

Effectiveness of Hand and Foot Massage on Level of Pain Perception among Lower Segment Caesarean Section Mothers

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Abstract

The study was conducted to evaluate the effectiveness of Hand and Foot massage on level of pain perception among Lower Segment Caesarean Section mothers. Quasi experimental non randomized control group design was adopted for the study. The structured questionnaire was developed to collect the data. The samples were selected by purposive sampling technique. The study was conducted on 60 lower segment caesarean section mothers. The participants were divided into two groups 30 each in study group and control group. Pre test was done for both the groups by using Numerical Pain Rating Scale. Hand and foot massage was given for 30 minutes to the study group for 5 days (Morning). Post test was done for both the study group and control group. The estimated paired 't' value was 1.70 which was significant at $p < 0.05$. This shows that the hand and foot massage is effective in reducing the level of pain perception among Lower Segment Caesarean Section mothers.

Keywords: Pain perception, Caesarean, Hand and foot Massage.

Introduction

Women are the precious gifts that God has ever created and bestowed on earth. They occupy a significant position in the society, since they are capable of giving birth to children which thereby enriches the population increase. Motherhood is a gift for every woman. Pregnancy and child birth are unique experiences. Pregnancy and delivery bring happiness to the mother as well as her partner¹⁰. Once immediately after the childbirth while hearing the cry of her baby itself, she feels very happy⁸. Caesarean section is the birth of a fetus through a transabdominal incision of the uterus. The purpose of caesarean birth is to preserve the well being of the mother and her fetus. Since the advent of modern surgical method, care, use of antibiotics, maternal and fetal morbidity and mortality have decreased. Despite these advances caesarean birth still poses threats to the health of both mother and infant⁶. Complementary therapies are commonly used treatment modalities for pain relief in present days. Massage is a technique that applies pressure to parts of the body by stroking, stretching, pulling and kneading. Its aims to offer relaxation mentally and physically. Massage may concentrate on the muscles, the soft tissues, or on the

acupuncture points. Massaging hands and foot stimulates the body to come back in balance. Massage can provide several benefits to the body such as increased blood flow, reduces muscle tension and so on⁷.

Statement of the Problem: A Quasi Experimental Study to Evaluate the Effectiveness of Hand and Foot Massage on Level of Pain Perception among Lower Segment Caesarean Section Mothers in a selected Hospital, at Kanyakumari District.

Objectives of the Study

1. To assess the pre test and the post test level of pain perception among Lower Segment Caesarean Section mothers in study group and control group.
2. To evaluate the effectiveness of Hand and Foot massage on level of pain perception among Lower Segment Caesarean Section mothers in study group and control group.
3. To associate the pre test level of pain perception among Lower Segment Caesarean Section mothers with their selected demographic and clinical variables in study group and control group.

Hypotheses:

H₁: There is a significant difference between pre test and post test level of pain perception among Lower Segment Cesarean Section mothers in study group and control group.

H₂: There is a significant difference between post test level of pain perception among Lower Segment Cesarean Section mothers in study group and control group.

H₃: There is a significant association between pre test level of pain perception among Lower Segment Cesarean Section mothers with their selected demographic and clinical variables in study group and control group.

Research Methodology

Research approach: The researcher utilized Quantitative research approach.

Research design: Quasi experimental non randomized control group design was adopted for the study.

Research setting: The study was conducted at Hospital, Kanyakumari District.

Population: Mothers who underwent Lower Segment Cesarean Section.

Sample: The sample consisted of mothers who underwent Lower Segment Cesarean Section.

Sample size: 60 Mothers who underwent Lower Segment Cesarean Section.

Sample technique: Purposive sampling technique.

Description of Tool: The tool used in the study consisted of two parts.

Part I: Demographic data: The demographic variables consists of age, education, occupation, type of family, religion, support of mother, previous knowledge on Hand and Foot massage and the clinical variables

consists of parity, type of pain, frequency of pain, time of experiencing pain.

Part II: Numerical Pain Rating Scale for measuring the level of pain.

The scale was categorized as follows:

'0' denotes	:	No Pain
'1-3' denotes	:	Mild Pain
'4-6' denotes	:	Moderate Pain
'7-10' denotes	:	Severe Pain

The maximum score is '10' and minimum score is '0'.

Method of Data Collection:

Phase I Selection of Lower Segment Caesarean Section mothers: After obtaining formal permission from the Principal of St. Xavier's Catholic College of Nursing and Administrator of Hospital, participants were selected based on the criteria of sample selection. The investigator obtained oral consent from each Lower Segment Caesarean Section mothers separately and proceeded with the data collection.

Phase II Pretest of Lower Segment Caesarean Section mothers: The data was collected from the selected participants and the Numerical Pain Rating Scale was used to assess the level of pain perception .

