RESEARCH
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A STUDY TO ASSESS THE EFFECTIVENESS OF HAND AND FOOT MASSAGE ON LEVEL OF PAIN PERCEPTION AMONG UNDERGONE LOWER SEGMENT CESAREAN SECTION MOTHERS ADMITTED IN SELECTED HOSPITALS AT BHOPAL.

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Abstract
One of a woman's most wonderful and memorable experiences is giving birth. Although childbirth is a physiological process, problems can arise from the time of conception until the baby is born. Caesarean sections are one type of labour that frequently happens to avoid complications. Pain from a caesarean section lasts for weeks. Hand and foot massage was employed as an intervention in this study to reduce the intensity of discomfort. One group of moms who had lower segment caesarean sections underwent pre- and post-testing to ascertain the efficiency of the hand and foot massage in reducing level of pain perception. The study comprised 30 postpartum mothers who underwent LSCS. A numeric pain rating scale and demographic information were utilised to calculate the perceived level of discomfort. The study unequivocally shows a sizable decrease in pain perception, showing that interventions are successful in lessening pain.

Keywords: pain perception, hand and foot massage, lower segment cesarean section

INTRODUCTION

Women's postoperative recovery is complicated by discomfort from caesarean sections. It might be challenging to manage pain on an individual basis after surgery. It is becoming more and more obvious that the neural circuits involved in pain perception are regulated by genetic factors in addition to physical characteristics. This implies that it is implausible to assume that everyone would experience pain in the same way. The best way to control pain is to treat it in accordance with how the patient is feeling and, ideally, to forecast when it will occur.[1]

The most priceless gifts that God has ever made and given to the world are women. Due to their ability to have offspring, which benefits the growth of the population, they play a significant role in society. Every woman should be grateful for motherhood. Childbirth and pregnancy are extraordinary events. The woman and her boyfriend are happy during pregnancy and delivery.[2]

An important issue in surgery, including CS, is pain. The proportion of CS surgeries conducted has dramatically increased over the last 20 years, making it the most common procedure worldwide. In the first 48 hours following a caesarean section, patients typically experience moderate to severe pain. Even though new analgesics and delivery methods have been developed and the biology of postoperative pain has become better understood, many patients still experience moderate to severe postoperative pain following caesarean sections.[3]

According to a 2003 WHO analysis, pain is the world's most common cause of death and disease burden. The impact of acute pain continues to be significant for both patients and hospital workers. Depending on the patient's pain tolerance, support from their families and the hospital personnel, and other factors, the degree of pain varies from patient to patient. Although giving birth to a child is regarded as a happy event, it can be stressful if the mother experiences agony.[4]

SIGNIFICANCE OF THE STUDY

The health of the mother and her unborn child is to be protected by a caesarean section. Modern surgical techniques have led to a reduction in maternal and foetal morbidity and death as well as in the need for care and antibiotics. Despite these developments, caesarean delivery still carries risks to both mother and child's health.[5]

In the modern period, complementary therapies are frequently used as therapy options for pain reduction. In the practise of massage, pressure is applied to various body regions through caressing, stretching, pulling, and kneading. Its goal is to promote both mental and physical relaxation. Acupuncture sites, soft tissues, or muscles may all be the focus of a massage. Restoring balance to the body is stimulated by hands- and foot-massage. Numerous health advantages of massage include improved blood flow, less muscle stress, and more.[6]

PROBLEM STATEMENT

A study to assess the effectiveness of hand and foot massage on Level of Pain Perception among undergone lower segment cesarean section mothers admitted in selected hospitals at Bhopal.

OBJECTIVES:

1. To assess the pre-test level of pain perception among lower segment caesarean section mothers.
2. To find out the effectiveness of hand and foot massage on pain among lower segment caesarean section mothers.
3. To compare the pre-test and post- test level of pain perception undergone lower segment caesarean section mothers.
4. To associate the pre-test level of pain perception among lower segment caesarean mothers section with their selected demographic variables.

MATERIALS AND METHODS

Research approach	Evaluative approach
Research design	Pre Experimental research design is used with one group pretest and posttest research design.
Population	Post natal mothers
Sample	Lower segment cesarean section mothers
Sample size	30
Sampling technique	Convenient Sampling technique
Independent variable	Hand and foot massage
Dependent variable	Pain
Demographic variables	Age, education, occupation, type of pain, frequency of pain
Setting	People's Hospital ,Bhopal ,Madhya Pradesh
Duration of study	6weeks

CRITERIA FOR SAMPLE SELECTION

Inclusion Criteria

- Mothers underwent lower segment cesarean section.

Exclusion Criteria

- Mothers underwent normal vaginal delivery

DESCRIPTION OF THE TOOL

Section A:- Demographic Variables
Section B:- Numerical Pain rating scale

SCORING PROCEDURE

Classification	:	Scoring
No Pain	:	0
Mild Pain	:	1-3
Moderate Pain	:	4-6
Severe Pain	:	7-10

METHOD OF DATA COLLECTION

The researcher received official consent from the hospital's principal and research ethics committee before beginning data collecting. Mothers who complied with the inclusive guidelines were the samples chosen. The investigator clicked with the mothers right away. They were given assurances that nothing would harm them physically or psychologically throughout the course of the investigation. The investigator was given instructions on the benefits of foot and hand massages for pregnant women. Lower Segment Caesarean Section mothers' hands and feet were massaged for 15 minutes on the hand and 15 minutes on the foot. For the next five mornings, a 30-minute massage will be given in total.

