



A STUDY TO ASSESS EFFECTIVENESS OF EARLY AMBULATION IN POST-CAESAREAN RECOVERY AMONG POST-CAESAREAN MOTHERS ADMITTED IN SELECTED HOSPITAL OF DADRA & NAGAR HAVELI

Neha Rana*

Postgraduate Student, Department of Obstetrics & Gynaecological Nursing, Shri Vinoba Bhave College of Nursing, Silvassa, D&NH

*Corresponding Author

Kaveriben Pandya

Associate Professor, Department of Obstetrics & Gynaecological Nursing, Shri Vinoba Bhave College of Nursing, Silvassa, D&NH-

ABSTRACT

A newer concept called 'Early Ambulation' after abdominal surgeries boosts medical interest and enthusiasm. The main emphasis of the concept is to reduce morbidity, to enhance post-operative recovery, to reduce hospital stay as well as costs. **Objective:** The objective of the study was to determine the effectiveness of Early Ambulation in Post-Caesarean Recovery among Post-Caesarean Mothers. **Method:** A True-experimental approach with Post-test only design for Post Caesarean Recovery Questionnaire was used to conduct the study. 60 Post Caesarean Mothers (30 Control group & 30 Experimental Group) were selected using Probability Simple Random Sampling Technique Method. Here, the treatment was begun after the 6 hours of Caesarean Section in both groups (Experimental Group- Early Ambulation & Control Group- Conventional Care) and was continued for two days and was given three times a day to post caesarean mothers selected for experimental group. **Results:** The Mann Whitney U Test was applied between Control Group & Experimental Group. The P-value < 0.0001 was found which shows a very high significant difference between the two Groups. **Conclusion:** Hence, it is inferred that Early Ambulation is effective on Post- Caesarean Recovery among Post-Caesarean Mothers.

KEYWORDS : Early Ambulation, Conventional Care, Post-Caesarean Recovery, Post Caesarean Mother.

INTRODUCTION

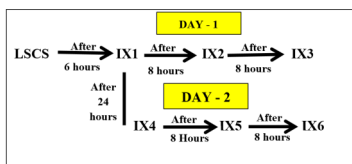
The greatest assets of our nation are women and children. For the better health of the family as well as of the nation, the prime focus should be on the health of the women. Hence, it is advisable that a woman should possess optimum health and it is only possible to achieve it if women are provided with necessary health care and attention.

As per the data provided by Hospital Management and Information System, Dadra & Nagar Haveli (April 2018- March 2019), the rates of caesarean section were very high in Dadra & Nagar Haveli (DNH).

(April 2018- March 2019)			
Particulars	Total No. of deliveries	LSCS	Normal Deliveries
DNH	8392	2637	5719
SVBCH*	5080	2196	2884

*SVBCH: Shri Vinoba Bhave Civil Hospital, Silvassa, Dadra & Nagar Haveli (DNH).

Moreover, LSCS mother was ambulated on IInd day in SVBCH. The bed capacity in the postnatal ward was 14 beds whereas number of patients admitted were around 25-35 daily. The 'Head Low Position' is necessary after surgery for the patients who receive spinal anaesthesia. But because of overcrowding in postnatal ward, to give head low position for minimum 6 hours after surgery to all the patients received spinal anaesthesia had become quite difficult. Therefore, the department was in search of an alternative to deal with the overcrowding with good post-operative recovery. Hence the study was undertaken to assess effectiveness of early ambulation in post-operative recovery among post caesarean mothers admitted in selected hospital of Dadra & Nagar Haveli. In the present study, the early ambulation was given 6 hours after caesarean section and was continued for two days and was given three times a day to post caesarean mothers selected for experimental group. It was given in following fashion:



Day I:

