

**THE EFFECT OF GIVING A COMBINATION OF YAM JUICE AND
WATERMELON ON BLOOD GLUCOSE LEVELS IN PATIENTS
WITH DIABETES MELITUS AT PUSKESMAS SUMBERSARI
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Diana Nur Azizah
Clinical Nutrition Study Program
Department of Health

ABSTRACT

Diabetes mellitus metabolic disease occurs due to abnormalities in insulin secretion, insulin work and both which result in high blood glucose levels exceeding normal resulting in hyperglycemia. To help normalize blood glucose concentrations, it is necessary to consume food sources of fiber that can delay hunger and help cells be more sensitive to insulin. Jicama and watermelon juice are fruit juice drinks that contain fiber. The study aims to determine and analyze the effect of giving a combination of yam juice and watermelon on blood glucose levels when patients suffering from diabetes mellitus at the Summersari Jember Health Center. This type of research uses Quasi Experiment with a non-equivalent control group design. The study subjects used 36 people with type 2 diabetes mellitus aged 40-59 years who took glibenclamide or glimepiride drugs and were divided into 2 groups. The control group who took the drug and the treatment group who took the drug and a combination of 250 ml fruit juice were given 3 times a day for 7 days. Based on the Paired T-Test, there was no significant difference between blood glucose levels during the pre-test and post-test in the control group ($p = 0.374$), and there was a significant difference in the treatment group ($p = 0.000$). Based on the Wilcoxon test, there was no significant difference between the difference in blood glucose levels during the pre-test and post-test in the control group and the treatment group ($p = 0.267$). So it can be concluded that giving a combination of yam juice and watermelon has no effect on blood glucose levels at any time. However, it can reduce blood glucose levels even though it has not reached normal values.

Keywords : *Diabetes Melitus, Fiber, Jicama, Timed Blood Glucose Levels, Watermelon*