



# **A Study To Assess The Effectiveness Of Warm Compress On Lumbar And Sacral Region On Pain Perception During Active First Stage Of Labour Among Primigravida Mother In Labour Room In A Selected Hospital, Dehradun.**

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**Abstract:** A Quasi-experimental non randomized control group design was adopted to accomplish the objectives. The data was collected from 60 participants in labour room at shri mahant Indiresh hospital, Dehradun using non probability convenience sampling technique. Out of 60 participants 30 were included in experimental group and 30 in control group The pretest and post-test score of participants was carried out using the Numerical pain intensity scale. The conceptual framework used for this study is based on Adapted-Katharine kolcaba's comfort theory of pain developed in the year 1990. A pilot study was conducted. The reliability of tool was established (0.95). The obtained data were analyzed and interpreted using descriptive and inferential statistics.

## **INTRODUCTION**

Childbirth is a painful experience for almost all women. The pain experienced during labour has multiple physiological and psychosocial dimensions and its intensity can vary greatly from one woman to another. Labour pain involves complex neuro behavioral responses to allogeneic stimuli and provides a personal and unique experience to individual women. The cause-effect relationship in labour pain does not always correspond to a clinical response; what matters is to understand the pain felt by the pregnant woman and to provide pain relief.

## **STATEMENT OF THE PROBLEM**

A study to assess the effectiveness of warm compress on lumbar and sacral region on pain perception during active first stage of labour among primigravida mother in labour room in a selected hospital, Dehradun

## **OBJECTIVES OF THE STUDY**

- To assess the pretest and post-test level of labour pain among primigravida mother during active first stage of labour in experimental and control group.
- To evaluate the effectiveness of warm compress in lumbar and sacral region on pain perception during first stage of labour among primigravida in experimental group.

- To find out the association of post-test level of labor pain scores of primigravida mothers during active first stage of labour with their selected demographic variables in the experimental and control group.

## OPERATIONAL DEFINITIONS

### Effectiveness

It refers to the significant reduction in level of labour pain in response to warm compress as determined by the differences between pre-test and post-test scores.

### Warm compress

It is the compress given in the sacrum area with hot water bag covered with towel temperature between 103°F and 105°F for 15 minutes duration for every half an-hour interval during active first stage of labour.

### Sacral region

The sacral region (sacrum) is at the bottom of the spine and lies between the fifth segment of the lumbar spine (L5) and the coccyx (tailbone)

### Pain perception

Pain is an unpleasant physical sensation, due to uterine contractions and other physiological changes in normal labor.

### Active first stage of labour

It refers to the active and transitional phase of labour, which starts from 4cm dilatation and ends with 10cm dilatation of the cervix.

### Primigravida

The woman who has conceived for the first time.

## DELIMITATIONS

The study is delimited to

- 4 weeks of data collection
- 60 samples only.
- Assessment of level of labour pain was limited to 1st stage of labour.

## METHODOLOGY

### RESEARCH DESIGN: Quasiexperimental design

## SETTING OF THE STUDY

It is important for the researcher to consider the setting in which the experiment is conducted. This study was conducted in the Shri Mahant Indresh Hospital in Dehradun

## VARIABLES

The two categories of variables included were:

**Independent variable:** Warm Compression

**Dependent variable:** Labor Pain

## POPULATION

**Target population:** refers to the population that researcher would make generalization. In this study the target population were the primigravida mothers with first stage of labor above 37 weeks with cervical dilatation 4 cm.

**Accessible population:** were the primigravida mother with first stage of labor above 37 weeks with 4cm cervical dilatation who are available during the period of data collection at SMIH, Dehradun.

## SAMPLING TECHNIQUE

The sampling technique used for this study was non-probability convenient sampling technique. During the data collection period, approximately 3-5 mothers per day were admitted in the labor room. The researcher visited the labor room and enquired labor room staff and verified with the admission register every day for new admission of primigravida mothers for delivery. Convenient sampling techniques were used to draw the samples, and primigravida mothers who fulfilled the inclusion criteria were included in this study. Totally 60 primigravida mothers were selected. Out of 60 primigravida mothers 30 of them were in experimental group and 30 of them in control group.

## SAMPLING CRITERIA

### Inclusion criteria

Primigravida mothers –

- Who were with above 37 weeks of gestation.
- Who were in the first stage of labour with cervical dilatation of 4cm.
- Who were willing to participate in the study.
- Who are able to understand Hindi and / or English.

### Exclusion criteria:

Mothers-

- Who are in second and third stage of labor
- With malpresentation and position
- With high-risk pregnancy
- Who were multi gravida

## DESCRIPTION OF TOOL

Tool for data collection were divided into two sections

### Section A: Demographic Data

Demographic data consisted of seven items. It includes Age, occupation, educational status, week of pregnancy, area of living, presentation of fetus and onset of labour.

### Section B: Numerical Pain Intensity Scale

Numerical Pain Intensity Scale was used to assess the level of pain during first stage of labor among primigravida mothers. Numerical pain intensity scale is a straight line which has points ranging from 0 to 10.