- a) Moving legs and hands (Passive ROM) for 10 minutes each
- b) Giving the mother upright position and making her to sit for 10 minutes
- c) Making mother to stand with support for 2-3 minutes
- d) Ambulate her in the ward with support up to minimum 5 metres in intervention 1 (Ix₁)
- e) After 8 hours of step (d) repeat the step from (a) to (c) and make her to walk up to 5 metres with support in intervention 2 (Ix₂)
- f) After 8 hours of step (e), repeat the step from (a) to (c) and make her to walk up to 5 metres with support in intervention 3 (Ix₃)

Day II:

- g) On Day II, repeat steps from (a) to (d) and make her to walk up to 15 metres without support in intervention 4 (Ix₄).
- h) Repeat steps from (a) to (d) and make her to walk up to 25 metres without support in intervention 5 (Ix₅).
- i) Repeat steps from (a) to (d) and make her to walk up to 35 metres without support in intervention 6 (Ix₆).

OBJECTIVE OF STUDY

- To determine the effectiveness of Early Ambulation in Post-Caesarean Recovery among Post-Caesarean Mothers.

METHODOLOGY

Research Approach- In this study quantitative research approach was used to assess the Effectiveness of Early Ambulation in Post-Caesarean Recovery among Post-Caesarean Mothers.

Research Design- True - experimental research design (Post-test only design) was adopted to assess the Effectiveness of Early Ambulation in Post-Caesarean Recovery among Post-Caesarean Mothers.

Research Setting- The study was conducted in Postnatal ward of Shri Vinoba Bhave Civil Hospital, Dadra & Nagar Haveli.

Population- Post Caesarean Mothers admitted in Postnatal ward of Shri Vinoba Bhave Civil Hospital, Dadra & Nagar Haveli.

Sample- Post Caesarean Mothers delivered in selected hospital of Dadra and Nagar Haveli.

Sample Size- The sample size was 60 Post Caesarean Mothers (30 Control Group + 30 Experimental Group).

Sampling Technique- The present study adopted Simple Random Sampling Technique (Random Number Generator Mobile App) to select 60 Post Caesarean Mothers.

Sampling Criteria-

- **Inclusion Criteria:** *In this study, inclusion criteria included*
- Mothers who were willing to participate in the study.
- Mothers who had undergone Lower Segment Caesarean Section.
- Mothers who were admitted in maternity ward at SVBCH, Silvassa.
- Mothers who were able to follow instructions.
- Mother whose baby was with her, not admitted in NICU.

- **Exclusion Criteria:** *In this study, exclusion criteria included*
- Mothers with any complication where they were restricted to walk.
- Mothers who had bladder and bowel injury during CS.
- Mothers who had doctors order for strict bed rest.

Section A: This section comprised of Demographic Variables and Obsteric Variables. The Demographic Variables consist of eight items to collect the background data of the study subjects i.e. Age, Education, Occupation, Type of Family, Religion, Place of residence, Dietary habit, Habit. The Obsteric Variables include Parity, Type of previous birth, Number of C-Section, Habit, Period of gestation, Time of initiation of breast feeding Type of C-section, Indication of C-section, Type of anesthesia

Section B: This section included Post-Operative Recovery Questionnaire to assess effectiveness of early ambulation in post-operative recovery among post caesarean mothers. A Post-Operative Recovery Questionnaire consists of nine questions i.e. Number of analgesic required after ambulation, Duration of catheterization after caesarean section, Self-void after removal of catheter, Breast feeding and Holding baby independently after caesarean section, First flatus passed after ambulation, Start of oral intake (semi-solid diet) after ambulation, Passed stool, Homan's sign & Ambulation done. To apply inferential statistics, the scoring had been given to every option of the Questionnaire. The total scores was 24 and it was categorises into

- Poor :0-11
- Average : 12-16
- Good : 17-24

DESCRIPTION OF TOOL:

The following tools were used in order to obtain the data and it was comprised of Section A & Section B.

