REDVET - Revista electrónica de Veterinaria - ISSN 1695-7504
Vol 25, No. 1 (2024)
http://www.veterinaria.org
Article Received: 16.09.2024 Revised: 20.09.2024 Accepted :25.09.2024

A Study to Assess the Effectiveness Of Self Instructional Module On Hand And Foot Massage On Pain Among Post Caesarean Mothers At Selected Hospital at Bhopal (M.P.).

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ABSTRACT
Giving birth to a new life is the most painful experience in a woman's life, though she experiences the happiness later by carrying the newborn. There are many different methods for child birth Although vaginal delivery is the most common, sometimes caesarean delivery is necessary for the safest of mother and baby In this study, breast massage was used as an intervention to lessen breast engorgement. Quasi Experimental research design is used with the control and study group was used. A total of 30 postnatal mothers(15 in each group) were included in the study. Demographic variables & numerical pain rating scale was used. The study clearly indicates a considerable Reduction in level of hand and foot pain after intervention in experimental group.

Keywords: Effectiveness, Self instructional module , Hand &foot massage, Pain

INTRODUCTION

Motherhood is the greatest role of women. The most ambitious dream of a woman in her life is giving birth. Childbirth is one of the most marvelous and memorable segment in a woman's life. Childbirth is a physiological process, but complications can occur during pregnancy until the birth. [1]

Caesarean section is the most frequently performed surgery in the world. These are common than most surgeries due to many factors, one factor is certain, that nearly 50% of world population are women and pregnancy is still a common condition. A Caesarean section is a surgical procedure in which incision is made through a mother's abdomen and uterus to deliver one or more babies, or rarely, to remove a dead fetus. [2]

A caesarean section is usually performed when a vaginal delivery would put the baby's or mother's life or health at risk, although in recent times it has been also performed upon request for childbirths that could otherwise have been natural. It has now become increasingly the procedure of choice in high risk pregnancies, to prevent perinatal morbidity and mortality. [3]

According to new research from the World Health Organization (WHO), caesarean section use continues to rise globally, now accounting for more than 1 in 5 (21%) of all childbirths. This number is set to continue increasing over the coming decade, with nearly a third (29%) of all births likely to take place by caesarean section by 2030, the research finds. While a caesarean section can be an essential and lifesaving surgery, it can put women and babies at unnecessary risk of short- and long-term health problems if performed when there is not medical need.[4]

SIGNIFICANCE OF THE STUDY

Caesarean section is the birth of a fetus through a trans abdominal 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 methods, 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 infant. 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 on.[5]Hand and Foot massage one of the most popular form of massage in all alternative therapies. The potential to aid in pain relief. It is a technique which can be mildly painful but usually is quite relaxing. Pharmacological pain relieves methods used in post-cesarean are a great constrain for obstetric nurses. Since the expand use of medications cause numerous unfavorable effects including; nausea and vomiting as well as a delay in hospital discharge. Moreover, narcotics which can be used as a painkiller can be

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secreted in breast milk and cause sedation to the neonate as well. The non-pharmacological pain relief method is a good option for the obstetric nurse to manage post-caesarean pain .[6]

PROBLEM STATEMENT

A Study to Assess the Effectiveness Of Self Instructional Module On Hand And Foot Massage On Pain Among Post Caesarean Mothers At Selected Hospital at Bhopal (M.P.).

OBJECTIVES:

1. To assess the pre test level of pain among post caesarean mothers in experimental and control group.
2. To give the hand and foot massage on pain among post cesarean mothers in experimental group at selected hospital Bhopal.
3. To assess the post test level of pain among post caesarean mothers in experimental and control group at selected hospital Bhopal.
4. To evaluate the effectiveness of hand and foot massage on level of pain among post caesarean mothers in experimental and control group by comparing pre and post test score at selected hospital Bhopal.
5. To find out the association between level of pain perception among post caesarean mothers in experimental and control group with their selected demographic variables.
6. To develop the SIM on hand and foot massage on pain among post cesarean mothers at selected hospital Bhopal

MATERIALS AND METHODS

Research approach	Evaluative approach
Research design	Quasi Experimental research design is used with the control and experimental group.
Population	Post natal mothers
Sample	Lower segment cesarean section mothers
Sample size	30 Postnatal mothers (15control +15experimental)
Sampling technique	Non randomized Purposive sampling technique
Independent variable	Hand and foot massage
Dependent variable	Knowledge is a dependent variable caused by manipu as hand and foot massage on the Experimental gr Interventions to reduce the level of pain perception Post cesarean mothers.
Demographicvariables	Age, educational status, occupation, type of family, family income, residence, parity, gestational age and previous history of cesarean section
Setting	Selected Hospital at Bhopal
Duration of study	6weeks

CRITERIA FOR SAMPLE SELECTION

Inclusion Criteria

- Post cesarean mothers underwent lower section cesarean mothers
- Post cesarean mothers available for data collection at that time.
- Post cesarean mothers willing to participate in the study.

Exclusion criteria

- Post cesarean mothers who were unwilling to take part in the study.
- Postnatal natal mothers with associated disorders admitted in critical care units.

DESCRIPTION OF THE TOOL

Section A:- Demographic Variables
Section B:- Numerical Pain Intensity rating Scale

SCORING PROCEDURE

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

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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 the post caesarean mothers. N = 30(15+15)

Demographic Variables	Experimental Group		Control Group		Chi-Square for homogeneity
	Frequency	Percentage	Frequency	Percentage	
Age in years					χ^2=0.392 d.f=3 p=0.942 N.S
18 – 20	3	20.0	3	20.0	
21 – 25	1	6.7	2	13.3	
26 – 30	9	60.0	8	53.4	
31 – 35	2	13.3	2	13.3	
Educational status					χ^2=1.000 d.f=3 p=0.801 N.S
No formal education	2	13.3	2	13.3	
Primary education	4	26.7	2	13.3	
Higher secondary education	5	33.3	7	46.7	
Graduate	4	26.7	4	26.7	
Occupation					χ^2=0.600 d.f=1 p=0.439 N.S
Employed	4	26.7	6	40.0	
Unemployed	11	73.3	9	60.0	
Type of family					χ^2=0.536 d.f=1 p=0.464 N.S
Nuclear family	8	53.3	6	40.0	
Joint family	7	46.7	9	60.0	
Family income					χ^2=1.250 d.f=3 p=0.741 N.S
Less than Rs.5000	3	20.0	1	6.7	
Rs.5001 – 6000	2	13.3	2	13.3	
Rs..6001 – 7000	7	46.7	9	60.0	
Rs.7001 and above	3	20.0	3	20.0	
Residence					χ^2=0.136 d.f=2 p=0.713 N.S
Rural	8	53.3	9	60.0	
Urban	7	46.7	6	40.0	
Parity					χ^2=0.000 d.f=1 p=1.000 N.S
Primi gravida	10	66.66	4	26.7	
Multi gravida	05	33.3	11	73.3	
Gestational age					χ^2=0.000 d.f=3 p=1.000 N.S
35 weeks	0	00	1	6.7	
36 weeks	1	6.7	5	33.3	
37 weeks	5	33.3	5	33.3	
38 weeks	9	60.0	4	26.7	
Previous history of caesarean section					χ^2=0.133 d.f=1 p=0.715 N.S
Yes	5	33.3	11	73.3	
No	10	66.66	4	26.7	

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N.S – Not Significant

The table 1 represents that, in experimental group, 3(20%) of the post caesarean mothers belong to the age group of 18-20 years, 1(6.7%) of them are in the age group of 21-25 years, 9(60%) of them belong to the age group of 26-30 and 2(13.3%) of them are in the age group of 31-35 years. In control group 3(20%) of them are in age group of 18-20 years, 2(13.3%) of them belong to the age group of 21-25 years, 8(53.4%) of them are in the age group of 26-30 years and 2(13.3%) of them belong to the age group of 31-35 years.

With regards to educational status ,in experimental study 2(13.3%) of them had no formal education, 4(26.7%) of them educated till primary, 5(33.3%) completed higher secondary education and 4(26.7%) of them are graduate. In control group 2(13.3%) of them had no formal education, 2(13.3%) of them educated till primary, 7(46.7%) completed higher secondary education and 4(26.7%) of them are graduate.

In respect of Occupation in experimental study , 4(26.7%) of post cesarean mothers are employed and 11(73.3%) are unemployed and worked as housewife . In control group 6(40%) post cesarean mothers are employed and 9(60%) are unemployed.

With respect to type of family, in experimental group , majority 8 (53.3%) were live in nuclear family and 7 (46.7%) were live in joint family. In control group 6 (40%) were live in nuclear family and majority 9 (60%) were live in joint family.

In experimental group , In terms of monthly income, 3 (20%) had less than rs.5000, 2(13.3%) had Rs.5001/- to Rs.6000/- , 7(46.7%) had monthly income of Rs. 6001/- to Rs. 7000/- and 3 (20%) had Rs. 7001/- and above of monthly income. In control group , 1 (6.7%) had less than rs.5000, 2(13.3%) had Rs.5001/- to Rs.6000/- , 9(60%) had monthly income of Rs. 6001/- to Rs. 7000/- and 3 (20%) had Rs. 7001/- and above of monthly income.

