

# “A STUDY TO ASSESS THE EFFECTIVENESS OF AMBULATION DURING THE FIRST STAGE OF LABOR ON INTENSITY OF LABOUR PAIN AND DURATION OF FIRST STAGE OF LABOUR AMONG THE PRIMIGRAVIDA MOTHERS AT SELECTED HOSPITALS OF KHEDA-ANAND DISTRICT, GUJARAT”

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## ABSTRACT

The investigators conducted a study to assess the effectiveness of ambulation during the first stage of labor on intensity of labour pain and duration of first stage of labour among the primigravida mother at selected hospitals of Kheda-Anand District, Gujarat.” The main objectives of the study were: (1) To assess the effectiveness of ambulation on intensity of labour pain and duration of first stage of labour among experimental and control group. (2) To compare the effectiveness of ambulation on intensity of labour pain and duration of first stage of labour among experimental and control group. (3) To find out the association between intensity of labour pain & the duration of the first stage of labour and selected demographic variables in experimental group. A Quasi experimental research approach was used with Non-Equivalent Control Group Post- Test-Only Design. The researcher used purposive sampling technique for selecting the 30 samples. Wong Baker faces pain rating scale and Partograph were used to assess the intensity of labour pain and duration of first stage of labour respectively. Validity was assessed by 7 experts. Reliability of the Wong Baker faces pain rating scale and Partograph were ascertained by using Karl Pearson’s correlation coefficient formula. The Effectiveness of ambulation on intensity of labour pain and duration of first stage of labor was assessed between the experimental group and control group. The data will be analyzed by descriptive statistics such as Mean, Standard deviation, Frequency, Percentage. The Mean score of effectiveness of ambulation on intensity of labour pain and Duration of first stage of labour was higher in experimental group than the control group. It Was revealed that there was significant difference between the experimental group and control group, For comparison of effectiveness of ambulation on intensity of labour pain and duration of first stage of labour in that mean score was higher and calculated “t” test value is 4.40 which is greater than the tabulated value 1.96. So, that the research hypothesis is accepted and proved that there will be significant association between the intensity of labour pain and duration of first stage of labour between the experimental and control group. Descriptive and inferential statistics used to analyze the data. The findings of the study revealed that there was significant association between the intensity of labour pain and duration of first stage of labour with selected demographic variables.

**KEYWORDS:** AMBULATION, LABOUR, PARTOGRAPH, WHO, DF, SD, N, G, U

## INTRODUCTION:-

**“It is said that women in labour leave their bodies, They travel to the stars to collect the soul of their babies, and return to this world together”**

Woman is female human being, a very unique creation of God. Women is expected to be the strongest survivor, as only a woman has an ability to give birth, an ability to give life. For this, women has to come across a very complex life style, from maturation to menstruation and to pregnancy till a child birth and until menopause and much more physiological changes till death. pregnancy brings a drastic change in women’s life as she experience various changes going on in her body also she experience a great pleasure of a new life growing inside her body which is about to come. After pregnancy comes labour, Labour is the process where different changes takes in the genital organs for the expulsion of the baby. Time consumed during the labour is called the duration of labour. The duration of labour is approximately 12 to 14 hours in primigravida mothers and 6 to 8 in multigravida mothers. Labour is considered to be the

most crucial phase, as the women has to put a lot of efforts into it for the expulsion and has to go under or bear a huge amount of pain for the delivery, if talking about the normal vaginal delivery. true labour pain, here the contractions are originated from the uterine fundus and it is usually extended down towards the cervix. The contractions lead to severe pain in women, beyond the tolerance.

Observational studies have suggested that if women lie on their back during labour this may have adverse effect on uterine contraction and impede progress in labour and in some women also reduces the placental flow. So mobility or ambulation during the first stage of labour can reduce the above risk. Ambulation is referred as travelling by the foot step for the basis of the study. And ambulation during the first stage of labour in precise has a greater range of benefits to the mother as it effect the duration of the labour and also on the intensity of the pain as to be expected. Ambulation is a safe, simple and effective method that does not require any equipment or machinery or even prior preparations in the antenatal period. ambulation during first stage of labour indicates the lesser use of medications, it also leads to the lesser need to opt the surgical intervention for the delivery. And thus, this how the ambulation given during the first stage of labour helps in the better delivery.

