

Prevalence and Usage of Mobile Devices among Total Joint Arthroplasty Patients: Implications for Perioperative Care and Patient Engagement

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INTRODUCTION: With the increasing integration of mobile technology into various aspects of health care, understanding the extent to which patients own and utilize mobile devices is crucial for optimizing perioperative care and patient engagement. We aim to investigate the prevalence and usage of mobile devices among total joint arthroplasty (TJA) patients.

METHODS: A paper survey was administered to a diverse population of TJA candidates at a large orthopaedic center. Participants were asked to provide details regarding their ownership and usage of mobile devices as well as their understanding and confidence when using mobile devices. Additionally, healthcare surveys are routinely collected for every patient at this practice, with a questionnaire provided on a tablet.

RESULTS:

TJA patients reported the highest daily usage of smartphones (78%), followed by smart TVs (60%), personal computers (54%), laptop computers (46%), tablets (38%), smartwatches (18%), and health trackers (17%). Patients who reported they could "very easily" navigate onscreen menus with a touchscreen were categorized as "confident," while those who did not were classified as "less confident." Only 48% of the confident patients submitted a health history form, while 58% of the less confident patients did ($P=0.357$). Among confident patients, 13% completed every entry, compared to only 8% of the less confident patients ($P=0.442$). Confident patients were more likely to use a smartphone every day (85% vs. 68%, $P=0.055$), more likely to use a tablet every day (50% vs. 21%, $P=0.005$), and agreed with the statement that they were "tech-savvy" (48% vs. 16%, $P=0.001$) compared to less confident patients.

DISCUSSION AND CONCLUSION: Our study shows that smartphones and smart TVs are the most common devices used by TJA patients. Interestingly, patient confidence when using a touchscreen did not increase their compliance when answering a standard health history form on a tablet device.