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Evaluate the effectiveness of scheduled ambulation on functional ability, Anxiety and quality of life among patient, who had undergone abdominal surgery in selected hospitals at Chennai

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Abstract

Background: Abdominal explorations surgery and surgery for inflammatory bowel disease are some of the common abdominal surgeries performed with complete or partial removal of small or large intestine. Alike any other surgical procedure, there are always side effects and complications present in abdominal surgeries too. In an abdominal surgery, the risks may include infection, damage to nearby organs and bleeding. The complications may also be because of anesthesia, medication reactions and breathing problems too. The post-surgical immobility may have much detrimental impact towards the body and mind of the patients. The physiological impacts can involve pressure ulcers, deep vein thrombosis, bowel obstruction, urinary tract infections and ventilator-related pneumonia. Furthermore, the immobility can contribute towards different depression levels. Prevention of such complexities can benefit the caregiver, patients, and medical facilities concerning with better outcomes and costs. The following are the some important post-operative complications raised after abdominal surgery.

Aim: aim of this experimental study is to analyze the effectiveness of scheduled ambulation on functional ability, anxiety and quality of life among patient who had undergone abdominal surgery.

Objectives: 1 To assess the effectiveness of scheduled ambulation on functional ability of the patient who had undergone abdominal surgery in the intervention group and control group. 2. To find out the effectiveness of scheduled ambulation on anxiety among patient who had undergone abdominal surgery in the intervention group and control group. 3. To determine the effectiveness of scheduled ambulation on quality of life among patient who had undergone abdominal surgery in the intervention group and control group.4. To determine the association between selected demographic variables and functional ability, activities of daily living, functional activity and anxiety in the study group and control group.

Methods: A quantitative approach experimental pre-test, post-test design 150 Post-operative patients were selected by Simple random sampling technique.

Results: Study revealed that, among The Posttest mean scores and SD of the experimental study group that is observed after the surgery at regular time-interval of 24 hours are 10.880 (.9438), 10.613 (1.0384), 10.533 (1.0441), 10.480 (1.1314) and 10.147 (1.1234). In the same way, the mean and SD scores of control group 10.933 (.8436), 10.867 (.9492), 10.573 (1.1291), 10.467 (1.0946) and 10.347 (1.2247) individually. Among study group and control group obtained t-value of post-test are t = .390 ($p < 0.01$); 1.550 ($p < 0.01$), .225 ($p < 0.01$), - .080 ($p < 0.01$) and 1.064 ($p < 0.01$).

Conclusion: Posttest activities of anxiety gains among the control group and study group in association with the altered early ambulation intervention. The modified early ambulation intervention shown significant changes in the postoperative recovery, it positively influences and improves the postoperative recovery and also physical, functional and psychological wellbeing after surgery will be of greater advantage to the patient. Moreover it forms a holistic approach that helps to maintain the health of patients in the study group.

Keywords: Scheduled ambulation, Quality of life, anxiety and functional ability

Introduction

The term rehabilitation was derived from Latin word called rehabilitare which implies to become fit again. The rehabilitation aims at preventing the deficiency of function and also at restoring the various possible functions. Both psychological as well as physiological functions are added. There exist wide difference in the requirements of the patient and their possibly in rehabilitation. Nurse has a vital part in restoration as well as in prevention of functional loss in homes and health agencies.

Being a common operative procedure, the abdominal surgery is one of the three most frequently conducted procedures in US according to a national survey (De Frances *et al.*, 2008) [2]. Although operation is a form of treatment, it significantly affects patient's functional ability and psychological well-being. There are many

complications associated with abdominal surgery, such as pain, bleeding, infection, paralytic ileus and shock (Huang *et al*., 2001). In addition, the prevalence and intensity of symptoms vary over the time. It was reported that, percentage of patients who experienced least moderate pain on the first day after abdominal surgery varied from 51% - 95% (Vallano *et al*., 2001).

In India, though Inflammatory Bowel Disease (IBD) and Ulcerative Colitis (UC) are quite uncommon, its incidence is getting increased nowadays. A team was setup named 'Indian society of Gastroenterology (ISg) Task Force' with the aim of collating the information about the clinical spectrum of IBD which is presently reported in India.

