

Effectiveness of Scheduled Ambulation on Immediate Postoperative Outcomes among Patients Following Major Abdominal Surgeries in Government Medical College and Hospital at Tiruvannamalai

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Abstract

Early mobilization is a widely practiced and important component of postoperative care following open abdominal surgery. Mobilization involving an upright position appears to be of greatest benefit in the early postoperative period with evidence of improvements in pulmonary function. A study to determine the effectiveness of scheduled ambulation on immediate postoperative outcomes among patients following major abdominal surgeries in government medical college and hospital at Tiruvannamalai. 50 subjects were selected by using convenient sampling technique. The findings revealed that that majority 15 (60%) of respondents in experimental group is moderate activity. In control group majority 16 (64%) is in poor activity. In comparative findings the mean experimental group score is 44.2 and control group was 24 and 't' test value is 4.42 result was found to be statistically significant at $P < 0.05$ level.

Keywords: Scheduled Ambulation; Major Abdominal Surgeries and Post Operative Period.

Introduction

“Those who do not find time for exercise, will have to find time for illness”

Almost 70% of surgeries performed in the hospitals are related to the abdomen. Many patients develop complications after the surgery and nurses are at the high priority care giver to the patients after surgery. A major change in the past decade has been the emergency of outpatient surgery centers and ambulatory surgery. 60% of all the major surgeries are requiring on the basis of early ambulation. This is a development that is changing the focus of nursing care of postoperative patients based on scientific knowledge of all the phases of rehabilitation after surgery.

The common problems arising after surgery performed under general anesthesia are, circulatory complications, problem of consciousness, discomfort, and respiratory tract complications. When a patient develops the postoperative complications it will result into increase in hospital stay as well as economical loss.

Pulmonary complications are high priority after major abdominal surgery. According to presentation at 'Society for hospital medicine,' it is observed that the number of pulmonary complications after major abdominal surgery has been increased between 2010 and 2012. Pulmonary complications after abdominal surgery also increases hospital stay as well as cost of care. This leads to poor prognosis of the patient. There is a need of proper interventions to overcome these problems, so that the patients will have the immediate postoperative recovery without any complication from the surgical illness.

Statement of the Problem

A study to determine the effectiveness of scheduled ambulation on immediate postoperative outcomes among patients following major abdominal surgeries in government medical college and hospital at Tiruvannamalai.

Objectives of the Study

1. Assess the effectiveness of scheduled ambulation on immediate post operative outcomes in the

experimental group.

2. Determine the effectiveness of early ambulation measured by postoperative outcomes between experimental group and control group.
3. Associate the effectiveness of scheduled ambulation with selected demographic variable age, sex, religion, type of family, income and type of surgery.

Operational Definitions

1. Effectiveness: Refers to the difference of scores obtained from the subjects on patient outcomes between experimental group and control group.
2. Scheduled ambulation: Refers to the planned activity which comprises of bodily movement and exercises, which would be performed and taught to the patient every four hourly for the first 72 hours after major abdominal surgery.
3. Major abdominal surgery: Refers to operation done through anterior abdominal wall.
4. Immediate Postoperative Period: Refers to the period from patient transferred from the operation theater to the 72 hours.
5. Immediate Postoperative Outcomes: Refers to the assessment of parameters such as level of pain, level of fatigue, urinary retention, orthostatic hypotension, collection of flatus, constipation, and activity of daily living.

Hypothesis

H_1 : There will be significant difference between the postoperative outcome scores in the subjects exposed to scheduled ambulation than those who are not exposed to scheduled ambulation.

Research Methodology

Research Design

Quasi - experimental design (Non equivalent control group post test only design) to assess the effectiveness of scheduled ambulation on immediate copulative outcomes among patients with major abdominal surgical ward in Government Medical College & Hospital, Tiruvannamalai.

Variables

- *Independent Variable* - Scheduled ambulation among major abdominal surgery patients.

- *Dependent Variable* - Immediate outcomes of surgery among major abdominal surgery patients.

Setting of the Study

The study was conducted who is admitted in surgical ward of Government Medical College & Hospital, Tiruvannamalai. This hospital is situated 2 km away for our college campus.

Population

The population of the study is surgery patients who admitted in Government Medical College & Hospital, Tiruvannamalai.

Sample

Major abdominal surgery under general anesthesia patients who admitted in Government Medical College & Hospital, Tiruvannamalai.

