

Study to Assess the Effectiveness of Foot and Hand Massage on Reducing Pain among Post Natal Mothers Who Had Undergone Caesarean Section

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ABSTRACT

“An experimental study to assess the effectiveness of foot and hand massage on reducing pain among postnatal mothers who had undergone caesarean section at postnatal ward of Sharda Hospital, Greater Noida, U.P”

Purpose of the study: The purpose of the study was to determine the effectiveness of Foot and Hand Massage on reducing post caesarean pain among the postnatal mother.

Methodology: The study has adopted a Quasi Experimental with Randomized pre-test post-test control group design was used and then sample were assigned randomly to experimental group and control group respectively. Sixty postnatal mothers, thirty in experimental group and thirty in control group were selected as the subject of the study. Both group were selected consecutively and randomly assigned to either experimental or control group. Socio-demographic Profile, Numeric Pain scale were used as tool for data collection.

Results: Majority of (70%) mothers was having obstetrical score in the experimental group and (60%) in the control group had obstetrical score as multigravida. Most of the mothers (63.3%) were having 1st postnatal in experimental group and (53.3%) in control group had 2nd postnatal day. The homogeneity was checked in both the group and it was found that there was no homogeneity in term of Age, Obstetrical score, Postnatal day, Type of Anesthesia, History of previous Caesarean, Family income, Education status, Type of family, Previous information regarding massage only postnatal day found to be associated. The Analysis of effectiveness of Foot and Hand Massage for reducing pain was checked by independent “t” test. It showed that from baseline to after 20 minutes of Foot and Hand Massage mean pain score in Experimental group were (3.4) and mean pain score in Control group were (5.46). On Comparison of mean difference pain score in experimental group were (4.68) and in Control group were (2.46) at 0.05% level of significance. This indicates that the reduction in pain score was not by chance but because of the intervention. On Comparison of mean pain score difference in experimental group is relatively high compare to control group at 0.05% level of significance.

Conclusion: This study showed that Foot and Hand Massage are more effective along with hospital routine treatment than among the postnatal mothers. Foot and Hand Massage can be used in reducing post Caesarean pain. The Foot and Hand Massage can be offered to every mother who had undergone caesarean section as treatment until and unless they have not any postpartum complications.

Keywords: Post Caesarean Pain, Foot and Hand Massage, postnatal mother

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INTRODUCTION

“Man endures pain as an undeserved punishment; woman accepts it as a natural heritage”¹

Women can be considered mothers by given birth, by raising their children. Pregnancy is the period of

time when a human being grows from the combination of genetic material from a single egg and sperm. Typically, conception occurs naturally through sexual intercourse. Over the course of about forty weeks, the baby grows and matures from those two cells to a fully developed baby and is born.²

There are many different methods for child birth. Vaginal delivery is the most common and safest type of childbirth. Although vaginal delivery is the most common and safest type of delivery, sometimes caesarean is necessary for the safety of mother and baby.³

A Caesarean section is a surgical procedure in which incisions are made through a mother's abdomen and uterus to deliver one or more babies, or rarely to remove a dead foetus. A Caesarean section is usually performed when a vaginal delivery would put the baby's or mother's life at risk, although in recent times it has been also performed upon request for childbirths that could otherwise have been natural.⁴

STATEMENT PROBLEM

"An experimental study to assess the effectiveness of foot and hand massage on reducing pain among postnatal mothers who had undergone caesarean section at postnatal ward of Sharda Hospital, Greater Noida, U.P"

OBJECTIVE OF THE STUDY

To assess the effectiveness of foot and hand massage on post- caesarean pain level.

To find the association between foot and hand massage with demographic variables.

ASSUMPTION

After caesarean section mothers ought to get pain.

Foot and Hand massage will reduce post caesarean pain.

DELIMITATION

Females undergone caesarean section and having moderate to severe level of pain

OPERATIONAL DEFINITION

Effectiveness: Refers to the extent to which the Foot and Hand Massage will help in reducing post caesarean pain of mothers.

Hand and foot Massage: It is the procedure to which the steps (Effleurage, Friction, Petrissage) applies squeezes and strokes to hands from the wrist to the tip of the figure, and to foot starting from the toes and up to above the ankle. Each hand and foot is massaged for five minutes, adding to a total of 20 minutes for a client. The massage is given 2 times a day for continuous 3 days.

Post caesarean mothers: Refers to mothers (Primi and Multigravida) who had under gone planned/ emergency Caesarean Section to deliver one or more babies and mother are in recovery room after 24 hours of caesarean section.

Post caesarean pain: Pain experienced by the mothers in whole body and in abdominal area from day of caesarean section and having moderate and severe level pain assessed by numeric rating pain scale.

CONCEPTUAL FRAMEWORK

The theoretical framework for the present study was developed from Modified Wiedenbach's "Prescriptive Theory" (1970)

In the present study the concept from Prescriptive Model is utilized. The central purpose is the application of Foot and Hand Massage on reducing post Caesarean pain among the postnatal mother where the researcher act as an agent and postnatal mothers with post Caesarean pain acts as a Recipient. The goal of the study is to reduce level of pain score by giving Foot and Hand Massage. The Means refers to the Foot and Hand Massage application as devices used by the researcher to achieve the goal.

The investigator assessed pain after obtaining consent from the participants by using numeric rating pain scale. The action is validated by collecting the evidence of post treatment that shows the goal has been met as pain is reduced.

RESEARCH METHODOGY

Research approach

Quantitative Research approach was used in this

study.

Research design

Design used in the study was Quasi-experimental (Randomised Control group Pre-Test Post-Test design).

Independent variables:

Independent variable in this study was “Foot and Hand Massage”

Dependent variables:

Dependent variable in this study was “Pain” after caesarean section.

