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Comparative Study on Body Mass Index, Agility and Flexibility Among Arts and Science Women Students

KEYWORDS: Physical Fitness, Flexibility, Agility and BMI

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ABSTRACT The purpose of the study was to compare the body mass index, agility and flexibility among arts and science women students. The date collected for each variable were compared and statistically analyzed for these study 60 subjects were selected from the Pondicherry University women students in the age group of 18 to 25 years. The data pertaining to flexibility, agility and body mass index are collected by using necessary equipments and analyzed by the using't' ratio at 0.05 level of confidence. The analysis of the data revealed that there was a significant difference in arts and science women students. The data showed that some of the variables namely agility and body mass index were found to be higher for science women students. Regarding flexibility the arts women students were better than the science women students. As per the hypothesis given the flexibility, agility and BMI was found to be higher for arts women students than the science subjects, there for the hypothesis has been accepted.

INTRODUCTION

Physical fitness is a relative concept. There is a minimal fitness level that must be maintained to prevent organic deterioration and ensure proper physiological functions, beyond this proper level of fitness depends upon daily demand of life. Physical fitness is multifaceted continue extending from birth to death many factors can contribute to being unfit. Two important things are inactivity and over eating years ago when much of daily human activity was forward by muscles, inactivity is not a problem and concern was how to lesson physical labour. Now when most of the population are engaged in sedentary occupation and do not use their less from transpiration, the problem is one of the findings was to mere age physical activity level.

Physical fitness plays a major role in all sports events especially athletics and games like basketball, volleyball, football, etc. the primitive man was fit by the daily routine resistance against nature and wild animals. But nowadays children and youth are soft in many cases not only that they do not have opportunity to achieve physical fitness but also do not fully appreciate the importance of physical fitness is a part of total fitness.

HYPOTHESIS

It was hypothesised that the Arts female students would the better in flexibility, agility and BMI than the Science students of Pondicherry University, Pondicherry.

METHODOLOGY

The purpose of study was to find out the "Comparative Study on flexibility, agility, body mass index among arts and science students". To achieve these purpose thirty university women students were randomly selected from arts and science departments of Pondicherry University, Pondicherry. The subject's age ranged from twenty one to twenty five years. The following variables were selected flexibility, agility and body mass index (BMI). The data collected from arts and science students on selected physical fitness test were statistically analyzed by 't' ratio. 't' indicated the significant mean difference between arts and science women students the calculated 't' value was tested for significant difference at the 0.05 level of confide

The selected physical fitness variables stated here under:

S. No.	Variables	Test items
1	BMI	Weight and height of the subjects
2	Agility	Shuttle run
3	Flexibility	Sit and reach test

TABLE I

MEAN, STANDARD DEVIATION, STANDARD ERROR OF THE MEAN AND 'T' RATIO ON BMI AMONG ARTS AND SCIENCE WOMEN SUBJECTS

GROUPS	MEAN	STANDARD DEVIATION	TANDARD ERROR OF MEAN	MEAN DIFFERENCE	't'
Arts	0.7480	2.17237	0.39662	0.15133	0.246
Science	0.8993	2.57069	0.46934		

Not Significant at 0.05 level of confidence with degrees of freedom 58. The table value is 2.0008.

Table II indicates that the calculated mean of Arts and Science women students are 14.9880 and 15.4610 respectively. The mean difference in agility is 0.4730 a careful observation of the above table shows that the calculate 't' ratio 0.246 is lesser than the table value of 2.0008 It is not significant. Hence the null hypothesis is accepted. This indicates that there is no significant difference among arts and science subjects.

