

# Effectiveness of Standard Post Operative Care on Post Operative Outcome Among Women Who Had Undergone Lscs in Selected Hospital at Delhi: A Pilot Study

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## Abstract

**Introduction:** Caesarean section is one kind of surgical process that is generally used in the delivery case by incision on the uterus and abdomen. Nowadays 32% of mothers prefers the surgical delivery. There are high chances of mortality and morbidity related to improper management of women after LSCS. Nurses play a key role in post operative management of mother and child in order to reduce discomfort and enhance experience of hospital stay in women. **Objective :** This study has the main objective to recognize the effectiveness of post-operative care on post-operative outcome among women who had undergone LSCS in selected hospital of Delhi. **Methods:** time series research design was used to assess the effectiveness of standard post-operative care among 24 women (12 in control group and 12 in experimental group) admitted in ward. This study has selected non-probability purposive sampling to choose women. Self-structured and standard tools were used to collect the data. Data analysis was performed in SPSS version **Results:** The study findings reveal that there was a significant improvement in experimental group in terms of wound healing, activity of daily living and bowel function ( $p < 0.005$ ) which proves standard post-operative care was significant in improving health of women after LCSC. **Conclusion:** The present study reveals that standard post-operative care was effective in improving morbidity among women who had undergone LSCS.

**Keywords:** LSCS, post-operative outcome, standard post-operative care.

## 1. Introduction

Maternal well-being and the health of the child occupy a major place in the health care and delivery system. Cesarean section is one kind of surgical procedure that is generally used in delivery cases. In that case, C-section is the alternative option for the child delivery process. This option is based on the mother's health condition and child's.

Nowadays C-section is one of the common intervention plan that make the impact on the health care system and also able to develop the country. In 1998 CS rate was 7.1 % and it increase upto 16.7% as per the annual rate. In some cases it has been seen that women are facing various kinds of issues after csection rather than normal or vaginal delivery. On the other hand, after Csection women has to stay in hospital for along time period, feel pain after operation, lactation failure, bowel and bladder

problems, breast engorgement, delayed ambulation and may others. The all factors make a huge impact on the physical and psychological health of a mothers. In the c-section case mother are not able to come in their normal and regular life style. It takes more time than vaginal delivery process. On the other hand, C-section delivery process can be responsible for increasing weight and other symptoms.

3 The mortality and morbidity rate in c-sectionn section patients are mainly occurring due to the postoperative problems and that related with the immobility.4 By promotive postoperative and preventive care the women can be assisted to ignore the postoperative complications problems .

It has been seen that 32% of mothers choose surgical delivery and doctors prescribe the delivery process depending on the situation health and, position of the baby in the uterus. There are various kinds of

experiences faced by mothers after post-caesarean section. Sometimes these experiences may vary woman to woman.

## 2. Need of Study

C-section is one kind of delivery process that is applied when a mother is going give birth an infant. This surgery is related with the abdomen and uterus and this process has the alternative delivery process that is known as the vaginal delivery procedure. This process is based on the mother's health condition and the position of the infant. Two processes of most different and both have different kinds of process and symptoms. 32% of parents want to give birth by C-section delivery process. C-section delivery and vaginal delivery process has various kinds of differences that are faced by women. The reaction of delivery also vary woman to woman and the C-section delivery system makes a huge impact on the physical psychological condition of women.

## 3. Material and Method

A quasi-experimental, time series research design

was conducted on women who had undergone LSCS. In this study sample size has taken from 12 experimental and control group. This study also used non-probability sampling process and it used to selected the actual subject matter. In this case, inclusion criteria was, the mother must be 18 to 45 age group , elective or emergency LSCS and who undergone general or spinal anaesthesia. Women with high-risk pregnancy and unwilling to participate in the research study were excluded.

This study has various kinds of instruments to get the actual result from the study such as sociodemographic data that contained 10 question. The questions are related with the education, qualification, occupation, residence, gestation period, religion, , primary indication of LSCS, type of LSCS and weight of women at the time of LSCS. Section-2 contains standardised tools to assess pain, lochia, wound healing, fundal palpation, bladder and bowel function, breastfeeding and activity of daily living. Data was collected from each subject for 5 post operative days [1].

