International Journal of Current Research and Review
DOI: http://dx.doi.org/10.31782/IJCRR.2021.131315

Scopus

Original Research

IJCRR
Section: Healthcare
ISI Impact Factor (2019-20): 1.628
IC Value (2019): 90.81
SJIF (2020) = 7.893

Effects of Early Ambulation in Post Operative Recovery Among Women with Abdominal Hysterectomy

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ABSTRACT

Background: Amazed all hysterectomy, most frequently performed surgical procedures in women is abdominal hysterectomy. If early ambulation is not done post operatively, there is chance of different complications such as eruption, deficient veins, lowers respiratory tract infection, minor bleeding and venous thrombo-embolism, blockage of pulmonary artery, paraplegic ileum and etcetera.

Objectives: 1) To assess post operative recovery among the women who have undergone abdominal hysterectomy in control group.2) To assess the effectiveness of early ambulation in post operative among the women who have undergone abdominal hysterectomy in experimental group. 3) To compare post-operative recovery among the women who have undergone abdominal hysterectomy in control and experimental group.

Methods and Materials: A quantitative research approach was used in this study with quasi-experimental group study research design and sample size was 100 were selected by a Non-Probability Purposive Sampling Technique. An observational checklist and post-operative related questionnaire was used to collect the data. Results: In experimental group, duration of post operative recovery among women who has undergone abdominal hysterectomy is less as compared to post-operative recovery among women who has undergone abdominal hysterectomy in control group. Also structured questionnaire related to post-operative recovery interpret that early ambulation is effective one in experimental group as compared to in control group.

Conclusion: Early ambulation is effective and helps to recover soon.

Key Words: Early ambulation, Post operative recovery, Abdominal hysterectomy, Abdominal surgery, Gynecological operations

INTRODUCTION

Typically a gynecologist performs hysterectomy, which is a cut-out or surgical removal of the vagina. Hysterectomy may be complete body removal, known as total hysterectomy or fundus, and cervix uterine; sometimes referred to as partial removal of uterine body known as partial hysterectomy while keeping the cervix intact, known as supra cervical hysterectomy. It is the most frequently performed surgical procedure. More than 600,000 hysterectomies have been conducted in 2003.[1,7] In favorable cases, more than 90 % of these procedures are conducted in the US alone. Such high rates in industrialized world have led major controversy that hysterectomies are performed largely for unwarranted and unnecessary reasons.[2,3]

As a last resort to cure such intractable uterine/reproductive system problems, hysterectomy is usually recommended. These disorders may include uterine fibroids, extreme intractable endometriosis, adenomyosis, chronic pelvic pain, frequent obstetric hemorrhage, and various forms of vaginal prolapse, and sometimes serious pre-placenta and placenta accrete.[3,4,5]

MATERIALS AND METHODS

The study was based on a quantitative research approach with a quasi-experimental group study research design. A Non-Probability purposive sampling technique was used and 100 samples of women from selected hospitals. Inclusion criteria were women between ages of 20 and 50 years and older and women who want to take part in this study. Exclusion criteria were women who are not available at the time

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ISSN: 2231-2196 (Print) **ISSN:** 0975-5241 (Online)

Received: 16.09.2020 **Revised:** 21.11.2020 **Accepted:** 13.01.2021 **Published:** 05.07.2021

of study and women who are having post abdominal hysterectomy complications. Tools were an observational checklist and post-operative related questionnaire. The data gathering process began from 12th Aug to 31st Aug 2019. The investigator visited the area in advance and obtained the necessary permission from the concerned authorities. The institutional Ethics Committee in its meeting held on 12/12/2018 has approved the study and the Referral number is **7758.** Based on the objectives and the hypothesis the data were analyzed by using various statistical tests. In control group, early ambulation is not suggested while in experimental group, early ambulation is suggested and checklist is assessed after 5-6 days of early ambulation.

RESULTS

Section 1

Part I – Distribution of participants within the control group according to their demographic variables.

