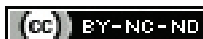


Role of Mobile Text Reminders in Improving Medication Adherence among Geriatric Population

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Dear Editor,

Mobile messaging is a vital mode of communication for people around the globe. Access to mobile phones is rapidly increasing, particularly in Asia [1]. Moreover, using cell phones has been demonstrated to increase service utilisation among young adults, who typically do not engage with healthcare services, by allowing them to access healthcare providers remotely for guidance. However, for older people, few of whom may be less capable or willing to use cell phones, the impact of enhanced service access may be limited [1]. Many geriatric individuals live with chronic conditions such as hypertension, asthma, diabetes, or Human Immunodeficiency Virus (HIV). To manage these long-term illnesses effectively, individuals need to monitor their symptoms and adjust their lifestyles consistently. Text messaging, in comparison to other communication methods, offers the benefits of immediate delivery and low expense. The widespread availability, portability, instant access and personal nature of mobile phones make them an effective tool for transmitting health information [2].

Mobile messaging has been employed to send appointment reminders, boost geriatric patient adherence to medications, monitor chronic illnesses and offer psychological support. Cell phones have also been utilised in the management of infectious illnesses, such as exposure tracking and notifying partners about sexually transmitted infections, as well as in health promotion efforts [3]. Medication non compliance is a significant health concern in the geriatric population in contemporary medicine; inadequate adherence to prescribed treatments is linked to higher rates of morbidity, mortality and healthcare expenses. Enhancing medication compliance among medical recipients could aid in optimising the therapeutic advantages for society [4].

Support for adherence provided through a Short Message Service (SMS) can enhance medication compliance and health outcomes. It is user-friendly, broadly available and economical. Furthermore, it acts as an effective intervention for various health behaviour modifications. Poor adherence is the leading cause of resistant hypertension. Missed medication, pickup appointments and difficulties related to lifelong treatment are significant factors contributing to inadequate adherence. Telemedicine offers a chance to improve treatment compliance through reminder tools, which are especially helpful for individuals experiencing lapses or those who are unintentionally non compliant. A model of telehealth is a brief SMS reminder note [5].

Following is a case discussion that has directly benefitted from the above method: A 75-year-old male patient with hypertension, Type 2 diabetes mellitus and osteoarthritis was prescribed a regimen of six medications daily. Despite verbal counselling, he frequently missed doses, resulting in poor glycaemic control and uncontrolled blood pressure. A mobile text reminder system was introduced, sending daily alerts tailored to his schedule. After three months, the patient reported a marked improvement in adherence (self-reported adherence increased from 60% to 95%) and experienced better symptom control, reflected in reduced HbA1c (from 8.5% to 7.1%) and stabilised blood pressure levels (from 140/90 mmHg to 130/80 mmHg).

Mobile text reminders have emerged as a promising tool for enhancing medication adherence and improving the quality of life in the geriatric population, especially among those managing multiple chronic conditions. Forgetfulness, a primary barrier in this age group, can significantly impact compliance with prescribed regimens. Text-based interventions help address this issue by offering personalised, timely and easily accessible reminders, ensuring minimal disruption to daily routines while promoting self-management behaviours.

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REFERENCES

- [1] De Jongh T, Gurol-Urganci I, Vodopivec-Jamsek V, Car J, Atun R. Mobile phone messaging for facilitating self-management of long-term illnesses. *Cochrane Database of Syst Rev*. 2012;12(12):CD007459.
- [2] Giştescu AE, Proca T, Miluţ CM, Iftene A. MedPlus-A cross-platform application that allows remote patient monitoring. *Procedia Computer Science*. 2021;192:3751-60.
- [3] Vodopivec-Jamsek V, de Jongh T, Gurol-Urganci I, Atun R, Car J. Mobile phone messaging for preventive health care. *Cochrane Database of Syst Rev*. 2012;12(12):CD007457.
- [4] Belete AM, Gameda BN, Akalu TY, Aynalem YA, Shiferaw WS. What is the effect of mobile phone text message reminders on medication adherence among adult type 2 diabetes mellitus patients: A systematic review and meta-analysis of randomized controlled trials. *BMC Endocr Disord*. 2023;23(1):18.
- [5] Belete AM, Melese DM, Asefa A, Aynalem YA, Bewket B, Shiferaw WS, et al. The effectiveness of short mobile phone text message reminders compared to usual care on medication adherence in patients with hypertension: A systematic review protocol. *Syst Rev*. 2024;13(1):53.

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