There are three stages

**Table 1: Frequency and percentage distribution of socio demographic variables. (N=24)**

S. No.	Demographic Variables	Experimental group (n-12)		Control group(n-12)		Homogeneity	
		f	Percentage	f	percentage	x2	P value
1	Age (in year)	6		3		2.8	.4355
	(a)18-25	4		4			
	(b)25-30	1		4			
	(c)30-35 (d)35&above	1		1			
2	Education	2		3		1.68	.6403
	(a)Illiterate	7		4			
	(b)10 <sup>th</sup>	2		4			
	(c)12 <sup>th</sup> (d)Graduate &above	1		1			
3		12	100	8 4	66.7 33.3	0.6857	.4076
4	Residence	8	66.7	11	91.7	0.5496	.2459
	(a)Urban	1	8.3	1	8.3		
	(b)Semi urban (c) Rural	3	25				
5	Religion	9	75 25	10	83.3	1.2222	.5427
	(a)Hindu	3		1	8.3		
	(b) Muslim (c) Christian (d)Other			1	8.3		
6	Duration of pregnancy(in weeks)	2	16.7	2	16.7	.2588	.8786
	Less than 37	9	75	10	83.3		
	37-41 weeks More than 41 weeks	1	8.3				
7		4	33.3	6	50	.6857	.7097
		4	33.3	3	25		
		4	33.3	3	25		
8	Type of LSCS	2	16.7	4	33.3	.8889	.3457
	(a)Elective (b)Emergency	10	83.3	8	66.7		
9	Birth of baby	11	91.7	10	83.3	0.381	.5370
	(a)Live (b)Still birth	1	8.3	2	16.7		
10	Weight at time of LSCS	1	8.3	3	25	1.333	.5134
	Less than 55kg	7	58.3	5	41.7		
	55-65kg More than 65kg	4	33.3	4	33.3		

Note: significance level at p<0.05

Table 1: Description of the sociodemographic characteristic that based on baseline survey of 24 subjects. There was 24 kinds of subjects from every group and the outcome shows that two groups has the baseline characteristic that is statistically comparable.

A. Before intervention stage: ethical clearence is most importance from the ethical institute committee. who are able to fulfill the criteria for

inclusion they are selected for postnatal ward in DR. RML hospital. It has been chosen by the purposive technique. There are 24 subjects and 12 subject allocated to the external group and 12 control group. After achieving the acquainted with the specific subject . accordingly researchers stated the objectives and find the process of doing the research. After that they create the rewritten content and inform the high authority .

B. Intervention stage: in this research paper

standardised post-operative care was used to achieve the objectives. A series of intervention process was progressed after selecting or reviewing books, literature, books, pamphlets, and booklates that available on internet or various sources. Interventions according to that was given to women in the control group and experimental group women who received routine care of ward

C. After intervention stage

D. The data were collected from both experimental and control group for 5 days. This data were statistically analysed by using of SPSS version

21. In this context descriptive statistic analysis process includes percentage, frequency, standard deviation and mean process. On the other hand inferential statistical method used Bonferroni test to know the level of standard post-operative care and chi-square test.

### 4. Results

Description of the variable of socio-demographic aspect of women

**Table 2: Frequency and percentage distribution of post operative outcome of LSCS women**

S. No.	Variables/Baseline data	Experimental group (N=12)		Control group (n=12)	
		Frequency(f)	Percentage(%)	Frequency(f)	Percentage(%)
1	Vital Signs temperature (a) Normal (b) Abnormal	10	83.3	12	100
2	Pain (incisional pain) (a)Mild 1-3 (b) Moderate.3-6 (c) Sever 7-10	8	66.7	2	16.7
		4	33.3	10	83.3
		0	0	0	0
3		1	8.3	0	0
		10	83.3	8	66.7
4	Wound healing (a)Normal (b)Good healing (c)Average healing (d) Poor healing	1	8.3	4	33.3
		0	0	0	0
		8	66.6	1	8.3
		4	33.3	10	83.3
5	Fundal palpation (a)Normal (b)Abnormal	12	100	12	100
		0	0	0	0
6		17	83.3	3	25
		4	33.3	9	75
7	Bowel condition (a)No problem (b)Mild problem (c)moderate problem	0	0	0	0
		5	41.7	9	75
		7	58.3	3	25
8		2	16.7	1	8.3
		8	66.7	8	66.7
		2	16.7	3	25
9	(b)Fully establishment	3	25	9	75
		9	75	3	25

Table 2 describes the frequency and percentage distribution of post operative outcome of LSCS

women in control and experimental group.

