



# **“A STUDY TO ASSESS THE EFFECTIVENESS OF EARLY AMBULATION ON SELECTED ASPECTS OF IMMEDIATE POST OPERATIVE RECOVERY AMONG CAESAREAN MOTHERS AT SELECTED HOSPITAL, KOLAR.”**

**Miss Reddimallu Jayanthi<sup>1</sup>**

<sup>1</sup>M.Sc Nursing, Dept. of obstetrics and gynecology Nursing, ETCM College of Nursing, Kolar, Rajiv Gandhi University of Health Sciences, Bangalore.

## **ABSTRACT**

Caesarean section is a surgical procedure used to deliver a baby through incision in the abdomen and uterus. Early ambulation, a technique of post-operative care in which a patient gets out of bed and ability to walk from place to place independently, with or without assistive devices as soon as possible after an operation. Early ambulation as the most significant general nursing measure to prevent postoperative complication and reduces the catabolic effects of surgery.

**Objectives:** to assess the effectiveness of early ambulation on activities of daily living among the post caesarean mothers, to find out the difference between selected baseline proforma and activities of daily living, functional activities in the study group and control group of post caesarean mothers. **Methodology:** The research approach used for the present study was Quantitative Approach and research design was quasiexperimental time series research design. The sample of the study chosen by non-probability Purposive Sampling Technique, which includes 40 immediate post caesarean mother. A self-structured questionnaire was used to collect the data which consists of 14 Socio demographic and 33 check list questions. **Results:** The major findings of the study were out of 40 caesarean mothers. In experimental group 50% of mothers done good practice, 45% mothers done moderate practice and 5% of mother poor practice in ambulation. In relation to activities of daily living in experimental group majority 95% of mothers done moderate activity and only 5% of mother poor activity, whereas in control group 85% of mothers has poor activity and only 15% of mothers done moderate activity. In relation to functional activity, in experimental group majority 100% of mothers has good activity, whereas in control group 55% of mothers show moderate activity and 25% of mothers done good activity. **Conclusion:** The study concluded that majority of post caesarean mothers done moderate activity on early ambulation techniques in experimental group. Hence there is a need to improve the effectiveness regarding Early ambulation. So demonstration given to improving the effectiveness.

**KEY WORDS:** Effectiveness, Early Ambulation, immediate post operative, Recovery, caesarean mothers, Hospitals.

## INTRODUCTION:

Early ambulation, a technique of post-operative care in which a patient gets out of bed and ability to walk from place to place independently, with or without assistive devices as soon as possible after an operation. Early walking is one of the most crucial things can do after surgery to prevent postoperative complications. Early ambulation is extremely important after surgery. In addition to improving diaphragmatic excursion with its subsequent decrease in pulmonary atelectasis. Normally patient has to ambulate within 12 hrs of surgery<sup>1</sup>

## NEED FOR STUDY

Helping post operative patient move as soon as possible should be a clinical priority than seeing the patient sitting in wheel chair. Evidence from the review indicates that early ambulation may improves patient care outcome. A study recommends the optimum time to ambulate post operative patient in first 24hrs reports reduced incidence of phlebothrombosis and a definite reduction of all postoperative complications, less medication, less nursing car, no delay in wound-healing and for more rapid return to normal of the bodily function.<sup>2</sup>Most studies report that early ambulation carries benefit such as decreased pain, swelling and post thrombotic syndrome symptoms.<sup>3</sup>

## STATEMENT OF THE PROBLEM

**To assess the effectiveness of early ambulation on selected aspects of immediate post-operative recovery among caesarean mothers at selected hospital, kolar.**

## OBJECTIVES

- To evaluate the effectiveness of early ambulation on activities of daily living among the post caesarean mothers in the study group and control group.
- To evaluate the effectiveness of early ambulation on functional activity among the post caesarean mothers in the study group and control group.
- To determine the difference between selected baseline proforma and activities of daily living, functional activities in the study group and control group of post caesarean mothers.

