



COMPARATIVE SURVEY ON OBESITY PROFILE OF CAREER ENDED SPORTSPERSONS AND PHYSICAL EDUCATION TEACHERS

Dr. Vinay Pawar¹, Smt. H.R.Patel² & Dr. Ruchi Sah³

- ¹ PhD, Director of Physical Education, Arts Mahila College, Shirpur, Shirpur Education Society Dhule (Maharashtra), India
- ² Sports Coordinator, Arts Mahila College, Shirpur, Shirpur Education Society, Dhule (Maharashtra), India
- ³ Assistant Teacher, Physical Education, Government Inter College Dewaldhar, Bageshwar (Uttarakhand), India

ABSTRACT

The purpose of this study was to compare the selected obesity profile of career ended sportspersons and physical education teachers. For this comparison research scholar had selected 40 male subjects for each group with mean age of 32 ± 1.29 year. The career ended sportspersons were from different games and sports and represented their respectively games at national level and Physical education teacher were working at various schools of Pune city. The selected obesity profile were weight (Kg), height (cm), arm girth (inch), waist circumference (inch), thigh girth (inch) and BMI. The mean value of selected obesity profile reflected that career ended sportsperson and physical education teachers were weight (78.17 ± 5.58 & 79.67 ± 4.32), height (1.61 ± 0.933 & 1.62 ± 0.88), arm girth (13.47 ± 1.19 & 13.42 ± 1.14), waist circumference (33.85 ± 1.35 & 34.07 ± 1.42), thigh girth (25.62 ± 1.19 & 25.97 ± 1.27), and BMI (30.17 ± 2.06 & 30.57 ± 2.03). The analysis of statistical significance difference on selected obesity profile of career ended sportspersons and physical education teachers shows that there were insignificance difference were found on weight (1.343 P= value 0.308), height (0.48 P= value 0.775), arm width (0.381 P= value 0.584), waist circumference (0.726 P= value 0.783), thigh girth (1.27 P= value 0.887) & BMI (0.873 P= value 0.935).

Keywords- Arm girth, Waist Circumference, Thigh girth

INTRODUCTION

In common man language the word overweight and obesity mean to reflects the excess layer of fat in body in certain part. The often method used to assess the weight status of an individual is body mass index commonly known as BMI (Chan, 2016). To calculate the individual BMI person's weight in kilogram is to be divided by the square of his/her height in meter (kg/m^2). Most of the researches conducted on obesity profile shows that BMI provides a clear guideline of accumulation of fat and also help to find the relationship with common health hazards like overall mortality, heart problems, diabetes and cancer (World Health Organization, 2016).

As per the WHO media center reports on obesity indicates that in present situation the number of obesity percentage in almost double then 1980. In last 40 year, the percent of obesity worldwide has been increased the rate has raise 2.6 fold and number goes up to from 105 million to 641 million till 2014 almost more than 13 percent of total world population in presently obese (Catherine, 2016).

Further, the report depicts that more than 1.9 billion adults were overweight and remaining 600 million were toward obsess. Obesity problem became so enormous in most of the countries that large numbers of the people are suffering with overweight and obesity in comparison to underweight. The problem not only in adult but survey reports of 2014 said that 41 million children under age of 5 year were more toward overweight (European association for study of obesity, 2016).

India is the country which comes under the developing nations and India's most of the population still away from the problem of obese contrary Indian population is facing under nutritional problem more. But recent changes in food habits and living standard of Indian people grow the problem of obese in India. A recent study of Suryatapa Bhattacharya reveled that most of the Indian youth are very much falling in obesity level (Bhattacharya, 2016).

The obese is the excess of body weight which is results from imbalance between what an individual eat and whatever come out in form of his energy expenditure. The studies show that participation in physical activities is one of the common methods for energy expenditure. The people those are regular engaged in physical activities are more toward lean body mass. It found the physical activities is very importance on reducing body weight or control body weight for long term bases and therefore, sufficient levels of activities should be included in daily routine to fight obesity epidemic (Chan, 2016; National Nutrition Surveillance Centre, 2009 and Cris, et. al., 2004).

