Exploring the Role of a Joint Coach

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Abstract: Preoperative education for total joint replacement has been shown to have a positive impact on patients' anxiety, perception of pain during recovery, and improving post-operative quality of life. This project focused on the need to teach nursing students regarding protocols that begin preoperatively and continue until the patient's recovery goals are met.

TWU students were introduced to the role of a joint coach with a combination of didactic knowledge of standard preoperative care with an introduction to prehabilitation exercises to help students gain a deeper understanding of how healthcare collaborates to improve patient outcomes. Pre and post educational surveys were conducted.

Results showed a statistically significant improvement of the students understanding of perioperative care for joint patients as well as a better understanding of interdisciplinary collaboration.

This project highlights the need to incorporate educational modules for nursing students as well as creating joint coaching positions to provide care specific to this population.

Introduction

Nursing today includes many different roles. There are nurses who never treat patients, nurses who specialize in critical-care areas, nurse educators, advanced practice nurses, etc. Joint coaching is one of the lesser-known roles associated with the profession. Exploring this role and establishing its footprint in healthcare is something hospital systems and private practices should consider in order to optimize patient care moving forward.

A joint coach is a combination of educator, nurse, physical therapist, motivator, and social worker. Joint coaches oversee the patient from the moment the surgery is scheduled until recovery benchmarks have been obtained. They assist patients with learning prehab exercises, taking pain medication properly, understanding physical therapy expectations, increasing mobility, obtaining referrals, and acting as a hospital liaison if needed. Primarily,

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joint coaches are there to motivate patients and prepare them to have an active recovery so they heal properly and improve their quality of life.

Definition of Terms

Key terms used throughout the project that may be unfamiliar to readers include prehabilitation, or prehab; total knee arthroplasty, or TKA; unilateral knee arthroplasty, or UNI; rehabilitation; and joint coach.

Prehabilitation

Prehabilitation is the period of preparation prior to undergoing joint replacements. Patients are started on basic exercises in the weeks leading up to surgery to help build muscle but also to introduce patients to activities they need to do after surgery to improve and maintain joint function.

Total knee and Unilateral knee arthroplasty

Total knee arthroplasty and unilateral knee arthroplasty (UNI) are both considered joint replacements. The TKA is defined as full replacement of the joint—distal femur and proximal tibia diseased bones are removed, and artificial implants replace that part of the anatomy. The unilateral knee replacement, or partial knee replacement, utilizes artificial components to reshape only medial or lateral diseased bone. This project uses TKA to identify both procedures because preparation and recovery are the same.

Rehabilitation

Rehabilitation is any physical therapy that occurs after surgery has taken place. Patients either attend outpatient therapy or have in-home therapy. Every surgeon has a specific protocol they select, and every patient has a different preference. The decision is determined based on patient desire and their at-home support system. Rehabilitation often begins post-op day one or two.

Literature Review

Total joint arthroplasty procedures for knee and hip joints are among the most common surgeries performed in the United States annually, according to a statistical brief compiled by the Healthcare Cost and Utilization Project (2019). Total knee replacements are the second most common surgery performed behind cesarean sections. Knee replacements numbered 715,000—which includes primary TKAs, UNIs, and revision knees—in 2018, according to The American Joint Replacement Registry. The registry also reported that 602,582 total hip procedures were performed, with those numbers inclusive of primary and revision total hip arthroplasties (THA), hemiarthroplasties, partial hip replacements for hip fractures, and hip resurfacing. The data reported was collected from 2012-2018 and published in 2020. The report includes only surgeries by practices that subscribe to the registry; therefore, actual numbers are presumably higher.

Giardina et al. (2020) noted that joint-specific education provides patients a more realistic idea of what to expect after surgery but found there was no statistically significant difference between groups in terms of levels of experiencing nervousness or feeling prepared for surgery. There were 49 study participants, and 28 participated in joint education. Increasing study participants and measuring infection rate, improvements in mobility, and readiness to discharge from the facility may provide relevant data that reflects the positive impact of preoperative joint education on this patient population.

Survey results regarding preoperative joint education among orthopedic nurses who were interviewed about preoperative education concluded joint education was significant to patient outcomes but identified barriers to completing the education (Causey-Upton, 2020). The study, which involved 10 participants, lists barriers that include evidence-based practice changes to orthopedic protocols, timing, and length of education sessions.