## OPERATIONAL DEFINITIONS

- Effectiveness: In this study it refers to the outcome of early ambulation measured in terms of activities of daily living, functional activity among post caesarean mothers in the study group.
- Early ambulation: In this study it refers to a procedure to accelerate the ability of post caesarean mothers to ambulate at 12<sup>th</sup> hour which includes sitting(exercises), standing and walking assisted and guided by investigator
- Selected aspects: In this study it refers activities of daily living, functional activity of post caesarean mothers in the study group and control group.
  - Activity of daily living: In this study it refers to the restoration of certain activities of post caesarean mothers measured by the observational checklist which includes oral hygiene, nutrition, elimination, self-void after removal of catheter, ability to feed, rooming in, self-care, sitting on the bed, infant caring behavior.
  - Functional activity: In this study it refers to restoration of physiological condition of post caesarean mothers measured by items of observational checklist which includes mobilization, respiratory sound, presence of bowel sound, ability to eliminate, intake of analgesic, duration of catheterization, initiation of breastfeeding, passage of first flatus, volume of lochia, occurrence of deep vein thrombosis, involution of uterus and numerical pain scale will be used to assess the post-operative pain among post caesarean mothers.

- Immediate post-operative: In this study it refers to period after 12hrs to 3<sup>rd</sup> day of post caesarean section.
- Recovery: In this study it refers to post-operative recovery in terms of the restoration of activities of daily living and functional activity assessed by investigator and intensity of post-operative pain perceived by post caesarean mothers

## 1.6 HYPOTHESIS

- H<sub>1</sub>: There will be significant difference between the activities of daily living of post caesarean mother in the study group and control group
- H<sub>2</sub>: There will be significant difference between the functional activity of post caesarean mother in the study group and control group

## 1.7 ASSUMPTIONS

- Early ambulation may make difference among patient recovery.
- Early ambulation may prevent complications.
- Early ambulation may improve sense of wellbeing.
- Early ambulation may reduce difficulty in functional activity.
- Early ambulation may improve confidence which initiates early activity of daily living.

## CONCEPTUAL FRAMEWORK

The conceptual framework of the present study was based on “King’s Goal Attainment model” (1981). According to Imogene King, nursing is defined as a process of action, reaction, interaction whereby nurses’ and clients share information about their perception. Through perception and communication, they identify the problems through which they set goals and take necessary actions.

A system can be resolved into an aggregation of feedback circuit such as:

- Perception
- Judgment
- Action
- Reaction
- Interaction
- Transaction
- feedback

Fig 1 conceptual framework on early ambulation on post cesarean mothers based on King's Goal Attainment model