RESULTS

SECTION – I : DEMOGRAPHIC VARIABLES & OBSTETRIC VARIABLES

TABLE-1: Frequency and Percentage Distribution of Samples Depending On The Demographic Variables n=60

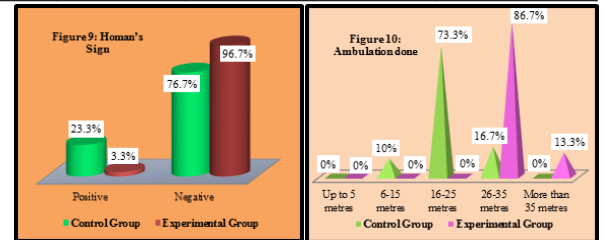
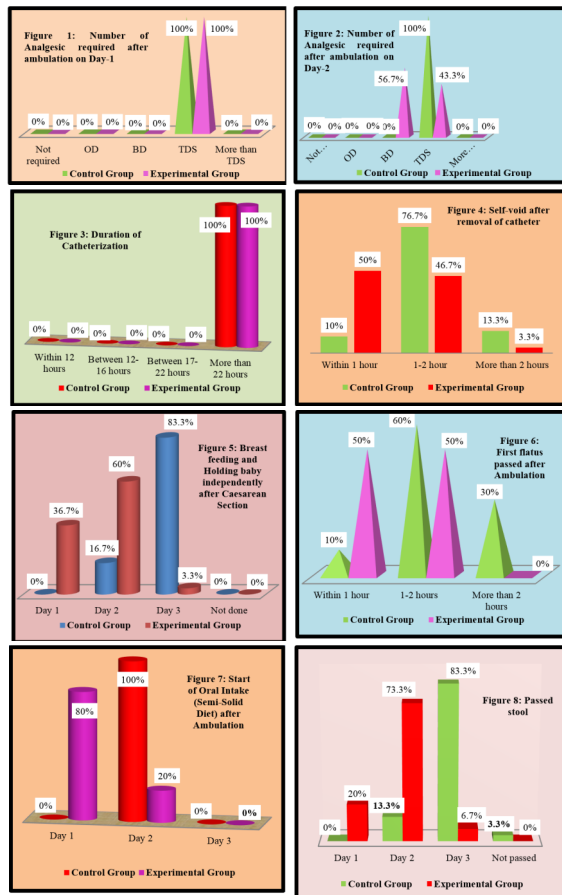
Sr. no	Demographic variables		Control group (n=30)		Experimental group (n=30)	
			Frequency	Percentage	Frequency	Percentage
1.	Age (in years)	< 20 years	5	16.7%	4	13.3%
		20-25 years	18	60%	12	40%
		26-30 years	3	10%	12	40%
		31-35 years	4	13.3%	2	6.7%
		> 35 years	0	0%	0	0%
2.	Education	Illiterate	6	20%	8	26.7%
		Primary School Certificate	0	0%	0	0%
		Middle School Certificate	9	30%	11	36.7%
		High School Certificate	9	30%	6	20%
		Intermediate/ post high school	5	16.7%	1	3.3%
		Graduate or post graduate	1	3.3%	4	13.3%
		Profession or Honors	0	0%	0	0%
3.	Occupation	Unemployed	29	96.7%	29	96.7%
		Unskilled worker	0	0%	0	0%
		Semiskilled worker	0	0%	0	0%
		Skilled worker	0	0%	0	0%
		Clerical, Shop-owner, Farmer	0	0%	0	0%
		Semi profession	0	0%	1	3.3%
		Profession	1	3.3%	0	0%
4.	Type of family	Nuclear	11	36.7%	15	50%
		Joint	12	40%	10	33.3%
		Extended	7	23.3%	5	16.7%
5.	Religion	Hindu	15	50%	14	46.7%
		Muslim	5	16.7%	4	13.3%
		Christian	10	33.3%	12	40%
		Others	0	0%	0	0%
6.	Place of residence	DNH	14	46.7%	18	60%
		Gujarat	5	16.7%	4	13.3%
		Maharashtra	11	36.7%	8	26.7%
		Others	0	0%	0	0%
7.	Dietary habit	Vegetarian	2	6.7%	3	10%
		Non-vegetarian	28	93.3%	27	90%
8.	Habit	Smoking	0	0%	0	0%
		Alcoholism	0	0%	0	0%
		Tobacco	0	0%	0	0%
		No bad habit	30	100%	30	100%