Sample Size

Sample size is 50 people. (Experimental group 25 and control group 25)

Sample Technique

Sample was selected by using convenient sample technique.

Inclusion Criteria

1. Patients following major abdominal surgeries under general anaesthesia.
2. Postoperative patients who are admitted for three days in surgical units.
3. Patients who give consent for the study.
4. Postoperative patients who are available at the period of study.
5. Patients who are conscious and able to follow oral commands.

Exclusion Criteria

1. Patients who have undergone minor abdominal surgery under spinal anaesthesia.
2. Patients with shock.
3. Patients having cardiac problems.
4. Patient who have not given consent for the study.
5. Patients associated with neurological disorders manifesting altered sensorium.

6. Patients not following oral commands.

Development of the Data Collection Instrument:-

The research tool was the help of literature & experts opinion. The tool used for data collection was observational check list and structured questionnaire.

Data Collection Procedure

The formal permission for conducting the study was obtaining from the nursing superintendent of Government Medical College & Hospital, Tiruvannamalai. The investigator was established within the subject & brief introduction about research purpose and the tool given. The subjects were assured confidently they were requested to reply frankly and truly. Scheduled ambulation will be implemented on

experimental group every fourth hourly for first 72 hours. The patient's outcomes will be measured on fourth post operative day using observation checklist and questionnaire from experimental group. The same tool will be used for controlled group without intervention. The proposed data collection duration is 30 days.

Data Analysis and Interpretation

Distribution of ambulation status in posttest among experimental and control group. Distribution of samples according to ambulation status should that 15 (60%) of experimented group were moderate activity. 6 (24%) of were good activity control group 16 (64%) were poor activity, 7 (28%) were moderate activity and 2 (8%) were good activity.

Table 1: Show that Distribution of Demographic Characteristics among Major Abdominal Surgery People N = 50

S. No	Variables	Experimental group		Control group	
		Frequency	Percentage	Frequency	Percentage
1.	Age				
	20-35 years	10	40	11	44
	36-50 years	8	32	6	24
	51-65 years	5	20	5	20
	66-80years	2	8	3	12
2.	Sex				
	male	6	24	4	16
	female	19	76	21	84
3.	Religion				
	Hindu	18	72	22	88
	Christian	5	20	2	8
	Muslim	2	8	1	4
4.	Type of family				
	nuclear family	17	68	22	88
	joint family	8	32	3	12
5.	Income				
	< 3000	8	32	8	32
	3001 - 5000	9	36	10	40
	5001 - 7000	5	20	2	8
	> 7000	3	12	5	20
6.	Education				
	Illiterate	8	32	15	60
	primary school level	7	28	6	24
	higher secondary level	8	32	2	8
	graduation	2	8	2	8
7.	Area of resident				
	urban	3	12	6	24
	rural	22	88	19	76
8.	Type of surgery				
	Appendectomy	7	28	2	8
	Gastrectomy	6	24	7	28
	LSCS	5	20	7	28
	Colostomy	3	12	2	8
	laparotomy	3	12	7	28

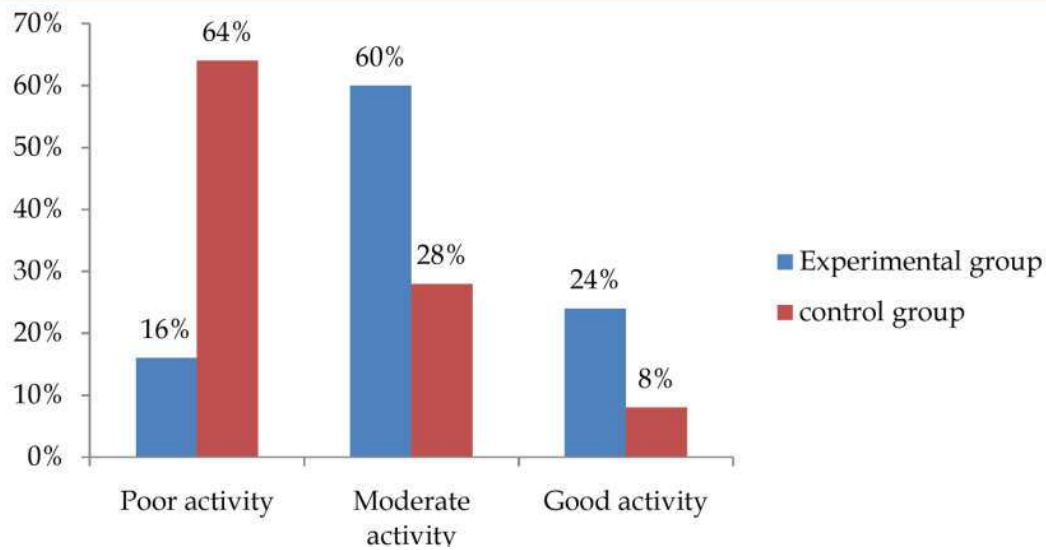


Fig. 1: Shows the distribution of ambulation status in post test among abdominal surgery patients

