Does Inpatient Enrollment Into a Patient Communication App Result in Improved Follow-up and Survey Completion Rates After Orthopaedic Surgery?

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Purpose: Despite increased incentives to obtain patient-reported outcomes (PROs), collecting this information via survey for orthopaedic patients still proves to be a challenge. We hypothesized that inpatient enrollment into a patient communication app (Patient Gateway) would improve clinical follow-up and PRO survey completion rates for orthopaedic surgery patients.

Methods: Patients were eligible if they were ≥18 years of age and admitted to the hospital for an orthopaedic condition that required a 3-month follow-up visit. After a 1-year enrollment period, 240 patients were cluster randomized by week to either the control or intervention group. The control group received information on how to enroll, while the intervention group was fully enrolled and taught how to use the app. Between discharge and follow-up, all patients who enrolled in the app across both groups were sent a brief survey. Patients were then followed 3 months later to see if they attended their follow-up appointment, used the app, or filled out any surveys.

Results: A total of 229 patients were included (116 patients randomized to the control group and 113 patients randomized to the intervention group). Average age was 53.5 years and ~50% of patients were male. 83% of patients presented for follow-up at 3 months (80.2 vs 85.8, control vs intervention, P = 0.254). Only 38.9% of all patients used Patient Gateway, and use was significantly different between the control and intervention groups (16.4% vs 62.0%, respectively, P <0.001). Inpatient enrollment into Patient Gateway did not result in an increase in 3-month follow-up rates. However, when we assessed the likelihood of 3-month follow-up for patient use of the Patient Gateway app, we found that patients who used Patient Gateway had 3.47-times higher odds on average of 3-month post-surgical follow-up. Survey completion was predominantly completed during the follow-up visit for both groups of patients. Only 1 patient who failed to present to the 3-month follow-up completed the follow-up survey on Patient Gateway.

Conclusion: Our results suggest that the combination of inpatient enrollment and active use of a patient communication app can increase the likelihood that patient attend their follow-up visits. In addition, obtaining PRO measures during clinic follow-up visits may still be more reliable and higher yield for this patient population.