

USE OF THE WELTEL MOBILE HEALTH INTERVENTION AT A TUBERCULOSIS CLINIC IN BRITISH COLUMBIA: A PILOT STUDY

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ABSTRACT

Successful treatment of latent tuberculosis infection (LTBI) is critical to reduce the impact of TB; however, treatment completion in North America is less than 50%. Evidence has shown that weekly text messages can improve treatment adherence in HIV. One of these evidence-based interventions is WelTel, a service involving weekly text-message “check-ins” with patients. The aim of this study was to determine the feasibility of adopting the WelTel intervention, originally developed and tested in Kenya, for use in the context of TB care in British Columbia (BC).

(1) Determine prevalence of mobile phone ownership, text-message use, and patient attitudes towards receiving text messages from the clinic. (2) Determine the technological feasibility of the WelTel mobile health intervention, and patient and healthcare provider acceptability of the service.

A descriptive cross-sectional survey was undertaken at a provincial TB control clinic in BC. A clinician administered a questionnaire focused on demographics, mobile phone ownership and use, and attitudes towards receiving text messages from the clinic. The WelTel intervention was then implemented in a small group of LTBI patients for 12 weeks. On Monday morning, an SMS gateway sent “How are you?” text messages to patients, to which they were to respond either “OK” or “Not OK” within 48 hours. A clinician phoned those who responded ‘Not OK’ and those who did not respond. Participants completed baseline and follow-up questionnaires, and semi-structured interviews.

Of 82 participants who completed the survey between September 2011 and December 2011, 68 owned a mobile phone and 58 used text messaging weekly. Participants were receptive to receiving treatment-related communication from the clinic via text messaging (n = 80) but preferred not to have language relating to TB in the message content. Of 16 patients who received the intervention, 14 completed the study. After overcoming initial difficulties, the technological platform was an efficient way to deliver the intervention. The greatest participant-perceived benefits were that it enabled them to report side effects quickly (n = 6), reminded them to take their medication (n = 4), and imparted a feeling that their healthcare providers cared (n = 2). Interview data supported these findings. Barriers included cost (n = 3) and network coverage (n = 2).

Patients have the means to communicate with their healthcare providers via text-messaging and were receptive to doing so. The intervention was well-received by participants and the healthcare provider; however, research on its effectiveness to improve TB treatment adherence is required.