IOSR Journal Of Humanities And Social Science (IOSR-JHSS)
Volume 25, Issue 1, Series. 7 (January. 2020) 22-25
e-ISSN: 2279-0837, p-ISSN: 2279-0845.
www.iosrjournals.org

Some Selected Physical Fitness Components of Mizan Tepi University Female Students; Sport Science versus Other Natural Science

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ABSTRACT: This study was conducted to compare the selected physical fitness components of sport science department and other natural science female students in Mizan Tepi University Tepi campus. 65 voluntary female students from sport science and 65 from other natural science were selected. Comparative research design with quantitative approach was employed. The physical fitness variables selected for the study were; cardiovascular endurance, muscular strength, body mass index, flexibility, speed and agility. The data was collected by use of measurements of height in cm and weight in kg as well as physical fitness tests like; - 1 minute step up test, sit and reach test, 1m push up test, 35m sprint test and box drill agility test. Descriptive statistics (mean and standard deviation) were employed for data analysis. The results of the study revealed that, sport science department female students were registered better performance in muscular strength, cardiovascular endurance, flexibility, speed and agility than other natural science female students. On the other hand other natural science female students are superior to sport science female's students in body composition In conclusion, sport science female student are better than other natural science female students in cardiovascular endurance, muscular strength, flexibility, speed and agility whereas other natural science female students are superior to sport science female students in body composition.

KEY WORDS: - physical fitness, sport science, non-sport science

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Date of Submission: 13-01-2020 Date of Acceptance: 29-01-2020

I. INTRODUCTION

In the history of humankind, physical fitness has been considered as a vital element of everyday life of an individual. Body In being so, the ancient people was mainly dependent up on their individual strength, vigor and vitality for physical survival (Manmeet Gill, et all).

In the light of this, the expertise committee of the world Organization (1981) describes physical fitness as the ability to undertake muscular work satisfactorily and in capacity to carry out various forms of physical activities without being unduly tired including qualities important to the individual health and well-being. According to Clarke, Harrison, H (1971) physical fitness is defined as ability to carry out daily tasks with vigor and alertness without undid fatigue with ample energy leisure time pursuits to meet usual situation and unforeseen emergencies

Likewise, regular participation in various exercises increases physical fitness. As a result, high level of physical fitness is desirable for a full productive life. However, sedentary living habits and poor physical fitness have negative impacts on both health and daily living. Every person has a different level of physical fitness which may change with time, place of work and situation. There is also an interaction between the daily activities and the fitness of an individual, the point if where to put the level of optimum fitness. From the physiological point of view, physical fitness may be ability of the body to adopt and recover from strenuous exercise (Kamla-Raj, 2010)

For most individuals, increase in physical activity increases physical fitness. Hence, physical activity and physical fitness are closely related in that physical fitness is mainly not entirely determined by physical activity patterns over recent weeks or months. That's why; genetic contributions to fitness are important but probably account for less of the variation observed in fitness than is due to environmental factors, particularly physical activity (Bouchard, C., and L, .pe' Russe, 1994).

The link between physical fitness and activities has been demonstrated in sport, where physically fit individual is able to perform at a higher relative intensity than their rivals. Therefore, the present comparative study will attempt to investigate the physical fitness and BMI of sport science and other natural science students .

Statement of the problem

The underline assumption for testing youth people fitness in sport science program in any countries will almost identical. It will widely believe that the identification deficiency of testing Body mass index and physical fitness through testing could help teachers and concerned body to implement appropriate intervention and motivation for youngsters in more physical activities (Fan, 1996;Pangrazi, 2001). Beause of the department does not differentiate the student were well physically fit and improved so, due to this the document of this study was crucial for the selection of students who are joining the Objective of the study

Objective

- To compare body mass index, speed, agility, strength, muscular endurance and flexibility of sport science and other natural science female students of Mizan Teppi University

II. MATERIAL AND METHODS

Study area

This study was conducted in Mithan Tepi Unversty which located at South nation nationality and people regional state, Ethiopia (SNNPR), Sheka zone, Yeki wereda, Tepi town. The town geographical location 7° 11' 47.9760" N and 35° 25' 43.9644" E. Tepi town is found at an average of 1097m above sea level with the mean 13.7ºC temperature and relative humidity of 80 to 91.4%

Study design

The study was employ comparative research design with quantitative approach in order to the comparative mass index, speed, agility, strength, muscular endurance and flexibility of sport science and other natural science female students of Mizan Teppi University. Mizan teppi university is among second generation university of Ethiopia which is inaugurated in May 2006.