Considering parity in experimental group majority , 10(66.66%) post cesarean mothers are primi gravida and 5(33.3%) had multi gravidae . in control group 4(26.7%) post cesarean mothers are primi gravida and 11(73.3%) had multi gravidae

With regards to gestational age ,in experimental study 1(6.7%) post cesarean mothers completed 36 weeks of gestation ,5(33.3%) completed 37 weeks and 9(60%) post cesarean mothers completed 38 weeks . In control group , 1(6.7%) post cesarean mothers completed 35 weeks of gestation ,5(33.3%) completed 36 and 37 weeks respectively and 4(26.7%) post cesarean mothers completed 38 weeks

Considering previous history of cesarean section in experimental group 5(33.3%) post cesarean mothers had history of previous LSCS and majority 10(66.66%) are primi mothers with no history of any incision . in control group 11(73.3%) post cesarean mothers are multi gravida with previous history of LSCS and 4(26.7%) had primi .

With regard to demographic variables both in experimental and control group , the obtained x^2 value was not statistically significant at $P<0.05$ level. Hence it was inferred that there was no statistically significant association between demographic variables and level of pain among post cesarean mothers.

Figure 1:- Percentage distribution of Post cesarean mothers according to their age in experimental and control group.

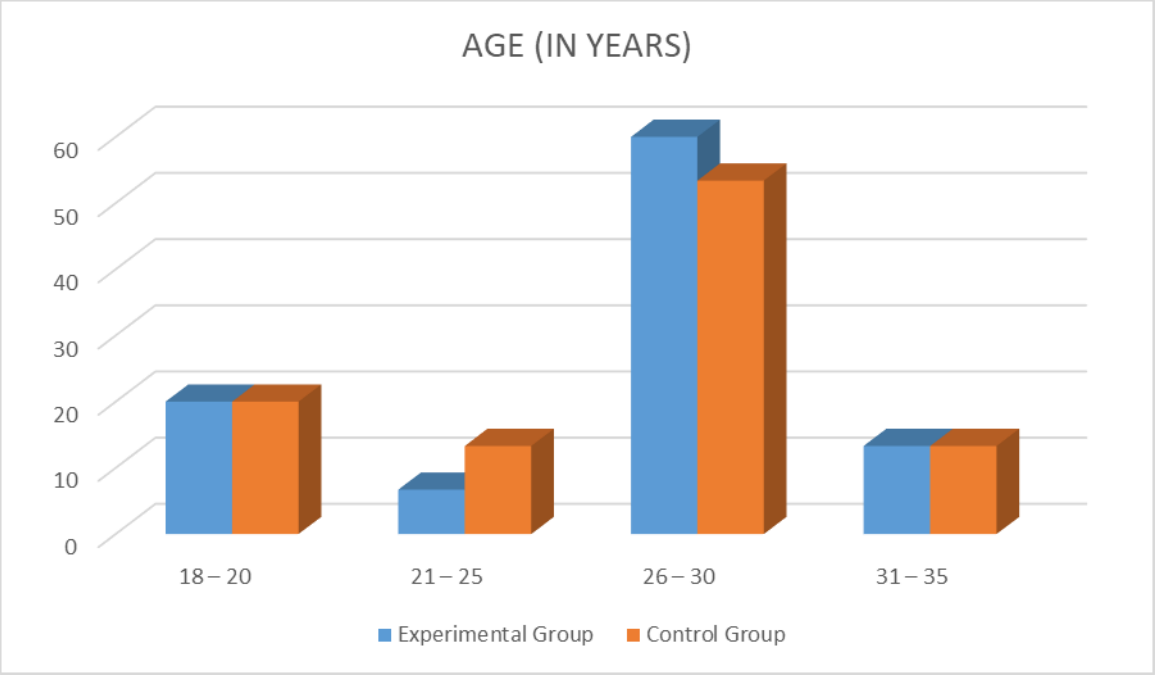

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Figure 2:- Percentage distribution of Post cesarean mothers according to their educational status in experimental and control group.

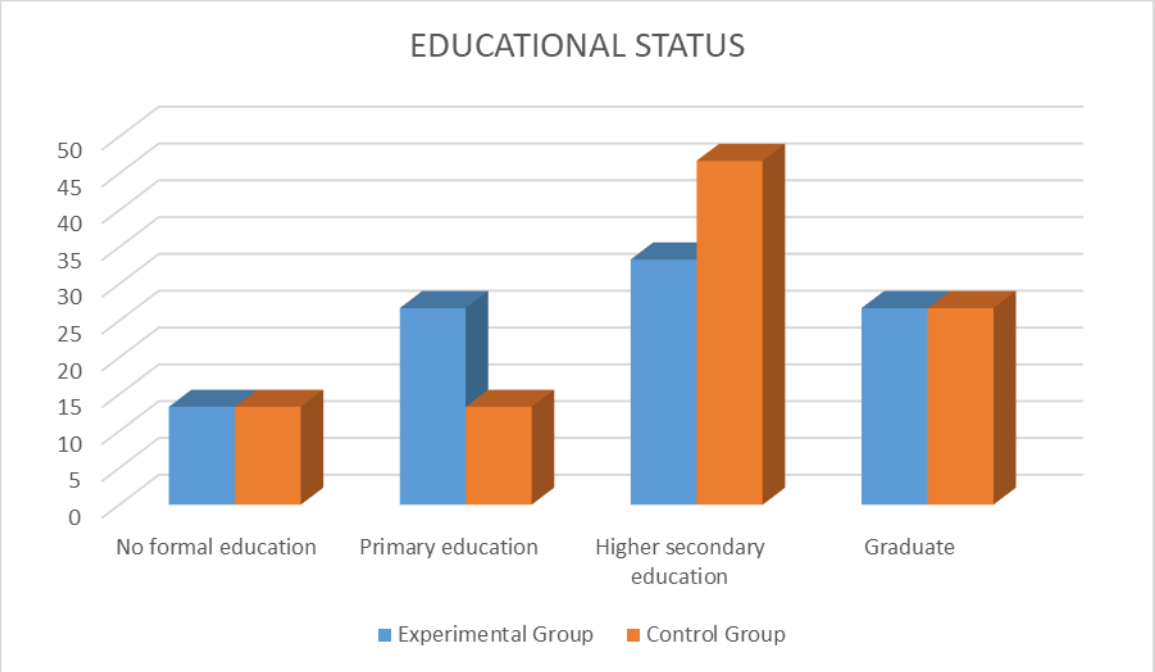

Figure 3:- Percentage distribution of Post cesarean mothers according to their occupation in experimental and control group.

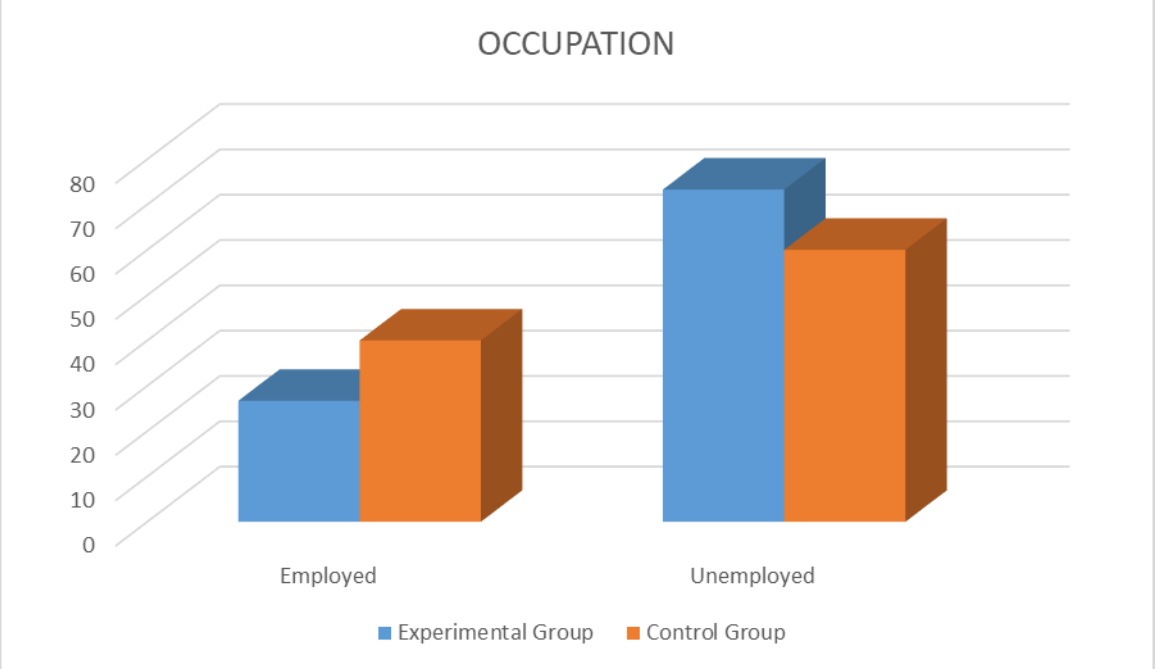

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Figure 4:- Percentage distribution of Post cesarean mothers according to type of family in experimental and control group.

