

An analytical study of obesity and Physical fitness among Citizen of Kashmir City

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Abstract

The main purpose of the study was to find out and the comparison of agility and flexibility of obese citizen of the Kashmir city. A total of Fourty five (45) subjects, comprising 15 Obesity Grade-1, 15 Obesity Grade-2 and 15 Obesity Grade-3, of Kashmir city. The Subjects were selected by using simple random sampling. The age of the subjects ranged between 25-40years. To analyze the agility and flexibility of the subjects of all the groups I.e. Obesity Grade-1, Obesity Grade-2 and Obesity Grade-3 of kashmir city. The following tests or equipments were used. Agility (To measure the speed of body movements), it is measured by Two wooden blocks, Rope lime powder, measuring tape and stopwatch. Flexibility. It was measured with Goniometere or Flexiometere. The analysis of data was done by using statistical technique 'f'- test for finding the significance difference of Agility and Flexibility of kashmir city and the level of significance was set at 0.05 levels ($p < 0.05$).

KEYWORDS: obesity, Physical fitness, Agility, Flexibility, Citizens.

Introduction:

Obesity usually begins early childhood. When this is the case, the chances of adults' obesity are three times greater than children having a normal amount of body fat. Simply started a child generally does not grow out of' an over fat condition. Children of obese parents are two three times increased risk of obesity as adults compared to children in families in which neither parent is morbidly obese. This is not only for genetic reasons but also because of families' poor dietary and exercises habit. Excessive fatness also develops slowly during adulthood, ages 25 to 44 beings the danger years. When obese adults reduce body size, there is decrease in fat cell size but no change in cell number. If normal body mass and fatness are achieved, then individual fat cells shrink and actually become smaller in size than the fat cells of non-obese individuals. Obesity is not necessarily due to overeating. If obesity were truly a unitary disorder and gluttony and over indulgence were the only factors associated with an increase in body fat, the easiest way to permanently reduce would surely be to cut back on food. Of course, if it were that simply, obesity would soon be eliminated as major health problem. There are obesiously other operating such genetics, environmental, social and perhaps racial influences. Body composition refers to the relative amounts of the compounds in the body.

Obesity can defined as excessive enlargements of the body's total quantity of fat. There is no biological reason for man and woman to get fatter as they grow older but now days; obesity has been called the main health problems of modern society. The seriousness of this situation is underlined by a similar rise in obesity related diseases. Obesity my defined as an abnormal growth of adipose tissue due to enlargement of fat

cell size (hypertrophy obesity) or an increase in fat cell number (hyperplastic obesity) or combination of both.

Physical Fitness:

Human life is based upon the body he keeps. All the activities of life are done with the help of body. Nature has created humans to perform various activities efficiently. Today modernization has made human life easier, as most of the work is performed by the machines. The sedentary life style of man has reduced the efficiency of humans. The less working capacity of humans has caused many problems like weakness, illness, chronic diseases, etc. In past our ancestors were quite healthy and fit. The big reason was that, they had to perform a lot of hard physical activity, like running, walking, jumping etc. The environment in past was less polluted. Moreover, they had less stresses in their life. Today it is all opposite, i.e., physical activity is less, environment is polluted, unhygienical conditions exist all around, life is full of stresses, unbalanced diet etc. All these factors have reduced the efficiency of humans. Today, we desperately require physical fitness not only to improve our abilities but also to improve our health and wellness. This will also help to develop healthy environment around us along with community health, thus nation will be benefited. By die physical fitness programmes, we can improve our fitness, wellness and health.

Obesity:

Obesity is defined as an excessive accumulation of fat beyond what is considered normal for one's age, sex and body type. Obesity is a case of being over fat not just overweight. Obesity has to be reviewed in terms of leans body mass or muscles to body fat.

Agility:

The speed with which an individual may change his body positions and direction rapidly and accurately or fastness in changing directions while moving is known as agility. Agility is affected greatly and differentially by the types of stimuli. Body agility is drastically better response to be an anticipated known stimulus requiring movements in the unknown directions. For example, sprinter reacting to the starting gun is much be faster than a defensive half back reacting to changes in speed or direction of pass receiver whose body usually in a position that restricts rapid maximum reaction in almost all directions. Agility being one's ability to change direction or position of the body or parts of body rapidly and precisely is closely associated with coordination. Which defined as harmonious interplay of muscle groups during a motor performance that indicates some degree of skill? In other words to agile, one must also be coordinated. The level of one's agility is results of both innate capacity (genetic) and training. Agility is more effective when it's combined with high levels of speed, strength and endurance. Agility may greatly improve with specific training.

Flexibility:

Flexibility is generally defined a looseness or suppleness of the joint. More specially, flexibility is the range and the extent of the movement of a joint. Some individuals have a wide range of motion; others range of motion is fairly limited. Joint

flexibility is controlled by a number of factors: the joint capsule contributes approximately 47 percent to the range of motion, the muscles contribute 41 percent, the tendons contribute 10 percent, and the skin contributes 2 percent. Because the joint capsule itself is rigid, the emphasis when attempting to increase or decrease flexibility is placed on the muscle and skin tissue. Stretching exercises enable these tissues to increase the range of the movement. Conversely, strengthening exercises may tighten up the muscles and tendons and can decrease the range of movement if not done correctly through the full range of motion.

METHODOLOGY

Source of Data:

For the present study the subjects were selected from Kashmir city.

Selection of Subjects:

For the present study total 45 male subjects were selected as the subjects for the study.

Sampling Method:

The subjects were selected by Simple Random Sampling method.

Hypothesis:

It was hypothesized that there was significant difference in physical fitness components of various obesity grades citizen of Kashmir city.