## SCORING PROCEDURE

### NUMERICAL PAIN INTENSITY SCALE

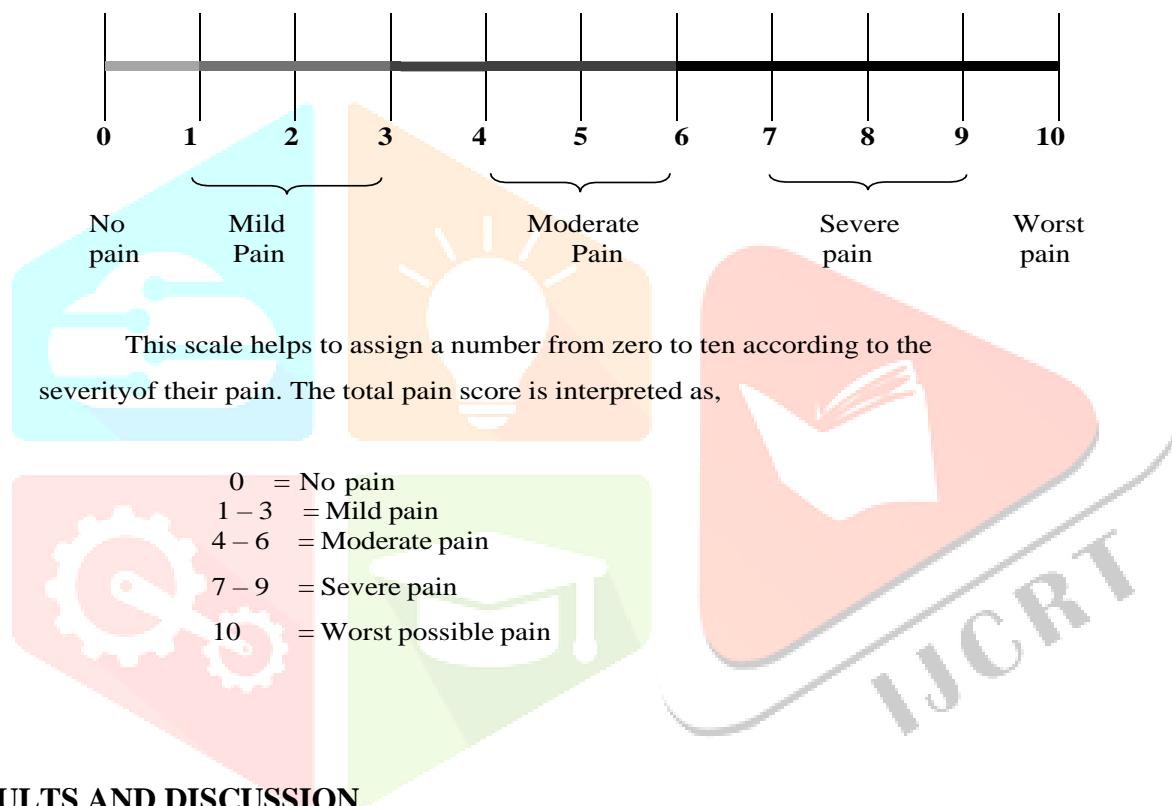
#### Instruction to the participants

The Numerical Pain Intensity Scale shown to the participants before and after intervention by the investigator to evaluate the intensity of labour pain.

#### DESCRIPTION OF TOOL

Section-B consists of Numerical Pain Intensity Scale to assess the level of labour pain.

#### 0 – 10 Numerical Pain Intensity Scale (American Pain Society)



## RESULTS AND DISCUSSION

In this study 19 (63.3%) of primigravida mothers in experimental group and 21 (70%) in the control group were in the age group between 26-32 years. With regard to educational status, 14 (46.6%) of the primigravida mothers in the experimental group and 17 (56.6%) in the control group were studied up to secondary education. According to occupation, 20 (66.6%) of the primigravida mothers in the experimental group and 18 (60%) in the control group were unemployed. Regarding gestational age, 24 (80%) of the primigravida mothers in the experimental group and 16 (53.3%) in the control group were 37-38 weeks of gestational age. With regard of residence, 18 (60%) of the primigravida mothers in the experimental group and 19 (63.3%) in the control group were living in rural. In view of presentation of fetus, 30 (100%) of the primigravida mothers both in the experimental and in the control, group were cephalic presentation. In view of Onset of labour, 16(53.3%) of the primigravida mothers in the experimental group and 13 (43.3%) in the control group were in the spontaneous onset of labour. The result showed that there was no significant difference between both the groups at base line pain score whereas there was significant difference between both the groups at after 45 minutes, after 90 minutes, after 135 minutes and after 180 minutes.

## CONCLUSION

The study concluded that warm compression was effective during active first stage of labour and was a way effective study.

## RECOMMENDATIONS

On the basis of the findings of the study the following recommendations are offered for future research:

- The experimental study can be conducted in various hospital settings with large samples for better generalization.
- The duration of the study can also be extending for the better result.
- A similar study can be conducted on multigravida women in labour.
- A comparative study can be undertaken to evaluate the outcome of labour.
- A comparative study can be conducted with other non-pharmacological measures of labour pain relief.

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