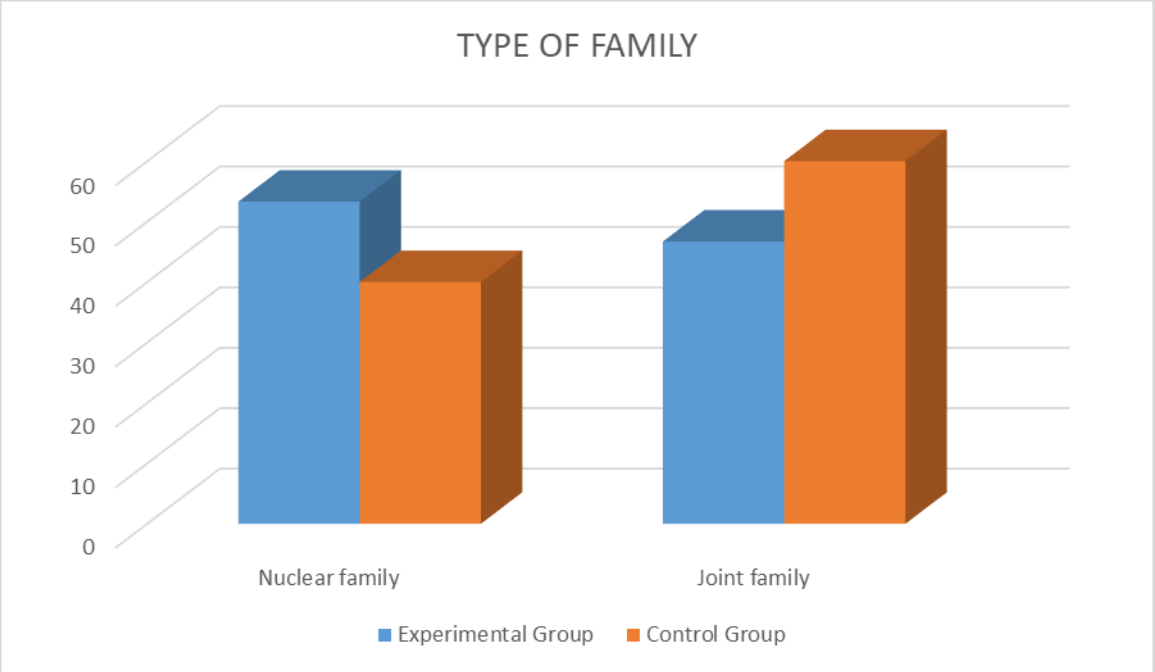

Figure 5:- Percentage distribution of Post cesarean mothers according to their family income in experimental and control group.

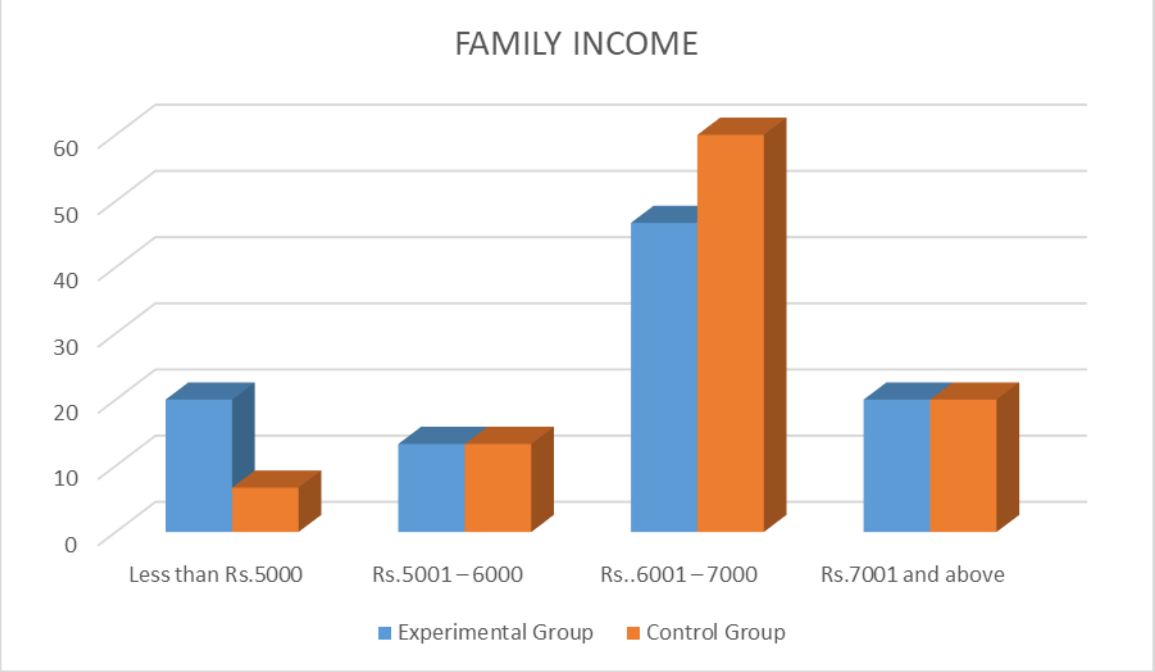

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Figure 6:- Percentage distribution of Post cesarean mothers according to residence in experimental and control group.

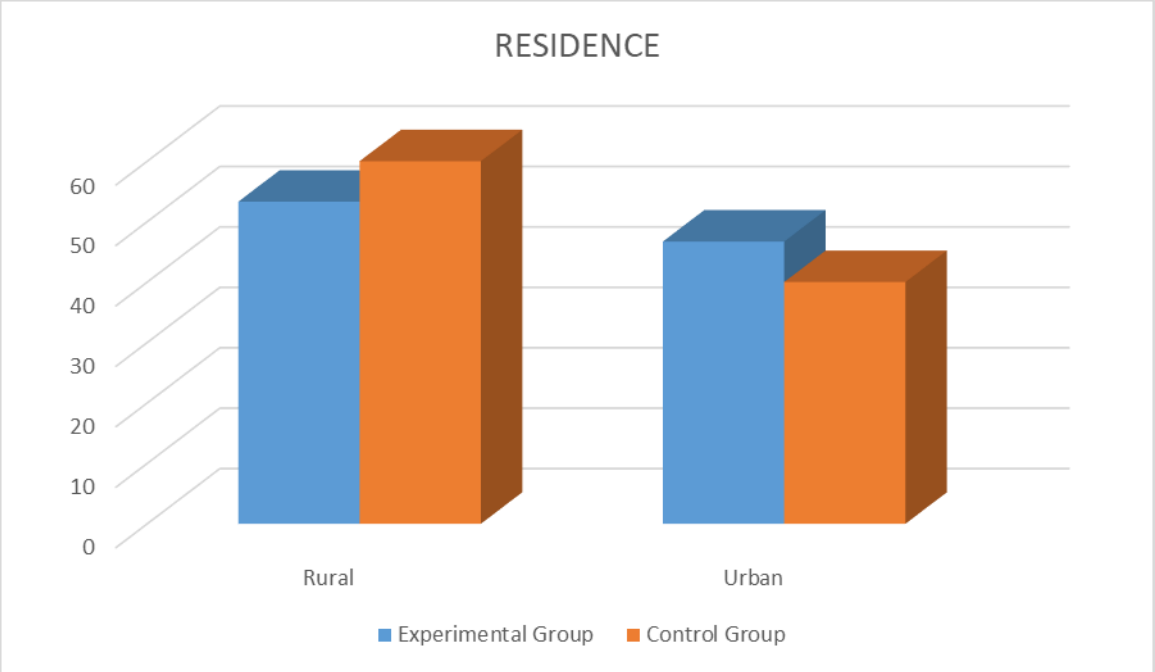

Figure 7:- Percentage distribution of Post cesarean mothers according to parity in experimental and control group.