Need for the study

Other recognized symptoms are anxiety, dry mouth, lack of appetite, depression and issues with elimination (Ku and Ong, 2003; Pavlin *et al*., 2004; Schulz *et al*., 2011). According to the data monitor report in 2010, there are totally 7.4 million major abdominal surgeries were done which is expected to increase by 8.1 million surgeries in 2020. Among them, there are about 20,000 patients died in a year in post-operative complications of the abdominal surgeries especially in 2010-2020 (UK, Japan, US, France, Italy, Germany and Spain). The abdominal surgeries number is expected to 8,109,000 surgeries in 2020. The abdominal surgeries are in distinct types are gastrectomy, liver transplantation, hysterectomy, splenectomy, lower segment caesarean section, kidney transplantation, cholecystectomy, appendectomy, herniorrhaphy, pyloroplasty, resection of duodenum and colon and nephrectomy. Those patients are unable to immediately mobilize after surgery; hence they need frequent motivation, encouragement and support to mobilize.

However several complexities are associated with just one among the above given areas, most of the complexities have multilateral background. They are more likely associated with the small hits or perioperative mistakes that take place in perioperative way which will eventually conclude in complication. The threats of long-term bed rest have been recorded well in many study reports, articles, and books in medical literature as well as nursing over the previous 30 or 40 years. The early ambulation tradition of patients after surgery and with severe illness was established soon after the completion of World War II. The outcomes have been remarkable in speeding up the recovery of patients and preventing them from complications (Jammer, 2015).

The abdominal surgery term comprehensively covers surgeries that include opening the guts. Medical procedure of every abdominal organ is managed independently regarding the portrayal of that organ. Diseases influencing the stomach pit are managed commonly under their own names.

The investigator from the personal experience has observed that after abdominal surgery that patient will be subjected to get pleural effusion, paralytic ileus, atelectasis and neuromuscular complications due to prolonged bed rest. Therefore early ambulation plays an important role in the prevention of such postoperative complications after abdominal surgery and improves the physical, physiological and psychological wellbeing of the clients. It also reduces the length of stay in hospital and avoids unnecessary stress due to hospital.

Problem Statement

A study to evaluate the effectiveness of scheduled ambulation on functional ability, Anxiety and quality of life among patient, who had undergone abdominal surgery in selected hospitals at Chennai.

Objectives

1. To assess the effectiveness of scheduled ambulation on functional ability of the patient who had undergone abdominal surgery in the intervention group and control group.
2. To find out the effectiveness of scheduled ambulation on anxiety among patient who had undergone abdominal surgery in the intervention group and control group.
3. To determine the effectiveness of scheduled ambulation on quality of life among patient who had undergone abdominal surgery in the intervention group and control group.
4. To determine the association between selected demographic variables and functional ability, activities of daily living, functional activity and anxiety in the study group and control group

Hypotheses

Hypothesis H1 There will be a significant difference in the anxiety level among the patients who had undergone abdominal surgery who availed the intervention than those who do not.

Hypothesis H2 There will be a significant difference in the functional ability and activities of daily living among the patients who had undergone abdominal surgery who availed the intervention than those who do not.

Hypothesis H3 There will be a significant association between the anxiety, functional ability and quality of life with selected socio demographic variables.

Delimitations

1. Mothers of under five children living in a selected area, Bhadrachalam
2. Data collection is one week period.
3. Sample size is 50.

Materials and Methods

Research approach: Quantitative research approach

Design: experimental, one group pre-test–post-test design

Setting: The study was conducted at selected hospitals in Chennai.

Population target population: All undergone abdominal surgery of the patients.

Accessible population: Who had undergone abdominal surgeries at selected hospitals in Chennai.

Sample size: Sample size was 150 patient who has been diagnosed to be experienced with main abdominal surgery.

Sampling technique: Simple random sampling technique.

Sampling criteria

Inclusion criteria

- Patients who had undergone abdominal surgery.
- Post-operative patients
- Patients between the age group of 40-70 years.
- Patients who are willing to participate in the study.
- Both male and female patients.
- Patients who speaks Tamil and English.
- Patients who give assent for the examination.
- Postoperative patients who are accessible at the time of study

Exclusion criteria

- Patients who are not willing to participate in the study
- Patients who are disoriented and unconscious will be excluded.
- Patient who have not given assent for the investigation.
- Patients related with neurological issue showing changed sensorium.
- Patients who are under strict immobility evidenced by doctors order
- Laparoscopic abdominal surgeries.
- Patients not following oral commands
- Non-ambulatory conditions are conditions whereby a subject cannot walk or move from place to place.

