

Introduction

- Patient-Reported Outcome Measures (PROMs) are critical for evaluating postoperative recovery and guiding clinical decisions in orthopedic trauma.
- Factors influencing PROM completion after tibia and femur intramedullary nailing are not well understood.
- Identifying barriers and predictors of PROM completion can inform strategies to improve patient participation and data quality.

Objective

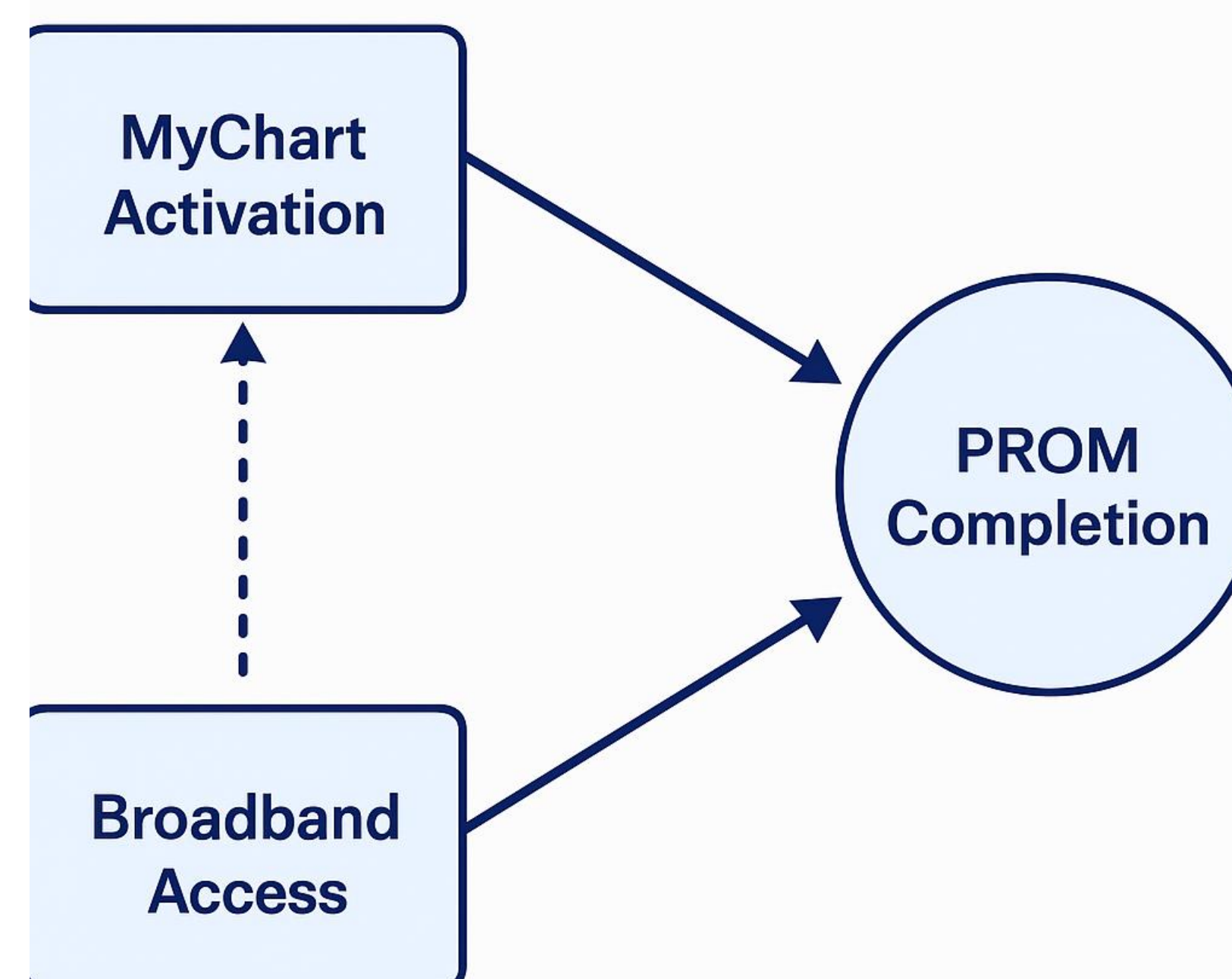
- Examine demographic, clinical, and socioeconomic predictors of PROM completion following intramedullary nailing for tibia and femur fractures.
- Determine whether digital engagement and broadband access influence PROM response rates.