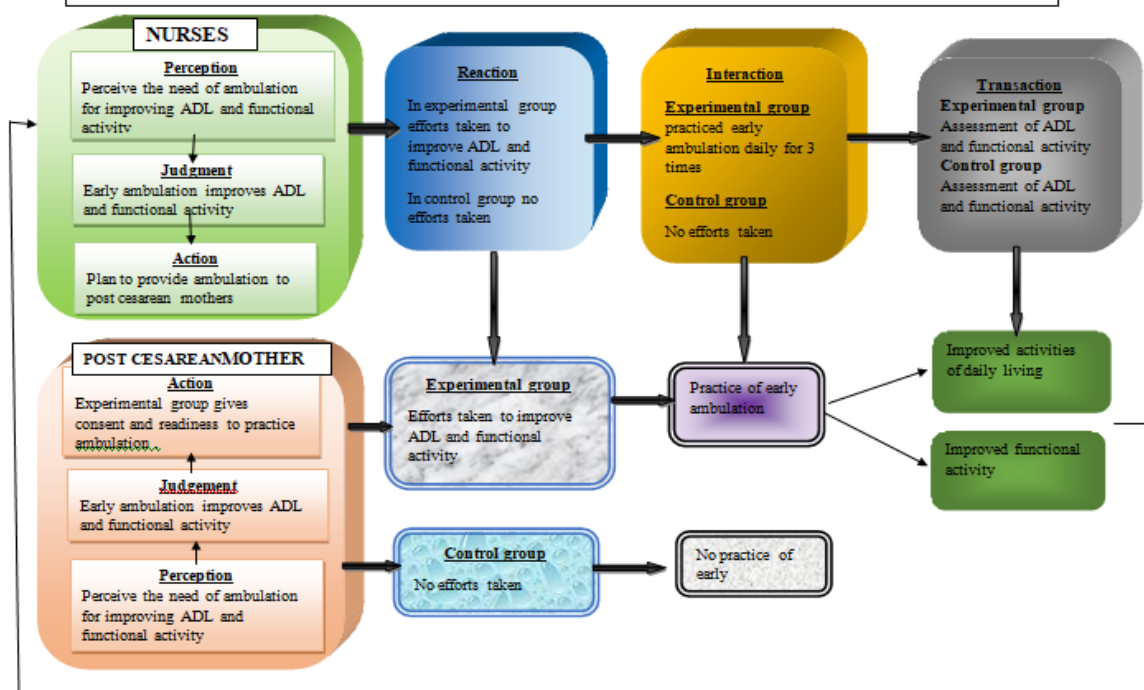


Fig-1: Conceptual Frame work

## METHODOLOGY

### RESEARCH APPROACH

In view of the nature of the problem selected for the study and the objectives to be accomplished, a Quantitative evaluative research approach to assess the effectiveness of early ambulation on selected aspects of immediate post-operative recovery among caesarean mothers.

### RESEARCH DESIGN

Depending upon the purpose of the study, research approach and variables to be studied, Quasiexperimental time series research design was adopted for the present study.

### SETTING OF THE STUDY

The study was conducted in selected hospital, Kolar.

### POPULATION

The population in this study includes post caesarean mothers.

### SAMPLE

The sample includes post caesarean mother who were falling under inclusion criteria.

### SAMPLE SIZE

Sample size consists of 40 post caesarean mother, 20 in study group and 20 in control group.

## SAMPLING TECHNIQUE

The selection of sample depends on availability of post caesarean mothers, Non Probability Purposive Sampling Technique was adopted based on inclusion criteria.

### CRITERIA FOR SAMPLE SELECTION:

#### Inclusion criteria:-

- primary or repeat caesarean section.
- Spinal anesthesia
- Willing to participate in the study.
- 36-41 gestational wks on the day of caesarean section.
- mothers of age 19yrs – 40 yrs

#### Exclusion criteria:-

The study excluded

- Whose new born were still born, admitted in NICU
- Caesarean section under general anesthesia.
- Mother on Mgso<sub>4</sub> therapy, eclampsia, post-partum psychosis.
- Mothers with cardiovascular problem, severe anemia, PPH
- Who developed complication in post caesarean period
- No major illness/complication of pregnancy and child birth.
- Mothers with headache, uneasiness, nausea within 24hrs

#### TOOL:

The tool was developed with the help of related literature from various textbooks, journals, websites, discussions and guidance from experts.

The tool consists of III sections.

#### Section-I:-I baseline proforma.

#### Section-II:-checklist to record early ambulation

**Section-III:-**The observation done without knowledge of post caesarean mothers when they are engaged in activities by using part I-**observation checklist to assess activity of daily living** and part II-**Observational checklist to assess functional activity** observational checklist at the end of each post caesarean day till 4<sup>th</sup> post operative day.