DATA ANALYSIS

Data were organised, tabulated, summarised, and analysed after data collection. Using both descriptive and inferential statistics, the data were analysed in accordance with the study's goals.

FINDINGS

Table 1: Frequency and percentage distribution of demographic variables of LSCS mothers.

N =30

Demographic Variables	No.	%
Age		
21 – 25 Years	10	33.3
26 – 30 Years	6	20.0
More than 31 Years	14	46.7
Education		
Uneducated	-	-
Matriculation	8	26.7
Intermediate	12	40.0
Graduation	10	33.3
Occupation		
Housewife	19	63.4
Govt. Job	1	3.3
Private Job	10	33.3
Type of pain		
Mild pain	5	16.7
Moderate pain	6	20.0
Severe pain	19	63.3
Frequency of pain		
Less than an hour	19	63.3
More than an hour	11	36.7

Table 1 shows the frequency and percentage distribution of demographic variables of LSCS mothers.

Regarding age, 14(46.7%) were more than 31 years, 10(33.3%) were aged between 21 – 25 years and 6(20%) were aged between 26 – 30 years.

With respect to education, 12(40%) had intermediate education, 10(33.3%) were graduates and 8(26.7%) had matriculation education.

In terms of occupation, 19(63.4%) were housewives, 19(33.3%) were private employees and 1(3.3%) were government employees.

With respect to type of pain, 19(63.3%) had severe pain, 6(20%) had moderate pain and 5(16.7%) had mild pain.

In terms of frequency of pain, 19(63.3%) experienced pain less than an hour and 11(36.7%) experienced pain more than an hour.

