



IJMIRD 2014; 1(7): 56-58  
www.allsubjectjournal.com  
Received: 16-11-2014  
Accepted: 02-12-2014  
e-ISSN: 2349-4182  
p-ISSN: 2349-5979  
Impact Factor: 3.762

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## Comparison of Energy Intake and Expenditure of Kabaddi Players and Control Groups of Haryana

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### Abstract

In the present study, an attempt has been made to compare the Energy Intake and Expenditure of Kabaddi players and control Groups of Haryana. The study was confined on 44 subjects (22 subjects of Kabaddi) and (22 subjects of Law Department) of Ch. Devi Lal University have been taken for the study. The age ranged between 24 to 28 years. Only Carbohydrates, Fats, Vitamins, Proteins, Minerals and water was taken for the energy intake and expenditure. "Nutritive Value of Indian Foods" by (C. Gopalan, B.V. Rama shastri and Balasubramaniam) was used to measure Energy Intake. For determining the total calorie burnt was consulted from Monogram "Healthier Living" by D.K. Kansal, S.K. Verma and M.S. Sohal" was used. To obtain valuable results mean, Standard Deviation, Standard error of mean and t-test was used.

**Keywords:** Energy Intake, Energy Expenditure, Kabaddi, Control Group, Haryana.

### 1. Introduction

Athletic performance improves with balanced diet and crumbles with nutritive. Knowledge of food and nutrition has a direct bearing on the maintenance of south health of an individual. The food habits which are cultivated from childhood vary according to the different socio-cultural groups. Diet and training are complementary to one another to improve the proficiency. The sports training schedule along with the acceptable well- balanced diet are the basic requirement for the proficiency and achievement in the field of sports. Energy is the basic requirement of man for the maintenance of life and physical work output. This energy is obtained from food and is utilized in maintaining the basal metabolic process is promoting growth, regulating the body temperature and in performing various physical activities. To meet the requirement of normal functions and activity. The energy expenditure of a person's is related to several factors, the major ones being physical activity. Other factors such as age and sex are also related to energy expenditure, but their effect is secondary. The energy requirements are largely determined by the type and nature of routine activities. The assessment of energy expenditure is therefore, a major logical approach to determine the energy requirement in terms of energy output for productions work and leisure activity. Food plays an important role in improving level of sports persons. The composition of most endurance athletes diets, however has been reported to be similar to the diet of the general population. With a fat intake higher and a carbohydrate intake lower than recommended for active individuals (Butterworth, 1994). Deficiency of Individual nutrients like vitamins and mineral which certainly effect performance but supplements can control the deficiency and physical performance.

### Objectives of the study

1. To study the Energy Intake of Control group and Kabaddi Players.
2. To examine energy expenditure of Kabaddi Players and control groups.

### Hypothesis

1. There will be significant difference of energy intake of Kabaddi Players and control groups (non- sports persons).
2. Significant difference will be noticed in energy expenditure of Kabaddi Players and control groups.

### Delimitations of the study

1. The study is delimited Kabaddi players fall in the age group of 25 years.
2. The study id delimited to kabaddi players and control groups (non-sports Persons).

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3. The minimum level of participation of Kabaddi Players is inter- college.
  4. The study is delimited to groups only.
- Only Male students are selected for the study.

**Methodology**

The present data was collected from 44 subjects (22 Kabaddi) players of different colleges affiliated from Ch. Devi Lal University, Sirsa and 22 (control groups) of Law Department from Ch. Devi Lal University, sirsa. The age ranged between 24 to 26 years. To determine the caloric intake, Carbohydrates, Fats, Vitamins, Proteins, Minerals and water was consulted from book, “Nutritive Value of Indian Foods” by C. Gopalan , B.V. Rama Shstri and Balasubramanuium and for determining the total calories burnt was consulted from monogram “Healthier Living” by D.K. Kansal, S.K. Verma and M.S. Sohal was used.

**Statistical Procedure**

To obtain valuable results mean, Standard Deviation, Standard error of mean and t-test was used.

**Results and Interpretation of the study**

**Table 7.1:** Energy Intake of Kabaddi Players and Control Groups

GROUPS	Mean	S.D	df	‘t’
Kabaddi Players	2129.81	176.87	42	5.812
Control Groups	1600.44	388.87		

**Significant difference at level 0.01**  
**Tabulated value =2.71**

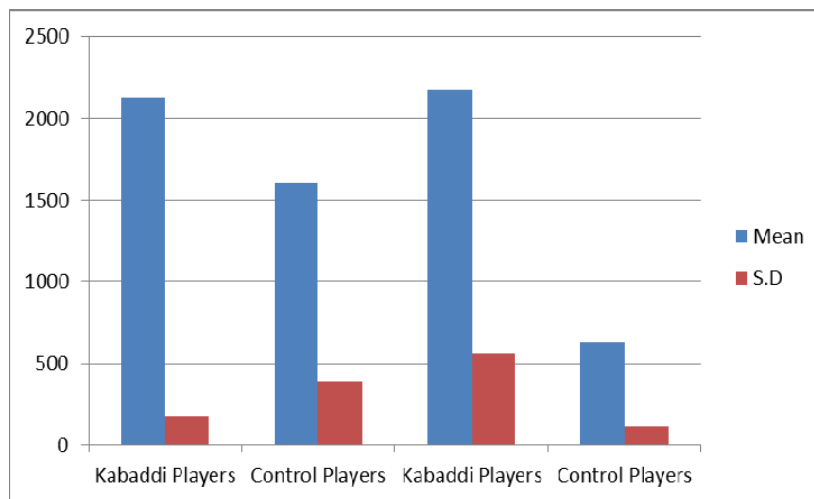
Table-1 reveals that the mean and standard deviation of energy intake of Kabaddi Players (2129.81 and 176.87), control group (1600.44 and 388.87). There has been significant difference between Kabaddi players and control group, where the energy intake of Kabaddi players are more than the control group.

**Table 7.2:** Energy Expenditure of Kabaddi Players and Control

GROUPS	Mean	S.D	df	‘t’
Kabaddi Players	2174.77	561.05	42	12.61
Control Groups	635.06	114.348		

**Significant difference at level 0.01**  
**Tabulate Value =2.71**

**Fig 7.3:** Figures of Mean and Standard Deviation of Energy Intake and Expenditure of Kabaddi Players and Control Group



The Perusal of Table 2 reveals that the mean and standard deviation of energy intake of Kabaddi Players (2174.77 and 561.05), control group (635.06 and 114.348). There has been significant difference between Kabaddi players and control group, where the energy intake of Kabaddi players are more than the control group.

**Discussion of Finding**

In the Present study statistically significantly difference has been observed in physical characteristics of Kabaddi players, with comparison to their control group. This study indicates that Players remain physically active for more time, therefore, their physical extension and energy expenditure is more as compared to control group and particularly Kabaddi players The sufficient diet which is needed by the body for its proper functioning i.e. their energy intake was almost equals to their energy expenditure. But control group take more diet than needed by their body, e.g., their energy intake was more than the energy expenditure.

**Testing of Hypothesis**

Present study was based on the hypothesis that there is significant difference between energy intake and expenditure of control group and Kabaddi Players. According to the result obtained it is established that there is significant difference between energy intake and expenditure of control group and Kabaddi Players.

**Conclusion**

It is evident from the study that Kabaddi players having high energy intake and expenditure level than the control group of Ch. Devi Lal University.

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