

Sigma's 30th International Nursing Research Congress
The Effect of Constipation Prevention Programs in Patients Undergoing Total Knee Replacement Arthroplasty

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Purpose: A multitude of factors contribute to constipation in patients undergoing total knee replacement arthroplasty (TKRA). These include perioperative fasting, old age (>65years), decreased physical activity, difficulty in ambulation, and opioid-induced constipation. The purpose of this study was to evaluate the efficacy of applying a constipation prevention program for patients undergoing TKRA

Methods:

The constipation prevention program was based on guidelines set forth by the NGC (National Guideline Clearing House) in 2011, and included fluid intake, bowel training, and abdominal & pelvic floor exercises. A team of 1 orthopaedic clinical nurse specialist and 6 orthopaedic nurses with a minimum 10 years of clinical experience applied and assisted patients with the program. Formal counsel was provided by 1 orthopaedic doctor, 1 gastroenterologist, and 1 exercise therapist. Patients who defecated 1 day prior to or on the day of TKRA surgery were included. Patients with underlying gastrointestinal disease or those already being administered laxatives were excluded. 50 subjects for the control group were enrolled between January 1st 2016 – June 30th 2016, and 32 subjects for the treatment group were enrolled between July 14th 2016 – May 31st 2017. Data collected from the 82 subjects was analyzed using SPSS Win 21.0. T-test and chi-square test was performed to assess for differences in time until first defecation, constipation assessment scale score, frequency of enema, and total amount of laxatives administered.

Results: Time until first defecation after surgery was 2.4 ± 1.1 days in the treatment group, which was significantly shorter than the 3.2 ± 1.0 days in the control group. Constipation assessment scale score was also significantly lower in the treatment group (1.3 ± 1.2) compared to the control group (3.5 ± 2.7). The treatment group was administered significantly less laxatives than the control group. There was no statistical difference in the frequency of enema between the two groups.

Conclusion:

A constipation prevention program consisting of fluid intake, bowel training, and abdominal & pelvic floor exercises proved to be an appropriate nursing intervention for patients undergoing TKRA surgery.

Title:

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Keywords:

Total knee replacement arthroplasty, constipation and prevention

References:

Gail M. R-A, Leanne, M., & Max, B. (2015). Bowel management post major joint arthroplasty: results from a randomized controlled trial. *International Journal of Orthopaedic and Trauma Nursing*, 19, 92-101.

Koppen, I. J. N., Lammers, L. A., Benninga, M. A., & Tabbers, M. M. (2015). Management of functional constipation in children: Therapy in practice. *Pediatric Drugs* DOI 10.1007/s40272-015-0142-4

Park, J.H., Yoon, S.O., Kim, S.H., Yu, M.K., & Ham, Y.J. (2016). Constipation in patients following orthopedic surgery : incidence and influencing factors. *Korean Journal of Adult Nursing*, 28(6), 637-645.

Park, S. H., Kang, C. B., Jang, S. Y., & Kim, B. Y. (2013). Effect of Kegel exercise to prevent urinary and fecal incontinence in antenatal and postnatal women: systematic review. *Journal of Korean Academy Nurse*, 43(3)420-430.

Silva, C. A. G. & Motta, M. E. F. A. (2013). The use of abdominal muscle training, breathing exercises and abdominal massage to treat paediatric chronic functional constipation. *The Association of Coloproctology of Great Britain and Ireland*, 15, e250-e255.

Abstract Summary:

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Author Summary: As a orthopedic clinical nurse specialist, manage shoulder and spinal disease patients. I majored in intensive care nursing at graduate school. My field of research is pain and constipation in orthopedic patients.