

*Letter to the Editor*

# A Commentary on Hastuti et al (2025) “Enhancing Adolescent Nutrition Knowledge Through Digital Innovation: Evaluating the Effectiveness of E-Pocket Books in Reducing Obesity” [Letter]

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## Dear Editor

We read with great interest the article by Hastuti et al. (2025) entitled “Enhancing Adolescent Nutrition Knowledge Through Digital Innovation: Evaluating the Effectiveness of E-Pocket Books in Reducing Obesity” recently published in *Health Dynamics*.<sup>(1)</sup> The study addresses an important and timely topic—how digital tools can be leveraged to improve adolescent nutrition knowledge. While the authors should be commended for introducing an innovative educational medium and for their efforts in addressing the growing problem of adolescent obesity in Indonesia, we wish to highlight several issues that warrant further consideration.

First, the title and framing of the article suggest that the intervention may contribute to reducing obesity. However, the outcomes assessed were limited to short-term knowledge scores. No dietary intake, physical activity, or anthropometric indicators were measured. Knowledge gain is an essential first step, but it does not necessarily translate into behavior change or reductions in obesity prevalence. The evidence presented therefore supports the effectiveness of the e-pocket book in improving knowledge but does not yet justify conclusions about its role in obesity prevention. Future studies should incorporate behavioral and physiological outcomes to establish the link between digital education and obesity reduction. Second, the intervention was conducted in a single session of approximately 120 minutes, with knowledge assessed immediately and nine days after the intervention. While a significant short-term increase was demonstrated, both groups showed slight declines at follow-up, raising questions about knowledge retention. As memory decay is a natural phenomenon, long-term reinforcement is critical for sustaining learning. Multi-session or longitudinal interventions, integrated into the school curriculum, may provide more durable effects. Third, the sample size and generalizability present limitations. Participants were recruited from two urban high schools in Yogyakarta, with a relatively small number of adolescents (n=56 completing follow-up). Although the authors acknowledge this limitation, the restricted scope makes it difficult to extend the findings to diverse adolescent populations, particularly those in

rural or resource-limited settings who may face different challenges in accessing digital tools. Fourth, the methodology warrants closer scrutiny. The instrument used to measure knowledge demonstrated moderate validity (0.60), which could affect the reliability of the results. In addition, both intervention and control groups received digital materials (e-pocket book vs. e-leaflet), alongside facilitated WhatsApp group discussions. This design introduces potential confounding, as the researcher-participant interaction and group engagement may have contributed to improved scores, making it difficult to attribute the effect solely to the e-pocket book format. Moreover, the description of the sample size calculation contains inconsistencies in reported Z values, which may raise questions about statistical precision.

Despite these limitations, the study provides valuable insights into the feasibility of adopting e-pocket books for adolescent nutrition education in Indonesia. The findings highlight adolescents' receptivity to digital media and the potential of interactive tools to engage learners more effectively than conventional materials. Nevertheless, before such tools can be recommended as strategies for obesity prevention, stronger evidence is needed through randomized controlled trials, larger and more diverse samples, and inclusion of behavioral and clinical outcomes. In conclusion, Hastuti et al. have

contributed to an important discussion on digital innovation in public health education. Their study demonstrates promise but also underscores the need for careful interpretation of findings and cautious generalization. We encourage further research to explore the long-term impact of digital educational tools on adolescent health outcomes, moving beyond knowledge to measurable changes in lifestyle and nutrition-related behaviors. In addition, it will be better to compare the data with that of other countries, which would provide a more comparative analysis on a global scale.

### **Ethics approval**

Not required.

### **Competing Interests**

The authors declare no conflict of interest.

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## **REFERENCES**

1. Hastuti PT, Utami SB, Rialihanto MP, Susilo J, Attawet J, Siswati T. Enhancing Adolescent Nutrition Knowledge Through Digital Innovation: Evaluating the Effectiveness of E-Pocket Books in Reducing Obesity. *Health Dynamics*. 2025;2(8):341-349. <http://dx.doi.org/10.33846/hd20803>