

Effectiveness of Nurse led education on Knowledge regarding post operative care among total knee-replacement surgery patients in selected hospitals at Trichy

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ABSTRACT

Aims and objectives

To determine the effects of Nurse led education on postoperative care among total knee-replacement patients.

Background

Most total knee-replacement patients experience pain and limited physical activities during recovery and rehabilitation. Many patients fail to implement an effective rehabilitation plan because of the pain and a lack of practical knowledge regarding the rehabilitation process.

Design

Quasi-experimental design.

Methods

We recruited 30 total knee-replacement patients for our study. The experimental group ($n = 15$) received a health-educational intervention. The control group ($n = 15$) received routine care.

Results

The experimental group reported lower levels of postoperative pain than the control group. The stair-climbing ability of the experimental group was superior to that of the control group. The experimental group also had superior scores for regular straight-leg raises and muscle power of the affected leg, compared with the control group.

Conclusion

The preoperative health-educational intervention reduced the level of postoperative pain experience by total knee-replacement patients, increased the regularity with which they performed rehabilitative exercises and accelerated the recovery of their physical functioning.

Relevance to clinical practice

The health-educational model can be included in regular clinical management and care of total knee-replacement patients.

INTRODUCTION

Osteoarthritis (OA) is a globally common age-related condition and is one of the most common conditions encountered by primary care physicians. The symptoms of the disease include pain and joint dysfunction as a result of waxing and waning of the articular cartilage, which in turn, leads to the symptomatic friction of bones and an increase in intra osseous pressure. OA is both the most common form of arthritis and one of the fastest growing causes of years lived with disability (YLD). It is also a major cause of decreased activities of daily living (ADLs), especially in the elderly-dependent population of the community. The prevalence of OA is increasing namely due to the increased life expectancy of the population as well as other factors such as obesity. In addition, a significant amount of healthcare resources are invested in the management and care of those with OA.

Statement of the Problem

Effectiveness of Nurse led education on Knowledge regarding post operative care among total knee-replacement surgery patients in selected hospitals at Trichy.

Objectives of the Study

1. To assess the level of Knowledge regarding post operative care among total knee-replacement surgery patients in pretest.
2. To assess the level of Knowledge regarding post operative care among total knee-replacement surgery patients in posttest.
3. To find out the effectiveness of Nurse led education on Knowledge regarding post operative care among total knee-replacement surgery patients.

Hypotheses

H₁ - There is a significant difference between the pretest and post test levels of Knowledge regarding post operative care among total knee-replacement surgery patients in selected hospitals at Trichy dist.

Research Approach

The researcher has chosen quantitative research approach to test the effectiveness of the intervention for this study.

Research Design

Research design is a plan, structure and strategy of investigation so conceived as to obtain answers to research questions or problems. In this study, Preexperimental design was used to determine the effectiveness Nurse led education regarding post

operative care among total knee-replacement surgery patients in selected hospitals at Trichy.

Variables

Variables are qualities, properties or characteristics of persons, things or situations that change or vary and are manipulated or measured in research.

Independent Variable

Nurse led education

Dependent Variable

Level of Knowledge regarding post operative care among total knee-replacement surgery patients.

SETTING OF THIS STUDY

The study was conducted among the patients undergone total Knee replacement Surgery at Priyam Ortho Hospitals, Perambalur.

POPULATION

The target population selected for this study was all total knee-replacement surgery patients.

SAMPLE

The sample selected for this study was total knee-replacement surgery patients admitted at Priyam Ortho Hospitals, Perambalur.

SAMPLE SIZE

The sample size of this study was 30 total knee-replacement surgery patients admitted at Priyam Ortho Hospitals, Perambalur.

SAMPLING TECHNIQUE

Purposive sampling technique was used for this study.

Methods and Data collection

This study is a preexperimental research with pre-test and post-test. The study was conducted using the Purposive sampling method. The statistical population of the study consisted of 30 post operative total knee-replacement surgery patients admitted at Priyam Ortho Hospitals, Perambalur. Participants were selected based on the inclusion and exclusion criteria and those divides as two groups by simple random technique Pre test was conducted using Knowledge questionnaire on management of postoperative care after total Knee replacement Surgeries, Pain Scale and ADL (Barthel index Scale) their demographic characteristics were measured at the same time. Nurse led education was given to the Experimental group for 45 Minutes, Control Group received Routine care After 1 weeks of Nurse led education post test was done with the same scales For Experimental Group and Control Group.

Statistical Analyses

Data pertaining to the demographic characteristics in experimental group as per age majority 7(46.67%) belongs to the age group of 61-70 Years, meanwhile in control group 5(33.33%) belongs to 51-60 Yrs, 61-70 Years respectively, with regard to gender majority 10(66.67%) were male in experimental Group, In control group 9(60) are male. Based on marital status in control group 13(86.67%) got married, in control group 14(93.33%) married. Based on the educational status mostly 7(46.67%) completed school education in experimental group, 8(53.33%) completed school education.

