

Letter in Reply: Chronic Diseases Management Using Digital Health Technologies

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Dear Editor,

e sincerely thank the authors for their thought-provoking comments on our manuscript.1 Our article has observed noncommunicable diseases as a major cause of deaths in the Saudi population. Subsequently, we described the application of digital health technologies (DHTs) in the detection and management of these diseases. Mobile applications are capable of improving health outcomes in diabetic patients through self-management and symptom control.² DHT can reduce cardiovascular disease (CVD) outcomes and positively influence on risk factors for CVD.3 Such technologies can also be applied to manage other chronic diseases such as hypertension, asthma, arthritis, and Parkinson's disease. Several studies have also discussed the application of mobile health technology in improving medical adherence in patients with various chronic conditions such as acquired immunodeficiency syndrome, chronic pulmonary obstructive disease, and diabetes.^{4,5} In cases of hypertension, mobile applications have specific tools for medication adherence and blood pressure tracking through a wireless monitor.⁶ We focused on discussing the implementation of DHT at

academic medical centers to fulfill the needs of local community. Moreover, such technologies can also be applied in primary health care for the prevention and management of chronic diseases. There is no doubt that the global health sector would see a paradigm shift in the views on DHT, and patients would benefit from its unlimited potential.

REFERENCES

- Huat TS, Juhari SN and Abdul Rahman R. Chronic diseases management using digital health technologies. Oman Med J 2019 Sep:34(5):
- Whitehead L, Seaton P. The effectiveness of selfmanagement mobile phone and tablet apps in long-term condition management: a systematic review. J Med Internet Res 2016 May;18(5):e97.
- Widmer RJ, Collins NM, Collins CS, West CP, Lerman LO, Lerman A. Digital health interventions for the prevention of cardiovascular disease: a systematic review and metaanalysis. Mayo Clin Proc 2015 Apr;90(4):469-480.
- 4. Hamine S, Gerth-Guyette E, Faulx D, Green BB, Ginsburg AS. Impact of mHealth chronic disease management on treatment adherence and patient outcomes: a systematic review. J Med Internet Res 2015 Feb;17(2):e52.
- Anglada-Martinez H, Riu-Viladoms G, Martin-Conde M, Rovira-Illamola M, Sotoca-Momblona JM, Codina-Jane C. Does mHealth increase adherence to medication? Results of a systematic review. Int J Clin Pract 2015 Jan;69(1):9-32.
- Kumar N, Khunger M, Gupta A, Garg N. A content analysis of smartphone-based applications for hypertension management. J Am Soc Hypertens 2015 Feb;9(2):130-136.