Original Research Article

A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Post-operative Exercises to Prevent Post-operative Complications among Patients Undergoing Abdominal Surgery at Rama Hospital, Mandhana, Kanpur, UP.

Mrs.Andal[1*], Ms. Arpita Chauhan[2], Ms. Anshika Sachan[3], Ms. Bandita Shee[4], Ms. Km. Neha[5], Ms. Rakhi Kushwaha[6], Mr. Shivam Sharma[7].

Abstract:

The incidence of postoperative complication and death is low in the general population, but a subgroup of high risk patient can be identified amongst whom adverse postoperative outcomes occur more frequently. Major surgeries can induce functional and pain, which can also have negative implications on health care utilization and quality of life. The present study was to assess pretest knowledge regarding postoperative exercises to prevent postoperative complications among the patient undergoing abdominal surgery. To assess the effectiveness of structured teaching programme regarding postoperative exercise to prevent postoperative complications of abdominal surgery. To associate between the pretest knowledge score and demographic variables among the patient undergoing abdominal surgery. In this research study, the research approach was evaluative approach; research design was one group pretest posttest design. The population was patients for undergoing abdominal surgery, selected by purpose sampling technique. The sample size was 30.The study setting was Rama hospital. The structured questionnaire was used to collect data regarding postoperative exercises. The study was statistical significant at 0.05 level. The total mean posttest knowledge score (18.5) was higher than the mean pretest score (10.6). It was also proved that there was no association found between knowledge and selected demographical variables like age, gender, education, area of living, associative illness and previous knowledge about postoperative exercises. The result of the study showed that there is significant improvement in knowledge of patients after giving the teaching. The association between the knowledge score and selected demographic variables was showing nil.

Key words: Assess Effectiveness, STP, Postoperative exercises, and abdominal surgery patients.

1 Introduction

Surgery is the medical speciality that treats disease, injuries or other physical conditions. Surgery came from Greek word 'cheirourgia' meaning handwork. Ancient Egyptians were used the tools for surgery include knives, drills, saws hooks, these are now modified are still used for surgical purpose today technological advancement enables surgeon to accomplish what ancient surgeon never dreamed of surgery. Generally surgery involves cutting into the body to explore on remove tissue under anaesthesia [1].

[1*]Assistant professor, Research Coordinator, Rama college of Nursing. **E-mail:** andal271984@gmail.com

[2-7]Internship Students, Rama College of Nursing, Kanpur, Uttar Pradesh, India

Surgery is the one of the most ancient arts in the world. The abdominal surgery consists of opening of abdominal cavity and repairing damage or removing damaged parts. The surgical procedure includes the repair, removal on resection of oesophagus, liver, stomach, spleen, pancreas, gallbladder etc [2]. As per WHO, The data obtained for 56 (29%) of 192 WHO member state the data estimated that 234.2 million major surgical procedure are undertaken every year worldwide. The World Bank in 2002 reported that an estimated 164 million disability adjusted life years, representing 1140 of entire disease burden were attributed able to surgically treatable conditions. Globally nearly 312 million operation were performed in 2012,whereas in the USA an estimated 28 million in patient surgical procedures and 48 million ambulated surgeries were reported in 2006 and 2010 respectively[3]. Postoperative

