

Effects of walking and jogging programme on speed and agility among University women students

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■ ABSTRACT

The purpose of the study was to find out the effects of walking and jogging on selected physical fitness components. To achieve this purpose of the study, sixty overweight women studying in various faculties of Annamalai University, Annamalainagar, Tamil Nadu, India, during the academic year 2010-12 were randomly selected as subjects and their age ranged from 18 to 25 years. They were divided into three equal groups. Each group consisted of 20 subjects. Group I underwent walking, group II underwent jogging, and group III acted as control who did not participate in any training. The experimental groups underwent their respective training programme for three days per week for twelve weeks. Among the physical fitness variables, the following variables such as speed (50 meter run) and agility (shuttle run) were selected as criterion variables. The data were collected at prior and immediately after the training programme for each criterion variables. Analysis of covariance (ANCOVA) was applied to analyze the data. Since three groups were selected, whenever the 'F' ratio for adjusted post test was found to be significant, Scheffe's test was used as post hoc test to determine which of the paired means difference was significant. In all the cases, 0.05 significance level was used to test this significance. The result of the present study has revealed that there was a significant difference among the walking group, jogging group, and control group on speed and agility. Jogging was better than walking to increase speed and agility.

■ Key Words : Jogging, Walking, Speed, Agility, Women students

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The terms "overweight" refer to a person's overall body weight and whether its too high. Overweight is having extra body weight from muscle, bone, fat, and/or water. Obesity is having a high amount of extra body fat. Taking in more calories than you burn can lead to obesity because the body stores unused calories as fat. Obesity can be caused by, eating more food than your body can use, drinking too much alcohol and not getting enough exercise. Research has shown that as weight increases to as "overweight" and "obesity,"* the risks for the following conditions also increase, coronary heart disease, Type 2 diabetes, cancer of breast, and colon. Hypertension (high blood pressure), dyslipidemia (for example, high total cholesterol or high levels of triglycerides), stroke, liver and gallbladder disease, sleep apnea and respiratory

problems, osteoarthritis (a degeneration of cartilage and its underlying bone within a joint), gynecological problems (abnormal menses, infertility). Aerobic exercise is physical exercise of relatively low intensity that depends primarily on the aerobic energy generating process (Sharon and Denise, 2007). Aerobic literally means "living in air" and refers to the use of oxygen to adequately meet energy demands during exercise via aerobic metabolism (William *et al.*, 2006). Generally, light -to -moderate intensity activities that are sufficiently supported by aerobic metabolism can be performed for extended periods of time. The benefits of aerobic exercise can be broadly categorized as either 'fitness' or 'health'. Fitness and health are linked, and most forms of aerobic exercise will help to achieve both. Regular aerobic exercise has been shown

to reduce the risk of heart disease, high blood pressure, type 2 diabetes, colon cancer and breast cancer. It can lower blood pressure and improve your blood cholesterol by reducing the levels of LDL- cholesterol and increasing the amount of HDL- cholesterol. Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have an adverse effect on health, leading to reduced life expectancy and/ or increased health problems. The purpose of this study was to determine the effects of walking and jogging on selected physical fitness components.

METHODOLOGY

The purpose of the study was to find out the effects of walking and jogging on speed and agility among university women students. To achieve this purpose of the study, sixty overweight women studying in various faculties of Annamalai University, Annamalaiagar, Tamilnadu, India, during the academic year 2010-12 were randomly selected as subjects and their age ranged from 18 to 25 years. They were divided into three equal groups. Each group consisted of 20 subjects. group I underwent walking, group II underwent jogging, and group III acted as control who did not participate any training. The experimental groups underwent their respective training programme for three days per week for twelve weeks. Among the physical fitness variables, the following variables such as speed (50 meter run), and agility (shuttle run) were selected as criterion variables. The data were collected at prior and immediately after the training programme for each criterion

variables. Analysis of covariance (ANCOVA) was applied for analyze the data. Since three groups were selected, whenever the 'F' ratio for adjusted post test was found to be significant, Scheffe's test was used as post hoc test to determine which of the paired means difference was significant. In all the cases, 0.05 level was used to test this significance.

OBSERVATIONS AND DISCUSSION

From the results of Table 1 and 2 it is clear that, walking and jogging significantly improve the speed and agility. To find out the paired mean difference Schaffer's post hoc test was used. The result of post hoc test showed that jogging was better than walking and control to improve speed and agility. However, walking improved speed and agility than control group.

