



Enhancing Surgical Patient Outcomes Through Multimodal Discharge Education

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Introduction

Problem description

- Total hip and knee joint replacement patients needing unplanned care postop care increased due to more surgeries (CMS, 2023)
- Unexpected return to acute care within 30 days - 55% of all orthopedic readmissions (Williams et al., 2022)
- National outpatient surgery readmission rates TKR - 5.56%, THR - 2.95% (Williams et al., 2022)
- Ratio of patients expected to return to the emergency department postoperatively – THR – 2.69%, TKR – 2.84
- CY23 actual return rates to the ED postoperatively –THR – 7.69%, TKR - 10.00%
- 5.95% - 30-day readmission rate for same-day discharge lower extremity joint replacement (CY23)
- Decrease in patient satisfaction scores for discharge related questions

Literature Review

Postoperative discharge instructions

- Must consider patients ability to comprehend and retain when developing discharge education (Pugh et al., 2021)
- Elective outpatient joint replacement instructions can be extensive and confusing – leads to decreased compliance, insufficient follow-up, increased readmission, decreased patient satisfaction (Wray et al., 2021)

Patient comprehension

- AHRQ study – 30% decrease in readmission & ED returns when d/c instructions are clearly understood (DeSai et al., 2021)
- Increased comprehension = decreased complications (DeSai et al., 2021)
- Multimodal means of d/c instruction improves comprehension (Wray et al., 2021)

Timing of d/c education

- Crucial to move to preoperative period to improve comprehension and retention (Tanner & Morgan, 2022)

Specific Aims

- Include postoperative discharge instruction in the preoperative patient preparation for surgery.
- Design a multimedia format of discharge education material to facilitate greater understanding and retention of discharge instructions.
- Reduce preventable postoperative acute care readmissions and ED visits.

PICOT

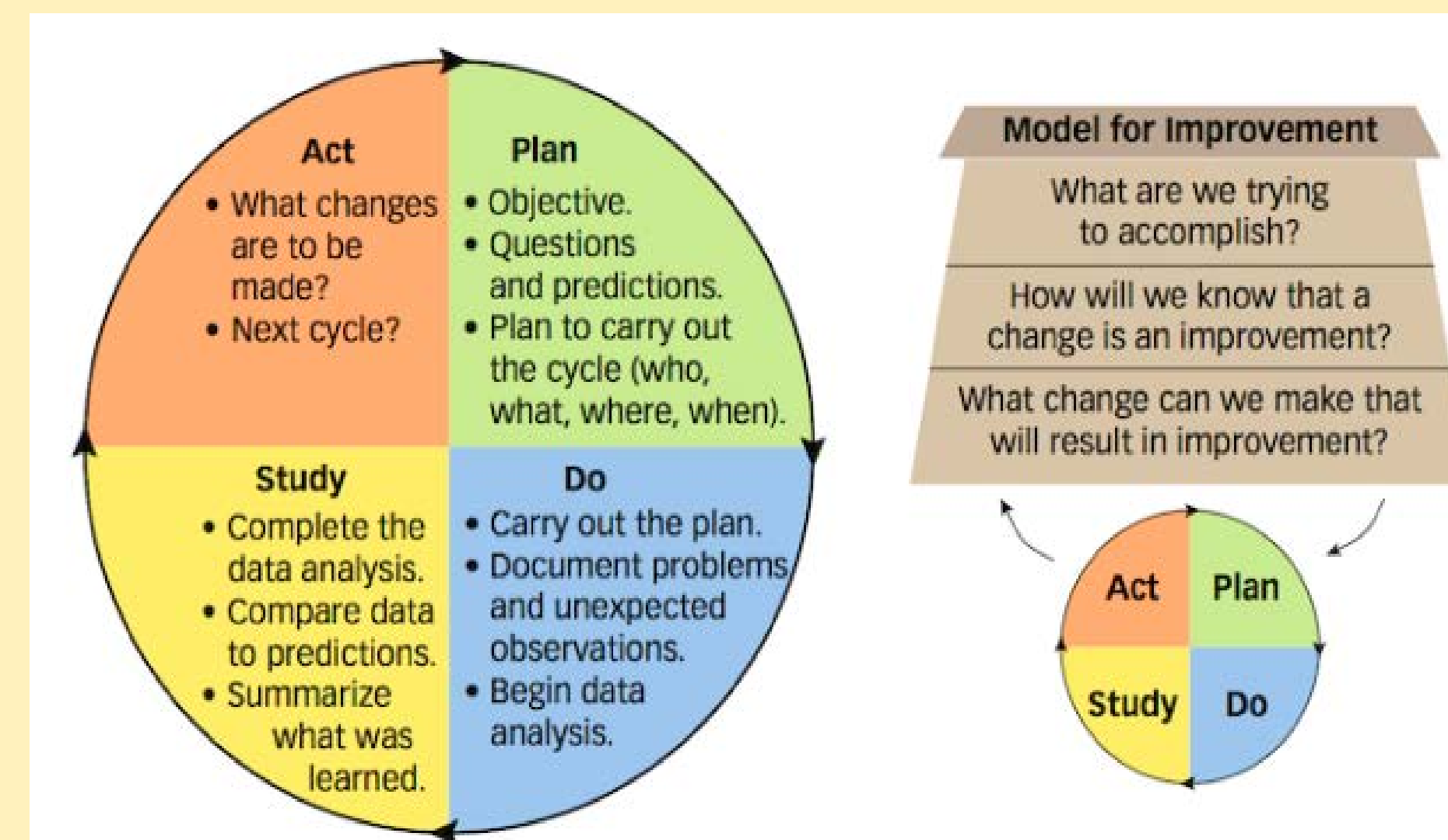
In outpatient elective hip and knee total joint replacement patients, does the implementation of multimodal discharge education, compared to the current outpatient surgery discharge process, affect the 30-day return visit rate and patient experience scores during a 1-year time frame?

