

**EVALUATION OF DIABETES MOBILE APPLICATIONS**F Rangrazejeddi¹, Sh Anvari^{*2}, RS Sharif³

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ABSTRACT

Introduction: Diabetes is the most common metabolic disorder associated with long-term complications. Treatment and management of diabetes mainly depend on the patient, and self-management is one of the most important factors for disease control. Advances in smartphone technology, along with the expansion data, has led to an increased willingness and unprecedented growth in smartphone applications for diabetes self-management. The aim of this study is the analysis of free applications available on the Android platform for diabetes in Iran.

Methods: This unsystematic study was conducted by searching in the BAZAR Market (an Android market of applications for a smartphone in Iran) in 2016 with the keywords diabetes and mellitus. We assessed apps using a set of content-independent quality criteria derived from an existing set of criteria for website-based health information developed by the Health on the Net Foundation (HON). Each app included in the study was scored by two independent researchers based on eight criteria: (1) information must be authoritative; (2) purpose of the app; (3) confidential; (4) information must be documented, referenced and dated; (5) justification of claims; (6) application contact details; (7) funding; and (8) editorial and advertising policy. Each application received a "0" or "1," a "0" for not meeting the HON code requirement, and "1" for meeting the HON code requirement.

Results: According to the searches, there were 22 free applications relating to diabetes. The range of scores for all diabetes applications was between 1 and 7. The mean, median, and mode for the quality of application were, respectively, 1/54, 1, and 1. The findings showed that six applications have criterion 6, three application criterion 2, two application criterion 1, two application criterion 4, two application criterion 5, and one application criterion 7. None of the applications clearly indicated criteria 3 and 8.

Conclusion: Overall, the quality of information among all applications was very low. Therefore, it is necessary to develop applications based on scientific evidence and in collaboration with academic and professional health care organizations.

KEYWORDS: Diabetes, Mobile health, Smartphone, Application, Android

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