

A Pilot Project to Test the Feasibility of Automated Text Messaging to Collect Multi-Day Patient-Reported Outcomes Related to Pain Interference After Total Joint Arthroplasty in Veterans

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Introduction:

Acute postoperative pain may differ between surgical procedures and individuals who undergo the same procedure. Measuring pain intensity alone is insufficient, but patient-reported data on pain interference are not routinely collected in clinical practice.

Methods:

Using an automated short message service (SMS) text messaging system, we measured postoperative pain intensity and pain interference with the Defense and Veterans Pain Rating Scale (DVPRS) for one week after total knee arthroplasty (TKA) and total shoulder arthroplasty (TSA).

Results:

9 TKA and 5 TSA patients were included in our analysis (Online Table 1). The number of text messaging respondents per postoperative day and the patterns of pain intensity and interference scores in each group are shown in Figure 1.

Discussion:

Non-response was more common in TKA patients than TSA patients. Patterns in pain intensity and interference may have some association with hospital discharge and perineural catheter removal and warrant further study.

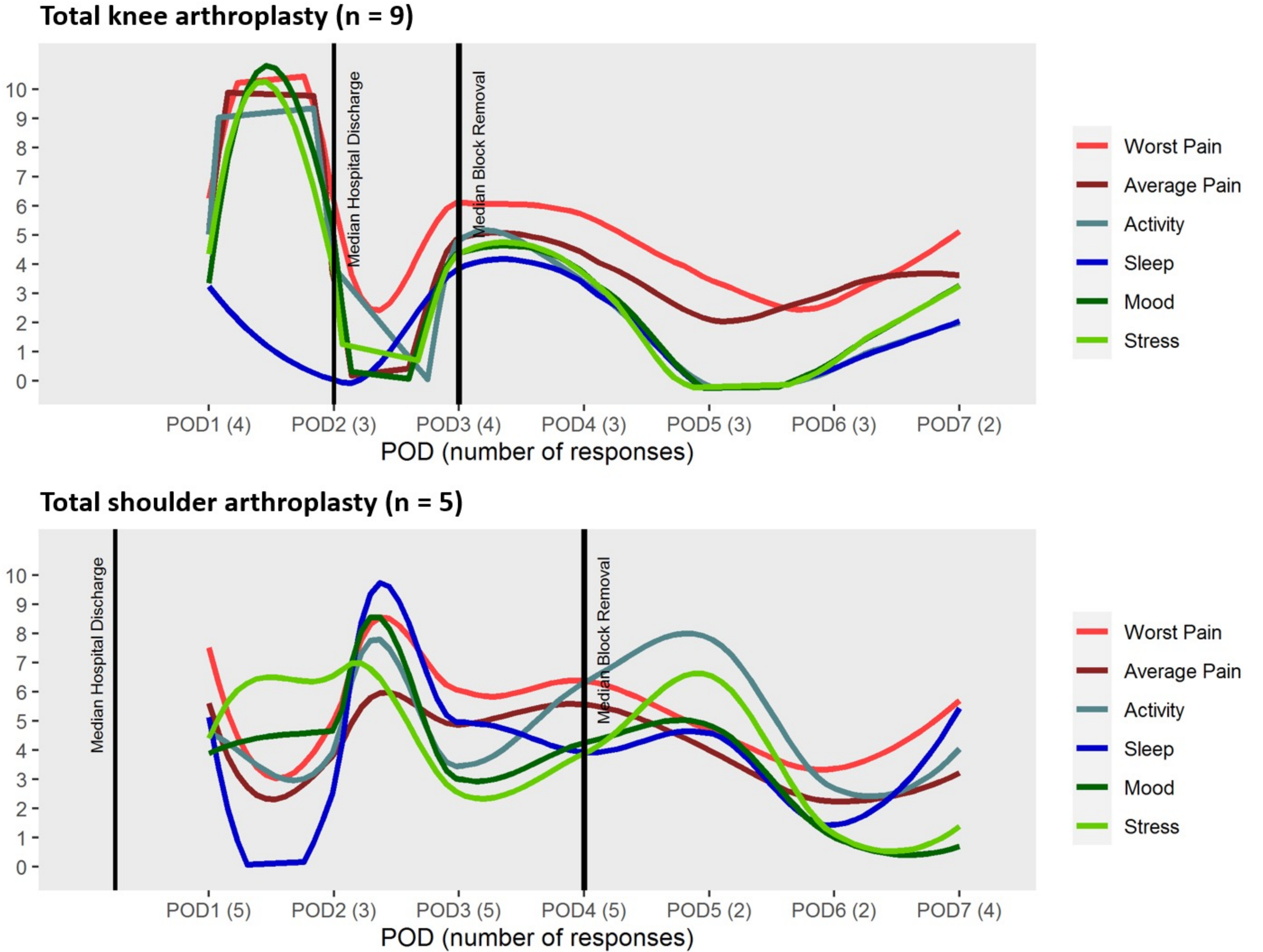


Figure 1. Time series plots of the six patient-reported pain scores (worst pain, average pain, interference with activity, interference with sleep, interference with mood and interference with stress) are shown for total knee arthroplasty and total shoulder arthroplasty patients on postoperative days 1–7. The x-axis labels include the number of respondents for each postoperative day. Trend lines are drawn using locally estimated scatterplot smoothing regression (LOESS). Abbreviations: POD, postoperative day.



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