#### Scoring key:

**Section-I:-**By coding the Baseline proforma.

**Section-II:-**For performance of each step one point is given. Thus for 10 steps maximum obtainable score is 10 and minimum is 0. Grading of score was done as

**SCORES(%)****LEVEL OF PRACTICE BY CHECKLIST**

<5(50%)	poor practice
6-8(51-75%)	moderate practice
>9(75%)	good practice

**Section-III:-**

**PART-A:-**For performance of each activity on each day 2 point is given. Thus for 8 activities maximum obtainable score for one day is 20 and for 3 days is 60 and minimum is 0. Grading of score was done as **GRADES FOR SCORE (IN PERCENTAGE)**

**SCORES(%)****daily living activity**

< 30 (50% )	poor activity
31-45(51-75%)	good activity
>45(75%)	excellent activity

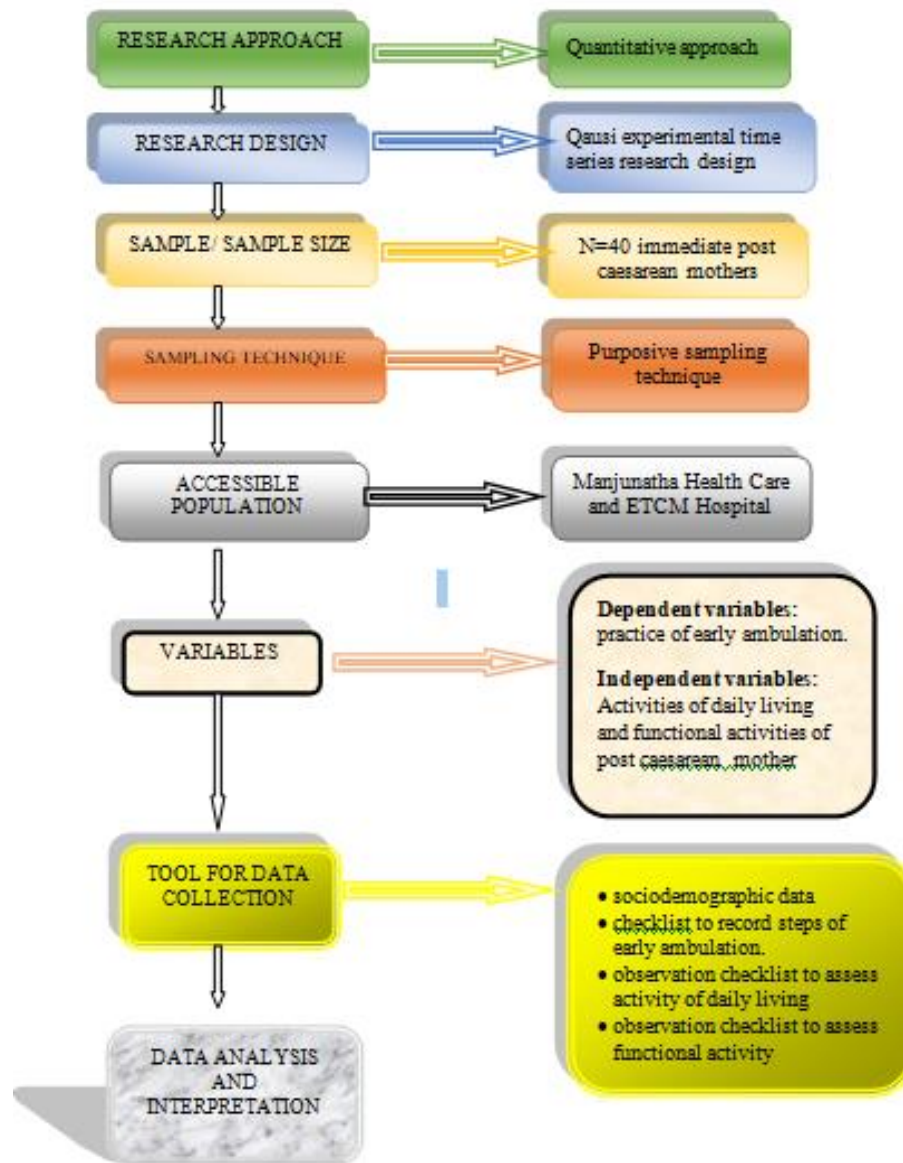
**PART-B:-**For each functional activity 1 point is given. Thus for 9 functional activity maximum obtainable score is 14 and minimum score is 0

**SCORES (%)****daily living activity**

< 30 (50% )	poor activity
31-45(51-75%)	good activity
>45(75%)	excellent activity



