

FOXTAIL MILLET (*SETARIA ITALICA*) INTERVENTION AND NUTRITION EDUCATION TO REDUCE BLOOD GLUCOSE IN PREDIABETIC PATIENTS AT KASSI-KASSI PUBLIC HEALTH CENTER

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BACKGROUND: This study aims to determine the effect of foxtail millet (*Setaria italica*) and health education on blood glucose changes in prediabetic patients at Kassi-kassi Public Health Center, Makassar. Foxtail millet is a plant-based food that may reduce the risk of diabetes by lowering blood glucose levels and improving the insulin response in the body.

METHOD: This study is quantitative research using a pretest–posttest control group design. The study population consisted of 1.481 individuals with prediabetes in Kassi-kassi, Makassar District. The sample was obtained through population screening to identify new prediabetes cases, and 46 participants were selected using simple random sampling. The intervention group (n = 23) received foxtail millet, while the control group (n = 23) received health education.

RESULTS & DISCUSSION: There was a significant effect of foxtail millet (*Setaria italica*) and health education on blood glucose levels in prediabetic patients at Kassi-kassi Public Health Center, Makassar. In the intervention group, the mean fasting blood glucose decreased from 113.11 ± 8.68 mg/dl before intervention to 100.84 ± 8.53 mg/dl after intervention ($p = 0.000$). In the control group, the mean decreased slightly from 113.32 ± 6.93 mg/dl to 111.09 ± 9.54 mg/dl ($p = 0.048$). The mean difference between the two groups after intervention was -10.25 mg/dl, indicating that the reduction in the intervention group was greater than in the control group.

CONCLUSION: Foxtail millet flour shows potential as a functional food to reduce blood glucose levels among prediabetes patients. This research highlights the integration of halal science and public health nutrition in diabetes prevention.

KEYWORDS: foxtail millet, *Setaria italica*, halal food, prediabetes, blood glucose