## NEED OF THE STUDY

**“Ambulation in labour should be encouraged, it may bring human benefits and maternal benefits.”**

Ambulation during the labour nowadays becoming more popular, people are getting more aware regarding the health of mother. Ambulation is referred as walking and travelling by the footsteps. And walking and ambulating during the first stage of labour reduces the patient’s discomfort. Although it provides the birthing women with the freedom to move or walk about and assume the positions of her own choice during the labour. Freedom of movement during the labour appears to facilitate the progress of labour and enhance the childbirth satisfaction through restricting of the women’s movement may have adverse effect. No evidence of harm is being harm for the freedom to ambulate, move out, or change the position during the labour and when restriction is not required to correct the complication.

**According to TIMES OF INDIA**, the reason for 95% of caesarean deliveries is the health complication caused by the sedentary lifestyles and lack of mobility during pregnancy. In many houses the family member pampers the women during the pregnancy and do not even allow them to do a small physical activity. Parents and husband should encourage the women to take up at least small work or keep mobility during the pregnancy.

## OBJECTIVES

- 1) To assess the effectiveness of ambulation on intensity of labour pain among experimental and control group.
- 2) To assess the effectiveness of ambulation on duration of first stage of labour among experimental and control group.
- 3) To compare the effectiveness of ambulation on intensity of labour pain and duration of first stage of labour among experimental and control group.
- 4) To find out the association between intensity of labour pain and selected demographic variables in experimental group.
- 5) To find out the association between the duration of the first stage of labour and selected demographic variables in experimental group.

## HYPOTHESES

- **H<sub>1</sub>**- There will be significant difference between the ambulation on the intensity of labour pain in experimental group at 0.05 level of significant after administration of Wong Baker faces pain rating scale.
- **H<sub>2</sub>**- There will be significant difference between the ambulation on duration of the first stage of labour in experimental group at 0.05 level of significant after administration of partograph.
- **H<sub>3</sub>**- there will be significant association between the intensity of labour pain and Duration of first stage of labour among the experimental and control group.
- **H<sub>4</sub>** -There will be significant association between intensity of labour pain and selected demographic variables in experimental group at 0.05 level of significant.
- **H<sub>5</sub>**- There will be significant association between duration of the first stage of labour and selected demographic variables in experimental group at 0.05 level of significant.

## MATERIAL AND METHODS

- **Research approach:** Quantitative approach.
- **Research design:** quasi-experimental research approach, Non-Equivalent control group post-test-only design,
- **Target population:** Primigravida mothers of selected hospital of Kheda-Anand district, Gujarat
- **Accessible population:** primigravida mothers with the 3-5 cm dilation of cervix.
- **Sampling technique:** non probability purposive sampling technique
- **Sample size:** 30 primigravida mothers (15 experimental group and 15 control group)

- **Data collection tool:** Wong baker faces pain rating scale for intensity of labour pain & Who Stated Partograph to assess the duration of first stage of labour.
- **Data analysis:** Descriptive statistics and Inferential statistics
- **Criteria measure:** Intensity of labour pain & Duration of first stage of labour of primigravida mothers

## MAJOR FINDINGS OF THE STUDY

### Findings related to demographic variables of samples

In this study, Majority 08(26.66%) of the samples were in age group of 30-33 year. As per stream of education majority 09(30%) of the samples were from illiterate and primary education. In body mass index majority 10(33.33%) of the samples were from 25.0-29.0 kg/m<sup>2</sup> (moderate). 10(33.33%) samples were from labour work (heavy) in daily activity. In gestational period majority 09(30%) of the samples were from 36-38 weeks. In chorion amniotic membrane majority 16(53.33%) of the samples were of intact membrane.

### Findings related to Mean, Mean difference, Standard deviation (SD) and 't' test value of the effectiveness of ambulation on the intensity of the labour pain [N=30]

Intensity of labour pain	Mean	Mean difference	SD	Calculated 't' value	Table 't' value	DF
Experimental group	2.13	2.27	29.87	2.78	2.74	4
Control group	4.4		61.60			

The mean score for the experimental group is 2.13 and the mean score for the control group is 4.4. The mean difference between the experimental and control group score is 2.27. The table also shows that the standard deviation of experimental group is 29.87 and standard deviation of control group is 61.60. The calculated 't' value is 2.78 and the tabulated 't' value is 2.74 at 0.05 level of significance.

