

EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON PREVENTION OF SELECTED POSTOPERATIVE COMPLICATIONS AMONG PATIENTS UNDERGOING ABDOMINAL SURGERIES

Author's Name: ¹Syed Balig Ahmed, ²Dr. K.C. Yadav

Affiliation: ¹Ph.D. Scholar, Maharaj Vinayak Global University, Jaipur, Rajasthan, India

²Research Guide, Professor, Pacific Medical University, Udaipur, Rajasthan, India

E-Mail: hemantiamcool@gmail.com

DOI No. – 08.2020-25662434

Abstract

The aim of the study is to: assess the effectiveness of structured teaching programme on prevention of selected postoperative complications among 300 patients undergoing abdominal surgeries in selected hospitals. A pre-experimental research design and convenient sampling technique was adopted study. Data were collected by using structured interview schedule and structured questionnaire was used to assess the existing knowledge regarding prevention of selected post operative complications. Shows that majority (42.70%) subjects had inadequate knowledge and (18.30%) had moderate knowledge in pre test. In post test majority 44 (73.3%) had adequate knowledge and 16 (26.7) had moderate knowledge. The pre test mean score was 16.15 with the standard deviation of 4.65, whereas in post test the mean score was 30.7 with the standard deviation of 5.387 which indicates that structured teaching programme is statistically significant at $P < 0.01$ level. There was significant difference between the pre test and post test knowledge scores $t = 20.56$, $P < 0.01$ level. There was a significant association between pre test knowledge scores with their education and no association between age, gender, religion, occupation, marital status, type of family, place of domicile, dietary pattern, personal habits and source of health information at $P < 0.01$ level. Author concluded that that post test knowledge scores was improved after structured teaching programme. So structured teaching programme was effective in increasing the knowledge level regarding prevention on selected post operative complications among patients undergoing abdominal surgeries.

Keywords: Assessment, Knowledge, structured teaching programme, postoperative complications abdominal surgeries

INTRODUCTION

Surgery is the branch of medicine that deals with the physical manipulation of a bodily structure to diagnose, prevent, or cure a disease. Initially surgical techniques were developed to treat injuries and traumas. But recently also popular treatment to treat pathological disorders. 60 to 70 million Americans are affected by digestive diseases, according to the national digestive diseases clearing house. Digestive diseases account for 13% of all hospitalizations in the United States in 1985 and 16% of all diagnostic procedures the most costly digestive diseases are such gastrointestinal disorders as diarrhoea infections (\$4.7 billion); gall bladder diseases (\$4.5 billion); colorectal cancer (\$4.5 billion); liver diseases (\$3.2 billion); and peptic ulcer diseases (\$4.5 billion). Appendectomy is the fourth most frequent intra abdominal operation performed in the United States. Appendectomies are common in males than females, with incidence peaking into late teens and early twenties. Each year in the United States four appendectomies are performed per 1000 children younger than 18 years of age. More than 50, 0000 Americans have gallbladder surgery annually.

There will be some complications in all types of surgeries. Even in abdominal surgery it may arise many complications. Post operative complications after surgeries are respiratory complications (pneumonia, atelectasis, pulmonary embolism), circulatory complications (hemorrhage, hypovolemic shock, thrombophlebitis, thrombus), Gastrointestinal complications (nausea, vomiting, constipation, tympanites, paralytic ileus) wound complications (wound infection, wound evisceration, wound dehiscence, incisional hernia) urinary complications (urinary retention, urinary tract infections).⁷

Significant pulmonary complications have been estimated to occur in 20% to 70% of patients following abdominal surgery. Atelectasis is the most frequent pulmonary complications occurring during first 48 hours after surgery.⁸

Pulmonary complications are the leading cause of morbidity and death during the post operative period in patients who have undergone upper abdominal surgery.

Post operative pulmonary complications contribute significantly to morbidity and mortality in surgical patients. Pulmonary complications occur more frequently than cardiac complications. The complications rate for upper abdominal and thoracic surgery is the highest. The success of every surgery depends on the type of nursing care given to the patients before (pre-operative) during (intra-operative) and after (post operative) period of surgery. Education should also be provided to the patient and those who may assist with caring for the patient at home for potential complications. Assessing and identifying risk factors for complications are crucial in early interventions that can lead to better outcomes and faster healing of surgical wounds.