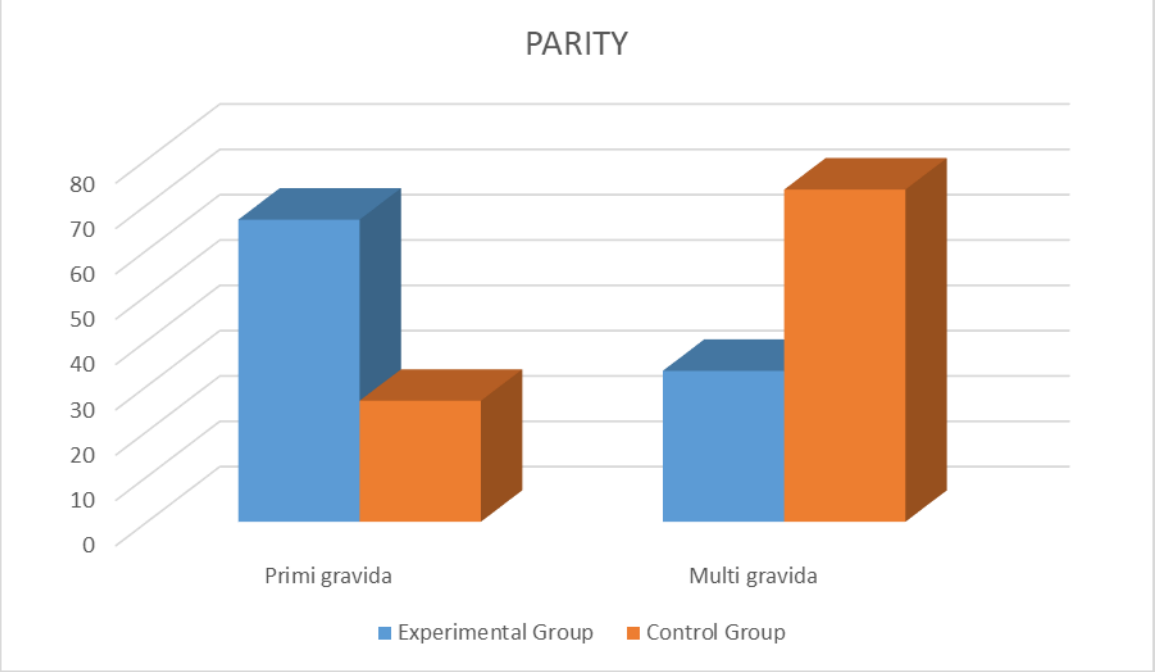

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Figure 8:- Percentage distribution of Post cesarean mothers according to their gestational age in experimental and control group.

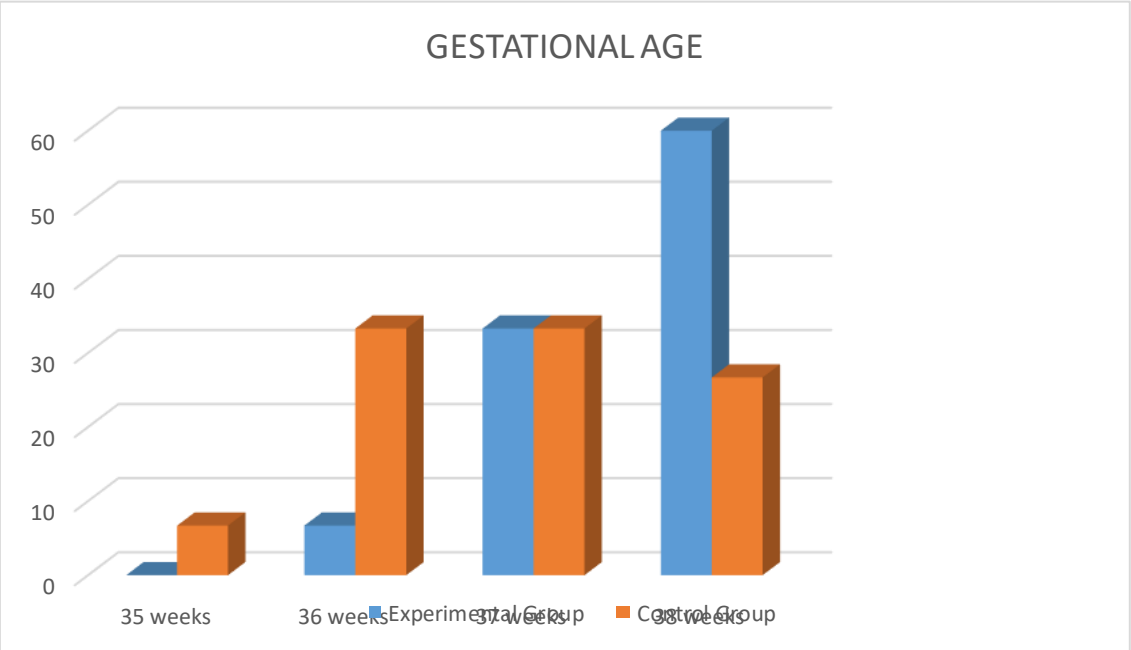
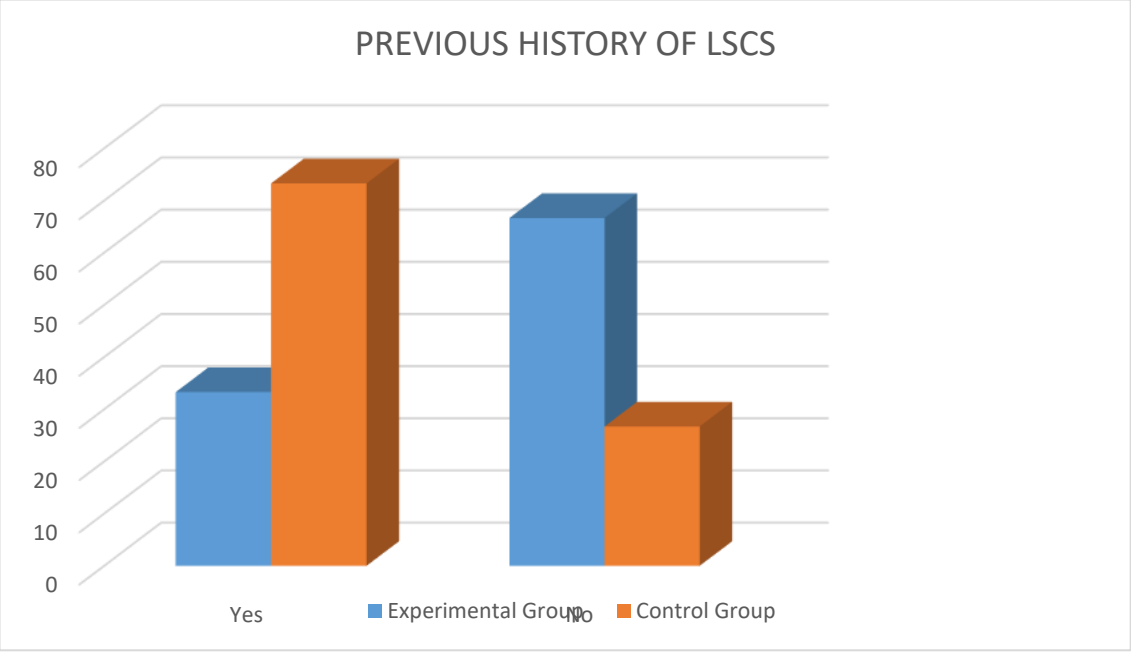


Figure 9:- Percentage distribution of Post cesarean mothers according to previous history of cesarean section in experimental and control group.



OBJECTIVE 1

Table 2: Frequency and percentage distribution of pretest level of pain among post caesarean mothers in the experimental and control group.N = 30(15+15)

Level of Pain	Experimental Group		Control Group	
	Frequency	Percentage	Frequency	Percentage
No pain (0)	-	-	-	-
Mild pain (1 – 3)	3	20.0	3	20.0
Moderate pain (4 – 6)	4	26.7	3	20.0
Severe pain (7 – 9)	8	53.3	9	60.0
Excruciating pain (10)	-	-	-	-

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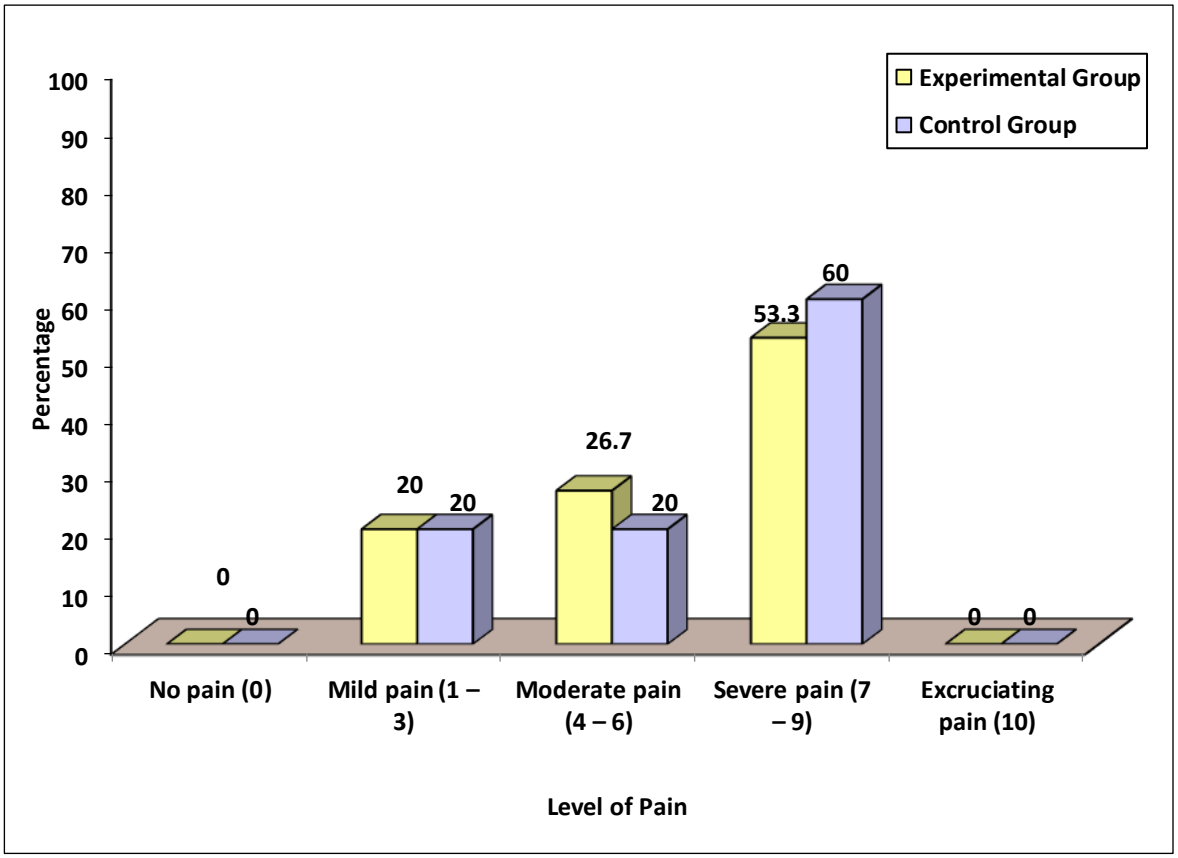
The table.2 shows the pre- test level of frequency and percentage distribution of level of pain among post cesarean mothers in the experimental and control group .

