



International Journal of Midwifery and Nursing Practice

E-ISSN: 2663-0435
P-ISSN: 2663-0427
IJMNP 2019; 2(1): 24-27
Received: 16-11-2018
Accepted: 18-12-2018

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Effectiveness of foot on post caesarean pain among mother's who had caesarean section

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Abstract

Background of the Study: Pain is the most common complication after caesarean section. The use of medication is the most common strategy for alleviating these problems. However the adverse effect of these drugs and lack of access to them for some patient, has led to an increase in use of non-pharmacological pain management such as reflexology. The aim of the study is a study to assess the effectiveness of foot reflexology on post caesarean pain among mothers who had caesarean section.

Material and Method: The design adopted was true experimental pretest posttest control group design. The simple random sampling technique was used to select the samples. The tool used for data collection procedures was numerical pain rating scale. Reflexology was administered to those in the experimental group for 5 times post operatively in first 24 hours. The mothers in control group received only the routine care for 24 hours.

Results: The study findings revealed that the mean pain score of the mothers in experimental group is 5.4, 5, 4, 2.4, 1.82 at 0, 6, 12, 18, 24 hours. Whereas in control group is 7.2, 6.2, 5.7, 5.3, 4.2 at 0, 6, 12, 18, 24 hours. There was a significant reduction in mean post test scores of post caesarean pain at 24 hours (MD =2.18., t=5.88., p<0.05) in experimental group was lesser than that of control group at 24 hours (MD=0.96., t = 2.43., p<0.05). In pretest most of mothers (80%) in experimental group had moderate pain and in control group more than half of them had severe pain. After reflexology it was surprising that (100%) of them had mild pain in experimental group and (70%) of them had moderate level of pain in control group. There is significant reduction of pain score in mothers of experimental group compared to the mothers in control group.

Conclusion: Reflexology has found to be an effective non – pharmacological pain management among mothers who had caesarean section

Keywords: Foot reflexology, pain, post caesarean mother, caesarean section, effectiveness

Introduction

Childbirth is one of the most marvelous and memorable segments in a woman's life. It does not really matter if the child is the first, second or the third one. Each experience is unique and calls for a celebration. Childbirth is a process by which the baby inside the womb adjusts itself to its surroundings and passes out of the uterus to be born as a new individual in the world. Motherhood has the true nobility and unique capacities. Pregnancy and child birth are special events in women's life. This can be a time of great hope and joyful anticipation. It can also be a time of fear and suffering. Child birth is viewed an important life event, it is natural normal, physiological phenomena and one of the events which introduce new experiences in a women's reproductive life. The post-partum period is often a stressful time physically and emotionally for the new parents. (Shally 2001)

A cesarean birth is the surgical delivery of an infant through incisions made in the mother's abdomen and uterus. Pain can be managed by both pharmacological and non-pharmacologically. There are many non- pharmacological measures for pain management. Activities such as cutaneous stimulation, acupuncture, acupressure, reflexology, guided imagery have been used clinically with positive results. These therapies are thought to cause physiologic changes and decreases pain perception and promote healthy living. (Sue Ehinger, 2003)

Reflexology is one of the non- pharmacological methods of pain management and is been widely practiced in many countries. Reflexology is unique and simple method. Reflexology is becoming increasingly popular as part of the alternatives health care movement. Reflexology is safe, simple to learn, effective and non- invasive method of pain management. (Dale, 1997)

Worldwide rise in caesarean section rate during the last three decades has the cause of alarm and needs an in depth study. India is also experiencing a rapid increase in caesarean section

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deliveries along with an increase in institutional deliveries. The ICMR Public health report says that the caesarean section rate reaching high as 41% of deliveries in Kerala, and 58% in Tamil Nadu in the year 2007 -2012. (Gita Arjun, 2008)

The researcher during her experience in maternity ward observed that mothers who underwent cesarean section experienced discomfort and pain during their post-operative period. Pain affects the appetite, sleep, energy and inability to do things. Pain can also affect the breast feeding. Mother's milk is one of the best sources of nutrition given to baby during the first six month of life. It is a gift from God given to the mother to feed her baby and protect the baby from infectious disease. Lactation is very important for successful breast feeding. Good lactation is established only when the mother is relaxed and free from pain and distractions. To promote this, reflexology which is used as a complimentary therapy can be used to relieve pain, promote circulation as well as opening the blocked ducts in the areola of the breast. Reflexology also helps to regain and maintain health that is lost due to stress from surgery. So the researcher intended to do reflexology to reduce pain and thereby promote comfort to mothers who had cesarean section.

