

# EFFECTIVENESS OF JASMINE OIL MASSAGE ON REDUCTION OF LABOR PAIN AMONG PRIMIGRAVIDA MOTHERS

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## Abstract :

The study was conducted to assess the effectiveness of jasmine oil massage on labour pain during first stage of labour among 40 primigravida women. The study design adopted was true experimental approach with pre-test - post-test control group design. The demographic Proforma were collected from the women by interview and Visual analogue scale was used to measure the level of labour pain in both the groups. Data obtained in these areas were analysed by descriptive and inferential statistics. A significant difference was found in the experimental group ( $t_{cal}$  9.869,  $p < 0.05$ ). A significant difference was found between experimental group and control group. The pre-test ( $t_{cal}$  0.36,  $p > 0.05$ ) and the post-test ( $t_{cal}$  11.75,  $p < 0.05$ ). No significant association was found between the level of labour pain and demographic variables in the experimental group. In this study Jasmine oil massage proved to reduce first stage labour pain.

Keywords : Jasmine oil massage, labor pain, primigravida mothers, visual analogue scale

## Introduction :

Child birth is linked to the experience of pain. Labour pain is often described as the most intense pain ever experienced, and in many cases, it is the aspect of childbirth most feared by the expectant mother. The goal of eliminating labour pain is based on the assumption that pain inevitably equals suffering. Many pharmacological approaches are carried out to relive pain which causes deleterious effect on mother's and fetus health. Massage therapy is one of the most wonderful methods that can be used during labour with numerous physical and emotional benefits<sup>1</sup>. An aromatherapy massage given by partner or a member of birth team is a wonderful way to help the women to relax and soothe the pain of contractions. The oils help reduce friction on the skin at the same time as having therapeutic

benefits. Women who have experienced skilful massage during labour say that the massage was helpful and pain relieving.

Pain in labour is nearly universal experience for

child bearing women. Pain and its relief for women in labour has been a subject of interest since the dawn of mankind. Pain during childbirth is generally handled with pharmacological techniques. Complementary, non-pharmacologic methods of pain relief are a part of nursing practice that can be safely introduced in early labour<sup>2</sup>. Massage is one of the best non pharmacological therapy useful in labour. It has the potential benefits such as decreasing the intensity of pain, relieving the muscle spasm, promoting general relaxation and reducing anxiety<sup>1</sup>. A back massage is always comforting, particularly if the woman is experiencing back pain.

Jasmine oil is one of the essential oil used in labour. Jasmine's ability to reduce pain and spasms and increase contraction strength makes it one of the best essential oils for labour. Massage around the lower back with jasmine, clary sage, rose and lavender has been reported to provide subjective benefit in labour<sup>3</sup>. It stimulates the body to release endorphins, which are natural pain killing and mood lifting substances. Massage is hence recommended by child birth experts as it has been shown to ease pain and reduce anxiety in the first stage of labour and also linked

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with the shorter labours and a low risk for postpartum depression<sup>4</sup>.

The study findings are consistent with the findings of Karami N K, Safarzadeh A, Fathizadeh N (2009) who had conducted a study to evaluate the effect of massage therapy on severity of labour pain. The finding of the study shows that the pain severity at the first stage of labour was significantly different between the experiment group and the control group. At the start of active phase ( $p=0.009$ ), end of transitional phase ( $p=0.014$ ) and end of first stage ( $p=0.01$ ) in the experimental group<sup>5</sup>.

Most of the hospitals in the state of Mangalore do not implement any non-pharmacological therapy to reduce the pain or discomfort. Research studies revealed that non pharmacological measures like back massage is very effective in reducing the labour pain during first stage of labour and as use of oil makes massage easier to carry and more pleasant to receive. Thus the investigator felt the need and planned to give back massage with jasmine oil and assess its effectiveness on first stage labour pain among primigravida women.

#### Materials and Methods

The study design adopted was true experimental approach (pre test - post test control group design). Population comprised of primigravida mothers in the first stage of labour in selected hospitals at Mangalore. Purposive sampling technique was used for selection of 40 sample, and random allocation was adopted to assign 20 sample to experimental and, 20 sample to control group.

The information regarding the demographic Proforma were collected from the women by interview and Visual analogue scale (VAS) was used to measure the level of labour pain .Pre-test was done to assess the level of labour pain in both the groups using VAS. Thereafter primigravida women in the experimental group were given jasmine oil back massage for 10 minutes for 3 times at an interval of 30 minutes and primigravida women in the control group were given only normal labour care. Post-test was done in the experimental group after half an hour of the 3<sup>rd</sup>

massage and post-test was done in the control group after 2 hours of the pre-test. Data obtained in these areas were analysed by frequency percentage, paired t-test, independent t-test and fishers exact test.

#### Results:

The findings are discussed under the following headings.