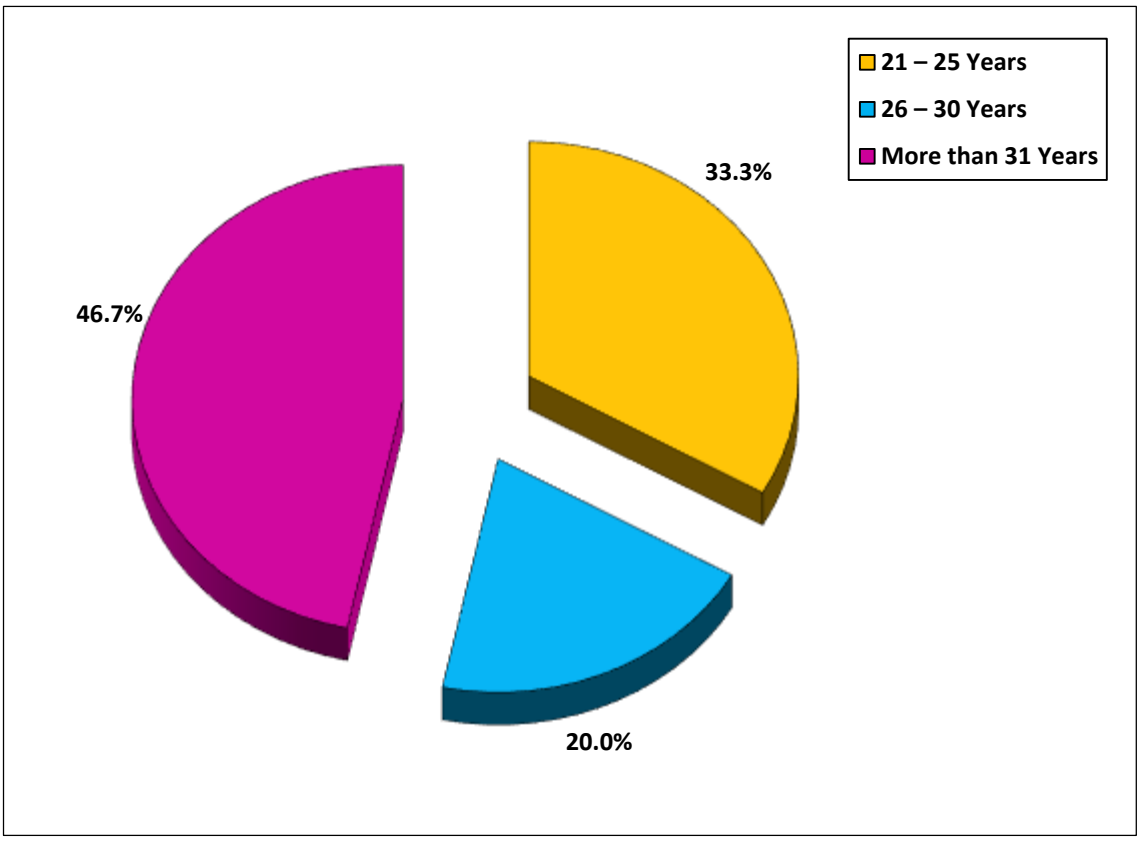

Figure 1: Percentage distribution of age of the LSCS mothers

The Figure 1 shows the Percentage distribution of age of the LSCS mothers

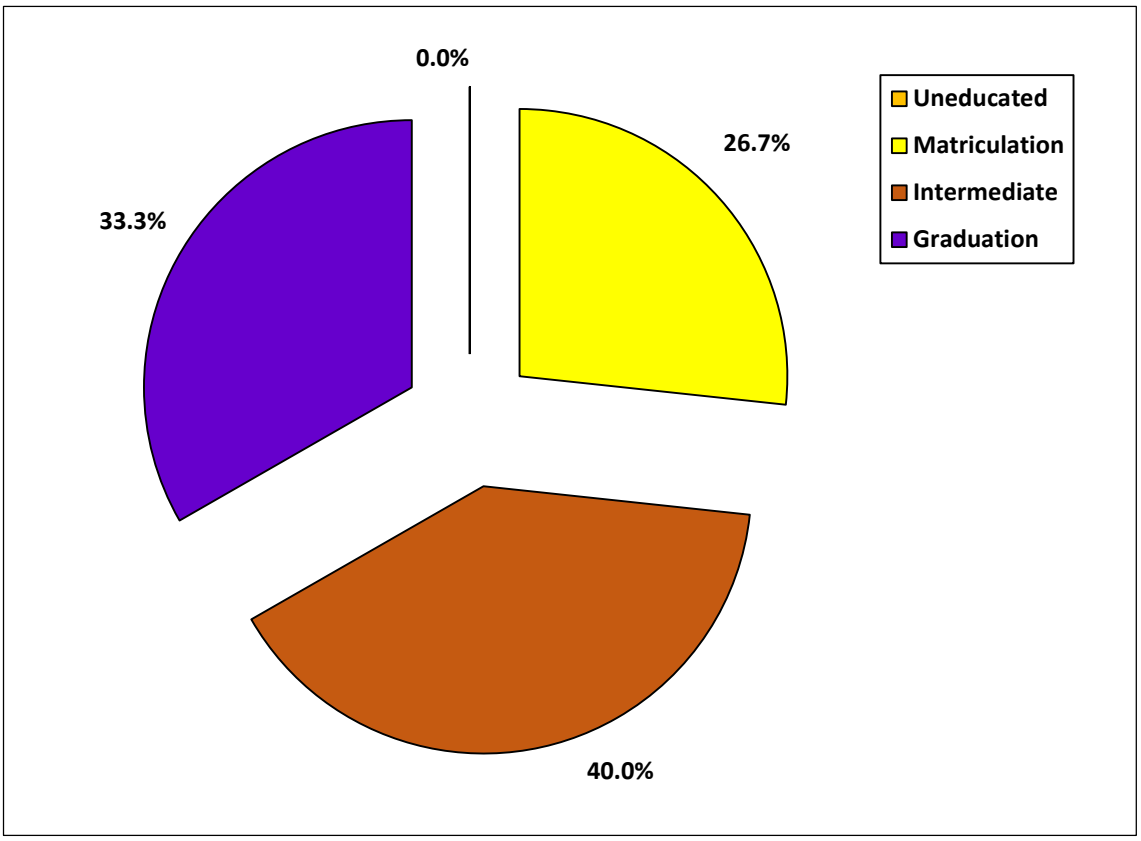

Figure 2: Percentage distribution of education of the LSCS mothers
The Figure 2 shows the Percentage distribution of education of the LSCS mothers

