

LETTER TO THE EDITOR

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SMS reminders- future in self-care management of diabetes mellitus?

Talha Riaz¹, Haris Riaz¹, Syed A Hussain^{2*} and Danish Kherani³

Abstract

Application of SMS in reminders of medical appointments and delivering medical tests is not new, however its focus on clinical interventions has just begun. Usage of tailored SMS reminders to increase adherence in treatment programs among sick individuals has allowed an interventional role in self-care management of Diabetes Mellitus (DM).

Respected Sir,

Short Message Service (SMS) or Text messaging, is a communication feature among mobile, web or phone communication systems, allowing an exchange of short messages between mobile phones or fixed line devices. Its cost effectiveness and easy accessibility has made it one of the most widely used communication pathways in the world [1]. The integration of SMS in all forms of society, especially lower income populations, has the potential to sideline internet and telephone as the new tool for behavioral intervention in the field of medicine [1].

Application of SMS in reminders of medical appointments and delivering medical tests is not new, however its focus on clinical interventions has only recently begun [2]. Usage of tailored SMS reminders to increase adherence in treatment programs among sick individuals has suggested an interventional role for SMS in self-care management of Diabetes Mellitus (DM) [3].

Self-management of DM, especially type 1 Diabetes Mellitus, is important to avoid acute and long term complications [4]. The range of complex requirements of diabetic patients like glucose monitoring, insulin, medication management, psychotherapy, social support and nutrition counseling make self-management of diabetes challenging [5]. But use of automated SMS reminders containing diabetic education, cues to action and specific diabetic management suggestions have shown to increase knowledge and improve health monitoring for

diabetic patients [6]. Franklin et al established that scheduled, tailored text messaging offered an effected means of supporting adolescents with diabetes and could be adapted for other health-care settings and other chronic diseases [7]. Hussein et al evaluated the feasibility of SMS usage between clinic visits and demonstrated positive effects on glycemic control (via HbA1C) among uncontrolled adult type 2 Diabetes Mellitus (DM) subjects [8]. Although SMS reminders have been particularly useful for teenagers and the elderly [9], Gammon et al documented effective use of SMS as a potential aid for parent-child interaction in self- management of DM in children [10].

Most interventions have shown positive outcomes but the evidence base of SMS based interventions is challenged by methodological limitations and is not yet conclusive. SMS education and cues to action may not be powerful enough to modify many ingrained behaviors. Future studies should use suitable sample sizes to provide greater statistical power for identifying theorized effects and should clearly report the calculations performed to estimate power [3]. Report on proper measures associated with intervention delivery, such as number of sent SMS messages, number of sent SMS replies, how participants treated received SMS messages along with theoretical constructs being targeted in these interventional studies should also be described more elaborately [3]. All these limitations must be addressed in order to enhance further testing and development applicable to this new tool of communication in the self-management of DM.

* Correspondence: syedanashussain.91@gmail.com

²Dow Medical College, Dow University of Health Sciences, Bab-e-Urdu Road, Karachi, Pakistan

Full list of author information is available at the end of the article

Competing interests

The authors declare they have no competing interests.

Authors' contributions

TR thought of the topic. HR and SAH wrote the manuscript. DK and TR reviewed it and made edits. All authors read and approved the final manuscript.

Author details

¹Department of Medicine, Civil Hospital Karachi, Bab-e-Urdu Road, Karachi, Pakistan. ²Dow Medical College, Dow University of Health Sciences, Bab-e-Urdu Road, Karachi, Pakistan. ³Ziauddin University, Karachi, Pakistan.

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