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The effectiveness of e-storybook on children's vegetable acceptance

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A diet high in fruit and vegetables is beneficial to reduce the risk of many diseases such as cardiovascular diseases, certain cancers and hypertension^(1,2). However, reports show that vegetable consumption among children is still low. Intervention must be made to encourage children to eat more vegetables as a dietary pattern in childhood will determine a dietary pattern in adulthood⁽³⁾. This current study investigated the effects of an e-storybook on children's vegetable acceptance.

Sixty-five parents and their children aged 4 to 7 years participated in this study and they were divided into 2 groups. Parents in an experimental group read an e-storybook about a target vegetable (asparagus) with their child for 10 days, while the control group did not receive an e-book. Parents in both groups were asked to offer the target vegetable and a match control vegetable (peas) before and after the intervention and record their child's vegetable intake (measured using a 6-point scale) and liking (measured using a 6-point scale).

In the experimental group, liking of target vegetable increased from 2.5 ± 1.5 to 3.0 ± 1.4 ($p = 0.01$), but not for control vegetable. There was a tendency that intake of target vegetable increased following exposure to the e-storybook, from 1.6 ± 1.6 to 1.9 ± 1.7 ($p=0.052$), but there was no significant increase in intake for control vegetable. While in the control group, there were no significant increases in intake and liking for both vegetables post-intervention. When comparing means between groups, there were no significant differences in intake and liking at pre-intervention, however at post-intervention, there was a significant difference in intake ($p=0.02$), where the intervention group had a higher intake than the control group by 0.9 ± 1.9 . There was also a significant difference in liking between these groups at post-intervention ($p=0.001$), where the intervention group had a higher liking than the control group by 1.1 ± 1.8 .

Results suggest that e-storybooks are an effective strategy for parents to use to increase vegetable acceptance in children.

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References

1. Boeing H, Bechthold A, Bub A *et al.* (2012) *Eur J Nutr* **51**(6), 637–663.
2. Oyebo O, Gordon-Dseagu V, Walker A *et al.* (2014) *J Epidemiol Community Health* **68**, 856–862.
3. Movassagh EZ, Baxter-Jones ADG, Kontulainen S *et al.* (2017) *Nutrients* **9**(9), 1–14.