

A STUDY TO ASSESS THE EFFECTIVENESS OF ICE MASSAGE TO REDUCE LABOUR PAIN AMONG PARTURIENT WOMEN ADMITTED IN LABOUR ROOM IN A SELECTED HOSPITAL IN KANYAKUMARI DISTRICT

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ABSTRACT

A study was done to determine effectiveness of ice massage on labour pain among parturient women admitted in Labour Room in a selected hospital in Kanyakumari District using "McGill Pain Questionnaire". Total of 40 parturient mothers were selected for the study in which 20 were in the experimental group. The pain was assessed using McGill pain questionnaire. Pain scores between experimental and control groups were found to be statistically significant; $P > 0.05$. There was a significant association between selected demographic variables like age and education with level of pain; $\chi^2 = 0.0978$ and $\chi^2 = 0.879$ at $p > 0.05$.

Key Words: Labour pain, Ice Massage, Parturient Women

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INTRODUCTION

“Child birth is amore admirable than conquest, more amazing than self–defence and as courageous as either one”. – Gloria Steinem

Darin J. Ingels, ND states many women are hesitant about using narcotic or epidural pain therapy due to concerns over whether their child will be adversely affected or about the way they will feel during delivery. Access to this medication is limited or not available at all, in many third world countries.

The advancement of technological improvements has proved the efficacy of life saving procedure in obstetrics. Even though the comfort measures like ice massage and other therapies will ensure safe confinement. Thus this study will enlighten the importance of ice massage to reduce labour pain.

METHODS & MATERIALS

After obtaining verbal and written informed consent ice massage was started at the initiation of the next contraction. Approximately one- third cup of crushed ice was placed in the centre of a soft, thin terry wash cloth, and the four corners of the washcloth were lifted to the centre and twisted to make a small ice bag. The ice bag fit snugly between the thumb and the fore finger. To ensure that cold was applied only to the skin of the palm, the ice bag was placed on the medial (palm side) aspect of the hand. The massage was stopped when contraction ended and restarted when the next contraction began.

PROCEDURE FOR DATA COLLECTION

Mothers admitted in the labour room for safe confinement were selected on the basis of their meeting the study criteria; consent was obtained from the mothers. Demographic characteristics were collected in the labour room. The study subjects were collected for experimental and control group on alternate dates. After 3 cm dilation at each contraction, the ice massage was given for 30 minutes. After 30 minutes the level of pain was assessed by using the McGill pain Questionnaire.

The data analysis was planned to include both descriptive and inferential statistics. The following plan of analysis was done based on the objects and hypotheses of the study. The data related demographic variables were analysed using frequency percentage, bar diagram, mean, SD. The data on post intervention assessment scores were analysed within group using paired ‘t’ test.

SECTION A: EFFECT OF ICE MASSAGE TO REDUCE LABOUR PAIN AMONG PARTURIENT MOTHERS

Table 1: Comparison of post test mean pain score of Experimental and Control Group

	Experimental Group No 20	Control Group No 20	‘t’ Values
	Post Test	Post Test	
Mean	15.90	20.90	t= 5.53
SD	2.77	2.45	P<0.001

The post test mean scores of both groups were compared and “t” test was applied to test the difference between the pain scores. The observed mean post test scores between experimental and control group was found to be extremely statistically significant (t = 5.53 p < 0.001)

The above inference clearly demonstrates that ice massage can reduce labour pain effectively.

Table 2: Association between the level of labour pain and age group of parturient mothers

Pain Level	Age		Total	x ²
	<25	>25		
Below Median	5	7	12	x ² = 0.075
Above Median	3	5	8	p> 0.05
Total	8	12	20	

The association between the age and pain score was studied and Table 2 reveals that there is no significant relationship in the age and pain score of the experimental mothers. The above inference illustrates that age does not play any significant role in reduction of labour pain.

Table 3: Association between level of labour pain and paras of parturient mother

N=20

Pain Level	Para1	Multi	Total	
Below Median	2	8	10	$\chi^2 = 0.879$
Above Median	5	5	10	$P > 0.05$
Total	7	13	20	

To study if the paras of the mothers had any association with the pain, data, was analysed and tabulated in Table 3. The results revealed that there is no significant difference between paras and pain score of experimental subjects.

RESULTS AND DISCUSSION

The aim of the present study was to assess the effect of ice massage amongst the parturient mothers selected for the study, numbered 20 for experimental group and 20 for control group. The post test was conducted for both the groups by using McGill pain Questionnaire. This study proved that ice massage had brought about excellent reduction of pain in the experimental group.

The first objective of the study was to assess the effect of ice massage on labour pain among parturient women. In pursuance to the above objective the experimental group mothers were given Ice massage. The control group mothers were not given Ice massage.

The table 1 showed that the mean post test scores between experimental and control groups were also found to be statistically significant ($t = 5.53$) ($P < 0.001$). This shows that the overall pain level decreased after applying ice massage in the experimental group. The control group had no change with post test score.

This research finding is congruent with the study findings given in the midwifery and women's health manual (2003), which stressed the importance of ice massage therapy on parturient mother, to reduce the level of pain during the first stage.

Centennial College Center for Applied Research in Health explained massage and its effect on pregnancy. The results of this study indicates that massage therapy reduces stress and pain during labour in experimental group ($p < 0.001$); control group ($p > 0.05$)

Mei-Yuch Chang, (2002) explained the effect of massage on pain and anxiety during labour. This study result showed massage therapy is a cost-effective method to decrease pain and anxiety during labour.

The second objective of the study was to find out association between the levels of pain with demographic variables. The total pain score with age ($\chi^2 = 0.098$) shows no association between age and level of pain. The total pain score with education level of the mother ($\chi^2 = 0.879$) shows no association between para and level of pain. This result is supported by the study conducted by **Mc Crea, et al (1999)** which explained about the satisfaction in child birth and perception of personal control in pain relief during labour. The mean age of primigravida was 25.6 years and the multigravida mean age was 29.5 years. This study concluded that many factors influence an individual's feeling of personal control and pain relief.

While testing the hypotheses statistically, the following hypothesis is statistically accepted and that is *"there will be a significant difference in pain level between experimental and control group"*

In respect of the second research hypothesis, it was tested by taking statistical null hypothesis. The null statistical hypothesis being accepted statistically is as follows. *"There is no association between selected demographic variables and levels of pain"*.

CONCLUSION

The study results suggest that ice is a safe, non-invasive, non-pharmacological method of reducing labour pain.

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