Target population

Right now the university have six Collage and two schools. In line to this female students of sport science and other collage of natural and computational science was the target population of this study. This study was conducted on female sport science students and other natural science female students would be taken as a target population. There are about 102 regular female's student on sport science and 1621 other natural science in Mizan Tepi University Tepi campus in 2017, thus study are female sport science and female other natural science students. From this total population we select 65 from sport science female students and 65 samples from other natural science female students by using purposive non probability sampling.

Method of data collection

To collect available data field test would be used to collect data. This are Box drill agility test, 35m sprint test, 1 minute step test, 1 minute push up test, sit-reach test, height and weight measurement are the means to gather data collection instrument

Method of data analysis

After the collection of the data, the statically technique were used in this research; was mean, standard deviation, paired ´t´ test by using SPSS and systematically in table will apply to find out significance of the comparison study of the BMI, selected physical fitness between female sport science and female other natural science students in Mizan Tepi University

III. RESULT AND DISCUSSION

This chapter emphasize with the results and discussion of finding in relation to comparative study of selected physical fitness components, health and skill related physical fitness components among sport science and other natural sccience female students in Mizan Tepi University.

physical characters of study participants

Units	SpSc		Non SpSc	
	Mean	SD	Mean	SD
Weight	48.76	5.454	58.47	6.64
Height	1.5970	0.03764	1.6307	0.03405
Age	21.1333	1.060	21.20	1.17135

The body weight of the other natural science female students showed high mean value and standard deviation than sport science female students, but the height and age are almost the same mean and standard deviation.

The bellow table shows that the mean and standard deviation of Health and skill related physical fitness components of sport science and other natural science female's students in respectively.

No		SpSc		Non SpSc	
		Mean	SD	Mean	SD
1.	Agility	12.339	1.6005	13.394	1.1831
2.	Speed	7.6116	0.7251	10.08	1.251
3.	Strength(in kg)	44.3	9.38583	34.0625	6.91664
4.	Flexibility(in cm)	21.046875	4.55669044	14.60938	4.794584
5	Body composition(kg/m^2)	23.5	1.61	22.6	1.72
.6	Cardiovascular endurance (BPM)	96.359375	14.304028	113	11.3

These values were recorded as agility 12.339 +1.6005, speed 7.6116+0.7251, muscular strength 44.3 + 9.38583, flexibility 21.046875 + 4.5566904, cardiovascular endurance 96.359375 + 14.304028, body composition 23.5 + 1.61. And other natural science students, agility 13.394 + 1.1831, speed 10.08 +1.251, strength 34.0625 + 6.91664, flexibility 14.60938 + 4.794584, cardiovascular endurance 113 + 11.3, body composition 22.6 + 1.72 respectively.

Independent sample t-test result shows as there is a significant deference between the mean strength of sport science department (44.5 and 9.38582708) and other natural science department (34.0625 and 6.91664). The result shows that the better performance was recorded in sport science student than other natural science female students. The significant deference is found in flexibility between female sport science and other natural science department female students. With regard to sit and reach test in female sport science department and other natural science the result obtained mean value and standard deviation (21.046875 and 4.556690437) and(14.60938 and 4.794584). Therefore, female sport science department were better than their counter other natural science female students. With regard to Box drill test in female sport science department and other natural science department female students they have obtained mean value and standard deviation 12.33890625 and 1.600510775) and (13.394 and 1.1831) respectively. Therefore, female sport science students have better agility than their counter other natural science female students. With regards to 35m sprint speed test in female sport science and other natural science students they have obtained mean value and standard deviation were (7.6115625 and 0.72508667) and (10.08 and 1.251) respectively. Therefore, sport science female students were found more score than other natural science department students.With regards to body mass index in female sport science and other natural science students they have obtained mean value and standard deviation were (23.50156 and 1.611045) and (22.6 and 1.72) respectively. Therefore, other natural science female students were found more obese as than sport science department students. With regard to 1 minute step test in female sport science department and other natural science department female students they obtained mean value and standard deviation (96.359375 and 14.30402827) and (113and 11.3) are respectively.

