



Comparative study of selected physiological and psychological variables among vegetarian and non-vegetarian runners

Swati Laxmi Pandey¹, Dr. Sudhir Rajpal²

¹ Research Scholar (M.Phil), Department of Physical Education, Dr. CV Raman University, Kota Bilaspur, Chhattisgarh, India

² Head Department of Physical Education, Dr. CV Raman University, Kota Bilaspur, Chhattisgarh, India

Abstract

The study aimed to compare Study of Selected Physiological and Psychological Variables among Vegetarian and Non-Vegetarian Runners. A total of Forty (40) subjects were 20 vegetarian and 20 non-vegetarian runners Belongs To university of Patanjali (UK) which were randomly selected for the study. The Subjects were selected by using purposive sampling. The age of the subjects ranged between 18-28 years. To analyze the vegetarian and non-vegetarian runners of male groups i.e. Physiological Variables and Psychological Variables runners. The analysis of data was done by using statistical technique 't'-test for finding the insignificance difference of variables exhale capacity, fat %, and aggression among vegetarian and non-vegetarian, and the level of significance was set at 0.05 levels ($p < 0.05$). From the statistical analysis of the collected data, it is concluded that there is found insignificant difference in the variables exhale capacity, fat %, and aggression among vegetarian and non-vegetarian, hence the hypothesis which is given by the researcher is rejected.

Keywords: physiological, psychological variables, vegetarian and non-vegetarian runners

Introduction

Whether Physical Education should be considered as an academic discipline like history, economics, philosophy or physics, or a profession like medicine, engineering or law or simply a programme of activity has been a subject of inconclusive academic debate at various times. Movement or activity, however, is the very crux of physical education. Movement is learnt and performed; it is scientifically analyzed and studied; it requires highly specialized people to teach. Physical education has its roots in academics, and its branches in professional practices. An academic discipline has a "body of knowledge" that has evolved over a period of time through observation, research, tradition and human wisdom. Henry considered an academic discipline as "an organized body of knowledge collectively embraced in a formal course of learning". It need not have a practical application. A "theoretically and scholarly content as distinguished from technical and professional a focus of attention, a unique body of knowledge and a particular mode of inquiry" is all that constitutes a discipline, believes Kenyon. The major focus of physical education is movement. Movement for fitness, for performance, for excellence, for recreation and for health is all that is emphasized, advocated, preached and practiced in physical education. The multi-dimensional movement requires multi-disciplinary approach to creating a theoretical foundation and practical programme of physical education.

Physiology

Physiology is the science, which deals with the study of functions of the body.

It is concerned with the body response and the adaptation to

exercise of the system at the cellular level.

Psychology

Psychology is the science which deals with the study of human behavior.

Exhale capacity

This is the expiratory flow rate during peak of forced vital capacity (F.V.C).

Fat Percentage

The portion of the body weight in which fats are present is considered the fat weight. The ratio of fat weight to total body weight is defined as percent fat.

Vegetarian

Vegetarianism encompasses the practice of following plant-based diets (fruits, vegetables, etc.), with or without the inclusion of dairy products or eggs, and with the exclusion of meat (red meat, poultry, and seafood). Abstention from by-products of animal slaughter, such as animal-derived rennet and gelatin, may also be practiced.

Vegetarianism can be adopted for different reasons. Many object to eating meat out of respect for sentient life. Such ethical motivations have been codified under various religious beliefs, along with the concept of animal rights. Other motivations for vegetarianism include health, political, environmental, cultural, aesthetic or economic. There are varieties of the diet as well: an ovo-vegetarian diet includes eggs but not dairy products, a lacto-vegetarian diet includes dairy products but not eggs, and an ovo-lacto vegetarian diet includes both eggs and dairy products. A vegan, or strict

vegetarian, diet excludes all animal products, including eggs, dairy, and honey.

“Finally serious nutrition information of the serious vegetarians’ athletics. Vegetarian sports nutrition provides sound and accessible explanations on what vegetarians really need to consume”.