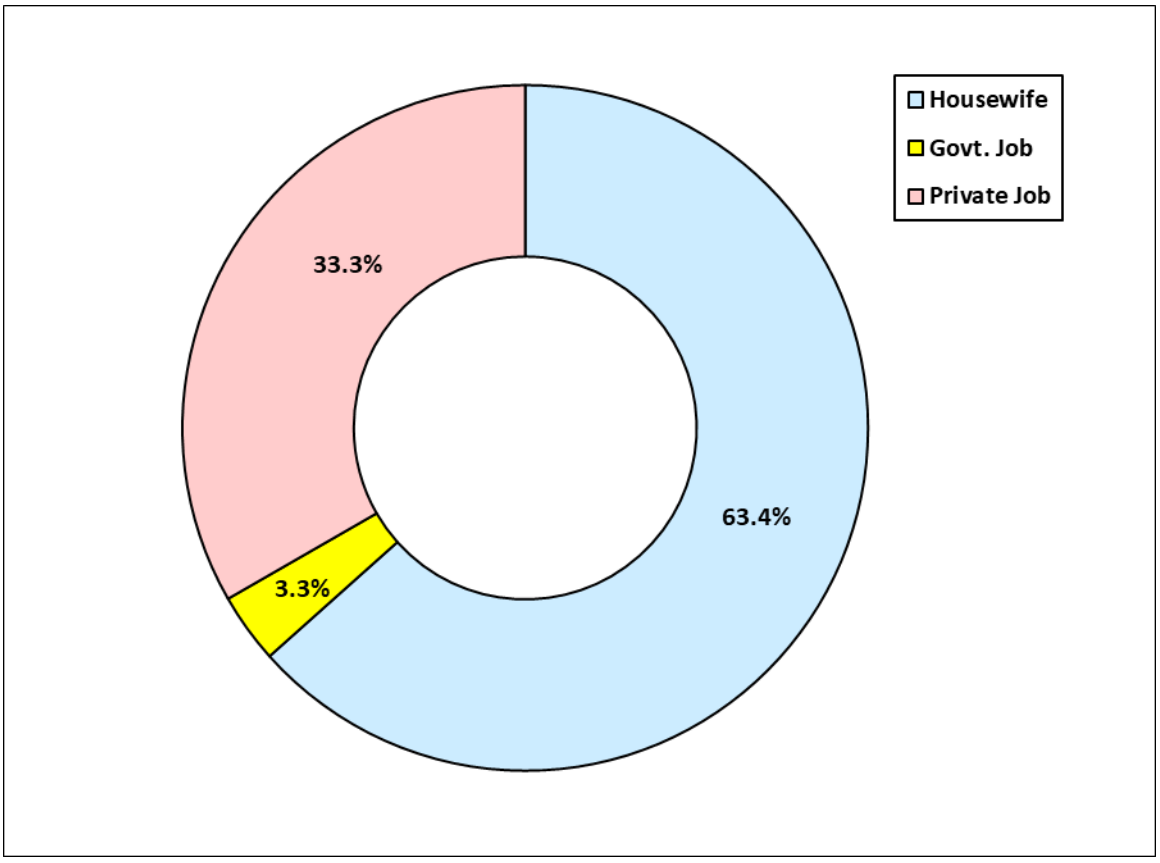

Figure 3: Percentage distribution of occupation of the LSCS mothers
The Figure 3 shows the Percentage distribution of occupation of the LSCS mothers

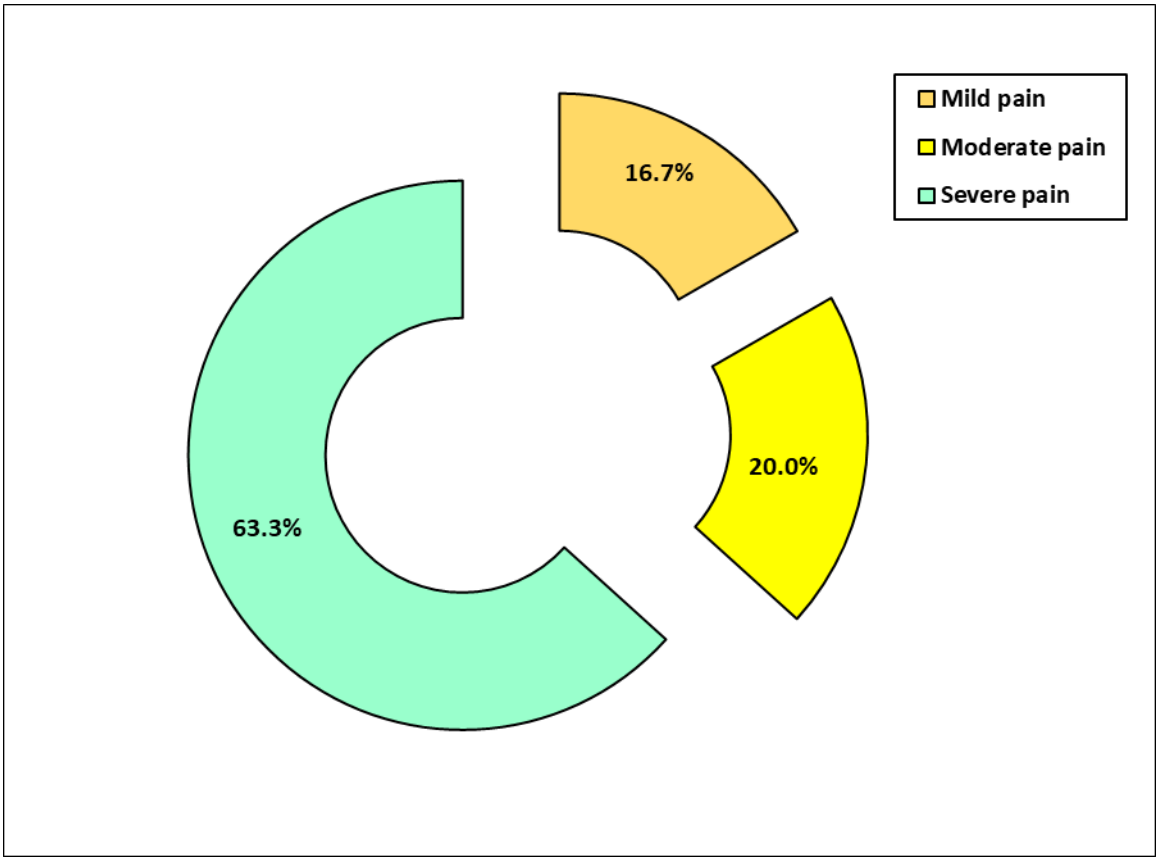

Figure 4: Percentage distribution of type of pain among the LSCS mothers
The Figure 4 shows the Percentage distribution of type of pain among the LSCS mothers