Theoretical Framework

Advancing Research and Clinical Practice through Close Collaboration Model (ARCC)

- Assesses organizational culture for EBP readiness
- Develops and utilizes EBP mentors
- Increases EBP implementation in healthcare organizations

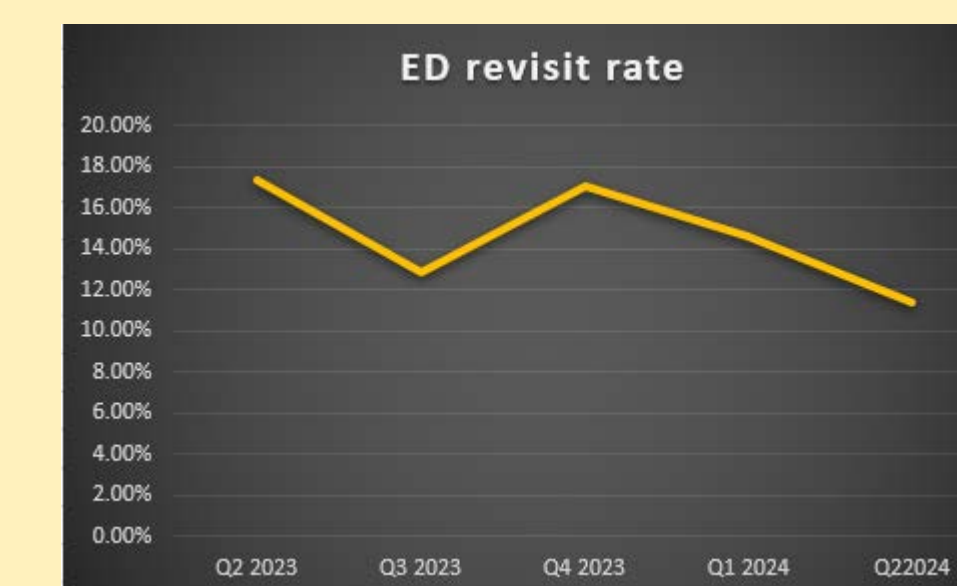
Plan-Do-Study-Act (PDSA) Model



Intervention

- Discharge educational video viewed by all outpatient elective total hip and knee replacement patients
- Video viewed in the preoperative area with questions answered by RN prior to surgery.
- Patient education booklet was developed to standardize all preoperative teaching material
- Developed scrolling education to be viewed on PACU phase II monitors to reinforce teaching included in video and booklet
- Patients completed a 6-question survey after viewing video to assess for comprehension.

Results



Readmissions decreased from 3.06% to 2.27% and ED returns from 17.35% to 11.36% in Q2 2024 from Q2 2023. An average of a 1.5% improvement in the discharge related patient experience scores.

Press Ganey Domain	Current n	Current 12 Month Period (2023)	Previous 12 Month Period (2022)
Discharge	132	97.8%	96.3%

Limitations

- Small n-size
- Limited budget for educational tool development
- Surgeon illness
- Lack of nurse buy-in to the process (improvement noted over time with dissemination and improved patient experience scores)
- Limited patient preparation time prior to the first case of the day
- Patient anxiety – focus on surgery/trouble concentrating
- Education not disease specific – generalized topic does not catch patient attention

Sustainability

- Video available online – patients view prior to day of surgery & at home postoperatively
- Additional video development – QR code give to patients to access preoperatively
- Expansion of new discharge process to all outpatient surgical patients
- Standardization over time
- Continual readmission & return analysis & dissemination to stakeholders
- Preoperative classes developed utilizing same content to promote repetition and retention

Implications for Nursing Practice

- Continued commitment by nurse leadership to development of comprehensive & retainable discharge education & processes
- Optimization of patients preoperatively
- Determine post-discharge risk factors for noncompliance (Social Determinants of Health assessment)
- Ensure appropriate follow-up care to reassess understanding & compliance of provided postoperative instruction
- Repetition of the key elements of postoperative care is vital in improving patient outcomes and experience.

Conclusion

Implementing multimodal discharge education is crucial to decrease preventable readmissions and ED returns postoperatively and improve patient engagement and experience. Continued work towards preventing postoperative readmissions and returns is key to decreasing poor outcomes and financial sustainability.

References



Scan QR code for references