Fig 2: Schematic Representation of Research Design



## RESULTS

Majority of the Post Caesarean Mothers with respect to age 11(55%) in experimental group & 13(65%) in control group were in the age group of 24-29 years, 15(75%) in experimental group & 16(80%) in control group belongs to Hindu religion, 10(50%) in experimental group & 9(45%) in control group were completed their secondary education, 11(55%) in experimental group & 12(60%) in control group are working, 12(60%) in experimental group & 11(55%) in control group were belongs to Nuclear family, 10(50%) in experimental group & 10(50%) in control group were married at 18-23 Years of age, 11(55%) in experimental group & 13(65%) in control group are living at Urban area, 15(75%) in experimental group & 15(75%) in control group undergone Caesarean Section during 39-40 weeks of Gestation, 14(70%) in experimental group & 12(60%) in control group were undergone Emergency Caesarean section, 11(55%) in experimental group were Multipara mothers & 12(60%) in control group were Primipara mothers, all the mothers in experimental group 20(100%) & control group 20(100%) had received Spinal Anesthesia.

**Table: 1**Frequency and Percentage Distribution of Caesarean mother on level of practice on early ambulation in Experimental Group

Sl. No	Level of Practice	Experimental group	
		f	p
1.	Poor practice	1	5.0
2.	Moderate practice	9	45.0
3.	Good Practice	10	50.0
	Total	20	100.0

Table 1 shows distribution of caesarean mother on level of practice on early ambulation in experimental group 50% of mothers do good practice, 45% mothers do moderate practice and 5% of mother poor practice in ambulation.

**Table: 2**Frequency and Percentage Distribution of Caesarean mother on Level of Activities of Daily living in Experimental Group and control group.

Sl. No	Level of Activities of Daily living	Experimental group		Control Group	
		f	p	F	p
1.	Poor Activity	1	5.0	17	85.0
2.	Moderate Activity	19	95.0	3	15.0
3.	Good Activity	0	0.0	0	0.0
	Total	20	100.0	20	100.0

**Table: 2** shows distribution of caesarean mother on level of activities of daily living, In experimental group 95% of mothers do moderate activity and only 5% of mother poor activity, whereas in control group 85% of mothers has poor activity and only 15% of mothers do moderate activity.

**Table 3: Frequency and Percentage Distribution of Caesarean mother on functional activity in Experimental Group and control group.**

Sl. No	Functional activity	Experimental group		Control Group	
		f	p	F	P
1.	Poor Activity	0	0.0	4	20.0
2.	Moderate Activity	0	0.0	11	55.0
3.	Good Activity	20	100.0	5	25.0
	Total	20	100.0	20	100.0

Table 3 shows distribution of caesarean mother on functional activity, In experimental group 100% of mothers has good activity, whereas in control group 20% of mothers has poor activity, 55% of mother show moderate activity and 25% of mothers do good activity.



**TABLE – 4: Mean, Median and SD of practice of ambulation, ADL and Functional Activity scores of Caesarean mothers.****N = 40 (E=20, C=20)**

Aspects	No. of Items	Max Score	Experimental Group			Control Group		
			Mean	Mean %	SD	Mean	Mean %	SD
Practice of ambulation	10	10	8.2	82.0	1.361	-	-	-
Activities of Daily Living	30	60	40.15	66.91	4.271	21.45	35.75	8.47
Functional Activity	9	14	13.4	95.71	1.231	9.25	66.07	1.997

Table 4 shows Mean, Mean% and SD of Practice of ambulation, ADL and Functional Activity scores of Caesarean mothers in experimental group, ambulation was practiced by experimental group, mean% is 82 and SD is 1.361, score for activity of daily living mean % is 66.19 SD is 4.271 and functional activity mean % is 95.71 and SD is 1.231, whereas in control group score for activity of daily living mean % is 35.75 SD is 8.47 and functional activity mean % is 66.07 and SD is 1.997.

