EFFECTIVENESS OF SACRAL HOT APPLICATION ON PAIN PERCEPTION DURING FIRST STAGE OF LABOUR AMONG PRIMI PARTURIENTS

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ABSTRACT

A quasi experimental study was carried out in Saravana Hospital Cuddalore to assess the effectiveness of sacral hot application on pain perception during first stage of labour among primi parturients.A total of sixty sample was selected by using Non-probability convenient sampling technique and the sample was equally divided into experimental group and control group. The sacral hot application was administered for experimental group twenty minutes intermittently with one hour interval and control group was received normal routine care.Data was collected before and after intervention by using structured interview containing demographic variables and obstetrical variables and numerical pain rating scale.The post test was assessed

using same pain rating scale.The study results revealed that the comparison of pre and post test mean score in the experimental group and control group.The pretest mean score in the experimental group was 7.93 whereas in control group it was 7.87.The post test mean score in the experimental group was reduced to 6.63 whereas in control group it was 7.77. The obtained pretest "t" value was 0.263 and post test "t" value was 3.777 .Therefore the study concluded that the sacral hot application was showing highly effective in labour process.

Key words : Effectiveness,Hot application, Primi parturients,First stage labour,Labour pain.

INTRODUCTION:

Pregnancy is a special gift for women. The labour and child process is an active situation to the women and her family. The time of labour and birth though short in comparison with the length of pregnancy, is the most dramatic and significant period of pregnancy for the expectant women.Most women think that pain is going to be a major part of giving birth. Health professionals can help to reduce women's fears by giving precise, accurate and relevant information before hand and explaining what pain relief will be available and helpful at the place where the women will be in labor.

STATEMENT OF THE PROBLEM:

A quasi experimental study to assess the effectiveness of sacral hot application on pain perception during the first stage of labour among primi parturients at Saravana Hospital, Cuddalore.

OBJECTIVES:

1. To assess the pre test and post test level of pain on sacral area among primi parturients in first stage of labour in experimental group and control group,

2. To determine the effectiveness of sacral hot application on pain in sacral area among primi parturients in first stage of labour in experimental group.

3. To associate pre test level of pain with selected demographic and clinical variables in experimental group and control group.

HYPOTHESES

H1: There is significant difference in level of pain between pre and post test in experimental and control group among primi parturients.

H2: There is significant association between the pre test level of pain in experimental group and control group among primi parturients with selected demographic and clinical variables.

METHODS AND MATERIALS

Research Approach: Quantitative approach.

Design: Quasi experimental approach with non-randomized control group design was adopted

Population: Primi parturients with first stage labour

Sample: primi parturients with inclusive criteria

Sampling technique and size: Non probability convenient sampling technique was used to select sixty (60) primi parturients. divided into two groups 30 experimental and 30 in control group.

Tools: Structured questionnaire which consisted of two sections. Section I(A) with demographic variable, Section I (B) with obstetrical variables and Section II consists numerical pain rating scale.

Reliability: Reliability of the tool was tested by used inter rated reliability method

(r value is =0.87).

Data collection: Final study was conducted for 8 weeks in saravana hospital cuddalore. Hot application administered for experimental group with 20 minutes intermittently with one hour interval.and routine care for control group was given. Collected data was analyzed after coding by using descriptive and inferential statics is terms of frequency, percentage, mean, standard deviation 't' value and chi-square.

MAJOR FINDING'S AND DISCUSSION

SEC 1 (A) Findings related to Demographic variables

In experimental group, majority 16 (53.33%) were in the age group of 22-25, 17(56.67%) were completed graduate education,15(50.00%) were homemaker,18(60.00%)were belongs to Hindu religion, 15(50.00%) had monthly

income of 5001-10000, 21(70.00%) were in nuclear family,16(53.33%) were residing in urban area,26(86.67%)had no history of previous surgery.Where as in control group, majority 15(50.00%) were in the age group of 22-25, 15(50.00%) were completed graduate education, 17(56.67%) were homemakers, 12 (40.00%) were belongs to Hindu religion, 16 (53.33%) had monthly income of 5001-10000, 18 (60.00%) were in nuclear family,20(66.67%) were residing in urban area.22(73.33%)had no history of previous surgery.