Table 1 Shows that, 6(12%) of 20-29 yrs age, 9(18%) 30-39 years old, 24(48%) 40-49yrs, 11(22%)50 yrs & above. 37(74%) married, no subjects unmarried, 3(6%) divorced or separated, 10(20%) widow. 3(6%) illiterate, 18(36%) had primary education, 9(18%) had secondary education, 13(26%)higher secondary & 7(14%) graduated & above. 35(70%) housewife, 4(8%) laborer, 6(12%) business women, 1(2%) on government job, 4(8%) on private job.24(48%) knew & 26(52%) didn't know about abdominal hysterectomy, in 8(16%) source of knowledge was family, in 5(10%) it was friends, in 11(22%) source of knowledge was health personnel.

Part II – Distribution of participants in the experimental group as per their demographic variables.

Table 2: No subjects were of 20-29 year age group, 11(22 %) were of 30-39 yrs, 19(38 %) 40-49 yrs age, 20(40%) were 50 yr-old & above. 36(72%) married, 3(6%) single, none divorced or separated, 11(22%) were widow. 7(14%) were illiterate,14(28%) primary education, 8(16%) secondary education, 13(26%) higher secondary, 8(16%) is graduated & above. 30(60%) housewife, 7(14%) labourer, 5(10%) business women, 3(6%) on government job and 5(10%) on private job.23(46%) subjects knew whereas 27(54%) did not know about abdominal hysterectomy, in 5(10%) source of knowledge was media, in 3(6%) it was family, in 2(4%) it was friends, in 13(26%) source of knowledge was health personnel.

Section 2

Part I – Checklist to assess the post-surgical recovery among women who have suffered abdominal hysterectomy in Control group.

Table 3 contain 29(58%) On day 4 & 21(42%) women on 5th day rest on bed's edge.

29(58%) on 4th day & 21(42%) were sitting on bed on POD5.

29(58%) on the 4th day & 21(42%) moved out of bed on POD5.

20(40%) on day 4 , 20(40%)on 5th & 10(20%) were sitting in chair on 6th day.

2(4%) on day 4, 28(56%) on POD5, 20(40%) walk in ward on day 6th day.

29(58%) on day 5, 21(42%) on POD6 perform walk in ward.

1(2%) on POD 4, 28(56%) on day 5 & 21(42%) on POD 6 perform stairs up & down.

22(44%) on day 4, 27(54%) on day 5 & 1(2%) felt decreased intensity of pain on POD6.

21(42%) on day 4, 28(56%) on POD 5 and 1(2%) on POD6 felt decreased level of discomfort.

5(10%) on day 4, 39(78%) on day 5 and 6(12%) on POD6 felt decreased level of dependency in performing daily activities.

5(10%) on day 4, 33(66%) on day 5, 12(24%)on POD6 passed flatus.

Part II – Checklist to assess the efficacy of early ambulation in post-operational recovery among women who have undergone abdominal hysterectomy in Experimental group.

Table 4 shows the following data

26(52%) on POD2 while 24(48%) sat on bed's edge on POD3.

22(44%) on POD2, 28(56%) were sitting in bed on POD3.

22(44%) on POD2, while 28(56%) women shifted out of bed on day 3.

17(34%) on day 2, 30(60%) women on day 3, 3(6%) on day 4 were sitting at chair.

25(50%) on day 3, 25(50%) women walk in ward on POD 4.

22(44%) on POD 3, 28(56%) on POD4 perform walking in corridor.

22(44%) on POD 3, 28(56%) women on day 4 perform stairs up and down.

14(28%) on POD2, 32(64%) on POD 3, 4(8%) on day 4 felt decreased intensity of pain.

14(28%) on day 2, 32(64%) on day 3, 4(8%) on day 4 felt decreased level of discomfort.

19(38%) on day 2, 28(56%) on day 3 and 3(6%) on day 4 felt decreased level of dependency in performing daily activities.

9(18%) on day2, 35(70%) on day 3, 5(10%) on day 4 and 1(2%) women on day 5 passed flatus.