Phase III Intervention: Explained the procedure to the mother, made the mother to lie down in supine position, Provided two pillows, one for hand and another for leg, and started with warming up the hand well. Massaging the hand and foot of Lower Segment Caesarean Section mothers by stroking and stretching for 15 minutes on hand and 15 minutes on foot. Total duration of massage is 30 minutes every morning for the following 5 days.

Phase IV Post test: The post test was done for both the study group and control group by using Numerical Pain Rating Scale.

Results

Table 1: Comparison of mean, standard deviation and paired ‘t’ value on pre test and post test level of pain perception among Lower Segment Caesarean Section mothers in study group and control group N = 60

Variables	Group	Mean	SD	paired ‘t’ test
Level of pain perception	Study group n=30			
	Pre test	8.6	1.88	1.70*
	Post test	4.9	1.44	
	Control group n=30			2.92
	Pre test	7.96	2.47	
	Post test	7.16	2.86	

* Significant at $p < 0.05$.

Table 2: Comparison of mean, standard deviation and unpaired ‘t’ value on post test level of pain perception among Lower Segment Caesarean Section mothers in study group and control group. N = 60

Variables	Group	Mean	SD	Unpaired ‘t’ test
Level of pain perception	Study group n=30	4.9	1.44	2.13*
	Control group n=30	7.16	2.86	

*Significant at $p < 0.05$.

Discussion

The study was done to determine the effectiveness of hand and foot massage on level of pain perception among Lower Segment Caesarean Section mothers. Based on the data collected the mean score on level of pain perception among Lower Segment Caesarean Section mothers in study group was 8.6 in the pre test and 4.9 in the post test. The paired ‘t’ value of 1.70 which is significant at $p < 0.05$ shows that Hand and Foot massage was effective in reducing the level of pain perception. In control group, the mean score on level of pain perception among Lower Segment Caesarean Section mothers was 7.96 in the pre test and 7.16 in the post test respectively. The estimated Paired ‘t’ value for pain perception was 2.92 which was also significant at $p < 0.05$. But comparing both the values the Hand and Foot massage was more effective.

The mean score on level of pain perception among Lower Segment Caesarean Section mothers in study group was 4.9 and in control group it was 7.16. The estimated unpaired ‘t’ value of 2.13 which is significant at $p < 0.05$ shows that Hand and Foot massage is effective and reducing the level of pain perception. In study group Education was associated with their level of pain perception and in control group Parity and Frequency of pain was associated with their level of pain perception.

Conclusion

The study concluded that providing Hand and Foot massage reduces the level of pain perception among Lower Segment Caesarean Section mothers. Therefore the investigator feels that Hand and Foot massage for Lower Segment Caesarean Section mothers is effective in reducing pain perception.

Acknowledgement: I wish to thank God Almighty for all the blessings showered upon the beginning to till end of the research study. I convey my profound gratitude and sincere thanks to Dr. A. Reena Evency., Principal, Dr. G. Feby., Vice principal, and my research guide Mrs. D. Shiny Mary Associate professor, st Xaviers Catholic College of Nursing, Chunkankadai, and my beloved parents, lovable husband and my dear son for their continuous guidance, support and constructive suggestions which helped me to complete this study successfully.

Conflict of Interests: The author declares no conflict of interest with any person or institution.

Source of Funding: The study has no source of funding. It is self – funded.

Training: The primary researcher had taken the hand and foot massage training and got certified to

perform the same from an experienced physiotherapist.

Ethical Clearance: The proposed study was conducted after the approval of the dissertation committee of St. Xavier's Catholic College of Nursing, Chukkankadai.

References

1. Basavanhappa BT. Textbook of Nursing Research: 1st ed. New Delhi: Jaypee; 2008.
2. Bincy R. Nursing Research: 1st ed. New Delhi: Vinod Vasishtha; 2012.
3. Degirmen N. 'Effectiveness of foot and hand massage in post caesarean pain control.' *Journal of Applied Nursing Research*, 2012; 23 (126): 153 – 158.
4. Elhaleem S, Ramadan A. 'Effect of foot massage on relieving mothers post caesarean section incisional pain.' *Journal of International Academic Research for Multidisciplinary*, 2013; 1 (7): 202- 213.
5. Gupta SP. *Statistical Method*: 1st ed. New Delhi: Sulvian and son; 2002.
6. Lowdermilk, Perry, Cashion, Alden. *Maternity and women's Health Care*: 8th ed. Philadelphia: Mosby; 1997.
7. Merriam. 'Massage therapy.' 2002 Feb; 26.
8. Pandit N. *Pregnancy*: 6th ed. Calcutta: Rupa; 1995.
9. Pairman, Pincombe, Tracy. *Midwifery preparation for practice*: 2nd ed. Sydney: Elsevier; 2008.
10. Stoppard M. *New Pregnancy and Birth Book*: 1st ed. London: Dorling Kindersley; 1985.