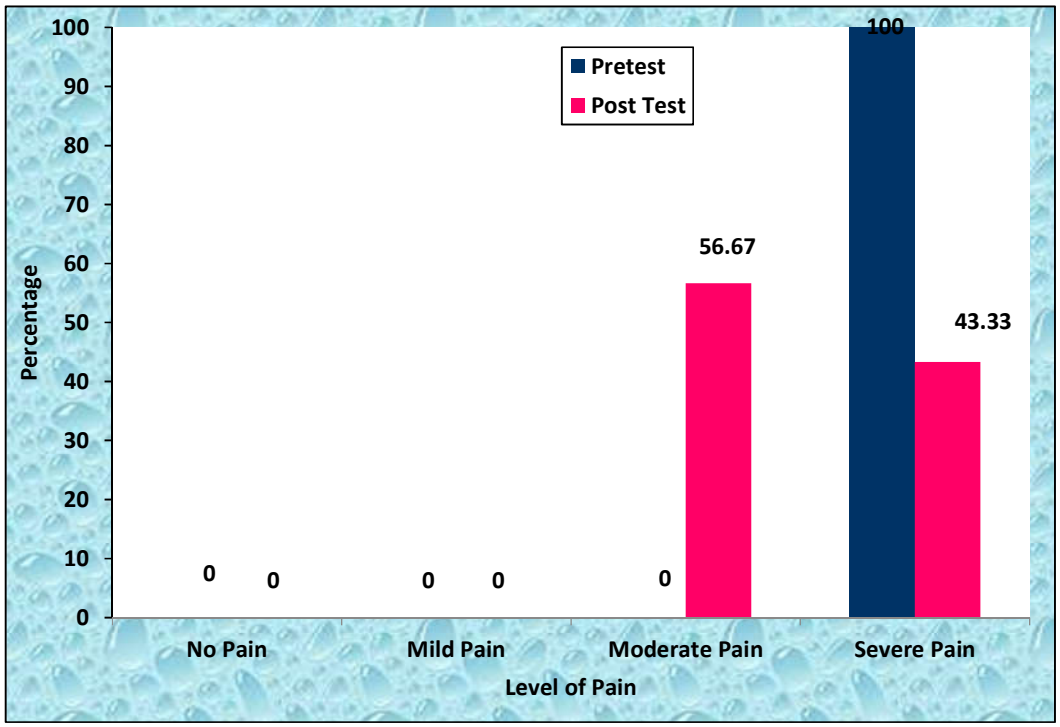
SEC I (B): Findings related to Clinical variables:

Majority in experimental group, 25 (83.33%) attended their puberty in the age of below 15 years, 16 (53.33%) were in the age group of 22-25 for their age at marriage, 19 (63.33%) were had non consanguineous marriage, 14 (46.67%) were had gestational age of 39 weeks,Where as in control group,26 (86.67%) attend their puberty in the age of below 15 years,15 (50.00%) were in the age group of 22-25 for their age at marriage,17 (56.67%) were had non consanguineous marriage,13 (43.33%) were had gestational age of 38 weeks

SEC II (A): Analysis on pre test level of pain primi parturients in experimental and control group:

In experimental group the pretest score out of 30 samples, 30 (100%) had severe pain during first stage of labour none of them had moderate ,mild and no pain. whereas in control group the pre test score out of 30 samples,30(100%) had severe pain during first stage of labour none of them had moderate, mild and no pain.

SEC II (B):Analysis of pre test and post test level of pain among primi parturients in experimental group:



The diagram shows that in experimental group the post test score out of 30 samples,17(56.67%) had moderate pain,13(43.33%) had severe pain, and none of them had mild and no pain.