METHODOLOGY

Selection of Subject:

The study was to compare the obesity profile of career ended sportsperson and physical education teachers therefore, this researcher had selected total (N=80) subjects. The mean age of selected subjects was 32 ± 1.29 year. Further the selected subjects were divided into two groups career ended sportsperson (n=40) and physical education teachers (n=40). All the selected subjects were resident of Pune city and experts of their field from more than eight year. The career ended sportsperson were selected from different games and sports like football, volleyball, athletic and physical education teachers selected were working at different school of Pune city. The researcher had taken care that only those career ended sportsperson would be selected as subjects who are fully devoted during

their sports career and represented state at various national and international competitions. The physical education teachers selected for this study were regular students during their educational period and actively played interuniversity and different games and sports.

Selection of Variables:

The obesity profile variable for this study were weight in Kg, height in cm, arm width in inch, waist circumference in inch, thigh girth in inch and BMI(weight (kg)/(height²)). The researcher had explained the purpose of the study before collecting the data on selected variables. The data were collected from selected subjects as per their availability without disturbing their regular schedule.

RESULTS

The independent 't' test was used as statistical tool for this study. The data collected on selected obesity profile were analysis with appropriate statistical tool and presented in table1 and 2.

TABLE 1
DESCRIPTIVE STATISTICAL RESULTS OF OBESITY PROFILE OF CAREER ENDED
SPORTSPERSONS AND PHYSICAL EDUCATION TEACHERS

Variables	Group	N	Mean	Std. Deviation	Std. Error Mean
Weight	Sports persons	40	78.1750	5.58334	0.88280
	Physical education teachers	40	79.6750	4.32872	0.68443
Height	Sports persons	40	1.6108	0.09333	0.01476
	Physical education teachers	40	1.6210	0.08825	0.01395
Arm girth	Sports persons	40	13.4750	1.19802	0.18942
	Physical education teachers	40	13.3750	1.14774	0.18147
Waist circumference	Sports persons	40	33.8500	1.35021	0.21349
	Physical education teachers	40	34.0750	1.42122	0.22471
Thigh girth	Sports persons	40	25.6250	1.19158	0.18841
	Physical education teachers	40	25.9750	1.27073	0.20092
Body mass index	Sports persons	40	30.1550	2.06171	0.32598
	Physical education teachers	40	30.5750	2.03668	0.32203

Table- 1 shows that, mean value of weight for sports person was 78.17±5.58 (kg) and for physical education teacher was 79.67±4.32 (kg). The mean value of height for sports person was 1.6108±0.09333 (cm) and for physical education teacher was 1.6210±0.08825 (cm). The mean value of Arm girth for sports person was 13.4750±1.19802 (inch) and for physical education teacher was 13.3750±1.14774 (inch). The mean value of Waist circumference for sports person was 33.8500±1.35021 (inch) and for physical education teacher was 34.0750±1.42122 (inch). The mean value of Thigh girth for sports person was 25.6250±1.19158 (inch) and for physical education teacher was 25.9750±1.27073 (inch). The mean value of Body mass index for sports person was 30.1550±2.06171 (inch) and for physical education teacher was 30.5750±2.03668 (inch).

TABLE-2
STATISTICAL SIGNIFICANCE DIFFERENCE OF MEAN RESULTS OF OBESITY PROFILE
OF CAREER ENDED SPORTSPERSONS AND PHYSICAL EDUCATION TEACHERS

Obesity Profile variables	df	t value	Sig
Weight	78	1.343	0.308
Height	78	0.480	0.775
Arm girth	78	0.381	0.584
Waist circumference	78	0.726	0.783
Thigh girth	78	0.271	0.887
Body mass index	78	0.873	0.935