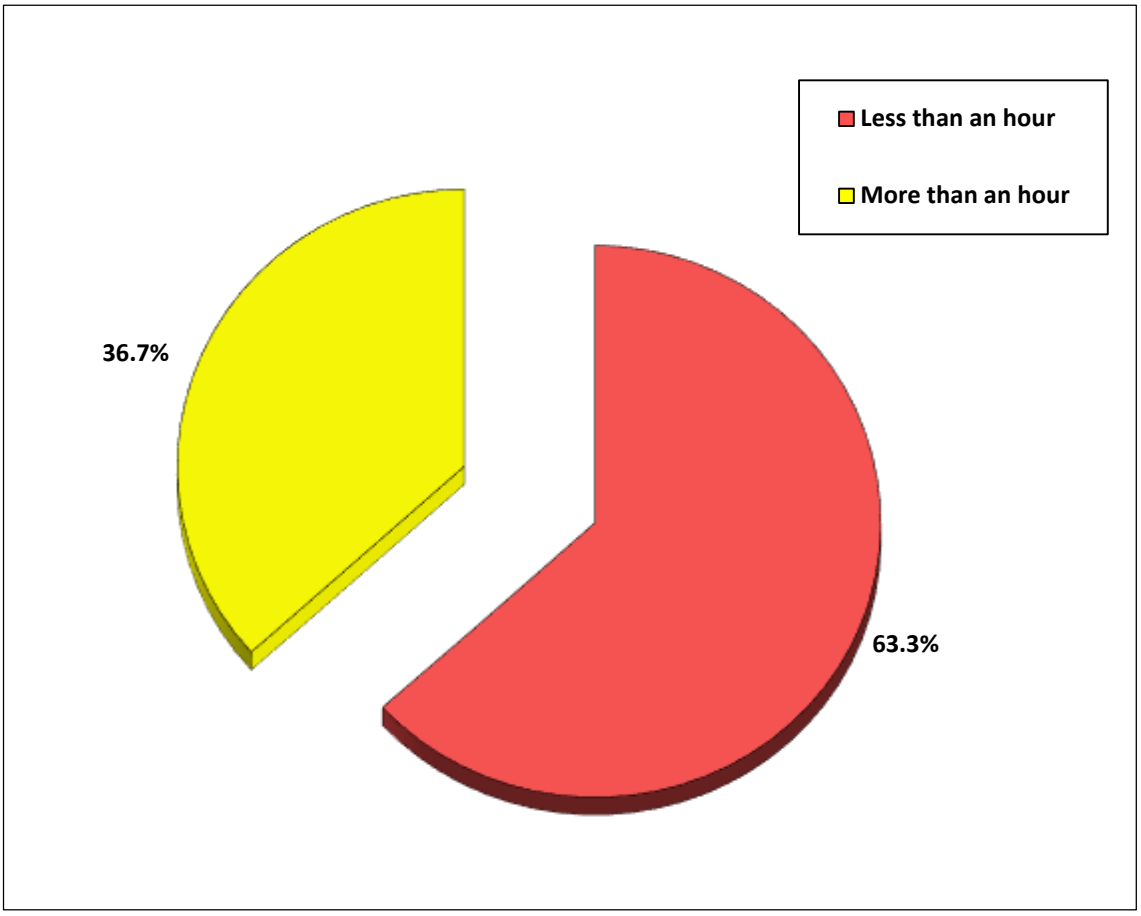

Figure 5: Percentage distribution of frequency of pain among the LSCS mothers
The Figure 5 shows the Percentage distribution of frequency of pain among the LSCS **mothers**

OBJECTIVE 1 TABLE

Table 2: Frequency and percentage distribution of pretest level of pain among the lower segment caesarean section mothers.

N = 30

Level of Pain	Pretest	
	Frequency	Percentage (%)
No pain (0)	0	0
Mild pain (1 – 3)	5	16.7
Moderate pain (4 – 6)	6	20.0
Severe pain (7 – 9)	18	60.0
Excruciating pain (10)	1	3.3

The table 2 shows the frequency and percentage distribution of pretest level of pain among the lower segment caesarean section mothers.

It shows that 18(60%) had severe pain, 6(20%) had moderate pain, 5(16.7%) had mild pain and only one (3.3%) had excruciating pain.