NEED OF STUDY

In India 40% peoples are undergoing abdominal surgeries every year. In Rajasthan state 42% of the abdominal surgeries are performed in private hospitals and 58% of surgeries in government hospitals.¹⁵

In 2016 the incidence rate of total abdominal surgeries in Govt. Hospital, at Shrimadipur district was 547. Whereas in Private Hospital at Shrimadipur was 654.

A study was conducted to assess the frequency of appendectomy complications among adult's patients above 16 years. 199 patients were taken as a sample. 58 patients (29%) experienced post operative complications; 8 (4%) patients were admitted to the surgical high dependency unit post operatively. One death (0.5%), re operation for a post operative complication was required in nine (4.5%) patients, and 26 readmissions rate (13%). The study result showed that there is no significant difference in the rate of complications. The study concluded that appendectomy is associated with a significant morbidity.¹⁶

John C Woodfield-et al. Prospective cohort study was conducted among 237 patients with general or vascular surgery to monitor for complications. A standardized telephone questionnaire was performed 30 days following surgery. All complications were documented and classified according to severity. Results of the study revealed that 33% patients were identified with post surgical complications. These complications included 36 of 63 (57%) SSI, 6 of 12 small bowel obstructions,

and three of four major thromboembolic events and a number of space SSI, urinary infections, functional gastrointestinal problems, and pain management problems. Cardiac, respiratory, and neurologic complications were mainly diagnosed in hospital. Of the 135 "post-discharge" complications, 89 were managed in the community and 46 (34%) resulted in admission to hospital, including seven which required a major intervention. Study was concluded that Discharge planning should include contingency plans for managing problems commonly diagnosed after discharge from hospital.

OBJECTIVES OF THE STUDY

- ❖ To assess the existing knowledge regarding prevention of selected post-operative complications among patients undergoing abdominal surgeries.
- ❖ To determine the effectiveness of structured teaching programme on prevention of selected post operative complications among patients undergoing abdominal surgeries.
- ❖ To find the association between post test knowledge level with their selected demographic variables among patients undergoing abdominal surgeries.

METHODOLOGY

- **Research approach** -In this study quantitative evaluate research approach was used.
- **Research design** - Pre-experimental research design was used by the investigator.
- **Setting**- Govt. hospital and Private Hospital Shrimadapur.
- **Sample**- 300 patients undergoing abdominal surgeries in selected hospitals
- **Sampling Technique**- Non probability convenient sampling technique was used to select the samples.
- **Data collection tool**- . It was consist two parts -1. Socio- Demographic Data 2. Structured Interview schedule was selected for the study to collect the data on the knowledge on prevention of selected complications
- **Data collection**: The data collection procedure was carried out from 9/12/2017 to 19/06/2018. .
- **Data analysis**-The data was analyzed with objective of the research study via descriptive and inferential statistic.

RESULTS

Section I: Table 1: - Description of Demographic Variables of the Patients

Sl. no	Variable	frequency	%	
1	Age	21 – 30 years	118	39.3
		31-40 years	96	32.0
		41-50 years	48	16.0
		51-60 years	38	12.7
2.	Gender	Male	185	61.7
		Female	115	38.3
3.	Religion	Hindu	170	56.7
		Muslim	110	36.7
		Christian	20	6.6
4.	Education	No. formal education	105	35.0
		Primary school	96	32.0

		High school	45	15.0
		Pre-university	30	10.0
		Degree and above	24	8.0
5.	Occupation	House wives	68	22.7
		Labourer / coolie	155	51.7
		Govt. employee	20	6.8
		Pvt. Employee	30	10
		Business	17	5.8
		Others	10	3.0
6.		Monthly income	Less than 3000	148
	3001-5000		83	27.6
	5001-7000		45	15.0
	More than 7000		24	08.0
7	Marital status	Married	185	61.7
		Unmarried	86	28.7
		Widow	15	05
		Widower	08	2.6
		Divorced	06	02
8	Type of family	Nuclear	155	51.7
		Joint	138	46
		Extended	7	2.3
9	Place of domicile	Urban	120	40.0
		Rural	180	60.0
10	Dietary pattern	Vegetarian	210	70
		Non-vegetarian	90	30
11	Personal habits	Tobacco chewing	156	52.0
		Smoking	75	25.0
		Alcoholism	48	16.0
		None of the above	21	07.0
12	Sources of health information	Family / neighbours	89	29.7
		Friends / relatives	98	32.7
		Health personal	47	15.7
		Printed medias	38	12.6
		Mass media	28	9.3

Section II: Existing knowledge regarding prevention of selected post-operative complications among patients undergoing abdominal surgeries.