Section 3

Table 5 shows a Comparison between the control and experimental group

In control group, 29(58%) on 4th day, 21(42%) on 5th day while in experimental group, 26(52%) on 2nd day & 24(48%) women on 3rd day perform a sitting on edge of bed.

In control group, 29(58%) on 4th day, 21(42%) on 5th day wherein among experimental group, 22(44%) on 2nd day, 28(56%) subjects on 3rd day perform a sit to stand by bed.

29(58%) on 4th day 21(42%) on 5th day, in control group, 22(44%) on 2nd day, 28(56%) women on 3rd day in experimental group moved out of bed.

In the control group, 20(40%) on the 4th day, 20(40%) on the 5th day, 10(20%) on the 6th day whereas in the experimental group, 17(34%) on the 2nd day, 30(60%) on the 3rd day 3(6%) subjects on 4th day sat to stand by the chair

2(4%) women on 4th day, 28(56%) on 5th day, 20(40%) on 6th day in the control group whereas 25(50%) on 3rd day, 25(50%) women on 4th day in the experimental group performed walking in the ward.

In control group, 29(56%) subjects on 5th day, 21(42%) on 6th day while in experimental group, 22(44%) on 3rd day, 28(56%) on 4th day performed walking in corridor.

1(2%) on 4th day, 28(56%) on 5th day 21(42%) on 6th day in control group while 22(44%) on 3rd day, 28(56%) on 4th day in experimental group performed stairs up and down.

In the control group, 22(44%) on the 4th day, 27(54%) on the 5th day 1(2%) on the 6th day whereas in the experimental group, 14(28%) on the 2nd day, 32(64%) on 3rd day, 4(8%) women on 4th day had decreased intensity of pain. 21(42%) on 4th day, 28(56%) on 5th day 1(2%) on 6th day in control group and 14(28%) on 2nd day, 32(64%) on 3rd day, 4(8%) subjects on 4th day felt decreased level of discomfort.

In the control group, 5(10%) on the 4th day 39(78%) on the 5th day, 6(12%) on the 6th day wherein in the experimental group, 19(38%) on the 2nd day, 28(56%) on 3rd day, 3(6%) women on 4th day had decreased level of dependency in performing daily activities.

5(10%) on 3rd day, 33(66%) on 4th day, 12(24%) on 6th day in the control group whereas 9(18%) on 2nd day, 35(70%) on 3rd day, 5(10%) on 4th day 1(2%) subjects on 5th day in the experimental group passed flatus.

Section 4

Structured questionnaire related post-operative recovery in the control and experimental group and comparison between them.

Table 6(a) having information about control group, duration of catheterization was 19-24hrs in 10 (20%) and 25-30 hrs in 40 (80%). In experimental group, it was 6-12hrs in 24(48%), 13-18hrs in 3(6%), 19-24hrs in 14(28%) and 25-30 hrs in 9(18%) women.

Table6(b) shows, control group, 8(16%) self void <1hr, 36(72%) between 1-2hr and 6(12%) self void>2hr however, in experimental group, 48(96%) women self void in <1hr, 2(4%)1-2 hr after removal of catheter.

In control group, 22(44%) women were having 301-450 ml & 28(56%) having >450 ml urine output. In experimental group, 5(10%) having 150-300 ml,4(8%) having 301- 450ml and 41(82%) having >450 ml urine output.

Table 6(c) having the information,In control group, 45(90%) 1-2 analgesic, 5(10%) required 3-4 analgesics & in experimental group, 49(98%) 1-2, 1(2%) required 3-4 analgesics after hysterectomy.

In the control group, 6(12%) for 7-8 days, 44(88%) for >8 days while in the experimental group, 28(56%) for 4-5 days, 8(16%) for 6-7 days and 14(28%) women for 7-8 days stays in the hospital.

