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**A STUDY TO ASSESS THE EFFECTIVENESS OF AROMATHERAPY ON LEVEL OF PAIN AND ANXIETY DURING FIRST STAGE OF LABOUR AMONG INTRANATAL MOTHERS ADMITTED IN GGSMC& H FARIDKOT, PUNJAB.**

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## **ABSTRACT**

**AIM:** The aim of the study is to assess the effectiveness of aromatherapy on level of pain and anxiety during first stage of labour among intranatal mothers.

**MATERIAL &METHODS:** A quasi experimental research design was chosen for the study and was conducted in maternity ward of GGSMC&H Faridkot, Punjab. Convenience sampling technique was used to select 60 intranatal mothers (30 in each group) having labour pain and cervical dilatation of 4cm between 37-40 weeks of gestation. The experimental group received 20 min lavender oil inhalation during first stage of labour and level of pain and anxiety in both groups were assessed by using Numerical Pain Rating Scale(NPRS) and Self Structured Anxiety Assessment Scale (SSASS). The socio demographic sheet which was structured interview schedule was filled by investigator.

**RESULTS :** The post test mean score of pain in conventional group (4-7cm) was 5.13 and experimental group was 3.30, calculated t value 5.258, df 58 and p value 0.000 which was highly significant. The post test mean score

of pain in conventional group (7-10) was 8.13 and experimental group was 5.47, t value 8.073, df 58 and p value 0.000 which was highly significant. The post test mean score of anxiety in conventional group(4-7cm) was 39.40 and experimental group was 28.63, t value 8.794, df 58 and p value 0.000 which was highly significant &the post test mean score of conventional group (7-10cm)was 44.83 and experimental group was 31.20, t value 7.990, df 58 and p value 0.000 which was highly significant.

**CONCLUSION:** The study concluded that aromatherapy was effective in decreasing pain and anxiety during first stage of labour.

**KEYWORDS:** Intranatal mothers, first stage of labour, level of pain & anxiety, Aromatherapy, Lavender oil inhalation.

## INTRODUCTION

*Birthing is a painful process the body is designed for it. We will make it as comfortable as possible.*

*Morrison Susan Jane.*

Every woman gives a soul that arises within them and it is the most blessed time in their life, child birth is a natural miracle of emergence and separation of offspring from the body of the mother. From the very beginning of human creation, people have constantly been experiencing pain and have always sought ways to control and reduce it. Among various pains, labour pain is recognized as an inevitable aspect of childbirth and is considered as one of the most severe pains. Unlike other pains, this pain is not a sign of tissue damage and continues steadily and continuously and eventually leads to a sweet and enjoyable incident known as birth. Labour pain intensity is one of the most severe pains that almost all females experience. Labour pain is mild in 15%, moderate in 35%, severe in 30% and extremely severe in 20% of the cases. Giving birth is one of the most important events in mother's life and is physiological process. Labour pain may lead to loss of emotional control, which plays a key role in experiencing a traumatic delivery and psychological disorders. Labour pain and fear of experiencing pain may also increase the tendency towards cesarean delivery. With labour pain anxiety is also the most common psychological response of women to labour. It has been previously indicated that there is an association between labour anxiety and pain. The management of labour pain and anxiety is one of the most important aspects of maternal care. There are generally two approaches which are used for the management of labour pain are pharmacological and non-pharmacological. Pharmacological approaches deal with drugs, whereas non-pharmacological approaches deal with relaxation, breathing techniques, positioning, massage, hydrotherapy, hot and cold therapy, music, guided imagery, acupressure and aromatherapy. Midwifery, a field where the mother is viewed as a whole being requires the practice

of alternative and contemporary modalities in reducing pain and promoting labour. The effectiveness of alternative modalities are proven by many studies.

Aromatherapy is the second complementary medicine which has a wide range of applications. It is expanding and recently it has attracted a lot of attention. Aromatherapy, as a non-pharmacologic and complementary and alternative therapy, is the application of essential oils from natural crops to relax and control the mind and body through aromatic compounds and essential oils with the neurological and physiological effects. Using aromatherapy in the care of women has a long history. Among pregnant women, complementary and alternative therapies are common approaches. Evidence from different countries indicates rates of use of aromatherapy in pregnant women increasing from 13% to 78%. Also, use of aromatherapy is suggested during labour, with no significant reported side effects in the mothers and neonates. Although aromatherapy is widely used among pregnant women and several studies have been conducted to evaluate its anxiolytic and pain reducing effect during labour. Aromatherapy refers to the medicinal or therapeutic use of essential oils absorbed through the skin or olfactory system. Aromatherapy is most commonly applied topically, or through inhalation. Lavender oil is a fabulous multi-purpose essential oil. Because of its analgesic properties it can be used to alleviate pain in different conditions and also has a wonderful calming effect.

## **PROBLEM STATEMENT**

A study to assess the effectiveness of aromatherapy on level of pain and anxiety during first stage of labour among intranatal mothers admitted in GGSMC& H Faridkot, Punjab.