Table no.-2- Frequency and percentage distribution of knowledge level of patients undergoing abdominal surgeries in pre test.

N = 300

Level of knowledge	Pretest	
	Frequency	Percentage
Inadequate (below 50%)	210	70
Moderate (51 – 75%)	90	30
Adequate (above 75%)	-	-
Total	300	100

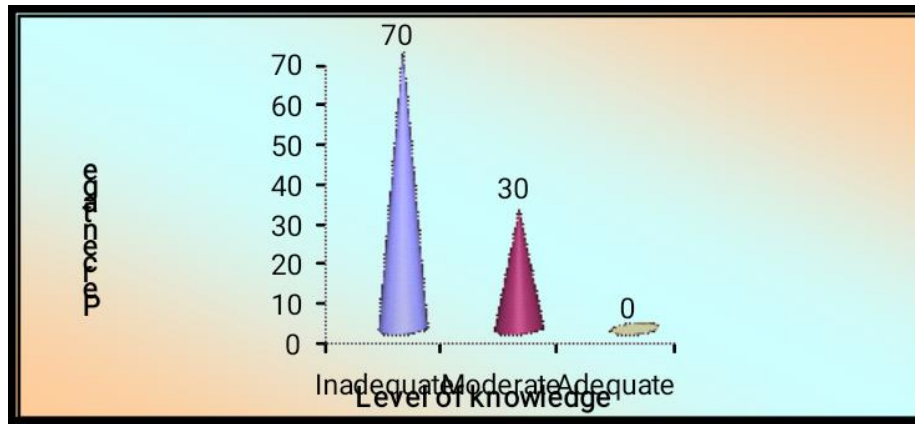


Table -2 and above graph-1, displays that majority of the subjects in pretest 210 (70%) had inadequate knowledge, 90 (30%) had moderate knowledge and no one had adequate knowledge regarding prevention of selected post operative complications.

Table - 3 Components wise distribution of frequency and percentage of pretest
N = 300

Aspects of knowledge	Level of knowledge					
	Inadequate (below 50%)		Moderate (51 - 75%)		Adequate (above 75%)	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Respiratory complications	228	76.0	72	24.0	-	-
Gastro intestinal complications	232	77.3	68	22.7	-	-
Wound complications	198	66.0	101	33.6	1	.04
Overall	210	70.0	90	30.0	-	-

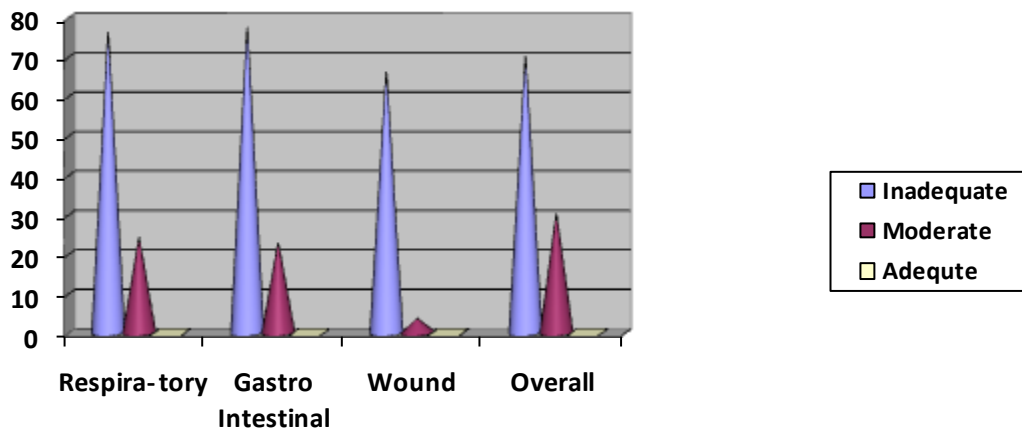


Table No.3 and above graph-2 represent that the aspect wise knowledge scores of pre-test. In the component of Gastro intestinal complications 232(77.3%)had inadequate knowledge, 68 (22.7%) had moderate knowledge. The component of respiratory complications 228 (76%) had inadequate knowledge 68 (22.7%) had moderate knowledge, In the component of wound complication 198

inadequate knowledge and 101 (33.6) had moderate knowledge and 1 (0.04%) had adequate knowledge. The overall knowledge 210 (70%) had inadequate knowledge and 90 (30%) had moderate knowledge and no one had adequate knowledge regarding prevention of selected post operative complications.