In Experimental group The pre-test score showed 3(20 %) post cesarean mothers having mild pain, 4 (26.7%) having moderate pain and 8(53.3%) had severe pain .

In control group ,The pre-test score showed 3(20 %) post cesarean mothers having mild pain, 3 (20%) having moderate pain and 9(60%) had severe pain .

Figure 10:- Percentage distribution of pretest level of pain among post caesarean mothers in the experimental and control group.



OBJECTIVE 3

Table 3: Frequency and percentage distribution of post test level of pain among post caesarean mothers in the experimental and control group. N = 30(15+15)

Level of Pain	Experimental Group		Control Group	
	Frequency	Percentage	Frequency	Percentage
No pain (0)	9	60.0	1	6.7
Mild pain (1 – 3)	6	40.0	2	13.3
Moderate pain (4 – 6)	0	0	5	33.3
Severe pain (7 – 9)	0	0	7	46.7
Excruciating pain (10)	-	-	-	-

The table.3 shows the post- test level of frequency and percentage distribution of level of pain among post cesarean mothers in the experimental and control group .

In Experimental group The post-test score showed 9(60 %) post cesarean mothers having no pain and 6 (40 %) having mild pain .

In control group The post-test score showed 1(6.7 %) post cesarean mothers having no pain, 2 (13.3%) having mild pain ,5(33.3%) having moderate pain and 7(46.7%) had severe pain .

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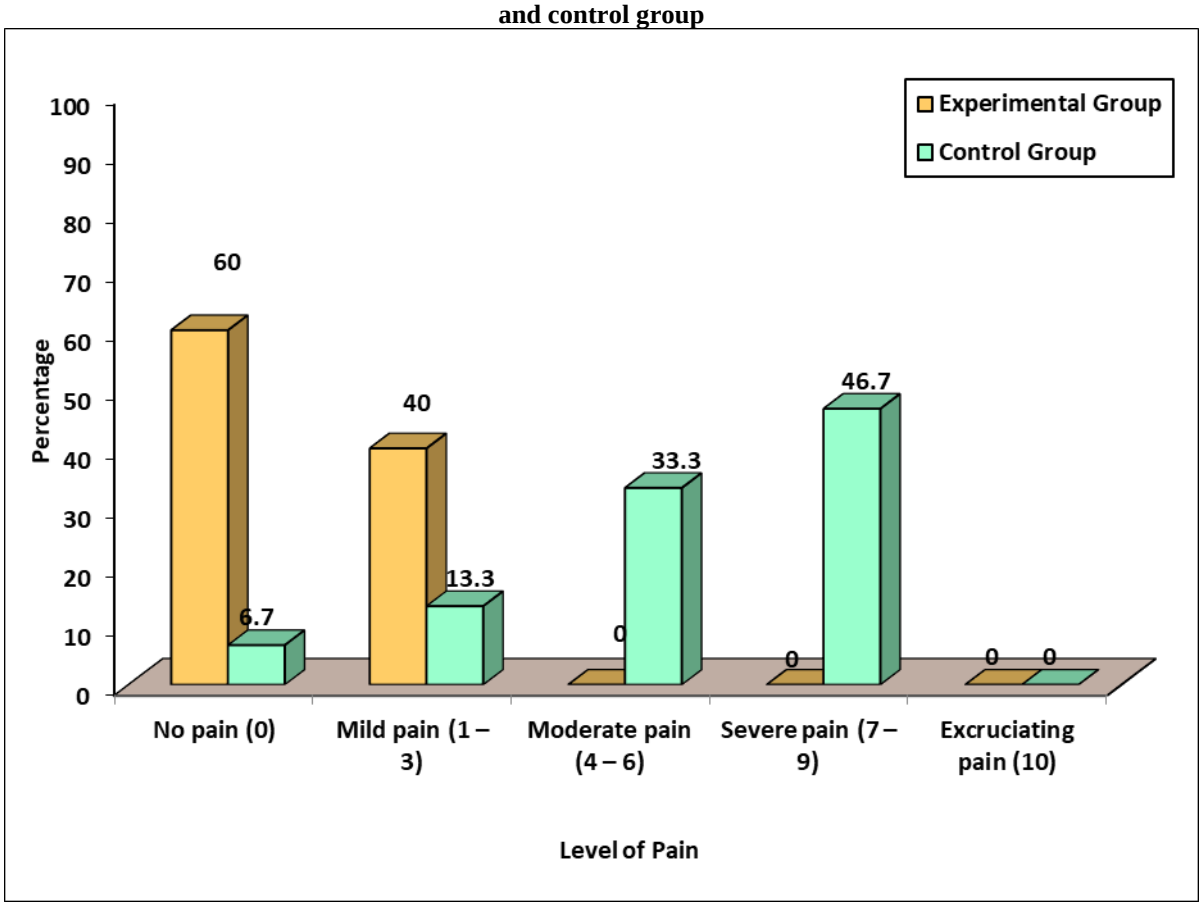
Figure 11 :-Percentage distribution of post test level of pain among post caesarean mothers in the experimental and control group



OBJECTIVE 4

Table 4: Effectiveness of Self Instructional Module on Hand and Foot Massage on pain among post caesarean mothers in the experimental group. N = 15

Pain	Mean	S.D	Mean Difference & %	Paired "t" test & p-value
Pretest	6.13	2.41	5.40	t=8.267
Post Test	0.73	1.03	(54.0%)	p=0.0001, S***

***p<0.001, S - Significant

Table. 4 presents the effectiveness of Self Instructional Module on Hand and Foot Massage on pain among post caesarean mothers in the experimental group of pre-test and post-test overall mean score, standard deviation and its of level of significance.

The mean pre-test score of level of pain during the first observation on 2nd day was 6.13. There was decrease in the mean post-test level of pain score from the 2nd to 5th day to 0.73.

It is concluded that Self Instructional Module on Hand and Foot Massage on pain have statistical significance in the reduction of pain among post cesarean mothers.

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Figure 12:-Boxplot showing the effectiveness of Self Instructional Module on Hand and Foot Massage on pain among post caesarean mothers in the experimental group (Median: Pretest – 7.0, Post Test – 0)