Collection of Data:

The data pertaining to the study was collected by administering the tests which are meant for the selected variables.

ANALYSIS AND INTERPRETATION OF DATA

In the chapter the gathered data from the citizens of Amravati city are presented in tables, graphs, figures and discussion and findings are also presented in this chapter.

Findings:

The finding of this study showed insignificant difference of agility and flexibility, so for this component there was found significant difference of Flexibility between obesity grade one, grade two and grade three.

Level of Significance:

To test the hypothesis the level of significance was set at 0.05 level of confidence which was considered adequate and reliable for the purpose of this study.

Table No-1
Mean of Agility of various obesity grades

Name of Group	Mean of Agility
Obesity Grade-1	17.35
Obesity Grade-2	18.94
Obesity Grade-3	20

Graph- 1
Graphical representation of mean difference between of agility between obesity grade- 1 grade- 2 and obesity grade -3

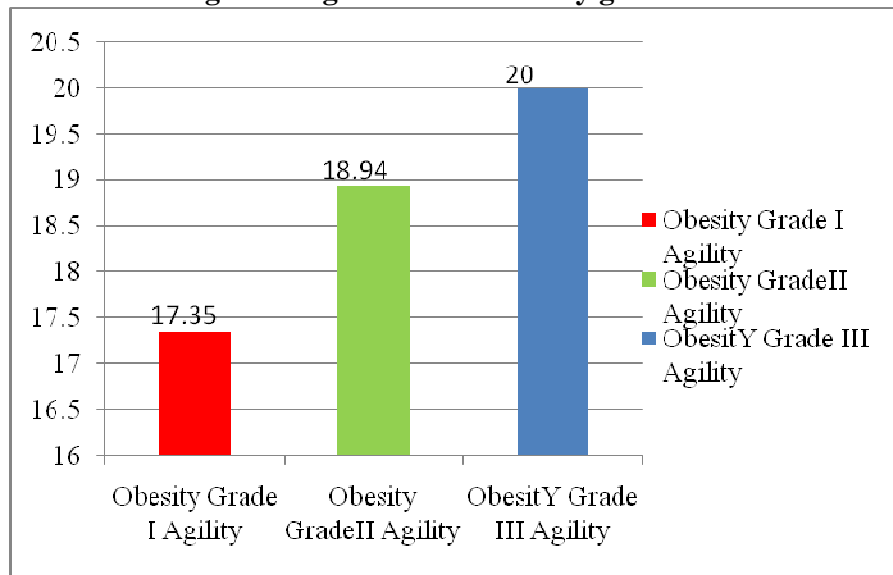


Table No-2
Showing one way Analysis of Variance (ANOVA) of Agility Scores

Source of variance	df	Sum of Squares	Mean Variance	F Calculated	F Tabulated
Between Groups	K-1 3-1=2	496.98	24.07	2.25	3.23
Within Groups	N-K 45-3=42	448.84	10.68		

Table No-3
Mean of Flexibility of various obesity grades

Name of Group	Mean of Flexibility
Obesity Grade-1	48.08
Obesity Grade-2	47.91
Obesity Grade-3	33.7

Graph- 2
Graphical representation of mean difference between of Flexibility between obesity grade- 1 grade- 2 and obesity grade -3

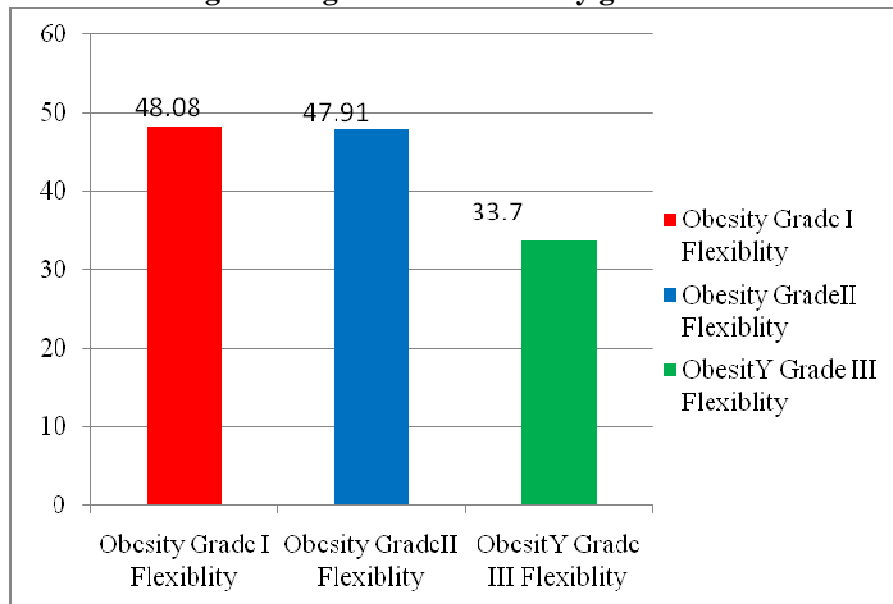


Table No-4
Showing one way Analysis of Variance (ANOVA) of Flexibility Scores.

Source of variance	df	Sum of Squares	Mean Variance	F Calculated	F Tabulated
Between Groups	K-1 3-1=2	1299.45	1.09	0.035	3.23
Within Groups	N-K 45-3=42	1297.26	30.88		

Conclusion:

Within the limitations of the study and from statistical analysis the following conclusion was drawn.

There has been found insignificant difference in flexibility and agility of obese persons belongs to Kashmir city. Because the tabulated 'f' exceeds than the calculated 'f' for both the variables. Hence the given hypothesis has been partially rejected.

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