Table – 4 Components wise mean, standard deviation and mean percentage for pretest
N = 300

Aspects of knowledge	Mean	Standard deviation	Mean %
Respiratory complications	5.07	2.55	33.80
Gastrointestinal complications	4.98	2.72	41.50
Wound complications	5.96	1.65	45.84
Overall	16.15	4.65	40.37

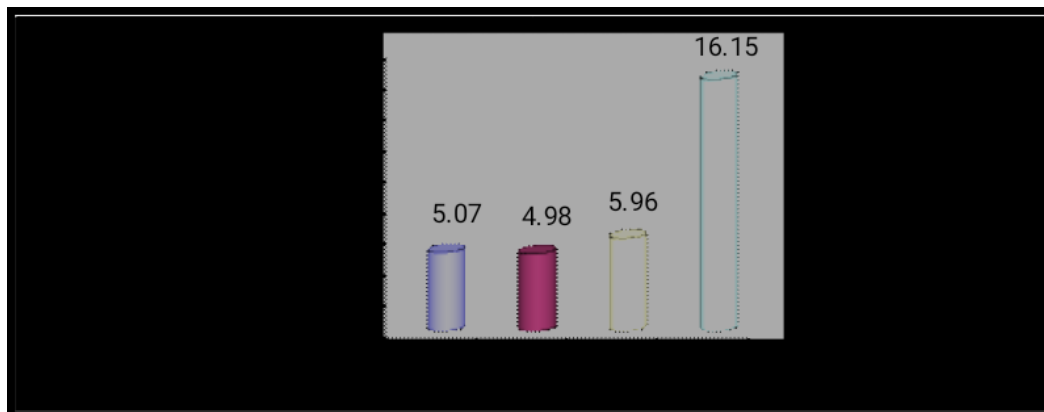


Table 4 and above graph-3 depicted that the aspect of knowledge regarding respiratory complications, the mean value was 5.07 with the standard deviation of 2.55 the mean percentage was 33.80. The component of gastrointestinal complications, the mean value was 4.98 with the standard deviation of 2.72 and mean percentage was 41.50 the aspect of wound complications, the mean value was 5.92 with the standard deviation of 1.65, the mean percentage was 45.84. The overall mean value was 16.15 with the standard deviation of 4.65 and mean percentage was 40.37.

To determine the effectiveness of structured teaching programme on prevention of selected post operative complications among patients undergoing abdominal surgeries.

Table – 5 Frequency and percentage distribution of knowledge level of patients undergoing abdominal surgeries before and after structured teaching programme.

N = 300

Level of knowledge	Pre test		Post test	
	Frequency	Percentage	Frequency	Percentage
Inadequate (Below 50)	210	70	-	-
Moderate (51-75%)	90	30	215	71.7
Adequate (Above 75%)	-	-	85	28.3
Total	300	100	300	100