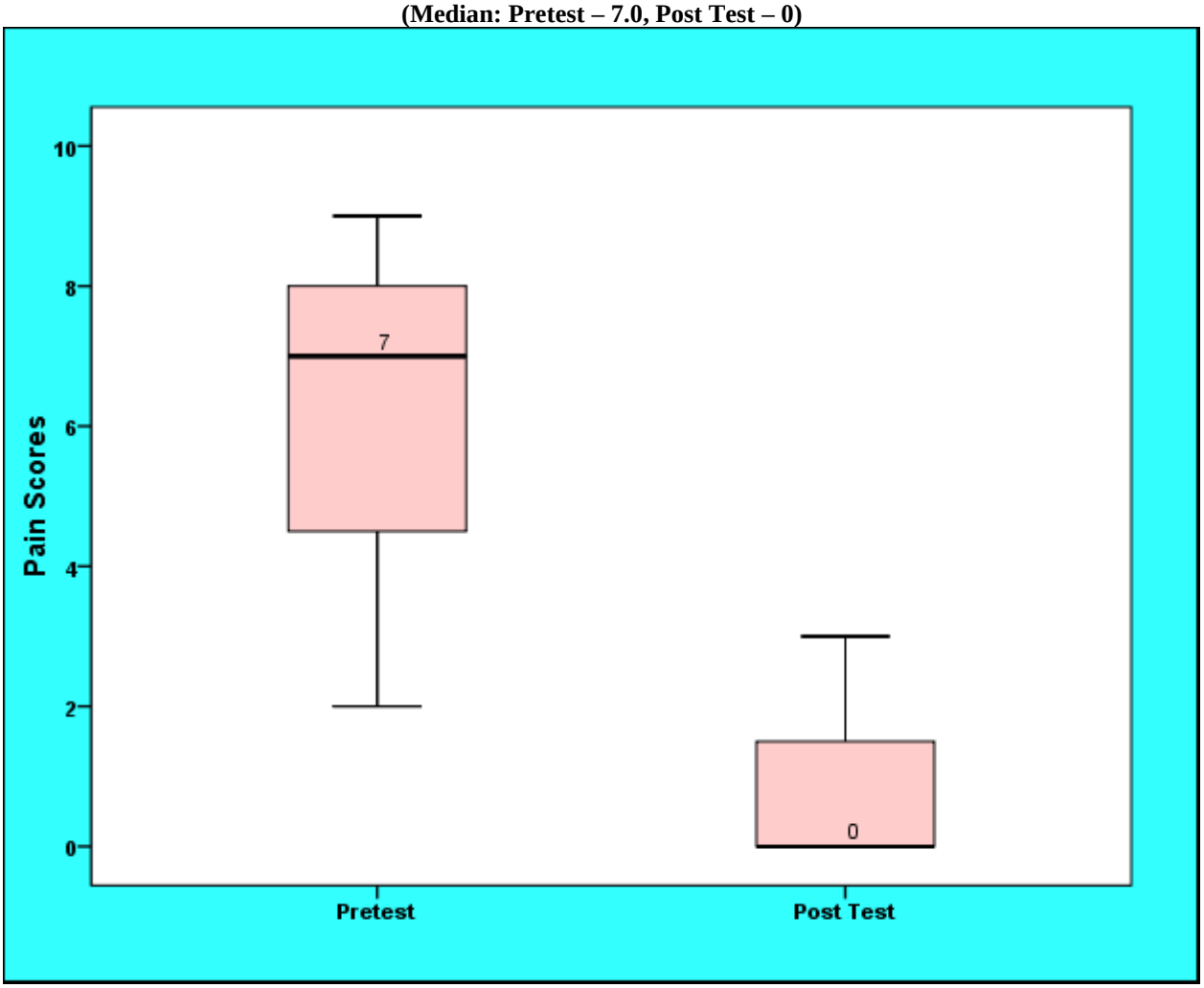

Table 5: Comparison of pretest and post test pain score among post caesarean mothers in the control group.N = 15

Pain	Mean	S.D	Mean Difference & %	Paired "t" test & p-value
Pretest	6.53	2.35	0.60	t=2.358
Post Test	5.93	2.46	(6.0%)	p=0.033, S*

*p<0.05, S – Significant

Table. 5 presents the Comparison of pretest and post test pain score among post caesarean mothers in the control group. with overall mean score, standard deviation and its of level of significance.
The mean pre-test score of level of pain during the first observation on 2nd day was 6.53. There was decrease in the mean post-test level of pain score from the 2nd to 5th day to 5.93.
It is concluded that there was a significant reduction in the mean post test level of pain score.

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Figure 13 :-Boxplot showing the comparison of pretest and post test pain score among post caesarean mothers in the control group
(Median: Pretest – 7.0, Post Test – 6.0)

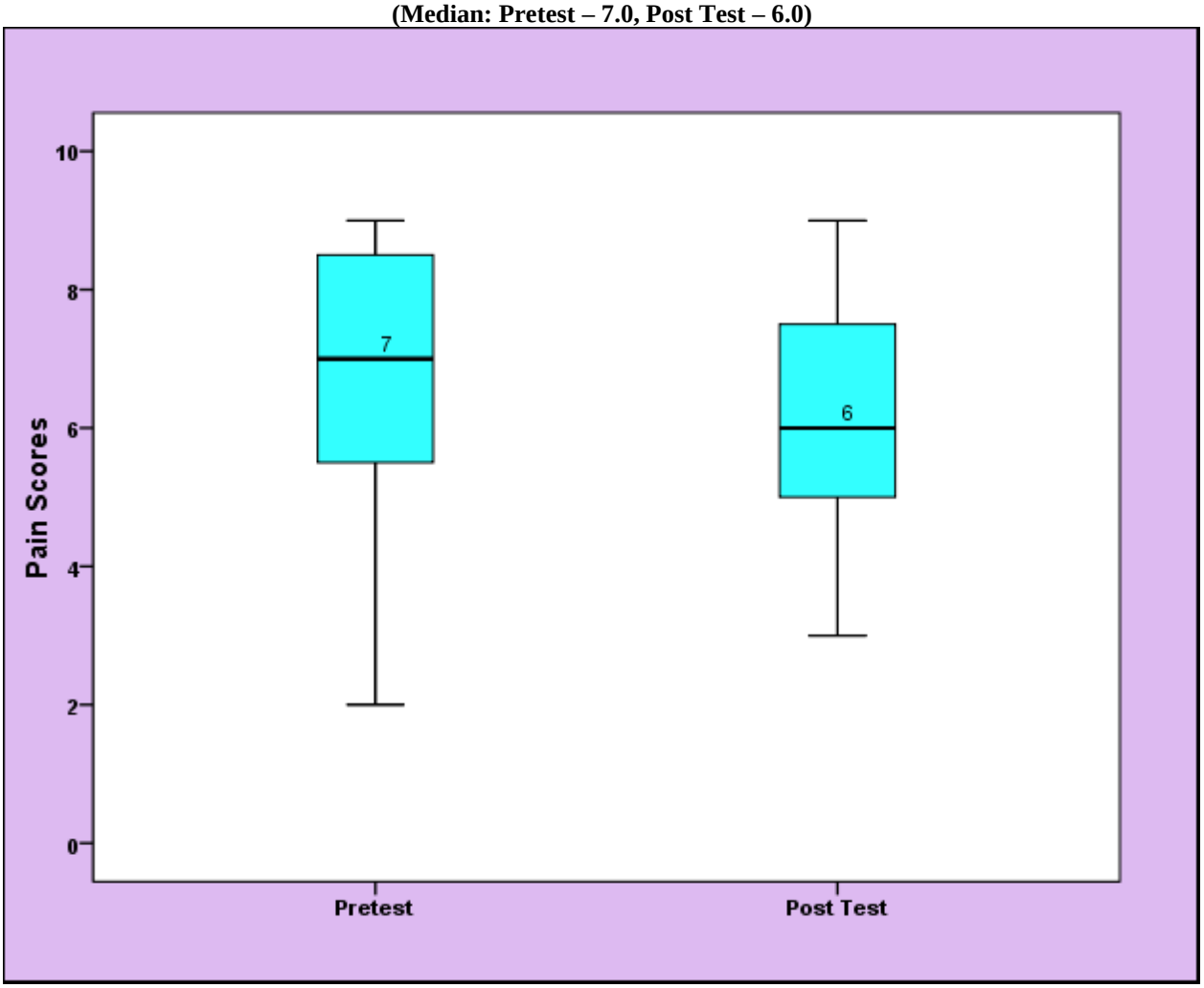

Table 6: Comparison of pretest and post test pain score among post caesarean mothers between the experimental and control group. N = 30(15+15)

Pain	Experimental Group		Control Group		Mean Difference & %	Student Independent "t" test & p-value
	Mean	S.D	Mean	S.D		
Pretest	6.13	2.41	6.53	2.35	0.40 (4.0%)	t=0.459 p=0.650, N.S
Post Test	0.73	1.03	5.93	2.46	5.20 (52.0%)	t=7.541 p=0.0001, S***

***p<0.001, S – Significant, N.S – Not Significant

The table 6 shows that in experimental group the pre test mean score is 6.13±0.4 and mean percentage is 4.0%, whereas in post test mean score is 0.75±5.20 and mean percentage is 52. In control group the pre test mean score is 6.53±0.40 and mean percentage is 4, whereas in post test score is 5.93±5.20 and mean percentage is 52. Mean difference value in experimental group is higher than in control group. It reveals that the post caesarean mothers in experimental group have reduction in pain when compare to control group.

