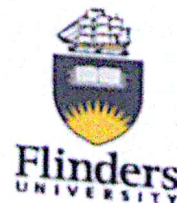




Proceeding
**THE 2ND INTERNATIONAL NURSING &
HEALTH SCIENCE STUDENT & HEALTH CARE
PROFESSIONAL CONFERENCE 2015**

Improving Healthcare Quality
through Education, Research,
and Interprofessional Collaboration

November 13-15, 2015
Grand Clarion Hotel & Convention, Makassar
South Sulawesi, Indonesia



Organized by Universitas Hasanuddin (UHAS)
in cooperation with The Committee of The 2nd
International Nursing & Health Science Student & Health Care
Professional Conference 2015 in Makassar



Sponsored by :



DIABETIC GYMNASTICS IS EFFECTIVE LOWERING BLOOD GLUCOSE LEVEL IN TYPE II DIABETIC PATIENTS

Rosa Delima E¹, Umi Istianah², Maria H. Bakri³

^{1, 2, 3} Health Polytechnic of Indonesia Ministry of Health, Yogyakarta

Correspondence email : rosadlm.delima@gmail.com

ABSTRACT

Introduction: WHO predicting global prevalence of type II diabetes increases from 171 million people in 2000 to 366 million people in 2030, and Indonesia ranked fourth. According to a note from the health center Jetis I Bantul that the number of people with type II diabetes as much as 149 cases in 2010. Aerobic exercise and if the exercise is done three times a week can lower blood glucose levels in diabetic patients. Results of research conducted in Puskesmas Jetis I Bantul showed 40% of patients with type II diabetes mellitus in Puskesmas Jetis I Bantul follow gymnastics which was held in Puskesmas every single week. 63% of patients with type II diabetes mellitus exercise routine at home in the form of walking (Nurmalita, 2011). The aims of study to know the effectiveness of diabetes gymnastics in lowering blood glucose, blood pressure and body weight in patients with type II diabetic.

Methods: The study was quasi-experiment nonequivalent control group. 15 enrolled participants do gymnastics diabetics three times a week as an intervention group and 15 enrolled participants do gymnastics diabetics one week as a control group. Data were analyzed using unpaired t test and Mann-Whitney.

Results: The mean decrease in blood glucose levels in the intervention group was 18.76 mg/dl (± 23.309) and the control group of 2.8 mg/dl (± 36.099), the results of Mann-Whitney was obtained p value = 0.032 ($p < 0.05$). A decrease in the average blood glucose levels in those who did gymnastic diabetic 3 times a week was 18.76 mg/dl occurred due to reduce insulin resistance. The mean reduction in systolic blood pressure in the intervention group was 13.73 mmHg (± 18.422) and the control group 20.60 mmHg (± 12.082) and unpaired t-test results obtained $p = 0.166$ ($p > 0.05$). The mean weight loss of 0.8 kg in the intervention group (± 1.69) and the control group 0.2 Kg (± 4.039) and test results Mann-Whitney was obtained $p = 0.018$ ($p < 0.05$).

Conclusion: Diabetic Gymnastics is effective in lowering blood glucose levels and weight loss in type II diabetic patients

Keywords: Diabetes mellitus, blood glucose level, diabetes gymnastics, weight loss