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A REVIEW OF EVIDENCE ON THE EFFECTIVENESS OF MOBILE HEALTH APPLICATIONS IN IMPROVING THE CLINICAL OUTCOMES AND SUPPORTING THE SELF-MANAGEMENT OF PATIENTS WITH TYPE 2 DIABETES MELLITUS

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Abstract

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Abstract

Various mobile health application for monitoring of diabetes outcomes and supporting the self-management is available in the market. However, the effectiveness of it is still unclear. This systematic literature review was conducted to determine the effectiveness of mobile health application compared to the conventional methods in managing blood glucose level, body weight, and self-management activities among patients with Type 2 Diabetes Mellitus. A literature search on relevant online databases was performed to identify the randomised controlled trials studies (RCTs) that evaluated the effectiveness of the mobile health application. The relevant studies were identified and appraised according to the review protocol from Joanna Briggs Institute. Six randomised controlled trial studies

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has been identified and included in the review. In this review, a total of 843 participants were enrolled, mean age of 53.9 years old and all of them were diagnosed with T2DM. All the studies are methodologically good however limitation was identified in their concealment technique. All the included studies reported on the improvement in the glucose control, decreased in body mass index (BMI) and improvement in the adherence to the self-management activities. Mobile health application is effective in improving the glucose control (HbA1c), BMI and self-management activities of patients with type 2 diabetes. It could be suggested that mobile health application is worth to be considered as a method in monitoring and supporting patients with T2DM, particularly in this pandemic situation. © 2023, Malaysian Journal of Public Health Medicine. All Rights Reserved.

Author keywords

mobile health application; self-management; systematic review; Type 2 diabetes

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