A randomized control trial for total joint patients showed preoperative education by a multidisciplinary team—nurse educator, social worker, and physical therapist—was impactful in reducing postoperative inpatient physical therapy visits for the intervention group, which achieved readiness to discharge sooner; 1.2-1.9 days versus 2.7 days (Soeters et al., 2018). All 126 participants underwent a joint class. The control group had no other education. The intervention group received prehab consisting of exercises to begin preoperatively, exercises for the immediate postoperative period, fall precautions, bed mobility, and ambulation expectations.

Preoperative education for total joint replacement has been shown to have a positive impact on patients' anxiety, perception of pain during recovery, and postoperative quality of life (Edwards et al., 2017). Exposing nursing students to the role of a joint coach increased their awareness of the role, as well as demonstrated collaboration among different disciplines in healthcare and how teamwork leads to better patient outcomes.

Methodology

My educational project focused on teaching students protocols specific to total-joint patients that begin preoperatively and continue until the patient's recovery goals are met. The topic was selected because it is a relatively new role in nursing and students would benefit from the knowledge presented. Senior nursing students who are enrolled in their last semester of a nursing program were given a pretest that was inclusive of generalized nursing knowledge related to surgical knee replacement patients. They were then exposed to a short interactive lecture during which they were presented with content specific to joint replacement patients.

A slide presentation was prepared to highlight the role of a joint coach. Objectives were included to inform students of the knowledge they should gain from the brief presentation. The presentation was delivered during a regular class period's Zoom session. Via the chat

window, students submitted appropriate questions regarding the role of a joint coach, and questions were answered as they were presented.

Students were engaged in the content, as they had never heard of a joint coach. Slides were organized from pre-operative preparation to post-operative recovery so students could understand the larger picture of how to prepare patients for TKA and how healthcare employs a team approach with this population of patients.

Prehab exercises were emphasized so students would understand preparations for an active recovery process. Medications specific to the patient population were presented, and other non-pharmacologic methods to minimize opioid use during the immediate post-operative phase of recovery were discussed.

Results

A posttest was then administered to students. Results showed a statistically significant improvement in the students' understanding of perioperative care for joint patients as well as a better understanding of interdisciplinary collaboration. There were 106 responses to the pretest. The median was 55%. The lowest score was 34%, and the highest score was 80%. The posttest was provided to students immediately after the presentation. There were 93 responses recorded. The class period ended at the close of the presentation, and since no course grade would be recorded, some students may have opted not to complete the posttest. Data following outlines the results and measures the quality of the presentation based on the number of correct responses. The highest overall score was 96%. The lowest score was 10%. The median score was 78%.

Conclusion

Students presented many generalized questions about the role of a joint coach. Some had family members who had undergone joint replacements, but none of the students had heard of a joint coach. Exploring this role and increasing awareness of how a joint coach can impact recovery for patients will help improve outcomes and support the patient population—which is predicted to double by 2060, according to the U.S. Census Bureau (Vespa et al., 2020). Future research aligned with patient outcomes would be necessary to more comprehensively measure the effectiveness of the joint coach's role.

Targeted education specific to joint patients will benefit facilities and patients by increasing patient understanding of the surgical and recovery process. This education will also decrease postoperative complication rates because patients will be more informed and thus more likely to comply with instructions for before and after surgery. Therefore, hospital systems will reduce expenditures otherwise directed toward addressing complications. This cost savings would be enough to support the full-time role of a joint coach at the facility. Additionally, with this position in place, patients will have a stronger support system after surgery, which would result in higher patient satisfaction scores.

Recommendations

Creating a certification process for a joint coach and including training specific to the role—physical therapy, emotional support, and outcome expectations—would be a priority. Also important would be conducting a cost analysis to demonstrate the need for healthcare facilities. Future research would be necessary to develop a tool to measure the success of having a joint coach. Research topics that study reduced anxiety and preparedness levels would be beneficial to support having a joint coach at a facility. Additionally, measuring reduced post-op complications would be necessary to support facilities maintaining a healthy joint-replacement program.

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