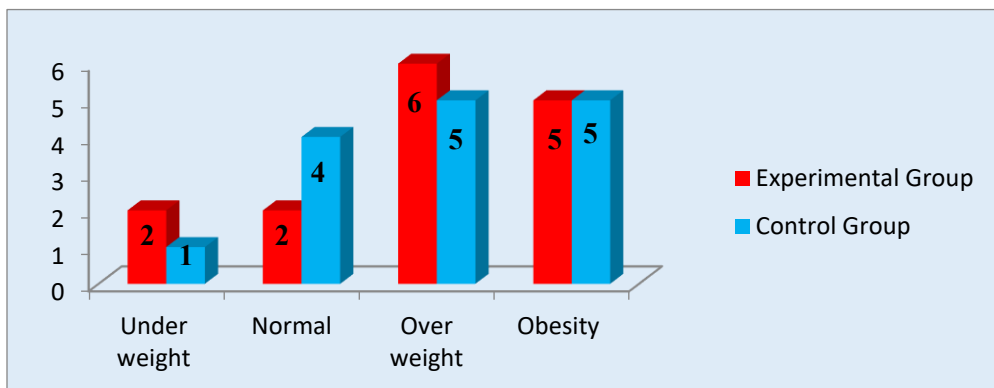


Figure: 1 Frequency Distribution of samples according to Body mass index in Experimental group and Control Group

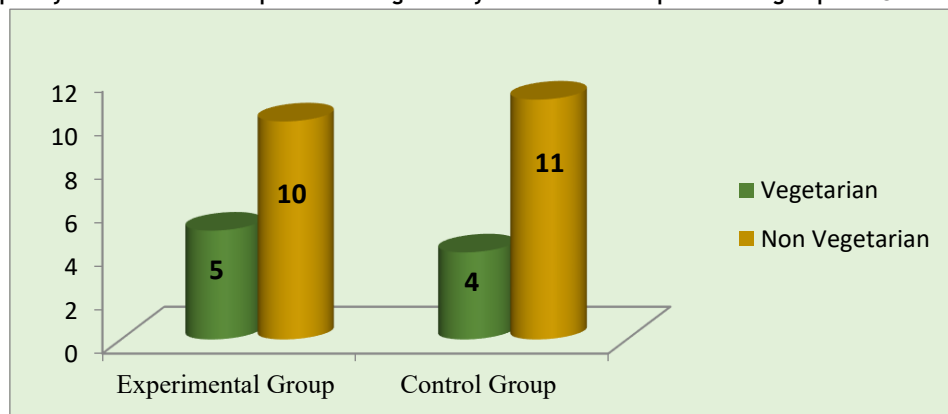


Figure: 2 Frequency Distribution of samples according to Dietary pattern

The collected data revealed that the frequency and percentage distribution of pre test level of knowledge regarding Level of Knowledge regarding post operative pain, the practice of rehabilitative exercises and functional recovery among total knee-replacement surgery patients in pre test 14 (93.33%) had poor Knowledge, 1(6.67%) had moderate Knowledge in experimental group whereas 13(86.67%) had poor Knowledge, 2(1.33) had moderate Knowledge in control group. In post test 12 (80%) had good Knowledge, 3(20%) had moderate Knowledge in experimental group whereas 10 (66.67%) had poor

Knowledge, 5(33.33%) had moderate Knowledge regarding post operative pain, the practice of rehabilitative exercises and functional recovery among total knee-replacement surgery patients in control group. It shows that Nurse led education had played a role in improving the patients Knowledge.

Comparison of mean and standard deviation of pre test and post test Level of knowledge regarding post operative care among control group

Level of Knowledge	Pre test		Post test		Mean difference	't' Value
	Mean	SD	Mean	SD		
Control group	8.43	1.43	5.9	1.49	2.53	2.07(NS)
Experimental group	8.36	1.83	2.43	1.60	5.93	2.64*(S)

The above table shows that the calculated t value' in the control group was 1.07 which was not significantly at $P < 0.05$ level. It can be concluded that there is no much difference in pre test and post test in control group.

Calculated "t" value in the experimental group was 2.64 which was statistically significant at $P < 0.05$ level. Hence H_1 is accepted. It can be concluded that Nurse led education had played a role in improving the patients Knowledge regarding post operative pain, the practice of rehabilitative exercises and functional recovery among total knee-replacement surgery patients

CONCLUSION

The study was done to evaluate the effectiveness of Nurse led education on Knowledge regarding post operative pain, the practice of rehabilitative exercises and functional recovery among total knee-replacement surgery patients in selected hospitals at Trichy dist. It found that Nurse led education had played a Significant role in improving the patients Knowledge regarding post operative pain, the practice of rehabilitative exercises and functional recovery among total knee-replacement surgery patients. It's evident that Implementation of a nurse-led teaching to increase patient participation in recovery after total knee replacement was achievable.

RECOMMENDATIONS

- The study can be replicated on larger samples to generalize the results.
- The comparative study can be conducted with more than one intervention.

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