Table-2 depicts that there were insignificant difference was found in between career ended sports persons and physical education teachers on weight as t value was 1.343 on degree of freedom 78 and sig. 0.308. There were insignificant difference was also found in between career ended sports persons and physical education teachers in height as t value was 0.480 on degree of freedom 78 and sig. 0.775. There were insignificant difference was also found in between career ended sports persons and physical education teachers in Arm girth as t value was 0.381 on degree of freedom 78 and sig. 0.584. There were insignificant difference was also found in between career ended sports persons and physical education teachers in Waist circumference as t value was 0.726 on degree of freedom 78 and sig. 0.783. There were insignificant difference was also found in between career ended sports persons and physical education teachers in Thigh girth as t value was 0.271 on degree of freedom 78 and sig. 0.887. There were insignificant difference was also found in between career ended sports persons and physical education teachers in Body mass index as t value was 0.873 on degree of freedom 78 and significant 0.935.

DISCUSSION

Present scenario required a healthy way to enjoy the life at optimal level and for this an individual should engaged himself in vigorously physical activities. The selected subjects for this study were career ended sportsperson Physical education teachers who were regular involved in physical activities during their career but once leaving the active sports participation, various changes takes place in relation to obesity profile. Keeping this noble idea researcher had framed piece of researcher here.

The selected obesity profile for this study where weight, height, arm girth, waist circumference, thigh girth and BMI. The results of the study revealed that there was insignificance differences were found in all the obesity profile when its compare to career ended sportsperson and physical education teachers. This indicates both the intervention groups subjects were falling in the category of obesity after leaving their active participation from sports. The career ended sportspersons were engaged in their sports profession for period of more 10 year and even physical education teacher were also actively involved in sports as it was mandatory parts of their curriculum and participated in various collegiate competitions.

Increase in weight of an individual directly enhance the fats layer of the various parts of the body specially waist, arm thigh which are most prominent place in the body to find the subcutaneous layer. The USA department of health & human services published an article in 2012 under national institute of health in which they mention some of the major causes for overweight and obesity and more emphasized were given on lack of energy

balance. They mention that whatever the energy of calories an individual is getting from food and drink should be out in same amount of energy from the body through breathing, digesting and doing exercises. If an individual getting more energy but releasing less energy out then the extra amount of energy will deposit in term of fat in the body (National institute of health, 2012). Further the article also reveals that one of the reasons that most of the people are falling in obesity due to their inactivity spending most of the time watching TV and working on computers, instead of walking for while using cars and very few physical work due to modern technology and conveniences (World Health Organization, 2012 ; Sallis and Glanz, 2009). Esparza J and Fox C (2000) strongly supported this statement in their study conducted the physical activity level of 40(17female and 23male; 37+/-11y, 66+/-13kg) Mexican Pima Indians from mountainous area of Northwest Mexico, with 40 age-and-sex matched (17female and 23male; 37+/-12y, 93+/-22kg) and found that Daily energy expenditure low physical activity as a possible cause of obesity.

In this study also both the groups were falling toward the higher obesity due to their inactiveness after leaving sports. In most of the obesity profile variables physical education teachers were having less mean value in comparison to career ended sportsperson. Physical education teacher are still doing some of the physical activities in terms of their work routine we make them little bit better, when we compare them with career ended sportsperson. Yannick Stephan et al. (2011) conducted a study on Athletes retiring from sport following the Sydney Olympic Games (n =16) when they were compared to active athletes (n =16) four times during the first year post-career and found that once after taking retirement most of the athletes feel difficult to adjust with surrounding. Similar results were shown in Cecic Erpic (2004) investigation between athletes and non athletes. After retirement athletes feel difficult to adjust in comparison to non athletes.

CONCLUSIONS

1. Education Teachers were heavier and taller than their counter parts.
2. Physical Education Teachers were found more obese than their counter parts. This obesity puts them at elevated risk for many chronic diseases.
3. Similarity was observed between career ended sports persons and
4. physical education teachers in their weight, height, Arm girth , Waist circumference , Thigh girth and Body mass index, which clearly indicates that the both group were homogenous.

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