**Table3: Comparison between experimental and control group in terms of pain**

Dependent Variable	I) group	J) group	Std. Error	Sig.a
day1	control	experimental	-.083	.385
	experimental	control	.083	.385
day2	control	experimental	.167	.210
	experimental	control	-.167	.210
day3	control	experimental	.167	.244
	experimental	control	-.167	.244
day4	control	experimental	.250	.234
	experimental	control	-.250	.234
day5	control	experimental	.083	.193
	experimental	control	-.083	.193

Table 3 findings highlighted that there was no significant difference in experimental and control group in terms of pain. The difference in terms of

duration was also not significant (<0.05). Therefore, it can be stated that intervention was not significantly effective in reducing the Pain level in the experimental group

**Table 4: comparison between control group and experimental group in terms of lochia**

Dependent Variable	(I) group	(J) group	Mean Difference (I-J)	Std. Error	Sig.b
day1	control	Experimental	.417	.223	.075
	experimental	Control	-.417	.223	.075
day2	control	Experimental	.250	.186	.193
	experimental	Control	-.250	.186	.193
day3	control	Experimental	.083	.140	.557
	experimental	Control	-.083	.140	.557
day4	control	Experimental	.333*	.159	.048
	experimental	Control	-.333*	.159	.048
day5	control	Experimental	.333	.170	.063
	experimental	Control	-.333	.170	.063

Note: The significant level at p<0.05 based on marginal mean (Bonferroni test)

Table 4 showed that there was no significant difference in control group and experimental group in terms of lochia. The difference in terms of duration

was also no significant (<0.05). Therefore, we can state that intervention was no significantly effective on lochia in experimental group.

**Table 5: Comparison between control and experimental group in terms of wound healing**

Dependent Variable	(I) group	(J) group	Mean Difference (I-J)	Std. Error	Sig.b
day1	control	experimental	.917	.564	.118
	experimental	Control	-.917	.564	.118
day2	control	experimental	.667	.607	.284
	experimental	Control	-.667	.607	.284
day3	control	experimental	-.083	.288	.775
	experimental	Control	.083	.288	.775
day4	control	experimental	.500*	.195	.018
	experimental	Control	-.500*	.195	.018
day5	control	experimental	.667*	.188	.002
	experimental	Control	-.667*	.188	.002

Note: The significant level at p<0.05 based on marginal mean (Bonferroni test)

Table5 findings highlighted that intervention has no significant effect on wound healing on first 4 days but on day 5th, the difference in control and experimental group was significant. The difference in

terms of duration was also not significant (>0.05) in early days. Therefore, it can be stated that intervention was significantly effective on wound healing in experimental group on later days.

**Table 6: Comparison between experimental and control group in terms of fundal height**

Dependent Variable	(I) group	(J) group	Mean Difference (I-J)	Std. Error	Sig.a
day1	control	experimental	.000	.000	NA.
	experimental	control	.000	.000	NA.
day2	control	experimental	.083	.083	.328
	experimental	control	-.083	.083	.328
day3	control	experimental	.083	.083	.328
	experimental	control	-.083	.083	.328
day4	control	experimental	.083	.083	.328
	experimental	control	-.083	.083	.328
day5	control	experimental	.083	.083	.328
	experimental	control	-.083	.083	.328

Note: The significant level at p<0.05 based on marginal mean (Bonferroni test)

Table 6 highlighted that intervention has no significant effect on fundal height, the difference in experimental and control group was insignificant.

Therefore, we can state that intervention was no significantly effective on fundal height in experimental group.

**Table 7: Comparison between experimental and control group in terms of activity of daily living (ADL)**

Dependent Variable	(I) group	(J) group	Mean Difference (I-J)	Std. Error	Sig.b
day1	control	experimental	.167	.167	.328
	experimental	control	-.167	.167	.328
day2	control	experimental	-.333	.198	.106
	experimental	control	.333	.198	.106
day3	control	experimental	-.333	.256	.207
	experimental	control	.333	.256	.207
day4	control	experimental	-.583*	.193	.006
	experimental	control	.583*	.193	.006
day5	control	experimental	-1.500*	.151	.000
	experimental	control	1.500*	.151	.000

The significant level at p<0.05 based on marginal mean (Bonferroni test)

Table 7 findings highlighted that intervention has insignificant effect on ADL in first 3 days but on day 4th & 5th, the difference in experimental and control group was significant. The difference in terms of

duration was also not significant (<0.05) in early days. Therefore, it can be stated that intervention was no significantly effective on ADL in early days in experimental group.