### Findings related to Mean, mean percentage, standard deviation (SD) and 't' value of the experimental and control group on duration of first stage of labour. [N=30]

Duration of first stage of labour	Mean	Mean difference	SD	Calculated 't' value	Table 't' value	DF
Experimental group	7.8	0.86	10.90	3.095	2.05	28
Control group	8.66		12.1			

The mean score for the experimental group is 7.8 and the mean score for the control group is 8.66. The mean difference between the experimental and control group score is 0.86. The table also shows that the standard deviation of experimental group is 10.90 and standard deviation of control group is 12.1. The calculated 't' value is 3.095 and the tabulated 't' value is 2.05 at 0.05 level of significance.

**Findings related to comparison of the effectiveness of ambulation on intensity of labour pain and duration of first stage of labour between the experimental and control group. .**

**Mann – Whitney U Test:**

[N=30]

VARIABLE	EXPERIMENTAL GROUP			CONTROL GROUP			MEAN	SD	Z CALCULATED VALUE	TABULATED VALUE
	R1	N1	U1	R3	N3	U3				
INTENSITY OF LABOUR PAIN							112.5	21.56	4.40	1.96
	39.5	15	305.5	28.5	15	316.5				
DURATION OF FIRST STAGE OF LABOUR	R2	N2	U2	R4	N4	U4	112.5	21.56	7.88	1.96
	137.5	15	207.5	62.5	15	282.5				

Mann Whitney U test, which is used to compare the effectiveness of ambulation among intensity of labour pain and duration of first stage of labour. In this test the calculated value of intensity of labour pain is 4.40 and for duration of first stage of labour is 7.88 which is greater than the tabulated value 1.96. so it was stated that there was association between the intensity of labour pain and duration of first stage of labour among primigravida mothers.

#### **Findings related to association between the experimental group scores on intensity of labor pain and selected demographic variables**

The Findings of the study revealed that there was significant association between the intensity of labour pain and demographic variables such as chorion amniotic membrane, the calculated  $X^2$  value 11.85 greater than tabulated  $X^2$  value 11.07 at 0.05 level of significance. It revealed that there was association between intensity of labour pain in experimental group and selected demographic variables

#### **Findings related to association between the experimental group scores on duration of first stage of labour and selected demographic variable**

The findings of the study revealed that there was no significant association between duration of first stage of labour and selected demographic variables. The calculated  $X^2$  values of the demographic variables was less than the tabulated  $X^2$  values of the demographic variable at 0.05 level of significant. It reveals that there was no significant association between the duration of first stage of labour and selected demographic variables in experimental group.