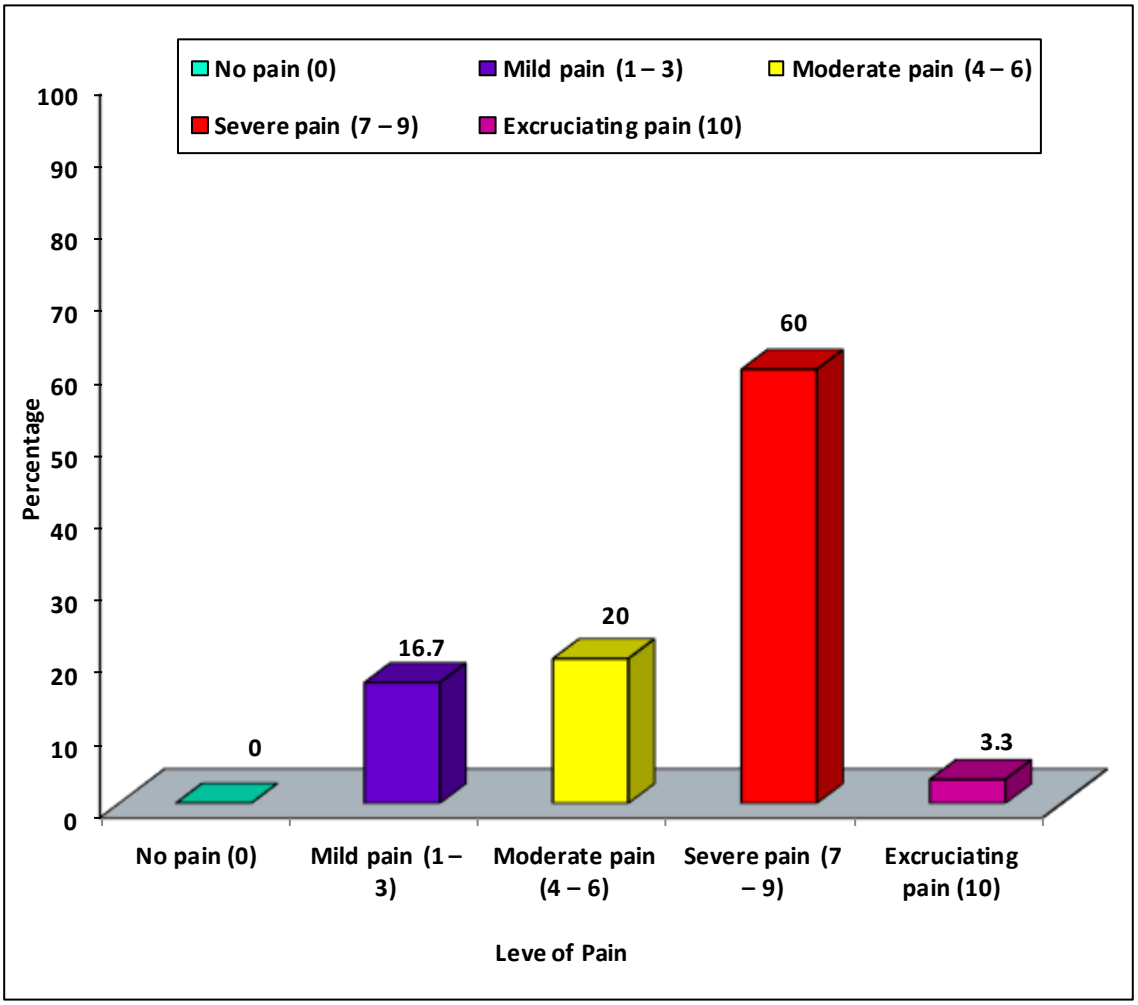

Figure 6 : Percentage distribution of pretest level of pain among the lower segment caesarean section mothers

The Figure 6 shows the Percentage distribution of pretest level of pain among the lower segment caesarean section mothers

OBJECTIVE 2 TABLE

Table 3: Frequency and percentage distribution of post test level of pain among the lower segment caesarean section mothers.

N = 30

Level of Pain	Post Test	
	Frequency	Percentage (%)
No pain (0)	23	76.67
Mild pain (1 – 3)	7	23.33
Moderate pain (4 – 6)	-	-
Severe pain (7 – 9)	-	-
Excruciating pain (10)	-	-

The table 3 shows the frequency and percentage distribution of post test level of pain among the lower segment caesarean section mothers.

It shows that after the administration of hand and food massage, 23(76.67%) had no pain and 7(23.33%) had mild pain.