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Fig. 1
CONE DIAGRAM SHOWING THE MEAN DIFFERENCE OF BMI BETWEEN ARTS AND SCIENCE WOMEN STUDENTS

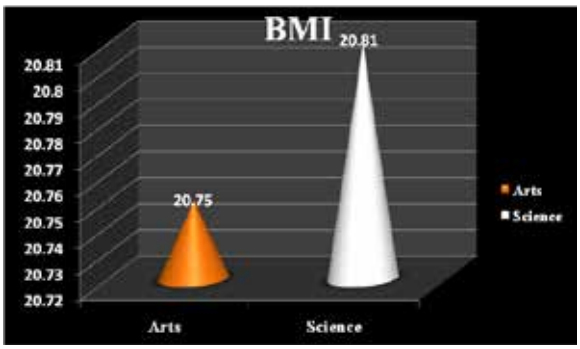


TABLE II

MEAN, STANDARD DEVIATION, STANDARD ERROR OF THE MEAN AND 'T' RATIO ON AGILITY AMONG ARTS AND SCIENCEWOMEN SUBJECTS

GROUPS	MEAN	STANDARD DEVIATION	STANDAD ERROR OF MEAN	MEAN DIFFERENCE	't'
Arts	14.9880	0.82907	0.15137	0.47300	2.250
Science	15.4610	0.79866	0.14581		

*Significant at 0.05 level of confidence with degrees of freedom 58. The table value is 2.0008.

Table II indicate that the calculate mean of Arts and Science women students are 14.9880 and 15.4610 respectively. The mean difference in agility is 0.4730 a careful observation of the above table shows that the calculate 't' ratio 2.250 is higher than the table value of 2.0008. Hence it is significant and the null hypothesis is rejected. This indicated that there is a significant difference between arts and science subjects.

Fig. 2
CONE DIAGRAM SOWING THE MEAN DIFFERENCE OF AGILITY BETWEEN ARTS AND SCIENCE WOMEN SUBJECTS

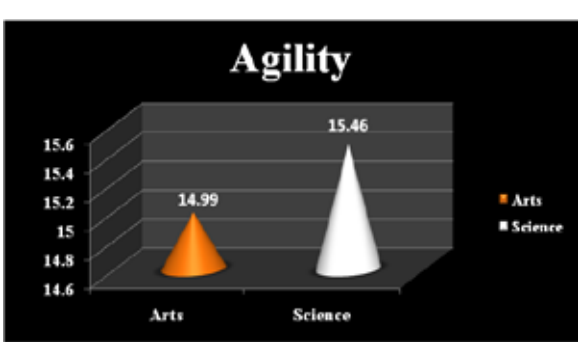


TABLE III

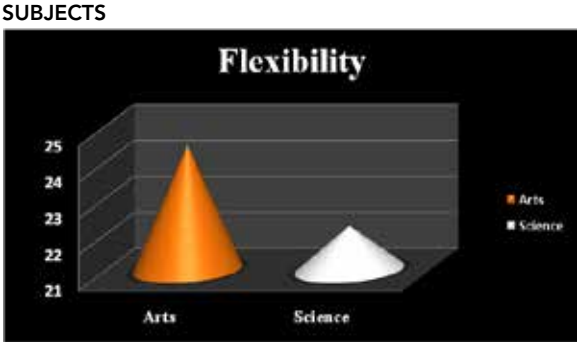
MEAN, STANDARD DEVIATION, STANDARD ERROR OF THE MEAN AND 'T' RATIO ON FLEXIBILITY AMONG ARTS AND SCIENCE WOMEN STUDENTS

GROUPS	MEAN	STANDARD DEVIATION	STANDARD ERROR OF MEAN	MEAN DIFFERENCE	't'
Arts	24.4667	3.40621	0.62189	2.25	2.312
Science	22.2167	4.10148	0.74882		

*Significant at 0.05 level of confidence with degrees of freedom 58. The table value is 2.0008.

Table I indicates that the calculated mean of Arts and Science women students are 24.4667 and 22.2167 respectively. The mean difference in flexibility is 2.25 a careful observation of the above table shows that the calculate 't' ratio 2.312 is higher than the table value of 2.0008. Hence it is significant and the null hypothesis is rejected. This indicated that there is a significant difference between arts and science subjects

Fig. 3
THE DIAGRAM SHOWING THE MEAN DIFFERENCE OF FLEXIBILITY BETWEEN ARTS AND SCIENCE WOMEN SUBJECTS



CONCLUSION

The analysis of the data revealed that there was a significant difference in arts and science women students. The data showed that some of the variables namely agility and body mass index were found to be higher for science women students. Regarding flexibility the arts women students were better than the science women students. As per the hypothesis given the flexibility, agility and BMI was found to be higher for arts women students than the science subjects, there for the hypothesis has been accepted.

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