Study population

The population in this study was included the postnatal mothers who had undergone caesarean section admitted in selected hospital of Greater Noida.

Description of setting

The present study was conducted in Post natal ward of Sharda Hospital, Greater Noida,U.P. The bed strength of the hospital was 800.

Sample and Sampling technique

60 Postnatal mothers (30 Experimental and 30 Control Group) who had undergone caesarean section and met the inclusion criteria are the samples in this study. Simple random sampling technique was used in this study

Description of the tool

Tool consist of 2 section

Section A (Extraneous variables):- It consists of Age, Obstetrical score, Post natal day, Type of anaesthesia, History of previous caesarean section, Educational status, Family income, Type of family, Previous information regarding massage.

Section B (Numeric Rating Pain Scale):-



Data Collection Procedure

For collecting data following steps were taken. Informed consent from the participants of the study was taken. Then the samples were randomly allocated into two groups, experimental and control group by

lottery method. Foot and hand massage was given in experimental group for 20 min (5min in both upper and lower extremities) after 4 hours of the analgesic. The pain was assessed by using numeric rating pain scale before and after intervention.

RESULT

Table-1: Analysis of effectiveness of Foot and Hand on reducing pain among Experimental and control group. n=30

Pain score (Mean±SD)							P value
EXPERIMENTAL							
Baseline Pretest	1 st day Post-test		2 nd day Post-test		3 rd day Post-test		
	M	E	M	E	M	E	
8.06 ± 0.827	6.70 ± 0.95	6.03 ± 0.71	5.33 ± 0.66	4.80 ± 0.66	4.20 ± 0.61	3.40 ± 0.56	<0.001

Table -1 Conclude that First day pre-test mean is 8.06 and last day posttest mean is 3.40. Hence the p value in experimental group is <0.001.

Table No 2: Analysis of effectiveness of foot and hand massage on reducing pain postnatal mothers in
Control group **n=30** **n=30**

Pain score (Mean±SD) CONTROL							P value
Baseline pretest	1 st day Post-test		2 nd day Post-test		3 rd day Post-test		
	M	E	M	E	M	E	
7.93 ± 0.739	7.93 ± 0.73	7.40 ± 0.67	7.13 ± 0.86	6.66 ± 0.60	6.06 ± 0.63	5.46 ± 0.62	<0.001

Table -2 Conclude that First day pre-test mean is 7.93 and last day posttest mean is 5.46. Hence the p value in control group is <0.001.

Table No 3: Analysis of pre-pain score and post pain score reading of Experimental and Control group.

N=60

Pain score	Experimental group (Mean and Standard deviation)	Control group (Mean and Standard deviation)	P Value
Pre-pain score 1 st day	8.08±0.827	7.93±0.739	<0.001
Post pain score 3 rd day	3.40±0.56	5.46±0.62	
Mean difference	4.68±0.267	2.47±0.119	

Table -3 Conclude that the mean difference is high in experimental group as compare to control group. This means foot and hand massage is effective.

MAJOR FINDINGS

SECTION A: Analysis of demographic characteristics of the respondents (subjects)

Maximum mothers were in the age group 21 – 25 years, 1st Postnatal day and multigravida had given spinal anaesthesia, education up to secondary level belong to joint family, having family income Rs.>15,000 and no source of information regarding massage.

SECTION B: Analysis of effectiveness of foot and hand massage on reducing pain post caesarean

pain on Experimental Group and control Group.

In the experimental group the pre pain score mean on the 1st day was 8.08 and standard deviation was 0.827 whereas on the 3rd day the post pain score mean was 3.40 and the standard deviation was 0.56 and mean difference from 1st to 3rd day was 4.68 which shows there was gradual reduction in pain .Thus within p value came out to be <0.001.

In control group the pre pain score mean on the 1st day was 7.93 and standard deviation was 0.739 whereas on the 3rd day the post pain score mean was 5.46 and the standard deviation was 0.62 and mean difference from 1st to 3rd day was 2.47.

The mean difference between the 1st and 3rd day pain score was high in Experimental group (4.68) compare to Control group (2.47). This shows that there was gradual reduction in pain score after giving foot and hand massage as an intervention to the experimental group.

IMPLICATION FOR NURSING

The present study has implications for nursing practice, community health nursing practice, nursing education and nursing administration

Nursing practice

An in service education program can be organized to teach nurses about the assessment of pain level and effectiveness of foot and hand massage. Moreover, obstetrician, nursing supervisors and practicing nurses can ensure more comforts to the patients, enhance early recovery and improve the quality of care by adopting practices of foot and hand massage for mothers with caesarean section.

Nursing education

Student should be taught about the holistic care. In order to provide evidence based nursing, the nurse educator should teach and provide learning experience to student nurses regarding types of foot and hand massage.

Nursing Research

The health care environment today is dynamic and more demanding .There is a need to promote research based practices as nursing moves towards as an independent professional practice mode. The researcher found that no enough studies have been conducted in these aspects to improve the quality of life of mothers with post caesarean pain.

Recommendations

This study can be replicated on a large sample of patients so that findings can be generalized.

Comparative study can be conducted to assess the foot and hand massage among caesarean postnatal mothers and normal vaginal delivery mother also.

This study can be done at community level to assess the knowledge of people on reducing post caesarean pain.

A similar study can be conducted to evaluate the effectiveness of foot hand massage in terms of knowledge and practices among staff nurse.

CONCLUSION

The study reveals that Foot and hand massage was effective in reducing the post caesarean pain among postnatal mothers in experimental group as compare to the control group. Whereas there was less reduction in Control Group as they were getting hospital routine treatment.

Ethical Clearance- Taken from Sharda ethical committee.

Source of Funding- Self .

Conflict of Interest - Nil.

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