Table 2: Distribution of comparison between post test in experimental and control group

N = 50

Group	Mean	Median	Mode	Standard deviation	't' test	P value
Experimental Group	44.2	40	37	17.63	4.42	< 0.05
Control Group	24	18	17	14.48		

Above the table depict that the mean experimental group score is 44.2 and control group was 24, t – test value is 4.42 at statistically significant at P< 0.05 level.

Discussion

Demographic Variables (Sample Characteristics)

The finding of experimental group should that majority of respondents 10 (40%) were in the age group of 20 - 35 years, 8 (32%) respondents in 36 -50 years, 5 (20%) were in the age group of 51- 65 years and 2 (8%) respondents in 66 - 80 years. In sex 19 (76%) to respondents in female, 6 (24%) of the respondents in male. In relation 18 (72%) belong to Hindu 5 (20%) were belong to Christian and family 2 (8%) of respondents were to belong to Muslim. Result shows that the majority of respondents 17 (68%) were in nuclear family and 8 (32%) were in joint family. In income the majority 9 (36%) of respondents had income between Rs. 3001 to 5000. 8 (32%) had less than Rs.3000, 5 (20%) had income between 5001 to 7000 and 3 (12%) had income of more than Rs.7000/-. In education majority 8 (32%) of respondents in illiterate and higher secondary level, 7 (28%) were primary school level and 2 (8%) were graduated. In area of resident majority 22 (88%) were in rural resident and 3 (12%) were in urban resident.

Among control group the majority 11 (44%) were in the age group of 20 – 35 years, 6 (24%) were in 36 – 50 years, 5 (20%) were in 51 – 65 years and 3 (12%) were in the age group of 66 - 80 years. In sex majority is 21 (84%) in female and 4 (26%) were in male. In religion majority 22 (88%) of respondents belongs to Hindus, 2 (8%) were in Christian 1 (4%) were in Muslim. In type of family majority 22 (88%) of respondents were in nuclear family and 3 (12%) were in joint family. In education majority 15 (60%) were in illiterate group, 6 (24%) were in the primary school level and 2 (8%) were in the higher secondary school level and graduation.

The first objective of the study was to assess the effectiveness of scheduled ambulation on immediate post Operative outcome in the experimental group.

The findings showed that 4 (16%) of respondents have poor activity, 15 (60%) have moderate activity and 6 (24%) good activity.

The second objective of the study was to determine the effectiveness of early ambulation measured by postoperative outcomes between experimental group and control group.

Distribution of samples according to ambulation status showed that 15 (60%) of experimental group were moderate activity, 6 (24%) of were good activity. Control group 16 (64%) were poor activity, 7 (28%) were moderate activity and 2 (8%) were good activity.

The third objective of the study was to determine the comparison of early ambulation measured by postoperative outcomes between experimental and control group.

In comparative findings the mean experimental group score is 44.2 and control group was 24, t - test value is 4.42 at statistically significant at $P < 0.05$ level.

The fourth objective of the study was to associate the post test ambulation with selected demographic variables.

Chi square test was used to find the association & selected variable. The result shows that in age chi square value is 2.86 & table value is 7.82. In sex chi square value is 0.56, table value is 3.84. In religion chi square value is 2.016 & table value is 5.99. In type of family chi square value is 2.872 & table value is 3.84. In income chi square value is 1.836 & table value is 7.82.

It shows that there is significant association between age, sex, religion, type of family & income.

Conclusion

The study findings may be helpful to abdominal surgical patients to prevent post operative complication. Health workers can be motivate and demonstrate scheduled ambulation on major abdominal surgeries patients to improve patients health status.

Recommendations for Further Study

Based on the finding of the study, following recommendations are made:

- Study can be supplicated using large number of samples to make it more reliable.
- The study can be done comparing abdominal surgery people from different techniques in postoperative interventions.
- A comparative study can be done between to various surgery people providing various techniques.

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