**Table 5: Comparison of the Activities of daily living and functional activity between experimental and control group**

Aspects	Experimental Group		Control Group		Mean Difference	t value	Remarks
	Mean	SD	Mean	SD			
Activities of Daily Living	40.15	4.271	21.45	8.47	18.7	8.389	S
Functional Activity	13.4	1.231	9.25	1.997	4.15	7.308	S

Table 5 shows the comparison of the activities of daily living and functional activity between experimental and control group. The obtained t value was significant with activities of daily living and functional activity.

The tool used for the study were checklist for practice of early ambulation, checklist to assess the ADL and functional activity. The collected data was analyzed and interpreted by using descriptive and inferential statistics. After analysis it is evident that the overall mean% of practice of early ambulation is 82 and SD is 1.361. The overall experimental group score activity of daily living majority mean % is 66.19 SD is 4.271, whereas in control group score for activity of daily living mean % is 35.75 SD is 8.47. The overall functional activity mean % is 95.71 and SD is 1.231 where as in control group functional activity mean % is 66.07 and SD is 1.997.

There was significant difference between activities of daily living and functional activity in both experimental and control group in post caesarean mother's findings revealed that the obtained  $\chi^2$  value is less than the table value at 0.05 levels of significance. Therefore, there is no significant association between practice of early ambulation scores, activities of daily living and functional activities of caesarean mother with the selected

demographic variables in both experimental group and control group. Hence the hypothesis  $H_1$  and  $H_2$ , is rejected.

## CONCLUSION

The study findings revealed that, a majority of post caesarean mothers were done moderate effectiveness on early ambulation and some of the base line proforma variables were statistically significant, and hence it can be concluded that, post operative caesarean mothers should improve the effectiveness regarding Early ambulation. So, demonstration given to improving the effectiveness.

## IMPLICATIONS

The implications of this study are discussed under the following headings: nursing education, nursing administration, nursing research, community health practice and general education.

### Nursing education:

Nurse as an educator has a vital role in imparting knowledge of post operative cesarean mother by making the mother aware about the benefits of doing early ambulation by practicing themselves.

The nursing education can take efforts to teach their students about the effectiveness of early ambulation after cesarean section and student can assist the mother in early ambulation in the supervision of their teachers and Nursing office

### NURSING PRACTICE:

Since the present study revealed that Early ambulation is effective in terms of postoperative recovery after cesarean section. The mothers can work independently who ambulated early as compared to those who followed the hospital regimen.

Nurse midwives can play an important role in assisting the mother in early ambulation after cesarean section which helps in recovery. Nurses can conduct the CNE programme, Workshop about early ambulation. Nurses can deliver health education regarding the importance of ambulation during the postoperative period, about early initiation of breastfeeding, how to hold the baby independently etc.. which will help the mother to do her activities independently.

### NURSING RESEARCH:

There are different situation and places where the problems are identified which need a systematic evaluation. The investigator need a lot of review materials and one may be obtained by using this study report.

The nurse researcher should conduct more research studies. Extensive and vigorous research activities should be carried out by the nurses and nursing students regarding early ambulation in terms of postoperative care. The research study result should be discussed properly and can be implemented for evidenced-based intervention

### NURSING ADMINISTRATION:

The nurse administrators face a challenging role these days, where she/he needs to know the recent developments, the new methods and techniques.

Nursing Administration can conduct some classes to educate the nurses about the Importance of initiation of early ambulation. They can also motivate the nurses in conducting CNE programmes. Written policy about the ambulation and guidelines can be implemented in the clinical setting so that the newly entering nurse midwives and doctors will be aware of the protocol of ambulation.

## LIMITATIONS

Post caesarean mother in selected hospital

## RECOMMENDATIONS

Based on the finding of the study the following recommendation are made

- A similar study may be replicated in another setting.
- A similar study may be replicated on a larger sample for wider generalization.
- An experimental study can be done between the effects of structured teaching programme verses self-instructional module.
- A comparative study can be conducted between early ambulation and breathing exercise.

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