Table 2: Frequency and Percentage Distribution of Samples Depending On The Obstetric Variables n = 60

Sr. no	Clinical Data		Control group (n=30)		Experimental group (n=30)	
			Frequency	Percentage	Frequency	Percentage
1.	Parity	Para 1	20	66.7%	11	36.7%
		Para 2	5	16.7%	10	33.3%
		Para 3 & more	5	16.7%	9	30%
2.	Type of previous birth (if para 2 or more than 2)	NVD	5	16.7%	6	20%
		LSCS	5	16.7%	13	43.3%
		Forceps	0	0%	0	0%
		Vaccum	0	0%	0	0%
			0	0%	0	0%
3.	Number of C- Section	I st time	26	86.7%	17	56.7%
		II nd time	2	6.7%	11	36.7%
		III rd time	2	6.7%	2	6.7%
			0	0%	0	0%
4.	Period of gestation	32-34 weeks	2	6.7%	0	0%
		34-36 weeks	1	3.3%	5	16.7%
		>36 weeks	27	90%	25	83.3%
5.	Time of initiation of breast feeding	Between 2-6 hours	13	43.3%	20	66.7%
		Between 7-12 hours	17	56.7%	10	33.3%
		Between 13-18 hours	0	0%	0	0%
		Between 19-24 hours	0	0%	0	0%
		After 24 hours	0	0%	0	0%
6.	Type of C-Section	Elective	9	30%	6	20%
		Emergency	21	70%	24	80%
7.	Indication for C-Section	Maternal indication	20	66.7%	23	76.7%
		Fetal indication	9	30%	5	16.7%
		Combined indication	1	3.3%	2	6.7%
8.	Type of anaesthesia in C-section	General	0	0%	0	0%
		Spinal	30	100%	30	100%
		Epidural	0	0%	0	0%

SECTION – II: ASSESSMENT OF POST- OPERATIVE RECOVERY AMONG POST CASEAREAN MOTHERS

The Post- Operative Recovery Questionnaire consists of total nine questions. The findings of which were as follows:



The descriptive statistics of Post-Operative Recovery Questionnaire (Figure 1 to Figure 10) showed that 100% of Post- Caesarean Mothers in Control group and Experimental group required three times a day (TDS) analgesics after the treatments on Day- 1 and higher percentage of Post-Caesarean Mothers in Control group (100%) required three times a day (TDS) Analgesics after Conventional Care on Day- 2 than Experimental group (56.7%). Duration of Catheterization after Caesarean Section was same in both Control group (100%) and Experimental group (100%) i.e. in more than 22 hours after Caesarean Section (Note: As ethical committee did not permit to remove catheter on Day-1). Nearly half of Post- Caesarean Mothers in Experimental group (50%) Self-voided within 1 hour after removal of catheter and Passed First flatus within 1 hour after Ambulation while only 10% in Control group Self- voided within 1 hour after removal of catheter and (10%) only passed 1st flatus after Conventional Care. In Experimental group 60% of Post- Caesarean Mothers Breast fed and Holding baby independently after Caesarean Section on Day- 2 while only 16.7% in Control Group Breast fed and Holding baby independently after Caesarean Section on Day- 2. 80% of Post- Caesarean Mothers on Day- 1 had Started of Oral Intake (Semi-Solid Diet) after Ambulation whereas in Control group 100% of Post- Caesarean Mothers on Day- 2 had Started of Oral Intake (Semi-Solid Diet) after Conventional Care. In Experimental group (83.3%) higher percentage of Post- Caesarean Mothers had Passed stool on Day- 2 than in Control group (13.3%) had Passed stool on Day- 2. In Experimental group (3.3%) had positive Homan's Sign whereas in Control group (23.3%) had positive Homan's Sign.