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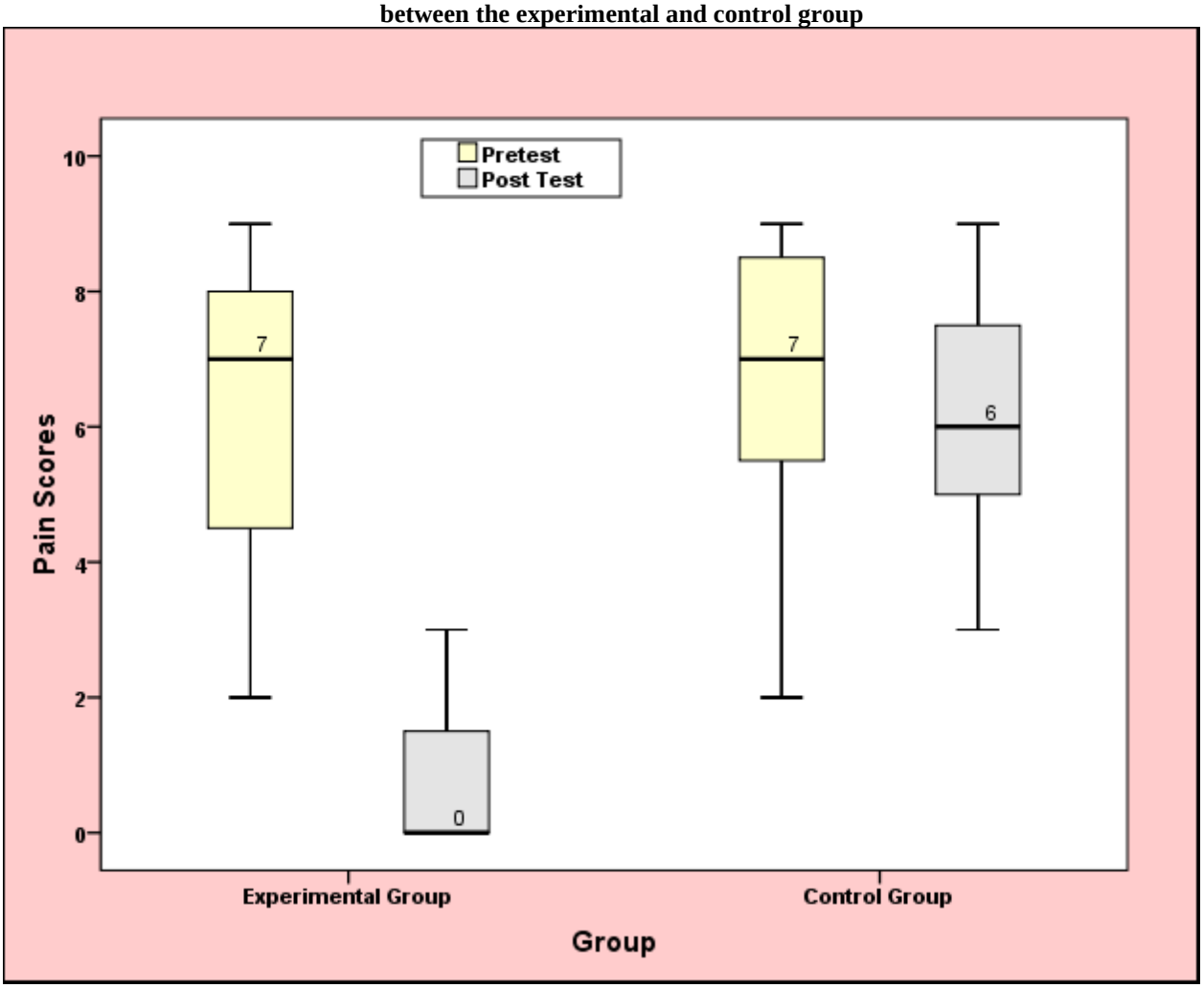
Figure 14:- Boxplot showing the comparison of pretest and post test pain score among post caesarean mothers between the experimental and control group



OBJECTIVE 5

Table 7: Association of pretest level of pain among post caesarean mothers with selected demographic variables in the experimental group. N = 15

Demographic Variables	Mild		Moderate		Severe		Chi-Square & p-value
	F	%	F	%	F	%	
Age in years							χ^2=8.750 d.f=6 p=0.188 N.S
18 – 20	0	0	1	6.7	2	13.3	
21 – 25	0	0	0	0	1	6.7	
26 – 30	3	20.0	1	6.7	5	33.3	
31 – 35	0	0	2	13.3	0	0	
Educational status							χ^2=4.188 d.f=6 p=0.651 N.S
No formal education	1	6.7	0	0	1	6.7	
Primary education	1	6.7	2	13.3	1	6.7	
Higher secondary education	1	6.7	1	6.7	3	20.0	
Graduate	0	0	1	6.7	3	20.0	
Occupation							χ^2=2.003 d.f=2 p=0.367 N.S
Employed	1	6.7	2	13.3	1	6.7	
Unemployed	2	13.3	2	13.3	7	46.7	
Type of family							χ^2=1.775 d.f=2 p=0.412 N.S
Nuclear family	2	13.3	3	20.0	3	20.0	
Joint family	1	6.7	1	6.7	5	33.3	
Family income							χ^2=7.426

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Demographic Variables	Mild		Moderate		Severe		Chi-Square & p-value
	F	%	F	%	F	%	
Less than Rs.5000	0	0	1	6.7	2	13.3	d.f=6 p=0.283 N.S
Rs.5001 – 6000	0	0	1	6.7	1	6.7	
Rs..6001 – 7000	1	6.7	1	6.7	5	33.3	
Rs.7001 and above	2	13.3	1	6.7	0	0	
Residence							χ^2=3.281 d.f=2 p=0.194 N.S
Rural	1	6.7	1	6.7	6	40.0	
Urban	2	13.3	3	20.0	2	13.3	
Parity							χ^2=2.216 d.f=2 p=0.330 N.S
Primi gravida	0	0	2	13.3	2	13.3	
Multi gravida	3	20.0	2	13.3	6	40.0	
Gestational age							χ^2=5.625 d.f=6 p=0.466 N.S
35 weeks	0	0	0	0	1	6.7	
36 weeks	1	6.7	2	13.3	2	13.3	
37 weeks	0	0	2	13.3	3	20.0	
38 weeks	2	13.3	0	0	2	13.3	
Previous history of caesarean section							χ^2=4.955 d.f=2 p=0.084 N.S
Yes	3	20.0	2	13.3	2	13.3	
No	0	0	2	13.3	6	40.0	

N.S – Not Significant

The data presented in table 7 shows that there is a no significant association of pretest level of pain among post caesarean mothers with selected demographic variables in the experimental group. Hence H2 is rejected at p≥0.05 level.

Table 8: Association of post test level of pain among post caesarean mothers with selected demographic variables in the experimental group. N = 15

Demographic Variables	No Pain		Mild Pain		Chi-Square & p-value
	F	%	F	%	
Age in years					χ^2=0.880 d.f=3 p=0.830 N.S
18 – 20	2	13.3	1	6.7	
21 – 25	1	6.7	0	0	
26 – 30	5	33.3	4	26.7	
31 – 35	1	6.7	1	6.7	
Educational status					χ^2=4.375 d.f=3 p=0.224 N.S
No formal education	2	13.3	0	0	
Primary education	2	13.3	2	13.3	
Higher secondary education	4	26.7	1	6.7	
Graduate	1	6.7	3	20.0	
Occupation					χ^2=0.511 d.f=1 p=0.475 N.S
Employed	3	20.0	1	6.7	
Unemployed	6	40.0	5	33.3	
Type of family					χ^2=0.714 d.f=1 p=0.398 N.S
Nuclear family	4	26.7	4	26.7	
Joint family	5	33.3	2	13.3	
Family income					χ^2=2.302 d.f=3 p=0.512 N.S
Less than Rs.5000	2	13.3	1	6.7	
Rs.5001 – 6000	2	13.3	0	0	
Rs..6001 – 7000	3	20.0	4	26.7	
Rs.7001 and above	2	13.3	1	6.7	
Residence					χ^2=0.045 d.f=1 p=0.833
Rural	5	33.3	3	20.0	
Urban	4	26.7	3	20.0	

REDVET - Revista electrónica de Veterinaria - ISSN 1695-7504
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Demographic Variables	No Pain		Mild Pain		Chi-Square & p-value
	F	%	F	%	
					N.S
Parity					χ^2=0.227 d.f=1 p=0.634 N.S
Primi gravida	2	13.3	2	13.3	
Multi gravida	7	46.7	4	26.7	
Gestational age					χ^2=1.875 d.f=3 p=0.599 N.S
35 weeks	1	6.7	0	0	
36 weeks	3	20.0	2	13.3	
37 weeks	2	13.3	3	20.0	
38 weeks	3	20.0	1	6.7	
Previous history of caesarean section					χ^2=0.045 d.f=1 p=0.833 N.S
Yes	4	26.7	3	20.0	
No	5	33.3	3	20.0	

N.S – Not Significant

The data presented in table 8 shows that there is a no significant association of post test level of pain among post caesarean mothers with selected demographic variables in the experimental group. Hence H2 is rejected at p≥0.05 level.