DISCUSSION

Similar study was conducted which was eventual adherent study in which amide 50 patients who had undergone abdominal hysterectomy from June 1, 2003 to December 31, 2003. Study aimed to discover early activity's security and viability. The study concluded that in patients with hysterectomy, the early operation is possible and healthy. After 2 days of ambulation, most of the clients (78%) were able to ambulate 100feet.[4,5,6]

This study shows that, in experimental group, duration of post operative recovery among women is less as compared to post-operative recovery among women who has undergone abdominal hysterectomy in control group. Also structured questionnaire related to post-operative recovery interpret that early ambulation is effective one in experimental group as compared to in control group in which only post-operative recovery checked and early ambulation not suggested.[7,8,9]

CONCLUSION

Therefore, healthcare providers at all levels need to understand the importance of early ambulation after abdominal hysterectomy, become educated on the protocols and procedures of practice in order to make early ambulation on day zero new standard of care for all postoperative patients. Con-

flict of interest is nil and the source of funding was self. Early ambulation improved the state and aids in early discharge.

ACKNOWLEDGEMENT

We would like to thank all the participants and the authorities of the institutions for their cooperation throughout the data collection.

Conflict of Interest : None

Source of Funding: None

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Table 1: Distribution of participants within the control group according to their demographic variables.

n=50

Demographic Characteristics	No. of Subjects	Percentage (%)
Age (years)		
20-29	6	12
30-39	9	18
40-49	24	48
50 and above	11	22
Marital status		
Married	37	74
Unmarried	0	0
Divorced or separated	3	6
Widow	10	20
Education		
Illiterate	3	6
Primary education	18	36
Secondary education	9	18
Higher secondary education	13	26
Graduation and above	7	14
Occupation		
Housewife	35	70
Labourer	4	8
Business	6	12
Government job	1	2
Private job	4	8

Table 1: ***(Continued)***

Demographic Characteristics	No. of Subjects	Percentage (%)
Do you know about abdominal hysterectomy		
Yes	24	48
No	26	52
Source of knowledge		n=24
Media	0	0
Family	8	16
Friends	5	10
Health Personnel	11	22

Table 2: Distribution of participants in the experimental group as per their demographic variables.

n=50

Demographic Characteristics	No. of Subjects	Percentage (%)
Age (years)		
20-29	0	0
30-39	11	22
40-49	19	38
50 and above	20	40
Marital status		
Married	36	72
Unmarried	3	6
Divorced or separated	0	0
Widow	11	22
Education		
Illiterate	7	14
Primary education	14	28
Secondary education	8	16
Higher secondary education	13	26
Graduation and above	8	16
Occupation		
Housewife	30	60
Labourer	7	14
Business	5	10
Government job	3	6
Private job	5	10
Do you know about abdominal hysterectomy		
Yes	23	46
No	27	54
Source of knowledge		n=23
Media	5	10
Family	3	6
Friends	2	4
Health Personnel	13	26

Table 3: Checklist to assess the post-surgical recovery among women who have suffered abdominal hysterectomy in Control group.

Sr. No.	Criteria	POD1	POD2	POD3	POD4	POD5	POD6
1.	When does the patient perform a "sitting on edge of the bed."?				29(58%)	21(42%)	
2.	When does the patient perform a "sit to stand by the bed."?				29(58%)	21(42%)	
3.	When does the patient moved out of bed?				29(58%)	21(42%)	
4.	When does the patient perform a "sit to stand by chair."?				20(40%)	20(40%)	10(20%)
5.	When does the patient perform a "walking in the ward."?				2(4%)	28(56%)	20(40%)
6.	When does the patient perform a "walking in the corridor."?					29(58%)	21(42%)
7.	When does the patient perform "stairs up and down."?				1(2%)	28(56%)	21(4%)
8.	Decreased intensity of pain.				22(44%)	27(54%)	1(2%)
9.	Decreased level of discomfort				21(42%)	28(56%)	1(2%)
10.	Decreased level of dependency in performing daily activities.				5(10%)	39(78%)	6(12%)
11.	When does the patient pass flatus?				5(10%)	33(66%)	12(24%)

Table 4: Checklist to assess the efficacy of early ambulation in post-operational recovery among women who have undergone abdominal hysterectomy in Experimental group.