“Vegetarian sports nutrition’s delivers inspired, useful and science based information to make you a better, healthier athlete”

“Vegetarians are people who do not eat meat. Vegans don’t eat meat or other animal products such as eggs and dairy. They also avoid the use of all animal products such as gelatin, lanolin, leather, fur, feathers. They aspire to lead a cruelty-free life. Non-violence leads to the highest ethics, which is the goal of all evolution. Until we stop harming all other living beings, we are still savages”.

Non-vegetarian

Non-vegetarianism encompasses with inclusion of dairy products or eggs, and with the inclusion of meat.

Running

Running is a means of terrestrial locomotion allowing humans and other animals to move rapidly on foot. It is simply defined in athletics terms as a gait in which at regular points during the running cycle both feet are off the ground.

Methodology

Source of Data

For the present study the data were collected from those runners who running in University of Patanjali (UK) Vegetarian and non-vegetarian runners of University of Patanjali, all those selected subjects were the sources of data.

Selection of the Subjects

For the purpose of this study, 20 vegetarian and 20 non-vegetarian male runners of University of Patanjali (UK) were selected as subjects. The age of the subjects were ranging from 18-28 years.

Sampling Method

The subjects were selected by using simple random sampling method.

Criterion Measures

The following criterion measures were chosen for testing the hypothesis.

Testing of Hypothesis

In the light of above results, it was found that the assumption made by the researcher was partially correct In beginning it was hypothesized that there will be significant difference in vegetarian and non-vegetarian runner’s in physiological and psychological variables of University of Patanjali (UK).

On the overall comparison of selected physiological variables of vegetarian and non-vegetarian runners, it was found there was no significant difference between vegetarian non-vegetarian runners of University of Patanjali (UK), therefore the hypothesis was rejected.

Analysis and interpretation of data

The research scholar conducted Physiological Variables on 40 subjects 20 from each group to compare physiological Variables of Vegetarian and non-vegetarian runners of University of Patanjali.

Table 1: Showing Comparison between Vegetarian and non-vegetarian runners of University of Patanjali in Exhale Capacity

Group	Mean	S.D.	M.D.	D.F.	O.T.	T.T.
Vegetarian	471.5	7.53	22	38	0.28	2.04
Non-Vegetarian	449.5	7.45				

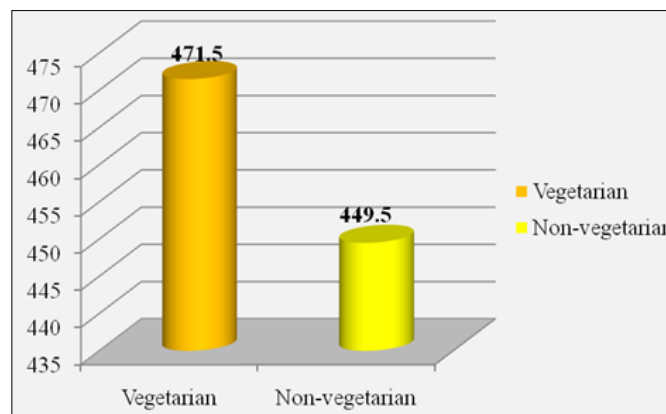


Fig 1: Graphically Representation of Comparison between Vegetarian and non-vegetarian runners of University of Patanjali in Exhale Capacity

Table 2: Showing Comparison between Vegetarian and non-vegetarian runners of University of Patanjali in Fat Percentage

Group	Mean	S.D.	M.D.	D.F.	O.T.	T.T.
Vegetarian	16.05	4.89	0.9	38	0.49	2.04
Non-Vegetarian	16.95	2.79				

