

Effect of Eight-week Aerobic Exercise Programme on Diabetic Patients in Balangoda Division

MRMA Jayasinghe[#] and S Sriharan

Department of Sports Sciences and Physical Education, Faculty of Applied Sciences,
Sabaragamuwa University of Sri Lanka
[#]milanijayasinghe@appsc.sab.ac.lk

The study was to identify the effect of an eight-week aerobic exercise programme for diabetic patients with T2D (Type 2 diabetic). Aerobic exercise is any activity that uses large muscle groups. Thirty diabetic patients were randomly selected for the experimental research design. The sample was aged between forty to sixty years. Fasting plasma glucose test (FPG) was used to identify the diabetic level and it was tested in a pretest and a posttest according to the Diagnostic criteria published by American Diabetic Association, 2004. The pretest revealed that 63.33 % of the patients had a high level of FPG whereas 36.66 % accounted as at impaired level of FPG. In the posttest, only 20 % were at high level of FPG whereas almost 80 % were at the normal level. Instead of FPG values, the BMI was measured to evaluate the success of the programme. Pretest BMI of 40 % of patients lied at obesity level, 46.6 % lied at overweight level and 13.33 % lied at normal level. After conducting a 30 minute moderate to vigorous intensity aerobic exercise programme including walking, dancing, skipping, basketball, cycling for three days per week and eight-week exercise programme, the posttest for BMI was carried out, and 36.66% of the patients lied at overweight level, 56.66 % lied at normal level and 3.3 % lied at underweight level. Paired t test result shows that there was a significant difference between pretest and posttest of FPG level and the BMI level ($p < 0.05$). A person with diabetes needs to maintain an active life style, aerobic exercise is the therapeutic agent for diabetes control. Therefore individuals with diabetes must engage in exercises in addition to maintaining an active life style.

Keywords: Aerobic exercises, Diabetic patient, Fasting Plasma Glucose