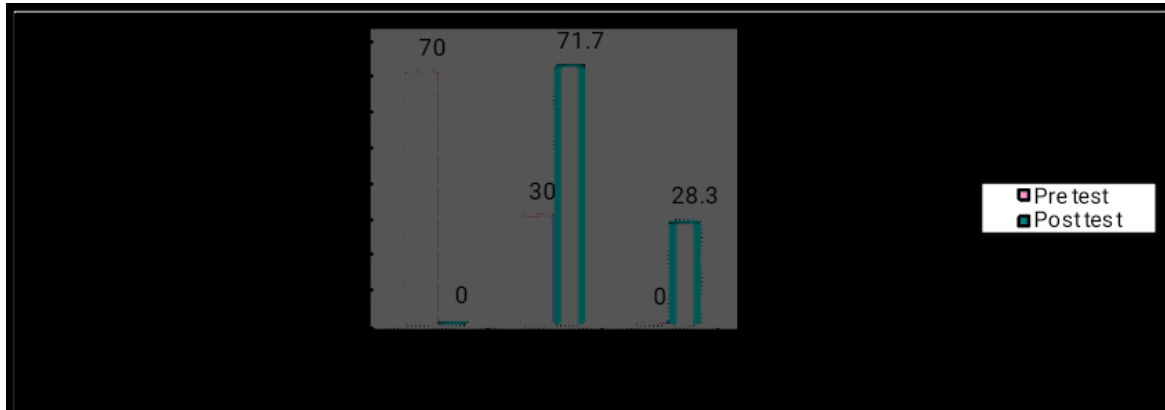


Table 5 and above diagram-4 reveals that the knowledge of patients regarding prevention of selected post operative complications. In pre test 210 (70%) subjects had inadequate knowledge, 90 (30%) had moderate knowledge and no one had adequate knowledge. In post test majority of the subjects 215 (71.7%) had adequate knowledge, 85 (28.3%) had moderate knowledge and no one had inadequate knowledge.

Section-III : Findings of Association Between Post Test Level of Knowledge Score Regarding Prevention of Selected Post Operative Complications with Their Selected Demographic Variables Among Patients Undergoing Abdominal surgeries.

Results revealed that, there was significant association between education with level of knowledge regarding prevention of selected post operative complications among patients undergoing abdominal surgeries at $p < 0.01$ level. By using chi-square (X^2) it was evident that, there was no significant association between age, gender, religion, occupation, monthly income, marital status, type of family, place of domicile, dietary patten, personal habits and source of health information post test knowledge score regarding prevention of selected post operative complications among patients undergoing abdominal surgeries at $p > 0.01$ level.

DISCUSSION

There are many supportive studies are supporting the finding of present studies

NURSING IMPLICATION AND RECOMMENDATION

The findings of the study can be used in the following areas.

1) Nursing practice

So, nurse should educate the patients in their routine practice regarding prevention of post operative complications will help the patients to promote and protect their health. This studies aim is towards improving health condition and prevention of further post operative complications among patients undergoing abdominal surgeries. Post operative deep breathing, coughing, turning, leg exercises, postural drainage, chest physiotherapy and steam inhalation, proper diet and proper wound care will prevent the complications.

2) Nursing education

Preoperative and post operative health education on prevention of selected post operative complications help the nursing personnel will help to identify the risk factors and preventing such

complications by in service education and continuing education and more preventive aspects to be included in the nursing curriculum.

3) Nursing administration

The nurse administrator should take part in health policy making and developing protocols related to prevention of post operative complications like respiratory, gastro intestinal, circulatory, urinary, wound complications etc. The nursing administrators should train the nurses on the care of patients with post operative complications like respiratory, gastro intestinal, wound complications.

4) Nursing research

Research finding should incorporate in care, as evidence-based knowledge will be helpful to reduce the post operative complications among patients undergoing under abdominal surgeries. Nurse researchers conduct more studies on prevention of post operative complications.

CONCLUSION

Author concluded that that post test knowledge scores was improved after structured teaching programme. So structured teaching programme was effective in increasing the knowledge level regarding prevention on selected post operative complications among patients undergoing abdominal surgeries

REFERENCES

1. History of surgery. <http://does.google.com>
2. Origin of surgery. www.wikipedia,the free encyclopedia.com
3. Phipps.shafers medical surgical nursing. 7thed. B I publication pvt.Ltd.New Delhi,494.
4. Brunner and Suddharth. Medical and surgical nursing. 11thed., 2009.
5. Demographic gastroenterological surgery. Jop 2006 No.10.7 (6); 608-15.
6. Text book of clinical surgery. 1sted. 1994
7. Potter and perry. Fundamentals of nursing. 6thed. Mosby publication. 2006. 1636-37.
8. Baker P.J. Post operative atelectasis. Nursing digest. 5:42. spring 1977.
9. Erick H.J. et.al. Pulmonary complication and morbidity and mortality. 1984.
10. Luckman and Sorensen. Medical surgical nursing. A psychological physiological approach. 2nded. WB Saunders Company. 417.
11. Ref [John C Woodfield](#) et all .Incidence and significance of postoperative complications occurring between discharge and 30 days: a prospective cohort study. J Surg Res. 2016 Nov; 206(1):77-82. doi: 10.1016/j.jss.2016.06.073. Epub 2016 Jul 4. (<https://pubmed.ncbi.nlm.nih.gov/27916378/>)