, lipid profile, resistance training, aerobic training and concurrent training



The Examining Ethiopian Youth Athletes Development: Contextual Factors and Olympic Games Performance

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Abstract

This study examines the relationship between Ethiopian youth athletes participating in the Youth Olympic Games (YOG) and furthermore, examining the influence of gender, medal status, and competitive venue, in the performance of athletes in the senior Olympic Games (OG), focusing on middle- and long-distance events between 2010 and 2020. Historical data obtained from official website of international Olympic committee, and Analyzed using descriptive and linear regression analyses of 118 athletes. The outcome indicates that only 23.8% of youth athletes transitioned to the senior level, suggesting a limited talent pipeline. Gender significantly influenced performance, particularly in the 5000m event, with men athletes outperforming females by an average of 87.70 seconds in this even. These findings highlight the need for the researchers to investigate factors influencing the transition from youth to senior success and address potential gender disparities in training and support systems. Examining both successes and failures could provide valuable insights to improve the athlete's development program and boost the conversion rate.

Keywords: Athletics, Ethiopia, Olympics, Performance, Senior, Youth



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Assessment of Macronutrients Intake and Energy Balance of Football Players

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Abstract

Proper nutrition is an important consideration for athletes, who seek to maximize their performance. Macro nutrients provide the necessary energy to maintain body function during rest and various forms of physical activity. The purpose of this study was to assess macronutrients intake and energy balance of football players of Dire Dawa Kenema FC. The study design was descriptive survey method. The source of population consisted of 25 football players of Dire Dawa Kenema FC. Then 20 players (80%) were taken through stratified random sampling method. The data were collected through dietary assessment. The food composition table for use in Ethiopia, complete South African guide to sports Nutrition and Harris-Benedict equation were used to calculate total energy intake and expenditure of players. According to major findings of the study, the average daily energy intake of players was 3705.1 kcal whereas the average energy expenditure consumed to support basal activities, regular physical exercise and thermic effect of food was a total of 3357.6 kcal per a day. The daily amount of players calorie input and calorie output was positively balanced i.e. calorie input was greater than calorie output due to this players were not energy deficient. The percent distribution of each macronutrient in the daily meal was 13.2 % for protein, 22.8 % for fat and 64 % for carbohydrate of the total daily calorie intake. The daily intake of protein, fat and carbohydrate was 1.8, 1.3 and 8.5 gram per kilogram of body weight per day respectively.

Keywords: Nutrition, Macronutrients, Calorie, Energy Balance



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