SEC II (C): Comparison of level of pain in pre and post test of experimental and control group: **n = 60(30+30)**

Variables	Experimental		Control		Mean Difference Score & %	Student Independent 't' test Value
	Mean	S.D	Mean	S.D		
Pretest	7.93	0.74	7.87	0.68	0.06 (0.6%)	t = 0.263 p = 0.718, N.S
Post Test	6.63	1.49	7.77	0.68	1.13 (11.3%)	**t = 3.777 p = 0.001, S*** **

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

The table shows that in the experimental group, the pretest mean score of pain was 7.93±0.74 and the pre test mean score of pain in the control group was 7.87±0.68. The

mean difference score was 0.06 i.e., 0.6%. The calculated student independent 't' test value of t = 0.263 was not found to be statistically significant.The table also depicts that in the experimental group, the post test mean score of pain was 7.87±0.68 and the post test mean score of pain in the control group was 7.77±0.68. The mean difference score was 1.13 i.e., 11.3%. The calculated student independent 't' test value of t = 3.777 was found to be statistically high significant at p≤0.001 level.

SEC III (A): Effectiveness of sacral hot application in experimental group:

(n=30)

Group	Pretest		Post Test		Mean Difference %	Paired 't' test Value
	Mean	S.D	Mean	S.D		
Experimental group	7.93	0.74	6.63	1.49	1.30 (13%)	**t = 5.204 p = 0.0001, S*****

The table shows that in the experimental group, the pretest mean score of pain was 7.93±0.74 and the post test mean score was 6.63±1.49. The mean difference score was 1.30 i.e., 13%. The calculated pairted 't' test value of t = 5.204 was found to be statistically highly significant at p<0.001 level. From the above findings it is clearly indicated that sacaral hot application on pain administered to primi parturients was found to be effective in reducing the level of pain perception during first stage of labour among primi parturients in the experimental group.

SEC IV (A):Association of pretest level of pain during first stage of labour among primi parturients with their selected demographic variables in the experimental group.

(n = 30)

Demographic Variables	Moderate Pain		Severe Pain		Chi-Square Value
	No.	%	No.	%	
Age in years					χ^2=3.155 d.f=3 p = 0.368 N.S
18 – 21 years	0	0	5	16.7	
22 – 25 years	5	16.7	11	36.7	
26 – 29 years	2	6.7	2	6.7	
Above 30 years	2	6.7	3	10.0	
Educational status					χ^2=1.765 d.f=3 p = 0.623 N.S
Illiterate	0	0	3	10.0	
Primary	2	6.7	3	10.0	
Secondary	2	6.7	3	10.0	
Graduate	5	16.7	12	40.0	
Type of family					**χ^2=7.778 d.f=2 p = 0.020 S***
Nuclear	4	13.3	17	56.7	
Joint	5	16.7	2	6.7	
Extended family	0	0	2	6.7	
History of previous surgery					χ^2=0.055 d.f=1 p = 0.815 N.S
Yes	1	3.3	3	10.0	
No	8	26.7	18	60.0	

The table shows that in the demographic variable type of family had shown statistically significant association with pretest level of pain during first stage of labour among primi parturients at p<0.02 level and the other demographic variables had not shown statistically significant association with pretest level of pain during first stage of labour among primi parturients in the experimental group.

SEC IV (B):Association of pre test level of pain in control group

None of the demographic variables had not shown statistically significant association with pretest level of pain during first stage of labour in control group.

SEC IV (C):Association of pre test level of pain during first stage of labour among primi parturients with their selected obstetrical variables in the experimental and control group.

None of obstetrical variables had not shown statistically significant association with pretest level of pain during first stage of labour in experimental group and control group.

CONCLUSION :

labour pain is the most important causes of women to avoid delivering in a natural way worldwide and by this is a reason many mothers in the modern society have an option of cesarean section.So it is responsibility of health care professional to give effective control of reducing labour pain during process of labour.The data revealed that hot application had positive impact and found to be effective in reducing labour pain in the experimental group.The study concluded that sacral hot application was effective and safe in reducing labour pain during first stage of labour.

RECOMMENDATION:

The study recommended the following for further research:

1. The same study can be implement to large samples
2. The comparative study can be planned for the labour outcome.
3. The same study can be conducted among multigravida mother during first stage of labour
4. Duration of the intervention can be increased for better result.
5. Comparative study can be assessed with other non pharmacological therapy of pain relief along with other therapeutic measures of pain.

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