

ABSTRACT

Muhammad Farhan Abdullah, 2026. The Effect of Nutrition Education Through *Booklet* Media on Dietary Patterns and Visceral Fat in Patients with Type 2 Diabetes Mellitus. Applied Nutrition and Dietetics Study Program, Department of Nutrition, Poltekkes Kemenkes Malang. Supervisor: **Etik Sulistyowati**.

Background: Indonesia ranks fifth in the world with approximately 19.47 million people living with Diabetes Mellitus. Dietary management based on the 3J principle (quantity, type, and schedule) is a key pillar in managing type 2 DM. Uncontrolled dietary patterns contribute to visceral fat accumulation, worsening insulin resistance and increasing metabolic complication risks. Limited understanding of proper dietary practices further deteriorates patients' conditions. Booklet media was selected because its information is concise, repeatedly readable, and supports independent learning. Nutrition education through booklet media is expected to improve dietary compliance and influence visceral fat levels in type 2 DM patients.

Objective: To determine the effect of nutrition education through booklet media on 3J dietary patterns and visceral fat in type 2 Diabetes Mellitus patients. **Methods:**

A quantitative analytic study with a retrospective approach involving 22 type 2 DM patients at Puskesmas Rampal Celaket, Malang City, selected by purposive sampling. A three-month intervention was conducted through nutrition counseling using booklet media. Dietary data were collected using food recall forms and SQ-FFQ; visceral fat was measured using BIA. Data were analyzed using Paired Sample T-Test and Wilcoxon Signed-Rank Test. **Results:** Nutrition education significantly affected energy intake ($p=0.000$), food type compliance ($p=0.003$), and meal schedule compliance ($p=0.000$). No significant effect was found on visceral fat ($p=0.710$). **Conclusion:** Nutrition education through booklet media significantly improved 3J dietary patterns including energy intake quantity, food type selection, and meal schedule in type 2 DM patients, with a descriptive trend toward visceral fat reduction although statistically insignificant. Therefore, further research with a longer duration (6 months to 1 year) is recommended.

Keywords: Booklet, Type 2 Diabetes Mellitus, 3J Dietary Pattern, Visceral Fat.