Obesity is a major public health problem in the developed world, and there is evidence that it is rapidly becoming a problem in the developing world. Obesity is a risk factor for diabetes, coronary artery diseases, hypertension, gallstones, gout and osteoarthritis, as well as cancer of the breast, colon, and prostate. Thus, it is important to develop programmes that improve the prevention and treatment of obesity (Rahman, 2006). Exercise is most important for every living being: in other words, we can also say that physical inactivity results in several types of diseases in the body. It mostly causes cardio-vascular diseases. So, if we maintain and keep balance our diets and regular exercise, it will result the best. Morning walk is often suggested by the doctors. It is also suggested

Table 1 : Analysis of covariance on speed and agility of walking jogging and control groups (adjusted post-test)

Test	Walking group	Jogging group	Control group	SOV	SS	DF	MS	'F' ratio
Speed								
Adjusted mean	12.82	11.64	14.78	B	100.62	2	50.31	72.46*
				W	38.88	56	0.69	
Agility								
Adjusted mean	37.39	35.21	48.61	B	2068.03	2	1034.02	89.37*
				W	647.95	56	11.57	

* Indicate significance of values at P=0.05, respectively (The table value for significance at .05 level with df 2, 57 and 2 56 are 2.78 and 2.79 respectively)

Table 2 : Scheffe's test for differences between the adjusted post test paired mean on speed and agility

Speed	Walking group	Jogging group	Control group	MS	CI
12.82		11.64	-	1.18	0.66
12.82		-	14.78	1.96	0.66
-		11.64	14.78	3.14	0.66
Agility					
37.39		35.21	-	2.18	2.69
37.39		-	48.61	11.22	2.69
-		35.21	48.61	13.4	2.69

by the experts that a human body needs a five day exercise in a week, irrespective of what age he/she belongs. Regular exercise not only keeps our body fit but it also helps in maintaining our mind fresh for longer period of time. Our mind will not feel tired if we do the regular exercises. It also increases the blood circulation of the body and prepares us for the hard work, all day long. Regular exercise also can prevent chronic diseases and other health problems related to lungs and heart. Regular exercises help to strengthen the heart. The muscle mass can increase and the weight can be controlled (Ganesan, 2009).

Conclusion :

Hence, it was concluded that walking and jogging exercise may improve speed and agility of overweight college women.

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■ REFERENCES

Rahman, Rahini (2006). Effect of moderate and high intensity weight training on the body composition of overweight men. *Physi. Edu. Sports*, 4: 96.

■ WEBLIOGRAPHY

Haslam DW, James WP (2005). "Obesity". *Lancet* 366 (9492): 1197-209. doi:10.1016/S0140-6736(05)67483-1. PMID16198769. <http://en.wikipedia.org/wiki/Obesity>.

Kenneth H. Cooper (1997). *Can stress heal?*. Thomas Nelson Inc. p. 40. ISBN 978-0-7852-8315-7. <http://books.google.com/books?id=k75y6g5-aQAC&pg=PT40>. Retrieved 19 October 2011. <http://www.nhlbi.nih.gov/health/health-topics/topics/obe/>

NIH, NHLBI Obesity Education Initiative. Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults. Available online: http://www.nhlbi.nih.gov/guidelines/obesity/ob_gdlns.pdf

Ganesan, Praveen (2009). Importance of regular exercise: Exercise for perfect health. www.healthwith-2009.diet.blogspot.com.

Sharon, A. Plowman and Denise, L. Smith (2007). *Exercise physiology for health, fitness and performance*. Lippincott Williams & Wilkins. p. 61. ISBN 978-0-7817-8406-1. <http://books.google.com/books?id=fYiqixSbhEAC&pg=PT61>. Retrieved 13 October 2011.

William, D. McArdle, Frank I. Katch and Victor L. Katch (2006). *Essentials of exercise physiology*. Lippincott Williams & Wilkins. p. 204. ISBN 978-0-7817-4991-6. <http://books.google.com/books?id=L4aZIDbmV3oC&pg=PA204>. Retrieved 13 October 2011.

<http://www.mydr.com.au/sports-fitness/aerobic-exercise-the-health-benefits>.