Higher percentage of Post- Caesarean Mothers in Experimental group (86.7%) had ambulated upto 26-35 metres of within 2 days whereas in Control group (73.3%) had ambulated upto 16-25 metres.

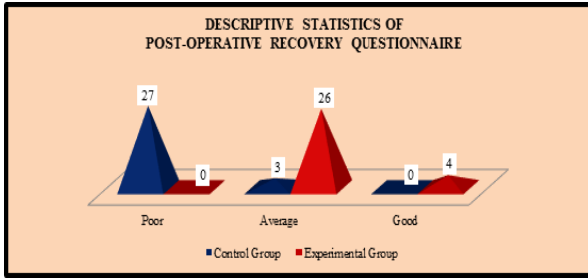


Figure 11: Showing the Descriptive Statistics of Post-Operative Recovery Questionnaire

To apply inferential statistics, the scoring had been given to every option of the Questionnaire. The total scores was 24 and it was categorises into

- Poor : 0-11
- Average : 12-16
- Good : 17-24

Figure No. 11 shows that the score of Experimental Group of Post-Operative Recovery Questionnaire were 0% - Poor, 86.7% - Average, 13.3% - Good which were better than that of Control Group i.e. 90% - Poor, 10% - Average, 0% - Good respectively.

TABLE 3: Effectiveness Of Early Ambulation On Post Caesarean Recovery Of Post Caesarean Mothers

(n=60)

Group	Mean	SD	Median	Mean Diff.	Median Diff.	Mann-Whitney U	P Value
Control (n=30)	9.90	1.242	10.00	6.07	6.00	39.000	S P<0.0001
Experimental (n=30)	15.97	1.691	16.00				

Significant

The Mann Whitney U test was applied between Experimental Group and Control Group to assess the effectiveness of Early Ambulation among Post Caesarean Mothers. The findings of table no. 3 inferred that the Median of Control Group was 10.00 while of Experimental Group was 16.00. The P-value < 0.001 which shows a very high significant difference between the two Groups at the level of significance with Mann-Whitney score of 39.00. It shows that Early Ambulation is effective on Post- Caesarean Recovery among Post-Caesarean Mothers in relation to Post-Operative Questionnaire.

INTERPRETATION AND CONCLUSION

The overall findings of the study clearly showed that Early Ambulation is effective on Post- Caesarean Recovery among Post-Caesarean Mothers in relation to Post-Operative Questionnaire. The investigator was not able to assess effectiveness of Early Ambulation on Pain and Wound Healing among Post Caesarean Mothers because it was not possible to keep the postnatal mothers admitted for 5 days after Caesarean Section due to overcrowding of ward in a Government District Hospital. It was the limitation of the study but further studies can be conducted using Pain and Wound Healing as the variables of study.

REFERENCES

1. Banita R, Nilavansa B, A Quasi Experimental Study to assess the Effectiveness of Early Ambulation in Post-Operative Recovery among Women with Caesarean Section Delivery admitted in selected Hospitals of Jalandhar, Punjab, 2017. International Journal of Advances in Nursing Management(2019); 7(1): page no: 55-59
2. Choudhary Sunita, Effectiveness of Structured Teaching Programme about

the Knowledge of Mothers on early ambulation and its impact on the recovery after Caesarean Section

3. Clement (2004) "Early ambulation and post-operative recovery" Nursing Times 11-12.
4. Dube JV, Kshirsagar N.S, Durgawale PM, Effect of Planned Early Ambulation on Selected Postnatal Activities of Postcaeserean Patients. International Journal of Health Sciences and Research (2013); 3(12): page no: 110-118.
5. Kaur H, Kaur S, Sikka P, Assess the Effectiveness of Early Ambulation in Post Operative Recovery among Post Cesarean Mothers. Nursing and Midwifery Research Journal(2015); 11(1): page no: 33-44.