Problem statement

A study to assess the effectiveness of foot reflexology on post caesarean pain among mothers who had cesarean section in selected hospitals at Kanyakumari district

Objectives

- To determine the level of post caesarean pain among mothers who had cesarean section in both experimental and control group.
- To evaluate the effectiveness of foot reflexology on post caesarean pain among mothers who had cesarean section in experimental group.
- To find out the association between the pretest level post caesarean pain among women with cesarean section and their selected demographic variables such as age, residence, religion. Education, BMI.

Hypothesis

H₁ There will be a significant difference between pretest and posttest post caesarean pain score among mothers who had cesarean section in experimental group.

H₂ There will be a significant difference between post test score of post caesarean pain among mothers who had cesarean section between experimental and control group.

H₃ There will be a significant association between pretest post caesarean pain score among mothers who had cesarean section with their selected demographic variables such as age, residence, religion, education, BMI.

Materials and methods

Research approach

The researcher utilized Quantitative research approach.

Research design

True experimental pre-test post-test control group design.

Study Subjects	Pre test	Intervention	Post test
Experimental group	O ₁	X ₁ X ₂	O ₂
Control group	O ₁	X ₁	O ₂

Sample

The sample consists of 60 selected mothers who have delivered baby by cesarean section. The 30 mothers who had cesarean section were for experimental group and 30 mothers who had cesarean section were for control group by control group.

Sampling technique

Simple random sampling technique was used. Mothers were allotted for experimental group and control group by lottery method.

Description of tool

The data collection tool consists of

Part I: Demographic variables and clinical variables of the samples.

Part II: Intensity of pain was assessed by numerical pain rating scale.

Data collection procedure

The women were selected within 2 hours post operatively. The arrival time of the women to the post-operative ward after surgery was taken as 0 hour. The pretest pain assessment was done in the control group and experimental group at 0, 6, 12, 18, 24 hours post operatively. For the mother in the experimental group the invention (reflexology) was given 20 minutes for both foots at 0hrs, 5hrs 30 minutes post operatively. The posttest pain rating scale after administering reflexology. The information regarding post-operative pain and the effects of foot reflexology was interviewed by the research after 24 hours post operatively.

Result and Discussion

Section I: Distribution of the mothers who had cesarean section according to the demographic variables in experimental and control group. Distribution of the mothers who had cesarean section according to the clinical variables in experimental and control group.

Section II: Distribution of pain score of mothers who had cesarean section in experimental group.

Distribution of pain score of others who had cesarean section in control group.

Section III: Comparison of pretest and posttest pain score of mothers who had cesarean section in experimental group and control group

Section IV: Comparison of pretest score at '0' hour and post test scores at "24" hour of mothers who had cesarean section in experimental and control group.

Section V: Association of pretest pain score of mothers who had cesarean section in control group with their selected demographic variables.

Section I

Distribution of the mothers who had cesarean section according to the demographic variables in experimental and control group.

With regards to age in the experimental group 53.33% belonged to age 26- 35 years and 46.67% belonged to 19-25 years of age where as in the control group majority 53.33% of them belongs to 19-25 years of age. Education level shows that majority 46.67% of them were graduates both in the experimental group and control group.

In the experimental group and control group more than half were home makers. 40% in experimental group and 43.33% in control group have monthly income between Rs 5001-Rs10000. Only 4 of them in both the group have monthly income less than Rs 5000. In both group majority of them lived as a nuclear family and only 1/3rd of the subjects lived as joint family. About more than half of them resided in rural area both in experimental and control whereas around 43.33% of them resided in urban area. Considering the religion majority of them belong to Christian community in both groups. Whereas only 3 in experimental group and 2 in control group belong to muslim community.

Distribution of the mothers who had caesarean section according to the clinical variables in experimental and control group.

Considering the gravida, in both groups more than half of them were primi gravida and others were multi gravid mothers. 60% in experimental group and 63.33% in control group had body mass index above 29.9. With regard to anesthesia and conception in both groups all of them had natural conception and spinal anesthesia.

Section II

Distribution of pain score of mothers who had caesarean section in experimental group.

At 0 hours, all of the women who had caesarean section had severe pain, before administration of reflexology, but after the intervention 80% of them had moderate pain and only 20% of them severe pain. At 6th hour 73% had moderate pain whereas after the intervention 100 % of them had moderate pain and none of them had severe pain. At 18th hour 21 of them had moderate pain whereas after reflexology only 4 of them had moderate level of pain. In 24th hour more than half of them had moderate pain whereas after the intervention all of them had mild pain only. The decreased level of pain shows the effectiveness of reflexology.

