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## **Abstract**

# Digital Communication Between Patients and Health Care Professionals Across Disciplines and Sectors After Hospital Discharge: Facilitators, Barriers, and Effects

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## Abstract

**Background:** Over the past decade, hospital admissions for patients undergoing orthopedic surgery have been shortened, and the time for informing and educating patients prior to discharge has been compromised. The transition of care from hospital to home poses a substantial risk of adverse events. Patients have difficulty remembering information and struggle to assess the severity of symptoms after discharge, leading to unplanned telephone contacts and clinic visits. These inquiries are frequent and pose a substantial burden on the health care system and patients. The COVID-19 pandemic showed an emerging need to implement new communication technologies. Asynchronous digital communication (DC) may provide easy access to health care and seamless communication across sectors.

**Objective:** This study aimed to investigate how DC can facilitate easy communication between patients and health care professionals (HCPs) across sectors and the effects of DC on patient-initiated telephone contacts after discharge.

**Methods:** The overall theoretical approach was inspired by Continuity of Care and the Consolidated Framework for Implementation Research. Substudy I was a scoping review on DC between patients and HCPs after hospital discharge. Substudy II explored DC in an orthopedic surgery setting and through a triangulation of qualitative data collection techniques. Substudy III investigated the effect of DC on patient-initiated telephone contacts after discharge.

**Results:** Preliminary findings from substudy I show that DC is increasingly used to support patient-provider communication after discharge. In substudy II, preliminary findings show that DC is feasible in a real-life setting, providing patients with easy access to HCPs, who accept and adapt DC to existing cross-sectoral workflows. However, barriers exist related to the technological integration between systems and individuals' hesitation to use DC. In substudy III, DC is to be tested in a randomized controlled trial.

**Conclusions:** This study generates new knowledge of asynchronous DC that may guide future implementations across the health care system.

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### **KEYWORDS**

text messaging; communication; postoperative care; continuity of patient care

## **Conflicts of Interest**

None declared.



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