

Title:

Implementing an Integrative Pre and Post-Operative Educational Intervention for Older Adults Undergoing Total Hip and Knee Replacement

Carolyn Marie Fox

Kirkhof College of Nursing, Grand Valley State University, Grand Rapids, MI, USA

Session Title:

Rising Stars of Nursing Invited Posters - Group 2

Slot (superslotted):

RSG STR 2: Friday, September 26, 2014: 10:00 AM-10:30 AM

Slot (superslotted):

RSG STR 2: Friday, September 26, 2014: 11:45 AM-1:00 PM

Slot (superslotted):

RSG STR 2: Friday, September 26, 2014: 3:00 PM-3:30 PM

Keywords:

Pain control and Self-efficacy

References:

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patient and improve current pain management outcomes (Masters Thesis). Grand Valley State University, Grand Rapids, MI.

Learning Activity:

LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE	TIME ALLOTTED	FACULTY/SP EAKER	TEACHING/LEARNING METHOD	EVALUATION/FEEDBACK
<p>Example</p> <p>Critique selected definition of the term, "curriculum"</p>	<p>Example</p> <p>Definitions of "curriculum"</p> <p>Course of study</p> <p>Arrangements of instructional materials</p> <p>The subject matter that is taught</p> <p>Cultural "training"</p> <p>Planned engagement of learners</p>	<p>Example</p> <p>20 minutes</p>	<p>Example</p> <p>Name, Credentials</p>	<p>Example</p> <p>Lecture</p> <p>PowerPoint presentation</p> <p>Participant feedback</p>	<p>Example</p> <p>Group discussion: What does cultural training mean to you?</p>
<p>Recognize the effect of self-efficacy on postoperative pain control; Understand the results of the pilot project</p>	<p>Introduction and literature review including supporting research; Study methods; Data results including statistical analysis; Discussion and</p>	<p>5 to 10 minutes</p>	<p>Carolyn Fox, BSN, DNP, RN</p>	<p>Poster presentation</p>	<p>Individual discussion regarding study results and potential for future research</p>

	recommendations for future research;				
As above	As above	As above	As above	As above	As above

Abstract Text:

Introduction

Total hip replacement (THR) and total knee replacement (TKR) are rapidly becoming two of the most common elective inpatient surgeries in the United States⁽¹⁰⁾. Though the surgeries themselves have improved dramatically since their advent 100 years ago, post-operative pain control continues to present a dilemma for providers and patients, decreasing mobility and increasing the risk of adverse outcomes⁽¹⁴⁾. New analgesics continue to be invented, however, there is little research on the effect of common symptom self-management strategies implemented postoperatively for THR and TKR patients⁽⁹⁾. In addition to the lack of research on the use of symptom-self management, few post-operative pain control studies have been conducted with the elderly population, though the median age of these patients is 69 in the United States⁽¹⁶⁾.

The purpose of this pilot project was to implement postoperative education in a select population of elderly patients undergoing THR or TKR in combination with the pre-operative education which was standard of care at the site. The goal was to provide study participants with the tools and knowledge to efficiently and safely self-manage their post-operative pain. The primary endpoints were to improve self-efficacy over the course of the intervention period and to decrease pain in the population.

Literature

Current research supports the use of a pre-operative educational intervention for subjects undergoing total hip or total knee replacement as it prepares the patient for expectations regarding surgery and recovery^(2, 5, 10). Research conducted on post-operative education for total knee and hip replacement patients is limited but suggests decreased pain and increased patient satisfaction^(8, 13, 1). Further pain self-management studies suggest that symptom self-management strategies are effective in chronic pain control^(3, 6, 17). Common themes in successful groups included goal-setting, individualized education, and multi-modal methods of delivery.

The Theory of Symptom Self-Management (TSSM) was used as a guide for education delivery targeted toward improving patient self-efficacy⁽¹²⁾. This theory integrates several different concepts that provide a framework for effective self-management strategies for patients. These concepts include individual patient characteristics, environmental factors, symptoms, and functional and cognitive performance outcomes. The purpose of the theory is to provide structural guidelines for patient education in symptom-self management.

Methods

A convenience sample of eleven participants over the age of 65 undergoing total hip or knee replacement at a small West Michigan hospital participated in the study. Participants were recruited at a standard pre-operative educational session where they were administered the Pain Self-Efficacy Questionnaire (PSEQ), a subscale of the Arthritis Self-Efficacy Scale (ASES)⁽⁴⁾. Following surgery, patients were seen on each post-operative inpatient day for an educational session with the investigator. Each session consisted of teaching using the Smith Pain Management Tool (SPMT), a tool incorporating the numerical pain scale with interventions for each pain level⁽¹⁸⁾. The tool was modified with a large (12-point) font for

ease of readability. The educational sessions also included teaching on medications, side effects, management of side effects and pain, and prevention of adverse outcomes including deep vein thrombosis (DVT), decreased mobility, and atelectasis. After discharge patients were called at 24 and 48 hours at home to answer any questions regarding recovery and receive the PSEQ. Following this their participation was complete. Each educational session, including telephone sessions, was timed by the investigator to evaluate feasibility of incorporation into the daily schedule of staff nurses.

A retrospective chart review was performed analyzing average pain scores from a randomly selected group of subjects meeting the same criteria to evaluate for differences in pain levels between the two groups.

Results

The data was analyzed using statistical software with the assistance of the Grand Valley State University statistics department. Correlations were run between pain scores and self-efficacy scores at each time point that self-efficacy questionnaires were administered (pre-procedure, 24 hours post-discharge, and 48 hours post-discharge). The results suggested a negative correlation between pain scores and self-efficacy scores; that is, as self-efficacy scores increased, pain scores tend to decrease in this study.

PSEQ scores were compared at each time point using the paired t-test. There was a statistically significant difference in scores between pre-procedure and post-procedure scores at both 24 and 48 hours post-discharge. PSEQ scores increased at each time point.

Average pain scores for the inpatient stay were compared between the intervention group and a retrospective control group. Pain scores in the intervention group were slightly lower overall, however, there was no statistically significant difference in pain scores between the two groups.

Discussion

Out of necessity, health care has moved toward the objects of the triple aim, decreasing costs, improving patient care, and improving patient health. Because of this interventions must be cost-effective and empower the patient when possible. This intervention meets Joint Commission on Accreditation of Healthcare Organizations (JCAHO) standards for pain management in improving quality and patient safety.

Further studies should be conducted with a larger sample size and use an experimental design.