

## ABSTRACT

### THE EFFECT OF COMBINATION OF PROGRESSIVE MUSCLE RELAXATION THERAPY AND SLOW DEEP BREATHING EXERCISE TOWARDS REDUCING BLOOD GLUCOSE LEVELS IN PEOPLE WITH DIABETES MELLITUS TYPE 2

**Background.** Uncontrolled blood sugar in diabetes causing acute and chronic complications. Pharmacological and non-pharmacological therapy reduce blood glucose levels in diabetes mellitus to prevent complications. This study aim to determine the combination effect of Progressive Muscle Relaxation and Slow Deep Breathing Exercise on blood glucose levels in patient with diabetes mellitus.

**Method.** This study is a Quasy-Experiment with the population of 63 elderlies with Diabetes Mellitus. The sample size was 34 elderlies with purposive sampling. Progressive Muscle Relaxation and Slow Deep Breathing Therapy with a duration of 20-25 minutes for 2 weeks (1x a day) was given in intervention group while the control group was given intervention according to the standard. The studied variable is blood glucose levels that obtained from the glucometer. The analysis are Mann-Whitney test to determine differences between groups, as well as the Wilcoxon Signed Rank Test for pre and post treatment with a significant value of  $\alpha < 0.05$ .

**Results.** The analysis of blood glucose levels by Mann-Whitney test resulted blood glucose levels between the intervention group and the control group with a p value of 0.634 (Pre) and a p value of 0.000 (Post), as well as the Wilcoxon Signed Rank Test p value of 0.000 in the intervention group and p value of 0.025 in the control group.

**Conclusion.** The combination of Progressive Muscle Relaxation Therapy and Slow Deep Breathing is effective to reduce blood glucose levels in patient with Diabetes Mellitus, easy to implement and can be applied as a nursing intervention in UPTD. Griya Werdha for elderly as well as developing nursing science.

Keywords: Progressive Muscle Relaxation, Slow Deep Breathing, Blood Glucose Levels, Diabetes Mellitus