Methods

- **Design:** Retrospective cohort of patients undergoing surgical fixation for tibia/femur fractures (2021–2022).
- **PROMs:** Physical function and pain scores extracted from electronic medical records.
- **Variables:**
 - Age, comorbidities, MyChart activation status, length of stay, discharge disposition
 - Neighborhood indices: Area Deprivation Index (ADI), Social Vulnerability Index (SVI), broadband availability
- **Analysis:**
 - Univariate and multivariate logistic regression
 - Statistical significance set at $p < 0.05$

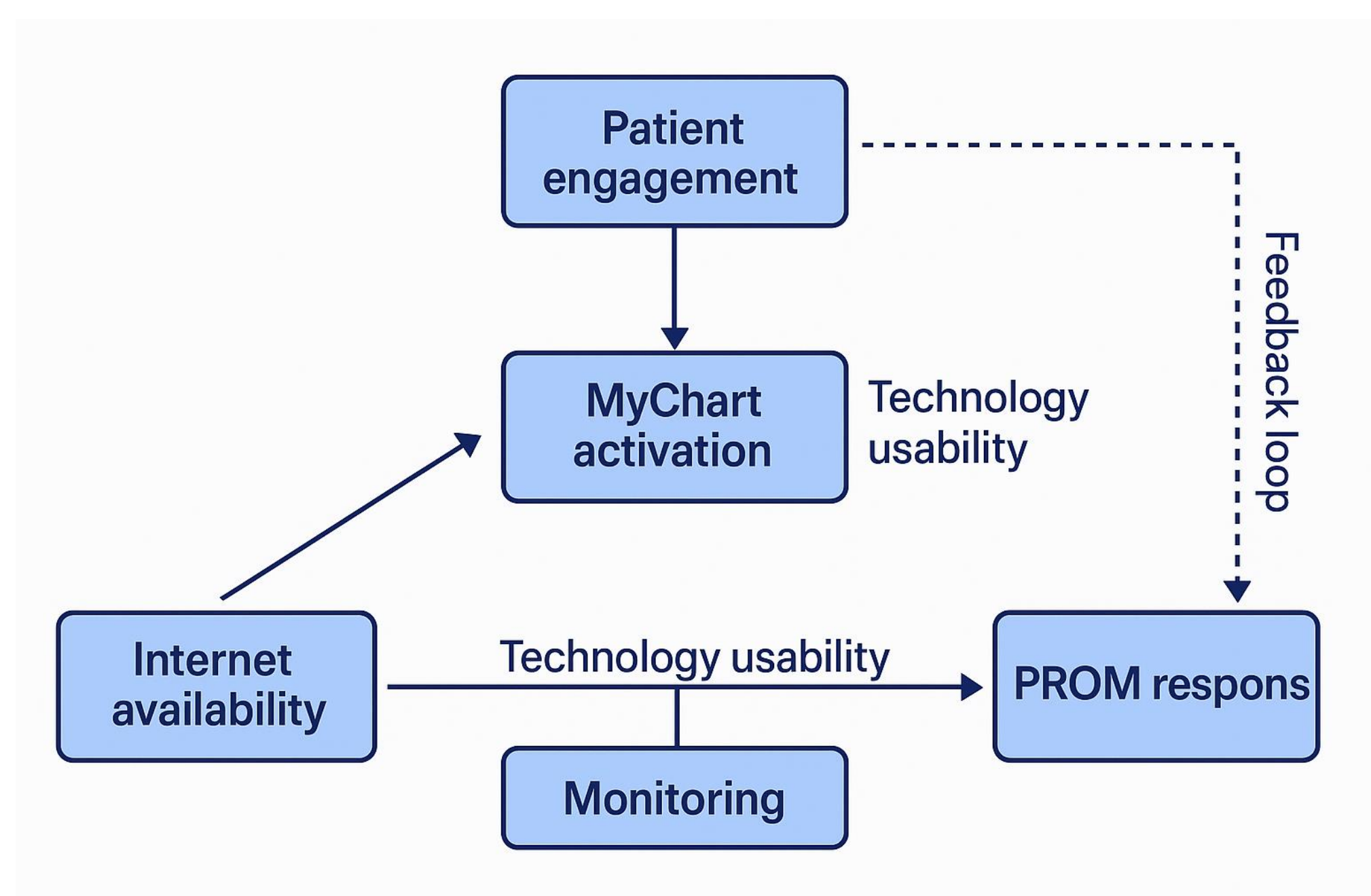
Results

- **Sample:** 156 patients with complete demographic and socioeconomic data.
- **Univariate predictors of PROM completion:**
 - Older age → lower completion
 - Active MyChart → higher completion
 - Longer hospital stay → higher completion
 - Discharge home → higher completion
 - Broadband availability → higher completion
- **Multivariate findings:**
 - **Active MyChart** increased odds of physical function PROM completion (OR 4.00–5.26).
 - **Broadband access** independently predicted completion of physical function PROMs.
 - **Socioeconomic indices (ADI, SVI)** not significant after adjustment.
 - For pain PROMs, only **MyChart activation** remained predictive in final models.



Conclusion

- **Digital engagement** and **broadband availability** are the strongest predictors of PROM completion after tibia/femur intramedullary nailing.
- Neighborhood deprivation indices have limited predictive value once digital access is considered.
- Improving **portal activation** and **internet accessibility** may enhance postoperative monitoring and patient-centered care.



Key Takeaways

- ✓ Active MyChart accounts show 4–5x higher PROM completion
- ✓ Broadband availability predicts physical function PROMs
- ✓ ADI and SVI less predictive after adjustment
- ✓ Strengthening digital access and engagement improves follow-up