immediate complication after abdominal surgery are depend on surgical parts, these maybe haemorrhage, atelectasis, gastrointestinal, complications. Right inguinal hernia is more common complication after appendectomy. Surgery without complication not possible. The complication may be respiratory complication (pneumonia, atelectasis, and pulmonary embolism), circulatory complication (haemorrhage, hypovolemic shock, and thrombophlebilitis), Gastrointestinal complication (nausea, vomiting, constipation, paralytic ileus, and incisional hernia), and urinary complications (urinary retention, UTI). Wound complications occur in 10% of all patient.4In health care today the ability to predict and prevent adverse events such as post-operative complications has become increasingly important as a measure of the safety and quality of care within the constraints of the current health care systems economics, workforce shortage and increasing patient care complexity means nurses must take proactive approach to identifying and reducing risk of patient complication.. The current issue relating to postoperative nursing practice showing that complication occur due to neglected nursing care. The monitoring of patient is important in avoiding and limiting medical problems. The activities help to prevent complications these including breathing and coughing exercises, using pyrometer, extremity exercise and early ambulation. Preoperative teaching is an important component which should be implemented in preoperative phase to decrease postoperative complications [4]. Post operative exercises play an important role in relieving pain and postoperative complications. Anaesthesia hampers normal breathing and stifles urge to cough. Deep breathing and coughing techniques help the patient to eliminate inhalation anaesthetics, prevent alveolar collapse and move secretion to largen airways for expectoration[5].Diaphragmatic breathing exercises are beneficial for effectiveness of breathing inflation of alveoli, reversing postoperative hypoxemia, improvement of ventilation [5].

1 Objectives of the Study

- To assess pre-test knowledge regarding postoperative exercises to prevent post operative complications among the patient undergoing abdominal surgery.
- To assess the effectiveness of structured teaching programme regarding postoperative exercises to prevent post operative complications of abdominal surgery.
- To associate between the pre-test knowledge scores and demographic variables among the patient undergoing abdominal surgery.

2 Hypotheses

H1-There is a significant change in the knowledge level of patients who are attending the teaching programme.

H2-There is a significant association between the pre-test knowledge level of patients and their demographic variables.

3 Methodology:

Research Design: The research design adopted for this study will be pre experimental design with one group pre test and post-test design.

Research approach: The research approach for this study was evaluative approach.

Setting of the study: Rama Hospital

Population: patients undergoing abdominal surgery

Sampling and sample size: non-probability purposive sampling technique was used to select 30 patients undergoing abdominal surgery.

Variables

Independent variable: Structured teaching programme regarding post operative exercise to prevent post operative complications.

Dependent variable: Knowledge of the patient regarding postoperative exercises

Demographic variables: age, sex, area of living, education, duration of illness, associated illness (diabetes, hypertension), previous knowledge of postoperative exercises.

Sampling criteria

Inclusion criteria

Patient who were present in Rama hospital during the period of data collection.

Patient who are all undergoing abdominal surgery.

Patients who knows Hindi language.

Exclusion criteria

Patient undergoing laparoscopic abdominal surgery.

Patients who are not willing to participate in the study.

Development and Description of Tools Used in the Study

The tool consists of 2 sections:

Section A: Consist of socio demographic data such as age, sex, education, area of residents, associative illness, and previous knowledge of postoperative exercises**.**

Section B: A questionnaire was consisting of 25 items were used to determine the knowledge regarding postoperative exercises.

4 Data Collection Procedure

Permission from the concerned authority: Prior to collection of data, permission was obtained from the principal to conduct the study and permission was also obtained from CMS (chief medical superintendent) of Rama Hospital to conduct study in the research setting. Period of data collection: Data collection was done in 2 weeks from 14|5|18 to 26|5|19. Pre-test data collected by using structured questionnaire, after performing structured teaching programme regarding postoperative exercises post-test data was collected from patients.

5 Results

Data was analyzed on the basis of objectives. The obtained was analyzed by using descriptive and inferential statistics.

1. Pre-test knowledge assessed by using descriptive analysis method.
2. Effectiveness of structured teaching programme assessed by using inferential statistics.
3. Association between pre-test knowledge score and demographic variables assessed by using inferential statistics.

Section 1: The major findings of the study.

1. Among the total sample, most of the sample (40%) belongs to the age group of 41-50 yrs , (36.7%) in the age group 31-40 yrs , (20%) in the age group of 51-60 yrs and (3%) in the age group above 60 yrs.

2. About the gender (63%) male of the sample were male and (37%) were female.

3. As per the education (47%) sample had secondary education, (23%) primary education, (20%) graduate and (10%) uneducated.

