

Text Messaging Reminders for Clinic Appointments

Appraised by: Chelsie Thompson SN & Kelsey Striefel SN Sanford College of Nursing

Clinical Question:

Do text messaging reminders influence patient attendance rates for clinic appointments?

Articles:

Car, J., Gurol-Urganci, I., de Jongh, T., Vodopivec-Jamsek, V., & Atun, R. (2012). Mobile phone messaging reminders for attendance at healthcare appointments. *Cochrane Database Of Systematic Reviews*, (7), 1-38, doi: 10.1002/14651858.CD007458.pub2

Downer, A., Meara, J., Costa, A., & Sethuraman, K. (2006). Sms text messaging improves outpatient attendance. *Australian Health Review*, 30(3), 389-396. Retrieved from http://www.publish.csiro.au/?act=view_file&file_id=AH060389.pdf

Leong, K., Chen, W., Leong, K., Mastura, I., Mimi, O., Sheikh, M., Zailinawati, A., Ng, C., Phua, K., & Teng, C. (2006). The use of text messaging to improve attendance in primary care: A randomized control trial. *Family Practice Advance Access*, 23(6) 699-705. doi:10.1093/fampra/cml044

Synthesis of Conclusions:

Study #1:

The study by Leong et al. (2006) “Hypothesized that text messaging reminders would be more effective than no reminder in improving attendance” (p. 700). This study is a multicentre three-arm randomized control trial. It was conducted at five private and two public primary care clinics in Malaysia.

The studies intervention group included 993 participants who required follow-up at clinics. Participants were included if their follow-up appointment fell between 48 hours and three months from the recruitment date and if they had mobile phone with text messaging functions. All participants signed informed consent prior to conducting the study. The study control group included participants that received no reminders for their appointment.

Leong et al. (2006) reported that the control group attendance rates were 48.1% and the intervention group, those receiving text messaging, attendance rates were 59.0%. A difference of 10.9% improvement of attendance rates with text messaging reminders. This study recommended that, “Text messaging reminder was effective in improving attendance rates in

primary care” (p. 704) and “Text messaging provides an alternative reminder system for primary care” (p. 702).

In this study the subject and providers were not kept blind to the intervention. All other research design criteria for a randomized control trial were met. This a level II study because it was an experiment that obtained evidence from one randomized control trial.

Study #2:

The purpose of the study by Downer, Meara, Costa, & Sethuraman (2006) was “To evaluate the operational and financial efficacy of sending short message service (SMS) text message reminder to the mobile telephones of patients with scheduled outpatient clinical appointments” (p. 389). This was a cohort study. It was conducted at the Royal Children’s Hospital in Melbourne, Victoria, Australia.

The studies intervention group, those who were sent SMS reminders, included 22,658 participants with a mobile telephone number that were scheduled to attend an outpatient clinic appointment within a three month period. The control group, those who were not sent a reminder, included 22,452 participants. The control group included participants who were schedule to attend an outpatient clinic appointment within a three month period.

The Downer et al. (2006) reported that the intervention group had a 90.2% (20,448 participants) attendance rate. The control group had a 80.5% (18,073 participants) attendance rate. A difference of 9.7% improvement of attendance rates with text messaging reminders. The study stated, “There was no significant differences in the age profile of the patients and in the proportion of men or women in the two groups” (p. 392). The study suggested that, “The failure to attend reduction coupled with the increase in patient revenue suggests that reminding patients using SMS is a very cost effective approach for improving patient attendance” (p. 389).

This study did not include any specific nursing interventions that apply to the participants and their care. Otherwise, the study met all other research design criteria for a cohort study. The level of evidence for this particular study was level III because it was a study from a well-designed control trial without randomization.

Study #3:

The purpose of this review by Car, Gurol-Urganci, de Jongh, Vodopivec-Jamsek, & Atun (2012) was, “to assess the effects of mobile phone messaging reminders for attendance at healthcare appointments” (p.6). This was a systematic review that included four randomized control trials.

Between three out of the four studies observed there were 2,313 participants. The intervention group included mobile phone text messaging reminders while the control group did not receive any reminder for their appointment. The studies included all participants regardless of age, gender, and ethnicity, as well as all types and stages of disease. The studies included all different types of healthcare providers.

Car et al. (2012) reported there was moderate quality evidence that mobile phone texting reminders are as effective as phone call reminders. Moderate quality evidence shows that further research is likely to have an important impact on our confidence in the estimate of effect & may change the estimate. The review, “found that 98% of patients were willing to receive routine mobile phone text message reminders of their outpatient appointments” (p. 12). The study review showed that “mobile phone messaging reminders increase attendance at healthcare appointments when compared to no reminders or postal reminders” (p. 16). “Text messaging reminders were similar to telephone reminders in terms of their effect on attendance rates, & were most cost-effective than telephone reminders” (p. 16).

The systematic review met criteria for a systematic review. This systematic review is a level I because it had evidence from randomized controlled trials.

Bottom Line:

The summary of these three studies showed that there is an improvement of patient appointment attendance rates when using a text messaging appointment reminder.

Implications for Nursing Practice:

To promote follow up on scheduled appointments nurses can send follow-up text messaging reminders.