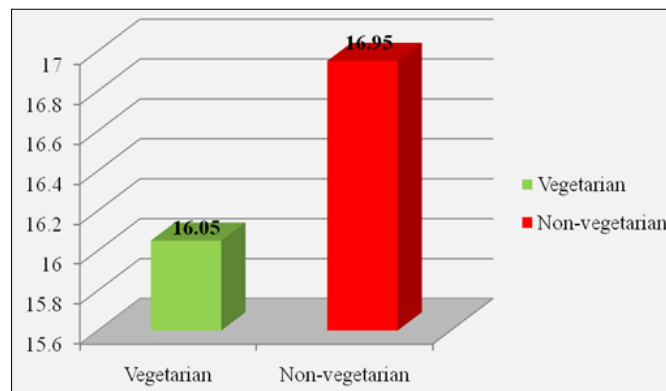


Fig 2: Graphically Representation of Comparison between Vegetarian and non-vegetarian runners of University of Patanjali in Fat Percentage

Table 3: Showing Comparison between Vegetarian and non-vegetarian runners of University of Patanjali in Aggression

Group	Mean	S.D.	M.D.	D.F.	O.T.	T.T.
Vegetarian	81.7	11.98	3.4	38	0.30	2.04
Non-vegetarian	85.1	7.86				

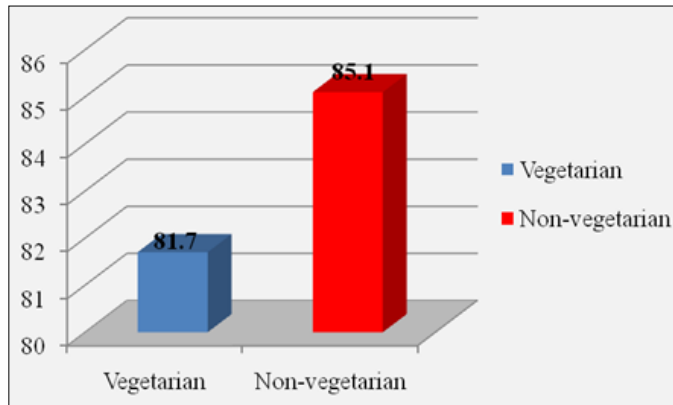


Fig 3: Graphically Representation of Comparison between Vegetarian and non-vegetarian runners of University of Patanjali in Aggression

Conclusion

From the statistical analysis of the collected data, it is concluded that there is found no significant difference in the variables exhale capacity, fat %, and aggression among vegetarian and non vegetarian, hence the hypothesis which is given by the researcher is rejected.

Reference

1. Venderley AM, *et al.* Vegetarian Diets Nutritional Considerations for Athletes Sports Med, 2006; 36(4).
2. Baden, *et al.* Am I Nearly There? The Effect of Anticipated Running Distance on Perceived Exertion and Intentional Focus. Journal of Sport & Exercise Psychology, 2004; 26(2).
3. Barrow Harold M. Man and Movement: Principle of Physical Education, Philadelphia: Lea and Febigar, Third Edition, 1983.
4. Bucher Charles A. Foundation of Physical Education, St. Luis, The C.V. Mosby, Co., 7th Edition.
5. Leitzmann C. Vegetarian Diets: What Are The Advantages. Forum Nutr, 2005; 57.
6. Cynthia. Self-reported vegetarianism may be marker for college women at risk for disordered eating. Journal of The American Dietetic Association, 2003; 103(3).
7. Chan Jacquelin. Serum 25-hydroxyvitamin D status of vegetarians, partial vegetarians, and non vegetarians: the Adventist Health Study. Am J ClinNutr., 2009; 89(5).
8. Chia Yin, Yoke, *et al.* Urinary Amino Acids Profile of Vegetarians and Non-vegetarians. Malaysian Journal of Nutrition, 2006; 12(1).
9. Deriemaeker, *et al.* Nutritional Status of Flemish Vegetarians Compared with Non-Vegetarians: A Matched Samples Study. Nutrients journal, 2010; 2(1).
10. Devonport, *et al.* Effects of music interventions on emotional states and running performance Journal of Sports Science and Medicine, 2011; 23(10).