

A COMPARATIVE STUDY OF NUTRITIONAL ASSESSMENT AMONG ACTIVE AND INACTIVE ADULTS

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The purpose of present study was to compare the Protein level between active and inactive male adults. For this study, Total 80 male subjects (40 active adults and 40 inactive adults) belongs to 45-50 years of age group were taken. The study was conducted on male adults of Patiala city of Punjab. All the samples were taken by applying purposive sampling technique. All the subjects have been informed about the objective and protocol of the study, and after their consent they voluntarily participated in this study. The level of significance was set at 0.05. The body composition variable chosen was protein level. The finding reveals that the mean and standard deviation values with regard to active adults is 12.3850 ± 2.3890 whereas in the case of inactive adult is 13.3600 ± 1.9687 respectively. The calculated t- value - 1.99195 (.024938) which is more than the tabulated t- value (1.66) at 0.05 level. So it demonstrates that there is a significant difference between the active adults and inactive adults for their protein level in their body.

Keywords: Nutritional Assessment, Protein, Active Adults and Inactive Adults

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Introduction

Physical inactivity has a major donor to mortality. It has been reported that around 3.2 million deaths per year are attributable to physical inactivity **(World Health Organization,2020)**. Many non-communicable chronic health conditions prevailing in both developed and developing countries are linked with physical inactivity. Five leading risk factors for death are smoking, high blood glucose, high blood pressure, physical inactivity and obesity. A glance at these risk factors reveals that high blood pressure and glucose levels as well as obesity are connected with physical inactivity **(Taylor, 2014)**.Globally, 81% of those surveyed were not sufficiently physically active in 2016, with boys who are more active as compared to the girls. Near about 77.6% boys were inactive, in comparison to 84.7% girls. There were three out of four adolescents and teens in India are not indulge in one hour of daily exercise prescribed for ideal health, but they are still more active than 11-17 year olds in the rest of the world, According to a study in India, 73.9% children got "insufficient physical activity" in 2016, with which they are more susceptible of being obese and developing diabetes, heart disease and mental health problems, which includes depression, according to a **(World Health Organization, 2020)**.Aging is as the phenomenon of growing old or developing the appearance and changes in various psychological and physiological aspects of the body. Like body mass index, skeletal muscle mass, body fat, protein and inorganic salts levels in human body. An individual may experience these changes differently at the different level of decline may be fast and dramatic for others and changes are much less significant. The ultimate truth of aging has its own subtleties and is largely uncontrollable by human itself. There is right hand rule that the organ system and organ functions diminish by 50 percentages during aging **(Kamlesh, 2020)**.Nutrients have been commonly regarded as nourishment, providing necessary vita ingredients for cells growth and their metabolic functioning in the human body. However, in addition to these roles, it is further found that nutrients and their metabolites are also active in the regulation, and coordination of the massive number of cellular practices that operate to maintain its homeostasis of the cell. The processed foods that are taken in the Western countries dietary pattern may be the important factor responsible for

The growth of acquired metabolic syndromes as seen in developed societies. The enduring consumption of these foods, which typically have poor nutrient diversity and excessive amount of calories, lead to paucities in key nutrients and excess calories substrates that likely trigger the loss of cellular nutrient/energy homeostasis. The consumption of foods with low-energy concentration and high nutrient diversity seems to be a sensible attitude for minimizing cellular stress and the promotion of optimal cellular function and health **(Chena et al., 2018)** Optimal physical performance requires a careful dietary balance of essential nutrients. The United states government has established standards for optimal nutrient intake that are termed Recommended daily dietary allowance.

Protein is a class of nitrogen-containing compounds formed by amino acids. **(Wilmore &Costil, 2004)**. Protein unlike carbohydrates and fats contains nitrogenous in summation to carbon, oxygen and hydrogen. Each and every cell requisite protein. factually, Protein are found throughout the entire body with muscle tissue being the major location Protein don't liberate energy but instead they are considered to be the constructing blocks of tissue. This is the provide not only the basic material that is essential for muscular functioning.