Description of the Tool

The tool consists of four sections

Section-I: Demographic data

It comprised of demographic characteristics of the gender, age, education, co-morbidity, sources of knowledge and exercise. Verbal reaction was acquired from the patient's undergone abdominal surgery.

Section II: Scheduled ambulation is initiated as an intervention to patients who have undergone abdominal surgeries.

Section III: State-Trait Anxiety Inventory scale is used to assess the anxiety level of patients who have undergone abdominal surgeries

Section IV: WHOQOL SRPB Field-Test Instrument to determine the functional ability and Quality of Life of patients who had undergone abdominal surgeries.

Table 1: Pretest and posttest comparison of modified early ambulation on Functional activity in the study group and control group

	Control		Experimental		T value	p value
	Mean	Std. Deviation	Mean	Std. Deviation		
Pre Test	10.787	.8589	11.107	.7811	2.230	.029
Post Test 1	10.933	.8436	10.880	.9438	.390	.698
Post Test 2	10.867	.9492	10.613	1.0384	1.550	.125
Post Test 3	10.573	1.1291	10.533	1.0441	.225	.822
Post Test 4	10.467	1.0946	10.480	1.1314	.080	.937
Post Test 5	10.347	1.2247	10.147	1.1234	1.064	.291

Table 2: Comparison of the mean difference between the study group and the control group on Functional activity in Pretest and post-test scores

	Mean	Std. Deviation	Mean Difference	T value	p value
Pre Test	10.787	.8589	0.1	108.765	.000
Post Test	10.6373	.74739		123.145	.000
Pre Test	11.107	.7811	11.1	123.259	.000
Post Test	22.1840	1.90356		109.855	.000

Table 3: Pretest and posttest comparison of modified early ambulation on Quality of life in both experimental and control group

	Control		Experimental		T value	p value
	Mean	Std. Deviation	Mean	Std. Deviation		
Pre Test	24.507	1.5455	24.507	1.5455	0.000	1.000
Post Test 1	24.160	1.5338	23.027	1.8670	4.837	.000
Post Test 2	23.120	1.8741	21.987	2.0500	3.925	.000
Post Test 3	22.120	2.1051	20.987	2.2571	3.658	.000
Post Test 4	21.293	2.3924	20.160	2.4826	3.341	.001
Post Test 5	20.227	2.6282	19.120	2.7409	3.074	.003

Table 4: Comparison of the mean difference between the experimental group and the control group on Quality of Life in pretest and post-test scores

		Mean	Std. Deviation	Mean Difference	T value	p value
Control	Pre Test	24.507	1.5455	2.3	137.327	.000
	Post Test	22.1840	1.90356		100.926	.000
Experimental	Pre Test	24.507	1.5455	3.5	137.327	.000
	Post Test	21.0560	2.08769		87.346	.000

Table 5: Effectiveness of scheduled ambulation on anxiety among patients

	Mean	Std. Deviation	t value	p-value
Control	12.627	6.2358	17.536	.000
Experimental	21.080	4.1874	43.597	.000

Major findings of the study

Findings on the effectiveness of modified early ambulation and functional activity of patient's undergone abdominal surgery in the study group and control group

The posttest mean scores and SD of the experimental study group that is observed after the surgery at regular time-interval of 24 hours are 10.880 (.9438), 10.613 (1.0384), 10.533 (1.0441), 10.480 (1.1314) and 10.147 (1.1234). In the same way, the mean and SD scores of control group 10.933 (.8436), 10.867 (.9492), 10.573 (1.1291), 10.467 (1.0946) and 10.347 (1.2247) individually. Among study group and control group obtained t-value of post-test are t = .390 ($p< 0.01$); 1.550 ($p< 0.01$), .225 ($p< 0.01$), - .080 ($p< 0.01$) and 1.064 ($p< 0.01$); all these values are not significant. Therefore, it is noticed that there is no significant difference between post-test activities and pre-test in both the control and study group that relates to the modification of primary ambulation. However, it was understood that post-test mean score of functional activity of experimental or study group is comparatively lower than the control group.