IV. DISCUSSION

The result of study showed that female sport science students were stronger than other natural science female students. From the result it is clear that other natural science student's fitness level is less than their counter sport science students. Because, female sport science students perform physical exercise daily by giving as major practical course in educational curriculum of the university.

Cardiovascular endurances, muscular strength, flexibility, agility and speed of sport science female students were stronger than other natural science female students. The result of this study was agreed with Gaurau Dureja (2014), Kumar Singh (2002), and Woldoyes Ewnetu (2014) and there were not opposition findings with in these results.

Body mass index of other natural science female students were stronger than sport science female students. The result of this study was agreed with Gaurau Dureja (2014), Kumar Singh (2002), and Woldoyes Ewnetu (2014) and there were not any opposition findings with in this result.

V. CONCLUSION

The results of the present study confirm that sport science female students are comparatively better than other natural science female students in Mizan Tepi University Tepi campus. Sport science female students are superior to other natural science female students in selected physical fitness components, such as speed, agility, muscular strength, cardiovascular endurance and flexibility and whereas other natural science female students are better in body composition. This shows that regular energetic activity produces physical activity than other natural science female students.

REFERENCES

[1]. Jones C.J., Rikli R.E., Measuring functional fitness of older adults, The Journal on Active Aging, March April 2002, pp. 24–30.

[2]. Anna Różańska-Kirschke, Piotr Kocur, Małgorzata Wilk, Piotr Dylewicz, The Fullerton Fitness Test as an index of fitness in the elderly, Medical Rehabilitation 2006; 10(2): 9-16.

[3]. Davies, C.T.M. 1980. Metabolic cost of exercise and physical performance in children with some observations on external loading. European Journal of Applied Physiology,

[4]. Chung, Polly, and Gabriel Ng. "Taekwondo training improves the neuromotor excitability and reaction of large and small muscles." Physical therapy in sport 13.3 (2012): 163-169.

[5]. Lucas, Ranna C., and Robert Koslow. "Comparative study of static, dynamic, and proprioceptive neuromuscular facilitation stretching techniques on flexibility." Perceptual and motor skills 58.2 (1984): 615-618.

[6]. Gill, Manmeet, Nishan Singh Deol, and Ramanjit Kaur. "Comparative study of physical fitness components of rural and urban female students of Punjabi University, Patiala." The Anthropologist 12.1 (2010): 17-21.

[7]. Sallis, James F. "Epidemiology of physical activity and fitness in children and adolescents." Critical reviews in food science and nutrition 33.4-5 (1993): 403-408.

[8]. Jones, C. Jessie, Roberta E. Rikli, and William C. Beam. "A 30-s chair-stand test as a measure of lower body strength in community-residing older adults." Research quarterly for exercise and sport 70.2 (1999): 113-119.

[9]. King, Abby C., et al. "Comparative effects of two physical activity programs on measured and perceived physical functioning and other health-related quality of life outcomes in older adults." J Gerontol A Biol Sci Med Sci 55.2 (2000): M74-83.

[10]. Borremans, Erwin, Pauli Rintala, and Jeffrey A. McCubbin. "Physical fitness and physical activity in adolescents with Asperger syndrome: A comparative study." Adapted Physical Activity Quarterly 27.4 (2010): 308-320.

[11]. Scott, Gladys M. and French, Esther. 1950. Evaluation in Physical Education. St. Louis: The C. V. Mosby Company

Abdela Ebrahim. "Some Selected Physical Fitness Components of Mizan Tepi University Female Students; Sport Science versus Other Natural Science." *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, 25(1), 2020, pp. 22-25.