Distribution of pain score of mothers who had caesarean section in control group.

At 0 hour among 30 samples 100% of them had severe pain during pretest and posttest. In 6th hour half of them had moderate and the other half had severe pain whereas in posttest majority 66% of them had moderate pain. In 12th hour 66% of them moderate pain and 86% of them in posttest had moderate pain. In 24th hour majority 86% of them had severe pain but 73% of them had moderate pain in posttest. This represents that the minimal decrease of post caesarean pain in control group is due to the effect of routine care.

Section III

Comparison of pretest and posttest pain score of mothers who had caesarean section in experimental group

Table 5 summarize that the mean posttest level of pain in experimental group on 0 hour (5.4), 6th hour (5), 12th hour (4), 18th hour (2.4), 24th hour (1.8) were lesser than the mean pretest score at 0 hour (7.6), 6 hour (5.9), 12 hour (5.4), 18 hour (5), 24 hour (4). The mean difference was high and statistically significant at $p < 0.05$ where as the mean post test level of pain in control group on 0 hour (7.2), 6 hour (6.2), 12 hour (5.70), 18 hour (5.30), 24 hour (4.2) and the mean pretest score at 0 hour(7.43), 6 hour (6.8), 12 hour (6), 18 hour (5.60) 24 hour (5.10). The mean difference was low and statistically not significant at $p < 0.05$. The minimal reduction in post pain score is done to the routine care provided.

Section IV

Comparison of pretest score at „0“ hour and post test scores at “24” hour of mothers who had caesarean section in experimental and control group.

Table1: Comparison of Pre-Test Score At „0“ Hour and Post Test Scores At „24“ Hour of Mothers Who Had Caesarean Section in Experimental and Control Group.

Group	Test	Mean	SD	Mean Difference	‘t’ Test	‘P’ Value
‘0’ hour Experimental group	Pre-Test	7.60	1.65	.17	.56	<0.05 [#]
	Control group	7.43	1.62			
‘24’ hour Experimental group	Pre-Test	1.82	1.80	2.38	7.18	<0.05 [*]
	Control group	7.43	1.62			

*Significant at 0.05 level # not significant at 0.05 level at 24th hour, the posttest mean score in the experimental group 1.82 was lesser than the control group 4.20. The obtained ‘t’ value for post test score on 24 hour (7.18) was statistically significant at $p < 0.05$.

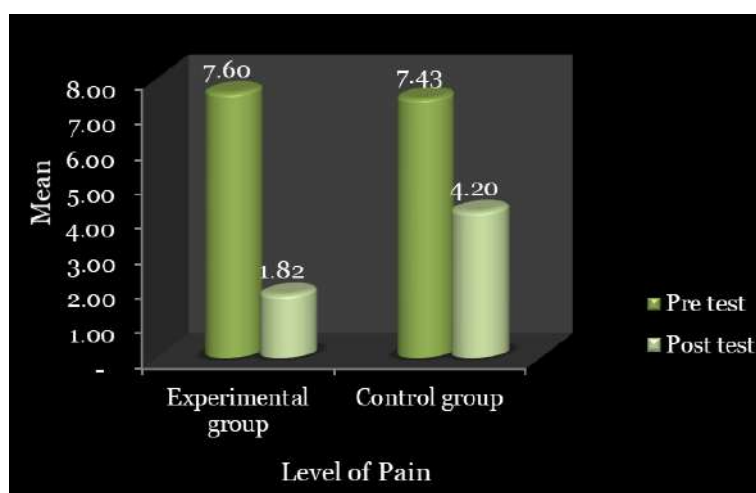


Fig 1: Comparison of mean pretest and posttest pain score of post caesarean pain (0 hour and 24th hour of pretest and posttest)

Section V

Association of pretest pain score of mothers who had caesarean section in control group with their selected demographic variables

The clinical variables such as gravida (χ^2 value 5.66 df 1 $P > 0.005$), body mass index (χ^2 value 6.45 df 1 $P > 0.005$) has significant association with the pretest post caesarean pain whereas the other demographic variables have statistically no significant association with post caesarean pain.

Limitations

- This study was limited to all others who have undergone cesarean section at selected maternity hospital.
- This study was limited to mothers only.
- This study was limited to 4 weeks.

Recommendation

- A similar study can be conducted with large sample with large setting.
- A similar study can be conducted to see the effectiveness of pain relief by reflexology among women who are in first stage of labor.
- A comparative study can be conducted to find the effect of reflexology on post caesarean pain among primi and multi mothers who had caesarean section

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