**Table 8. Comparison between experimental and control group in terms of bowel function**

Dependent Variable	(I) group	(J) group	Mean Difference (I-J)	Std. Error	Sig. <sup>b</sup>
day1	control	experimental	.083	.212	.698
	experimental	control	-.083	.212	.698
day2	control	experimental	.083	.140	.557
	experimental	control	-.083	.140	.557
day3	control	experimental	.083	.172	.633
	experimental	control	-.083	.172	.633
day4	control	experimental	.417	.223	.075
	experimental	control	-.417	.223	.075
day5	control	experimental	.750*	.179	.000
	experimental	control	-.750*	.179	.000

The significant level at  $p < 0.05$  based on marginal mean (Bonferroni test)

Table 8 showed that intervention has no significant effect on bowel movement in first 4 days but on day 5th, the difference in experimental and control group

was significant ( $p < 0.005$ ). Therefore, it can be stated that intervention is significant in later stage of recovery.

**Table 9: Comparison between experimental and control group in terms of bladder function**

Dependent Variable	(I) group	(J) group	Mean Difference (I-J)	Std. Error	Sig. <sup>a</sup>
day1	control	experimental	-.333	.264	.219
	experimental	control	.333	.264	.219
day2	control	experimental	-.167	.219	.455
	experimental	control	.167	.219	.455
day3	control	experimental	-.250	.250	.328
	experimental	control	.250	.250	.328
day4	control	experimental	.167	.291	.572
	experimental	control	-.167	.291	.572
day5	control	experimental	.167	.299	.583
	experimental	control	-.167	.299	.583

The significant level at  $p < 0.05$  based on marginal mean (Bonferroni test)

Table 9 findings highlighted that intervention has no significant effect on bladder control, the difference

in experimental and control group was insignificant. Therefore, intervention had no significant effective on bladder control in experimental group.

**Table 10: Comparison between experimental and control group in terms of initiation of breastfeeding**

Dependent Variable	(I) group	(J) group	Mean Difference (I-J)	Std. Error	Sig. <sup>a</sup>
day1	control	experimental	-.083	.206	.689
	experimental	control	.083	.206	.689
day2	control	experimental	-.167	.207	.430
	experimental	control	.167	.207	.430
day3	control	experimental	-.083	.229	.719
	experimental	control	.083	.229	.719
day4	control	experimental	.000	.254	1.000
	experimental	control	.000	.254	1.000
day5	control	experimental	.000	.254	1.000
	experimental	control	.000	.254	1.000

The significant level at  $p < 0.05$  based on marginal mean (Bonferroni test)

Table 10 findings highlighted that intervention has no significant effect on breastfeeding and the difference in experimental and control group was insignificant. Therefore, intervention had no significant effective on breastfeeding in experimental group.

### 5. Discussion

Though childbirth is a universally celebrated natural event yet for many thousands of women in India it is becoming a matter of concern due to the overmedicalisation of their bodies. One of the current examples of this is the caesarean section delivers. Several Studies have also discussed that o the past few decades of childbirth is highly

influenced by the medical technologies. This study reveals that standard post-operative care was effective in terms of wound healing ( $p < 0.005$ ). Also, activity of daily living also improved in experimental group ( $p < 0.005$ ). Similar results were found in the study conducted by Jyoti Dube and N.S. Kshirsagar which says there was a significant difference in health parameters such as incisional pain, condition of abdomen, condition of breast, and peristaltic movements of experimental group as compared with the control group. All the parameters improved significant during first five post caesarean days at 0.05 level of significance.<sup>5</sup> This study also shows improvement is bowel function of experimental group. This proves standard post-operative care was significant in improving health of

women after LCSC, but effects were evident on 4<sup>th</sup> and 5<sup>th</sup> post operative day in experimental group.

## 6. Limitation

In that case, a specific setting is chosen for the study and the finding has not been generalized.

## 7. Recommendation

A research study can be based on the large amount of sample size with different kinds of setting and the findings also able to generalised from a wide population

1. A research study can be able to replicated and data could be collected for a longer period of time.
2. A long duration process of intervention can be able to evaluate to get the accurate picture
3. Randomized control process can be provide the desire outcomes
4. This study can be help the future researchers and they also gain knowledge from the intervention plan and use this data for better understanding.

## 8. Conclusion

From this above study it can be concluded that standard post-operative care after LSCS Play a significant role to develop the post c-section process and also make impact on the biophysiological parameter of health. On the other hand this is the effective strategy that helps in the early caesarean recovery of postnatal mother. It can be help indirectly to decrease the cost of hospitalization. It also can predict the safe atmosphere of hospital setting that can be benefitted for the team members of health care and patients.

## 9. Declarations

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Approval of ethics- it was gotten from the institute of ethical committee of of Dr. RML hospital, New Delhi.

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