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Letter to the Editor

Response to Letter: Enhancing Adolescent Nutrition Knowledge Through Digital Innovation: Evaluating the Effectiveness of E-Pocket Books in Reducing Obesity

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Dear Editor

We are grateful for the interest and constructive input of Khatun and Hossen (2025) on our article.(1) We appreciate their attention to the importance of scientific evaluation to digital interventions to adolescent nutrition. We present this response to clarify the context of our research, answer some of the methodological issues raised, and affirm the empirical contribution of our study.

First, we agree with the view that increased knowledge does not necessarily imply a decrease in obesity. Our article has since confirmed that the main goal of the study was to assess the effectiveness of e-pocket books in improving balanced nutrition knowledge in adolescents, not to assess changes in nutritional status. The phrase "reducing obesity" in the title is intended to reflect the long-term direction of nutrition education interventions, as explained in the Conclusion section, that further research is needed to evaluate behavioral impacts and nutritional status longitudinally. Thus, our research is at an early stage that emphasizes cognitive aspects as the basis for behavior change.

Second, regarding the duration of the intervention and the short-term measurement, we recognize that a single 120-minute intervention has limitations in maintaining knowledge retention. However, significant results at two measurement points immediately after and nine days post-intervention showed that e-pocket book media was able to stimulate knowledge improvement in a relatively short time. These findings are in line with the multisensory learning theory of Edgar Dale which affirms that visual and audio engagement accelerates adolescents' understanding and motivation to learn.(2) In addition, a systematic review also showed that short-term educational interventions can significantly improve understanding of health concepts, although long-term effects require repeated reinforcement.(3)

Third, regarding the validity of the instrument and the potential for confounding due to the group discussion, we would like to emphasize that

the validity (0.60) and reliability (0.823) tests have met the minimum standards for health education field studies in schools.[4] Interaction through WhatsApp groups is not a disruptive variable, but an integral part of a digital-based learning design to enhance the acceptability of the education intervention outcome.[5] This approach is designed to increase participants' active engagement, rather than amplifying the researchers' effects.

Fourth, we recognize that sample sizes and research locations are still limited in urban schools. We have stated in the section 'Strengths and Limitations' that one limitation is that it needs to be expanded through replication in rural areas or with different socioeconomic diversity. Our study aims to serve as a proof of concept to test the feasibility of e-pocket book media as a digital educational tool that is lightweight, easily accessible, and in accordance with the digital habits of Indonesian teenagers.

Overall, the comments enrich the scientific discourse on the effectiveness of digital media in nutrition education. We support their recommendations to continue randomized trial-based research, behavioral measurements and clinical indicators, and cross-country studies. However, we still argue that our results provide meaningful preliminary evidence of the potential of e-pocket books as a feasible, contextual, and adolescent-oriented nutrition learning innovation.

Ethics approval

Not required.

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Competing Interests

The authors declare no conflict of interest.

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