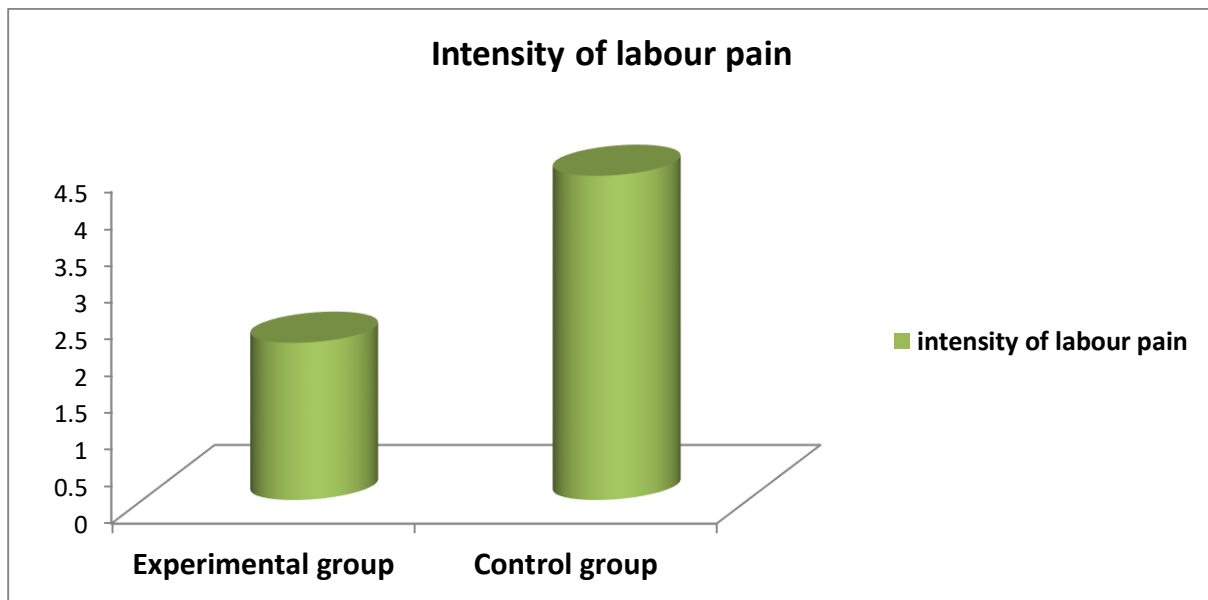


Figure 1 :Bar graph shows the intensity of labour pain among primigravida mothers

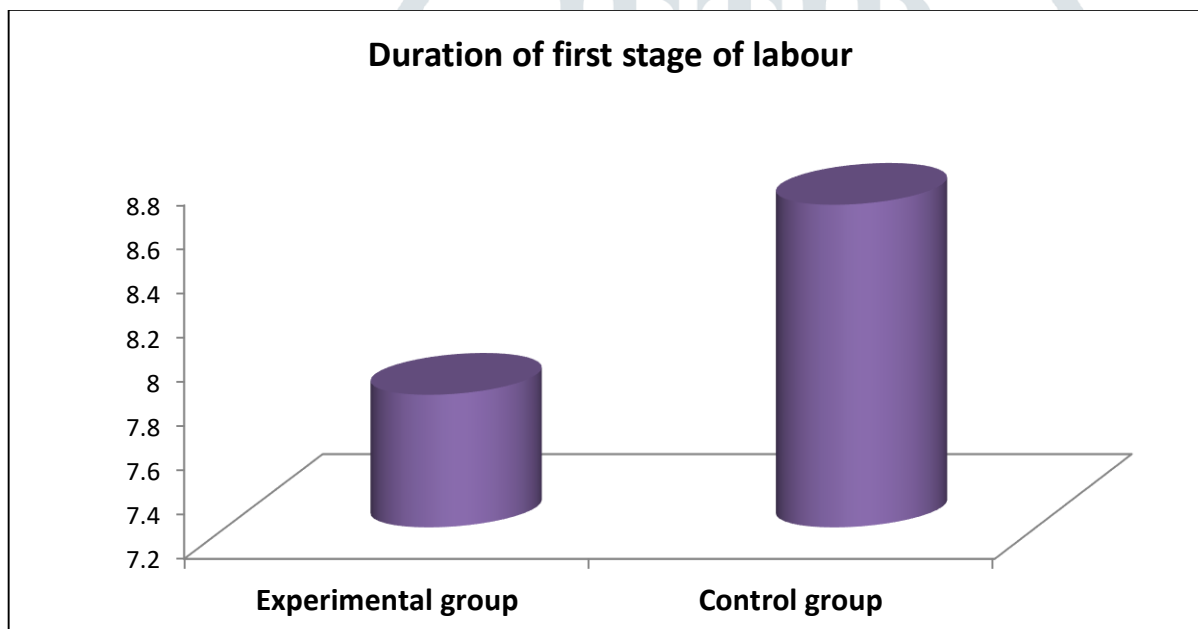


Figure 2: Bar graph shows the duration of first stage of labour among primigravida mothers

### Conclusion

The following conclusions can be drawn from the present study findings :-

It Was Concluded That Samples Intensity Of Labour Pain And Duration Of First Stage Of Labour After Implementation Of Ambulation On Primigravida Mothers In Selected Hospitals Of Kheda-Anand District,Gujarat. The Findings Indicated That Effectiveness Of Ambulation Reduced The Intensity Of Labour Pain And Shorten The Duration Of First Stage Of Labour Among Primigravida Mothers In The Selected Hospitals Of Kheda-Anand District, Gujarat.

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