#### SECTION 1: Demographic Characteristics of the Primigravida Women

Table 1: Distribution of samples according to demographic characteristics n=40

Demographic variables	experimental group n= 20		control group n=20	
	f	%	f	%
Age				
18-22years	11	55	9	45
22-26 years	8	40	9	45
26 -30years	1	5	2	10
Education				
Illiterate	-	-	-	-
Primary school	3	15	1	5
High school	6	30	3	15
PUC/Diploma	6	30	13	65
Graduate/ PG	5	25	3	15
Occupation				
Heavy worker	1	5	1	5
Moderate worker	4	20	2	10
Sedentary worker	6	30	9	45
Unemployed	9	45	8	40
Religion				
Hindu	9	45	12	60
Christian	3	15	1	5
Muslim	8	40	7	35
Attended Child Birth Education Classes				
Yes	6	30	7	35
No	14	70	13	65

#### SECTION 2: Clinical Data of the Primigravida Women

Table 2: Mean and standard deviation in relation to Fetal Heart Rate(FHR) , BP and Pulse

Clinical data	Experimental group				Control group			
	Pre-test		Post -test		Pre-test		Post- test	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
FHR	138.4	8.88	134.4	10.43	136.8	4.82	134.4	11.61
SBP	122.0	4.47	122.0	4.47	120.0	7.07	126.0	13.42
DBP	80.0	7.07	82.0	4.47	78.0	8.37	86.0	8.94
Pulse	82.4	5.18	84.4	5.90	77.2	5.59	80.4	2.61

### SECTION 3: Analysis of Subjective Pain Parameters of the Primigravida Women

The pre-test data shows that in experimental group, 5% (1) had mild level of pain, majority 80%(16) of primigravida women had moderate level of labour pain and 15%(3) had severe level of labour pain, and 0% had worst pain. Whereas in control group, 5 % (1) had mild pain and majority of primigravida women 75%(15) had moderate level of labour pain and 20%(4) had severe level of labour pain.

The post-test data shows that in experimental group, majority of primigravida women 70%(14) of primigravida women had mild level of labour pain, 30%(6) had moderate level of labour pain and 0% had worst pain. Whereas in control group, 15 % (3) had moderate pain and majority of primigravida women, 60 % (12) had severe level of labour pain and 25 % (5) had worst level of labour pain.

### SECTION 4 : Comparison of the Labour Pain Scores Within the Group and Between Experimental and Control Group

Table 3 : Comparison of VAS in experimental group using paired 't' test n= 20

	Mean	SD	Mean Difference	't' value	df	p-value
Pre-test	5.35	1.31	2.25	9.87*	19	0.001
Post-test	3.10	1.1				

\*significant p<0.05 table value (2.09)

Table 4 : Comparison of VAS between experimental group and control group using independent t test n=40

	Group	Mean	SD	Mean Difference	't' value	df	p-value
Pre-test	Experimental group n=20	5.35	1.31	0.15	0.36	38	0.72
	Control group n=20	5.20	1.32				
Post-test	Experimental group n=20	3.10	1.1	4.85	11.75*	38	0.001
	Control group n=20	7.95	1.5				

\* Significant p<0.05 table value (2.024)

### SECTION 5: Association Between Level of Labour Pain With Demographic Variables.

Table 5: Association between the level of labour pain using visual analogue pain score of experimental group with their demographic variables n=20

Variables	VAS		p-value
	Moderate	Severe	
Age in years			0.11 NS
18-22 years	6	1	
22-26 years	7	2	
26-30 years	3	0	0.29 NS
Education			
Primary school	2	1	
High school	5	1	
PUC/diploma	5	1	0.79 NS
Graduate/PG	4	0	
Occupation			0.79 NS
Heavy	1	0	
Moderate	3	0	
Sedentary	5	1	
unemployed	7	2	0.49 NS
Religion			
Hindu	8	0	
Christian	2	1	0.24 NS
Muslim	6	2	
Attended child birth education classes			0.24 NS
Yes	4	1	
No	12	2	NS- not significant

### Discussion :

In this study Jasmine oil massage proved to reduce first stage labour pain.

The study findings are consistent with the findings of Chandra T (2011) who had conducted a study to evaluate the effect of olive oil back massage therapy on labor pain during first stage of labor among primigravida women in selected hospital at Selam. Oil massage was given to all the mothers and the pain, was measured after massage and compared with pre-test value. The findings of the study shows that the mean of pain severity at the first stage of labour was significantly different between the experiment group and the control group. The result concluded that there was significant reduction of labour pain 't'= 8.88 which was significant at 0.01 level of significance<sup>6</sup>

#### Recommendations :

- | A similar study can be conducted in larger sample.
- | A similar study can be conducted among primigravida mothers in latent phase of labor
- | A comparative study can also be done between the effectiveness of various non pharmacological measures for labour pain .
- | A comparative study can also be conducted between primi and multi women in labour.
- | A study can be done to find the effectiveness of jasmine oil massage on cervical dilatation.

#### Conclusion :

Pain in labour is a nearly universal experience for child bearing women. Labor pain is a challenging issue for nurses designing observation protocols. The present study assessed the effectiveness of jasmine oil massage on reduction of labour pain during first stage of labor among primigravida mothers . Based on statistical findings, it is evident that the jasmine oil massage was effective in reducing level of first stage labour pain among primigravida women.

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