Table 9: Association of pretest level of pain among post caesarean mothers with selected demographic variables in the control group. N = 15

Demographic Variables	Mild		Moderate		Severe		Chi-Square & p-value
	F	%	F	%	F	%	
Age in years							χ^2=7.222 d.f=6 p=0.301 N.S
18 – 20	0	0	2	13.3	1	6.7	
21 – 25	0	0	0	0	2	13.3	
26 – 30	2	13.3	1	6.7	5	33.3	
31 – 35	1	6.7	0	0	1	6.7	
Educational status							χ^2=5.714 d.f=6 p=0.456 N.S
No formal education	0	0	1	6.7	1	6.7	
Primary education	0	0	0	0	2	13.3	
Higher secondary education	1	6.7	1	6.7	5	33.3	
Graduate	2	13.3	1	6.7	1	6.7	
Occupation							χ^2=2.963 d.f=2 p=0.227 N.S
Employed	2	13.3	2	13.3	2	13.3	
Unemployed	1	6.7	1	6.7	7	46.7	
Type of family							χ^2=2.963 d.f=2 p=0.227 N.S
Nuclear family	0	0	2	13.3	4	26.7	
Joint family	3	20.0	1	6.7	5	33.3	
Family income							χ^2=5.185 d.f=6 p=0.520 N.S
Less than Rs.5000	0	0	0	0	1	6.7	
Rs.5001 – 6000	1	6.7	0	0	1	6.7	
Rs..6001 – 7000	2	13.3	3	20.0	4	26.7	
Rs.7001 and above	0	0	0	0	3	20.0	
Residence							χ^2=0.185 d.f=2 p=0.912 N.S
Rural	2	13.3	2	13.3	5	33.3	
Urban	1	6.7	1	6.7	4	26.7	
Parity							χ^2=3.636 d.f=2 p=0.162 N.S
Primi gravida	2	13.3	1	6.7	1	6.7	
Multi gravida	1	6.7	2	13.3	8	53.3	
Gestational age							χ^2=3.500

REDVET - Revista electrónica de Veterinaria - ISSN 1695-7504
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Demographic Variables	Mild		Moderate		Severe		Chi-Square & p-value
	F	%	F	%	F	%	
35 weeks	0	0	0	0	1	6.7	d.f=6 p=0.744 N.S
36 weeks	0	0	1	6.7	4	26.7	
37 weeks	2	13.3	1	6.7	2	6.7	
38 weeks	1	6.7	1	6.7	2	6.7	
Previous history of caesarean section							χ^2=1.607 d.f=2 p=0.448 N.S
Yes	1	6.7	1	6.7	6	40.0	
No	2	13.3	2	13.3	3	20.0	

N.S – Not Significant

The data presented in table 9 shows that there is a no significant association of pretest level of pain among post caesarean mothers with selected demographic variables in the control group. Hence H2 is rejected at p≥0.05 level.

Table 10: Association of post test level of pain among post caesarean mothers with selected demographic variables in the control group. N = 15

Demographic Variables	No pain		Mild		Moderate		Severe		Chi-Square & p-value
	F	%	F	%	F	%	F	%	
Age in years									χ^2=12.107 d.f=9 p=0.207 N.S
18 – 20	0	0	0	0	2	13.3	1	6.7	
21 – 25	0	0	0	0	0	0	2	13.3	
26 – 30	0	0	2	6.7	3	20.0	3	20.0	
31 – 35	1	6.7	0	0	0	0	1	6.7	
Educational status									χ^2=9.398 d.f=9 p=0.401 N.S
No formal education	0	0	0	0	1	6.7	1	6.7	
Primary education	0	0	0	0	0	0	2	13.3	
Higher secondary education	1	6.7	0	0	3	20.0	3	20.0	
Graduate	0	0	2	13.3	1	6.7	1	6.7	
Occupation									χ^2=4.345 d.f=3 p=0.227 N.S
Employed	1	6.7	1	6.7	3	20.0	1	6.7	
Unemployed	0	0	1	6.7	2	13.3	6	40.0	
Type of family									χ^2=2.857 d.f=3 p=0.414 N.S
Nuclear family	0	0	0	0	3	20.0	3	20.0	
Joint family	1	6.7	2	13.3	2	13.3	4	26.7	
Family income									χ^2=10.381 d.f=9 p=0.321 N.S
Less than Rs.5000	0	0	0	0	0	0	1	6.7	
Rs.5001 – 6000	1	6.7	0	0	0	0	1	6.7	
Rs..6001 – 7000	0	0	2	13.3	4	26.7	3	20.0	
Rs.7001 and above	0	0	0	0	1	6.7	2	13.3	
Residence									χ^2=2.857 d.f=3 p=0.414 N.S
Rural	0	0	2	13.3	3	20.0	4	26.7	
Urban	1	6.7	0	0	2	13.3	3	20.0	
Parity									χ^2=3.969 d.f=3 p=0.265 N.S
Primi gravida	1	6.7	1	6.7	1	6.7	1	6.7	
Multi gravida	0	0	1	6.7	4	26.7	6	40.0	
Gestational age									χ^2=7.339 d.f=9 p=0.602 N.S
35 weeks	0	0	0	0	0	0	1	6.7	
36 weeks	0	0	0	0	1	6.7	4	26.7	
37 weeks	1	6.7	1	6.7	2	13.3	1	6.7	

REDVET - Revista electrónica de Veterinaria - ISSN 1695-7504
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Demographic Variables	No pain		Mild		Moderate		Severe		Chi-Square & p-value
	F	%	F	%	F	%	F	%	
38 weeks	0	0	0	0	2	13.3	1	6.7	
Previous history of caesarean section									χ^2=2.430 d.f=3 p=0.488 N.S
Yes	0	0	1	6.7	2	13.3	5	33.3	
No	1	6.7	1	6.7	3	20.0	2	13.3	

N.S – Not Significant

The data presented in table 10 shows that there is a no significant association of posttest level of pain among post caesarean mothers with selected demographic variables in the control group. Hence H2 is rejected at p≥0.05 level.

DISCUSSION

Caesarean section (C-section) is a major obstetric intervention introduced in late Nineteenth century to save lives of women and their newborns from life-threatening pregnancy and childbirth related complications. The population-based C-section rate is considered as a process indicator in maternal health to monitor progress. World Health organisation (WHO) has recommended that the population based C-section rate should lie between 5 and 15 percent to have an optimal impact. Nevertheless, the past decade has observed a tremendous increase in population based all-cause C-section rates globally. Recent data from both developed and developing countries have documented the average rate of 27% C-section during year 2013.[7]

Alternative and complementary therapies are commonly used treatment modalities for pain relief in present days as it does not have side effects and also it is effective. These are a group of therapies and practices used in place of conventional medicines or used together with conventional medicines, for the purpose of increasing comfort or relaxation, maintaining, improving or restoring health and harmony of the body, mind, and spirit, improving coping mechanisms, reducing stress, relieving pain and/or increasing the client's sense of wellbeing. Massage is becoming a cost effective, non invasive approach to 'meaningful pain relief.[8]

One of the complementary therapy methods to reduce pain is foot and hand massage. Massage is a systematic and rhythmic form of touch, using certain manipulations of the soft tissues of the body in order to promote patients' comfort, well-being and pain relief. Foot and hand massage stimulates the nerve fibbers to produce pain-relieving endorphins. Since the highest concentration of pain receptors are in the hands and feet (each of the extremities has more than 7,000 nerve endings), foot and hand massage and neurons' stimulation may be a good technique for assuaging pain after caesarean section.[9]

CONCLUSION

The aim of the present study is to assess the effectiveness of self instructional module on hand and foot massage on pain among post caesarean mothers in selected hospitals at Bhopal (M.P.).

Comparison of pretest and post test pain score among post caesarean mothers in the control group. with overall mean score, standard deviation and its of level of significance.The mean pre-test score of level of pain during the first observation on 2nd day was 6.53. There was decrease in the mean post-test level of pain score from the 2nd to 5th day to 5.93. It is concluded that there was a significant reduction in the mean post test level of pain score. Hence the hypothesis H1 are accepted.

in experimental group the pre test mean score is 6.13±0.4 and mean percentage is 4.0%, whereas in post test mean score is 0.75±5.20 and mean percentage is 52. In control group the pre test mean score is 6.53±0.40 and mean percentage is 4, whereas in post test score is 5.93±5.20 and mean percentage is 52. Mean difference value in experimental group is higher than in control group. It reveals that the post caesarean mothers in experimental group have reduction in pain when compare to control group. Hence the hypothesis H1 is accepted.

Pre test & post test association of level of pain among post cesarean mothers showed that there is no any statistically significant association between the level of breast engorgement and their selected demographic variables. Hence the hypothesis H2 is not accepted.

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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

REDVET - Revista electrónica de Veterinaria - ISSN 1695-7504
Vol 25, No. 1 (2024)
http://www.veterinaria.org
Article Received: 16.09.2024 Revised: 20.09.2024 Accepted :25.09.2024

REFERENCES

1. Yunitasari E. The effectiveness of hand massage, foot massage and combination on pain intensity of post sectio caesarea. Impact: international journal of research in applied. 2018 sep; 6(9):39-49.
2. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8026747/ dated 23/05/2023.
3. Appropriate technology for birth. Lancet. 1985;2(8452):436-7.
4. https://www.who.int/news/item/16-06-2021-caesarean-section-rates-continue-to-rise-amid-growing-inequalities-in-access - dated 23/05/2023
5. Lowdermilk, perry, cashion, Alden. Maternity and womens Health Care: 8th ed. Philadelphia: Mosby; 1997
6. Niven RB,Gohar IE. Effect of foot reflexology on post-cesarean pain. IOSR journal of nursing and health science (IOSR-JNHS). 2018 jul.-aug.;7(4):1-19.
7. Dutta, D. C. (2018). *Text book of gynaecology including perinatology* andContraception. (9 thed). Kolkatta: New central book agency (p) Ltd.
8. Dutta, D. C. (2018). *Text book of obstetrics.* (5 thed). Calcutta: New central bookagency.
9. Fawcett Jacquiline, (1989). *Analysis and evaluation of conceptual Model ofNursing.* Philadelphia: F.A. Davis.