Sr. No.	Criteria	POD1	POD2	POD3	POD4	POD5	POD6
1.	When does patient perform a "sitting on edge of bed."?		26(52%)	24(48%)			
2.	When does the patient perform a "sit to stand by the bed."?		22(44%)	28(56%)			
3.	When does the patient move out of bed?		22(44%)	28(56%)			
4.	When does patient perform a "sit to stand by chair."?		17(34%)	30(60%)	3(6%)		
5.	When does the patient perform a "walking in the ward."?			25(50%)	25(50%)		
6.	When does patient perform a "walking in the corridor."?			22(44%)	28(56%)		
7.	When does patient perform a "stairs up and down."?			22(44%)	28(56%)		
8.	Decreased intensity of pain.		14(28%)	32(64%)	4(8%)		
9.	Decreased level of discomfort		14(28%)	32(64%)	4(8%)		
10.	Decreased level of dependency in performing daily activities.		19(38%)	28(56%)	3(6%)		
11.	When does patient pass flatus?		9(18%)	35(70%)	5(10%)	1(2%)	

Table 5: Comparison between control and experimental group

		Control Group						Experimental Group					
Sr.No	Criteria	POD1	POD2	POD3	POD4	POD5	POD6	POD1	POD2	POD3	POD4	POD5	POD6
1.	When does the patient perform a "sitting on edge of the bed."?				29 (58%)	21 (42%)			26 (52%)	24 (48%)			
2.	When does the patient perform a "sit to stand by the bed."?				29 (58%)	21 (42%)			22 (44%)	28 (56%)			
3.	When does the patient move out of bed?				29 (58%)	21 (42%)			22 (44%)	28 56%)			
4.	When does the patient perform a "sit to stand by chair."?				20 (40%)	20 (40%)	10 (20%)		17 (34%)	30 (60%)	3 (6%)		
5.	When does the patient perform a "walking in the ward."?				2 (4%)	28 (56%)	20 (40%)			25 (50%)	25 (50%)		
6.	When does the patient perform a "walking in the corridor."?					29 (56%)	21 (42%)			22 (44%)	28 (56%)		
7.	When does the patient perform "stairs up and down."?				1 (2%)	28 (56%)	21 (42%)			22 (44%)	28 (56%)		
8.	Decreased intensity of pain.				22 (44%)	27 (54%)	1 (2%)		14 (28%)	32 (64%)	4 (8%)		
9.	Decreased level of discomfort				21 (42%)	28 (56%)	1 (2%)		14 (28%)	32 (64%)	4 (8%)		
10.	Decreased level of dependency in performing daily activities.				5 (10%)	39 (78%)	6 (12%)		19 (38%)	28 (56%)	3 (6%)		
11.	When does patient pass flatus?				5 (10%)	33 (66%)	12 (24%)		9 (18%)	35 (70%)	5 (10%)	1 (2%)	

Table 6(a): Questionnaire Related to Post Operative Recovery

SR.NO. /QUES.	Options	CONTROL GROUP		EXPERIMENTAL GROUP	
		Frequency (f)	Percent %	Frequency (f)	Percent %
1) Duration of catheterization after abdominal hysterectomy	1) 6-12 hrs			24	48%
	2) 13-18hrs			3	6%
	3) 19-24hrs	10	20%	14	28%
	4) 25-30hrs	40	80%	9	18%

Table 6(b): Questionnaire Related to Post Operative Recovery

2) Self void after removal of catheter	1) < 1hour	8	16%	48	96%
	2) 1-2 hour	36	72%	2	4%
	3) > 2hour	6	12%		
3) Total urine output	1) 150-300ml			5	10%
	2) 301-450ml	22	44%	4	8%
	3) >450 ml	28	56%	41	82%

Table 6(C): Questionnaire Related to Post Operative Recovery

4) Number of analgesics required after abdominal hysterectomy	1) 1-2 injections	45	90%	49	98%
	2) 3-4 injections	5	10%	1	2%
5) Duration of hospital stay	1) 4-5 days			28	56%
	2) 6-7 days			8	16%
	3) 7-8 days	6	12%	14	28%
	4) >8days	44	88%		