While there are over 20 different known amino acids in protein 8 of these cannot be generated within the body itself and therefore must be obtained directly from the food we intake These are termed as essential amino acid, the left over are called nonessential can be manufactured within the body from the diet we intake. The 8 essential amino acid are isoleucine, leucine, lysine, methionine phenylalanyl, threonine, tryptophan and valine. Not more than 1 gram of protein is needed daily/day. factually the united states food and nutrition board has recommended a daily protein allowance of 0.9 gms/kg body weight for adolescent and adult men and women. **(Shaver, 1981)**

Materials and Methods

The purpose of present study was to compare the protein level in the body between active and inactive male adults. Total 80 male subjects (40 active adults and 40 inactive adults) were selected from Patiala district of Punjab. The Study was conducted on forty active persons and forty inactive

Persons. A self-reported questionnaire as per the World Health Organization guidelines was constructed to recognize the difference between active and non-active type of individual. Active person were those subjects whose activity frequency and intensity is 150 minutes/week moderate intensity activity and 75 minutes/week or an equal combination of moderate and vigorous intensity activity throughout the week and vice-versa was considered. Respondents were questioned to mark appropriate answer in (yes/no) column. The overall responses were analyzed to classify the type of individual as per their activity type performed and were bifurcated accordingly.

Selection of variable

The selected nutritional variable is protein between active and inactive male adults.

Methodology

Active and inactive person was differentiated on the basis of duration and intensity of physical activity with the help of self-reported questionnaire prepared by the researcher. The protein level in the body was measured with the help of GS6.5B Body Building Weight Test System (Version 1.0)

Purpose: To determine protein level in the body of the subjects.

Equipment: GS6.5B Body Building Weight Test System (Version 1.0)

Procedure: The instructions given by the tester to the subject in advance and after that subject was asked to remove his shoes and socks and advised to stand on the machine with bare foot on particular sites and further advised to hold the electrodes in both hands with arms straight and asked to stand on that site for 15 seconds. All the measurements were taken with the help of lab technician.

Scoring: After the automatic calculation by the machine, machine prints out a slip and score was written on that slip.

Statistical Analysis: With regard to the purpose of the study, unpaired t test was calculated for selected variables between active and inactive male adults. The level of significance was set at 0.05 level.

Results and Discussion

The finding showed the mean score of the total body protein level values among active and inactive male adults was 12.3850 and 13.3600 respectively. There was significant difference found in the protein level. As per review of related literature consultation, researcher seen not much detailed exploration regarding the total protein in human body. So it is recommended by the researcher that more specific research should be done regarding the variable.

Mean, Standard Deviation, Standard Error and 'T' Value of Protein Among Active and Inactive Adults

Enclosed as Annexure 01

Mean, Standard Deviation and Standard Error Mean of Total Protein Among Active and Inactive Adults

Enclosed as Annexure 02

Conclusion

The results authenticated that, significant differences observed between active and non-active adult for their protein level in their body.

Annexure

Annexure 01

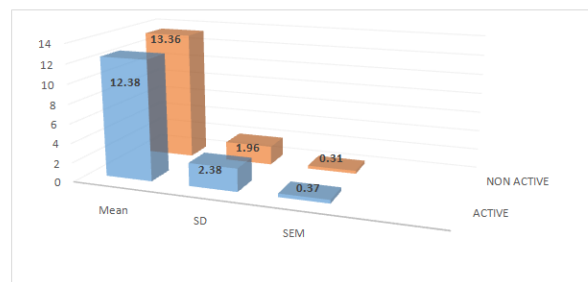
Mean, Standard Deviation, Standard Error and 'T' Value of Protein Among Active and Inactive Adults

Group	N	Mean	Std. Deviation	Std. Error Mean	't' value	Sig.
Active	40	12.3850	2.3890	.37774	1.99195	.024938
Inactive	40	13.3600	1.9687	.31128		

$t=0.05 df(78) = 1.66$

Annexure 02

Mean, Standard Deviation and Standard Error Mean of Total Protein Among Active and Inactive Adults



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