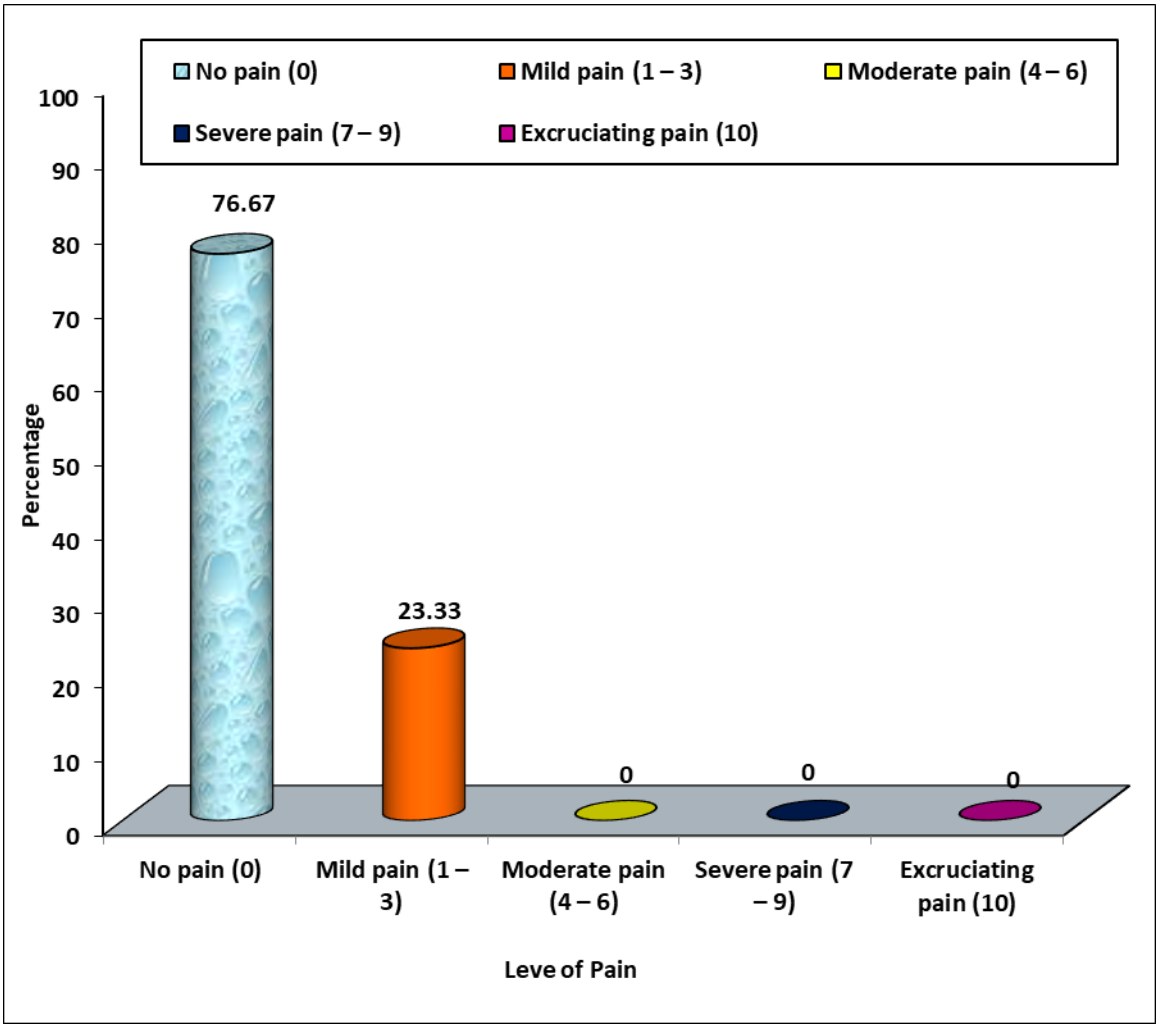

Figure 7: Percentage distribution of post test level of pain among the lower segment caesarean section mothers

The Figure 7 shows the Percentage distribution of post test level of pain among the lower segment caesarean section mothers

OBJECTIVE 3 TABLE

Table 4: Comparison the pre-test and post- test level of pain perception among mothers undergone lower segment caesarean section.

N = 30

Test	Pain		Mean reduction Score & %	Paired 't' Test & p-value
	Mean	S.D		
Pretest	6.70	2.40	6.20 (62.0%)	**t = 12.905 p = 0.0001 S*** **
Post Test	0.50	0.97		

***p<0.001, S – Significant

The table 4 depicts that the pretest mean score of pain was 6.70±2.40 and post test mean score was 0.50±0.97. The mean reduction score was 6.20 i.e., 62.0%. The calculated paired 't' value of t = 12.905 was found to be statistically significant at p<0.001 level.

The above findings clearly indicate that the hand and food massage on reduction of pain administered among the lower segment caesarean section mothers found to be have positive effect which resulted in a significant reduction in the level of pain among mothers who had lower segment caesarean section.

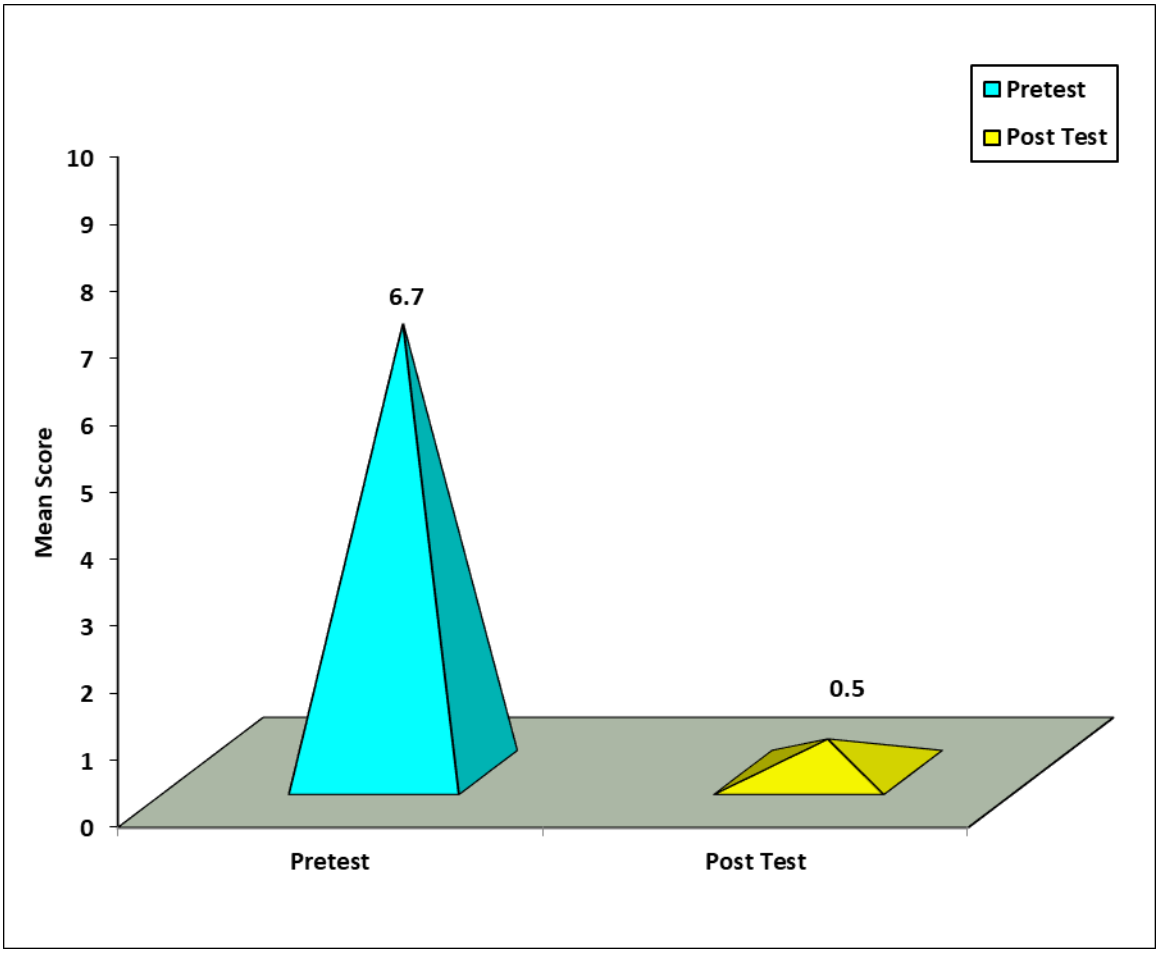

Figure 8: Comparison the pre-test and post- test level of pain perception among mothers who had undergone lower segment caesarean section

The Figure 8 shows the Comparison the pre-test and post- test level of pain perception among mothers who had undergone lower segment caesarean section

OBJECTIVE 4 TABLE

Table 5: Association of pretest pain score among lower segment caesarean section mothers with selected demographic variables.