Findings on the effectiveness of modified early ambulation and anxiety of patient's undergone abdominal surgery in the study group and control group

The observed SD and mean scores of post-test are in the study group are 23.027 (1.8670), 21.987 (2.0500), 20.987 (2.2571), 20.160 (2.4826) and 19.120 (2.7409) are lesser than the pretest values. For control group, the scores are 24.160 (1.5338), 23.120 (1.8741), 22.120 (2.1051), 21.293 (2.3924) and 20.227 (2.6282) respectively. The t-value of control and study group was 4.837, 3.925, 3.658, 3.341 and 3.074 for five post-test with p-value as 0, .001 and .003 respectively. Based on these values, the hypothesis of research H2 was accepted and H02 null hypothesis was rejected. Based on the analysis, the mean scores of post-test of the study group have a higher value than the control group.

Findings on the effectiveness of modified early ambulation and quality of life of patient's undergone abdominal surgery in the study group and control group

The observed SD scores of the experimental and control group are 4.1874 and 6.2358 and t-value is 43.597 and 17.536 respectively. The overall p-value of the experiment is 0. The mean score of the experimental study is higher than the control group.

Conclusion

The study finding is favourable to the hypothesis-2 -i.e there is a major variation has been observed in the anxiety level amongst the patients gone through abdominal surgery especially in the study group who involved in intervention than who do not. It may be concluded that the variation disclosed in the posttest activities of anxiety gains among the control group and study Groupin association with the altered early ambulation intervention. Therefore, hypothesis 2 is approved. there is a major variation in the quality of life amongst the patients who have gone through abdominal surgery have made use of the intervention than who has not. It may be concluded that the variation disclosed in the posttest quality of life gains among the control group and study group in association with the altered early ambulation intervention. Therefore, hypothesis 2 is approved.

Recommendations

A comparative study can be done in other postoperative surgical patients like gynecological surgeries, cardiac thoracic surgery and Orthopedic surgery.

A similar study can be done between government set-up and private set-up.

A comparative study can possibly be done using more variables such as psychological preparedness related to early ambulation preoperative education.

References

1. Dler J, Malone D. Early Mobilization in the Intensive Care Unit: A Systematic Review. Cardiopulm Phys Ther J. 2012; 23:5-13.
2. Al Samaraee A, Rhind G, Saleh U, Bhattacharya V. Factors contributing to poor post-operative abdominal pain management in adult patients: A review. Surg. 2010; 8:151-158. https://doi.org/10.1016/j.surge.2009.10.039
3. Anderson ADG, McNaught CE, Mac Fie J, Tring I, Barker P, Mitchell CJ. Randomized clinical trial of multimodal optimization and standard perioperative surgical care. Br. J Surg. 2003; 90:1497-1504. https://doi.org/10.1002/bjs.4371
4. Arias-Fernández P, Romero-Martin M, Gómez-Salgado J, Fernández-García D. Rehabilitation and early mobilization in the critical patient: systematic review. J Phys. Ther. Sci. 2018; 30:1193-1201. https://doi.org/10.1589/jpts.30.1193
5. Ball K, Doyle D, Oocumma NI. Nursing Shortages in the OR: Solutions for New Models of Education. AORN J. 2015; 101:115-136. https://doi.org/10.1016/j.aorn.2014.03.015
6. Barnason S, Zimmerman L, Nieveen J, Schulz P, Miller C, Hertzog M *et al*. Influence of a symptom management telehealth intervention on older adults' early recovery outcomes after coronary artery bypass surgery. Hear. Lung. 2009; 38:364-376. https://doi.org/10.1016/j.hrtlng.2009.01.005
7. Aruna G. Knowledge regarding risk factors of cardiovascular disease among II Year B. Sc nursing students at Narayana Nursing Institutions at Nellore. International Journal of Applied Research. 2018; 4(3):401-403
8. Aruna G. Level of parental anxiety among mothers of hospitalized children in Narayana Medical College Hospital, Nellore. International Journal of Obstetrics and Gynaecological Nursing. 2019; 1(2):32-34.