4. Among the total sample 67% were living in rural area, and 33% were living in urban area.

5. Among the total sample, 10% sample had diabetes mellitus and 90% sample had no other disease.

6. 10% had previous knowledge regarding postoperative exercises and 90% did not have any previous knowledge.

Section 2: Difference between pre-test and post-test knowledge score.

In the pre test 50% patients had moderate knowledge, 50% patients had inadequate knowledge and none of the patients had adequate knowledge, in the post-test 36.7% of patients had achieved adequate knowledge and 63.3% of the patients had moderate knowledge score where as none of the patients had inadequate knowledge regarding post operative exercises.

TABLE 1: Distribution of pre-test and post-test knowledge regarding postoperative exercises. [N=30]

Level of knowledge	Pre-test		Post-test	
Adequate knowledge	Freq	Percent	freq	Percent
	0	0%	11	36.7%
Moderate knowledge	15	50%	19	63.3%
Inadequate Knowledge	15	50%	0	0%

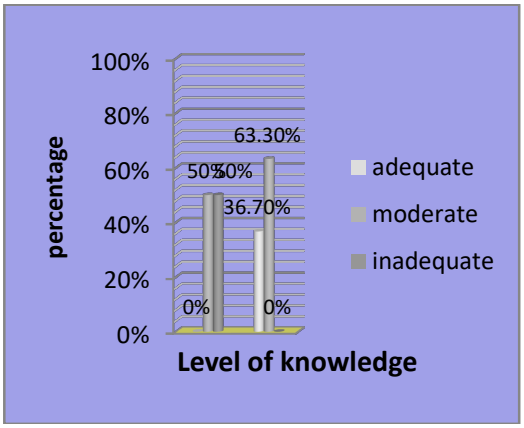

Figure 1. Cylindrical diagram showing the difference between pre-test and post-test knowledge score.

Section 3: Mean and standard deviation of pre-test and post-test knowledge of patients.

The mean total knowledge score before intervention was 10.6 and SD was 3 and after intervention was 18.5 and 1.8 respectively.

Section 4: Effectiveness of structured teaching programme on post operative exercises.

The mean score before and after administration of structured teaching programme has shown a significant difference. The mean total knowledge score before intervention was 10.6 which were increased to 18.5 after interventions. The paired "t" test (13.36) was found to be significant at a very high level. So it is made clear that structured teaching programme had a positive impact on knowledge among patients.

Section 5: Association between the demographic variables and pre test knowledge score of patients on knowledge regarding post operative exercises.

There is no significant association between pre-test knowledge score and selected demographic variables Such as age, gender, education, living

area, associative illness and previous knowledge related to postoperative exercises.

6 Recommendation

- Similar study can be repeated by increasing the size of the sample.
- A similar study can be conducted by true experimental approach.
- Similar study can be repeated in others hospital.

7 Conclusion

The present study concludes that in the pre-test knowledge score50% patients had moderate knowledge, 50% had inadequate knowledge and none of the patients had adequate knowledge. In the post test knowledge 36.7% of patients had achieved adequate knowledge and 63.3% of patients had moderate knowledge score where as none of the patients had inadequate knowledge.

The comparison of pre and post test knowledge level were done which shows that the mean score in the pre test was 10.6 and in post-test it was 18.5 and SD was 3 and 1.8 respectively.

The paired t -test value was 13.36 at 0.05 level of significance.

There was no significant association between pre-test knowledge score with their selected demographic variable.

Bibliography

[1] New World encyclopaedia contributors, surgery (internet).New World encyclopedia; 2008Aug 29, 15:46 utc [cited2009 Dec 8].Available from http://www.newworldenclyclopedia.org/entry/surgery?oldid=795211.

[2] Malcolm R. Calmer Morony's Surgery for Nurses: 16th edition; 2002; page no 1-25.

[3] Mitchell S. King.Preoperative Evaluation? American Family Physician, 2000, July vol-62: page no: 387-396.

[4] Black JM,Hawks JH,Medical Surgical Nursing: Clinical management positive outcomes.7th edition. Missouri. India: Elsevier;2005.p.(vol 1).