N = 30

Demographic Variables	N	Pretest		One Way ANOVA/ t test
		Mean	S.D	
Age				F = 1.239 P = 0.306 N.S
21 – 25 Years	10	5.80	2.82	
26 – 30 Years	6	6.66	2.58	
More than 31 Years	14	7.35	1.94	
Education				F = 2.095 P = 0.143 N.S
Uneducated	-	-	-	
Matriculation	8	6.37	2.50	
Intermediate	12	5.91	2.71	
Graduation	10	7.90	1.52	
Occupation				F = 2.339 P = 0.116 N.S
Housewife	19	7.05	2.43	
Govt. Job	1	2.00	-	
Private Job	10	6.50	2.01	
Type of pain				F = 0.695 P = 0.508 N.S
Mild pain	5	7.80	1.30	
Moderate pain	6	6.83	2.13	
Severe pain	19	6.36	2.69	
Frequency of pain				t = 0.988 P = 0.337 N.S
Less than an hour	19	7.05	2.17	
More than an hour	11	6.09	2.77	

N.S – Not Significant

The table 5 portrays the association of pretest pain score among lower segment caesarean section mothers with selected demographic variables.

One way ANOVA and unpaired ‘t’ test was computed to assess the influence of demographic variables on pretest pain scores among LSCS mothers.

The demographic variables did not show statistically significant association with pretest mean score of pain among LSCS mothers.

DISCUSSION

One of the most important moments in a woman's life is giving birth to a child. Although giving birth to a child is the sweetest moment, it is physically difficult. One of the most popular birth techniques, with a confirmed incidence of 32.6% in South India, is the caesarean section. The mothers' main worries are insomnia and post-operative pain. The study's goals were to evaluate how well foot reflexology treated post-c-section mothers' pain. The study used a quasi-experimental, non-equivalent pre- and post-test design. The investigation was conducted at the VK and TPN hospitals in Erode. By convenient sampling, 30 post-c-section mothers who met the inclusion criteria were chosen. Using a visual analogue scale, a pre-test was carried out. The effectiveness of foot reflexology was evaluated on the sixth day following the pre test, when it was administered once daily for five days. Statistics, both descriptive and inferential, were used to assess the collected data. Results: The experimental group's mean score was 4.1 (SD = 0.24) and the control group's mean score was 5.9 (SD = 0.67) with paired t values of 6.42 and 3.43, respectively. This demonstrated that the practise of the sample about pain perception was improved by foot reflexology. The sample's post-test results did not statistically significantly correlate with any of their demographic factors. The findings suggest that post-c-section moms need to be educated on how to effectively regulate their sense of pain. Foot reflexology is a simple, inexpensive, non-pharmacological technique with no side effects. The outcomes demonstrated that foot reflexology was successful in lowering post-operative pain in post-caves mothers.[7]

According to studies by Chithra and D'Almeida (2014), Degirmen et al. (2010), and Kim (2002), foot massage significantly decreased pain in the experimental group. Additionally, it helped postoperative patients experience less acute postoperative discomfort. The present study's findings demonstrated the effectiveness of foot massage therapy in reducing post-cesarean women's pain levels.[8]

Another encouraging study was conducted at Sharda Hospital in Greater Noida, Uttar Pradesh, in the postnatal ward to see whether foot and hand massage may help postpartum moms who had undergone caesarean sections feel less discomfort.” The goal of the study was to ascertain whether foot and hand

massage was useful in lessening post-caves discomfort in postpartum mothers. The study used a quasi-experimental design with randomised pre-test, post-test, and control groups, and samples were then randomly assigned to the experimental group and the control group, respectively. The study's participants were 60 postpartum women, including 30 in the experimental group and 30 in the control group. Both groups were arbitrarily assigned to the experimental or control groups after being sequentially chosen. Numeric Pain Scale and Sociodemographic Profile were utilised as data gathering tools. According to this study, postpartum moms benefit more from foot and hand massages combined with standard hospital care than do foot and hand massages alone. Massage of the hands and feet can help with post-Caesarean pain management. Every mother who has a caesarean section can receive a foot and hand massage as a form of treatment up until the point at which they do not experience any postpartum issues.[9]

CONCLUSION

According to the study, lower segment caesarean women experienced less discomfort after receiving hand and foot massages. Hand and foot massages were a successful, costly, low-risk, adaptable, and simple post-c-section pain treatment method. Since the intervention can be utilised to lessen discomfort without the need of medication.

IMPLICATIONS

Hospitals and maternity facilities might start offering hand and foot massages. It is necessary to set up a staff development programme.

FUNDING: Self

CONFLICT OF INTEREST: None

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