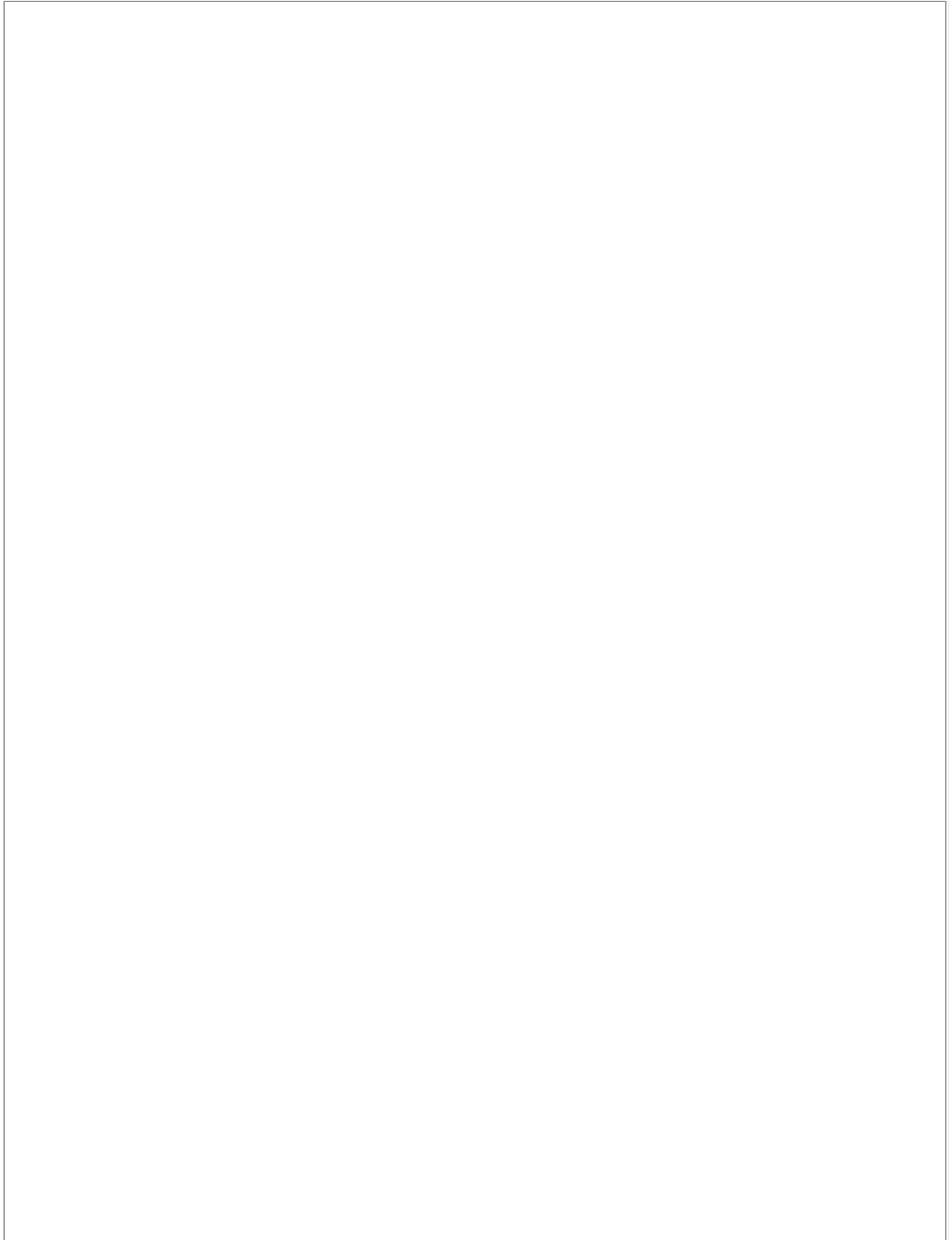


## Documents



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**Developing, validating, and pre-testing of a diabetic care self-management mobile health application: A technology-based intervention for patients with diabetes in Malaysia**

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**Abstract**

Background: Technology-based intervention showed a promising approach to health promotion strategies. There had been limited knowledge of the existing program for technology-based intervention in promoting foot care and dietary behavior modification. Thus, a mobile app was developed as an alternative strategy for promoting foot care and dietary behavior modification. Objective: This paper aims to elaborate on the process of developing, validating, and examining the Diabetic Care Self-Management Mobile Health Application (Diabetic Care). Methods: There are two phases conducted. The first phase is the process of developing and validating Diabetic Care. Intervention Mapping (IM) Framework was used to guide the process of developing Diabetic Care, while in assessing validity, guidance from Kassam-Adams et al. was used. A team of experts was appointed to validate the mobile app developed. Next, the usability of Diabetic Care was conducted among ten conveniently chosen patients with diabetes in a governmental primary care clinic. Results: The process of developing Diabetic Care was clearly explained. The Diabetic Care app showed a good I-CVI score (1.00) and general CVI score (1.00) after the expert team assessed. During the trial, two drawbacks were identified and explored to find solutions. Conclusion: The Diabetic Care app is proven appropriate to be employed in the study. Even though there were two drawbacks encountered, however, possible solutions were able to be explored in addressing the issues. Further research should be conducted to examine the effectiveness of this mobile app in modifying foot care behavior and dietary behavior. Hence, it will assist in the translation of advanced technology in nursing care. © The Author(s) 2022.

**Author Keywords**

diabetes mellitus; health promotion; Malaysia; mobile applications; nursing; self-management; technology

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