## **AIM OF THE STUDY**

The aim of the study is to assess the effectiveness of aromatherapy on level of pain and anxiety during first stage of labour among intranatal mothers.

## **OBJECTIVES OF THE STUDY**

To assess the pre interventional level of pain and anxiety during first stage of labour among intranatal mothers in experimental and conventional group.

To assess the effectiveness of aromatherapy on level of pain and anxiety during first stage of labour among intranatal mothers in experimental and conventional group.

## METHODOLOGY

### **RESEARCH APPROACH**

QUANTITATIVE APPROACH

### **RESEARCH DESIGN**

QUASI EXPERIMENTAL

### **STUDY SETTING**

MATERNITY WARD/LABOUR ROOM AT  
GGSMC&H, FARIDKOT, PUNJAB.

### **TARGET POPULATION**

INTRANATAL MOTHERS IN FIRST STAGE  
OF LABOUR.

### **SAMPLE SIZE & SAMPLING TECHNIQUE**

60 INTRANATAL MOTHERS IN FIRST  
STAGE OF LABOUR & CONVENIENCE  
SAMPLING TECHNIQUE

### **ANALYSIS & INTERPRETATION**

DIFFERENTIAL & INFERENTIAL  
STATISTICS

## DEVELOPMENT OF TOOL

The tool consists of three sections as follow-

**Section A:** - It consists of the socio - demographic data of the women including age, gravida , educational status, occupation, religion, monthly family income and place of residence etc.

**Section B:** - Assessment of level of pain by using Numerical Pain Rating Scale (NPRS).

**Section C:** -Assessment of level of anxiety by using Self-Structured Anxiety Assessment Scale (SSAAS).

### Effect of aromatherapy on level of pain during first stage (active phase 4-7cm) of labour.

N=60

Variable	Conventional group		Experimental group		t value , df& p value		
	Mean	SD	Mean	SD	t value	df	p value
Pre-test	4.53	1.456	4.67	1.213	0.385	58	0.701 <sup>NS</sup>
Post-test	5.13	1.383	3.30	1.317	5.258	58	<b>0.000**</b>

### Effect of aromatherapy on level of pain during first stage (transition phase 7-10cm) of labour.

N=60

Variable	Conventional group		Experimental group		t value, df& p value		
	Mean	SD	Mean	SD	t value	df	p value
Pretest	7.17	1.117	7.30	0.877	0.514	58	0.609 <sup>NS</sup>
Posttest	8.13	1.167	5.47	1.383	8.073	58	<b>0.000**</b>

### Effect of aromatherapy on level of anxiety during first stage (active phase 4-7cm) of labour.

N=60

Variable	Conventional Group		Experimental Group		t value , df& p value		
	Mean	SD	Mean	SD	t value	df	p value
Pre-test	36.00	3.815	36.50	3.330	0.541	58	0.591
Post-test	39.40	5.062	28.63	4.398	8.794	58	<b>0.000**</b>

Effect of aromatherapy on level of anxiety during first stage (transition phase 7-10cm) of labour.

N=60

Variable	Conventional group		Experimental group		t-value,df& p value		
	Mean	SD	Mean	SD	t value	df	p value
Pretest	42.13	5.488	41.80	5.102	0.244	58	0.808
Posttest	44.83	6.788	31.20	6.424	7.990	58	<b>0.000**</b>

## DISCUSSION

The findings of the present study revealed that the post test mean score of pain (4-7cm) in conventional group was 5.13 and experimental group was 3.30, calculated t value 5.258, df 58 and p value 0.000 which was highly significant. The post test mean score of pain(7-10cm) in conventional group was 8.13 and experimental group was 5.47, t value 8.073, df 58 and p value 0.000 which was highly significant. These findings were supported by **Tabatabaeicheh M.etal(2020)** that aromatherapy as a complementary and alternative modality can help in relieving maternal pain during labour.**Abbaszadeh R et al (2017)** also given the supportive findings that aromatherapy with lavender oil helps to manage pain in different patients. Similar findings were reported by **Lakhan S.E et al (2016)** that there was significant positive effect of aromatherapy (compared to placebo or treatments as usual controls) in reducing pain reported on visual analog scale  $p < 0.0001$ . **Pirak A. et al (2016)** also indicated that lavender essence can reduce labour pain. **Raju J et al (2014)** also reported consistent findings that significant decrease in the pain intensity in the aromatherapy group. **Kaviani M. et al(2014)** supported the findings that lavender aromatherapy decreased the labour pain.

The findings of present study revealed that the post test mean score of anxiety(4-7cm) in conventional group was 39.40 and in experimental group was 28.63, t value 8.794, df 58 and p value 0.000 which was highly significant & the post test mean score of anxiety(7-10cm) in conventional group was 44.83 and experimental group was 31.20, t value 7.990, df 58 and p value 0.000 which was highly significant. These findings were supported by **Ghiasi A et al (2019)** that aromatherapy has positive effect in reducing women's anxiety during the first stage of labour. Consistent findings were reported by **Tafazoli M. et al (2011)** that there was significant decrease in the rate of state anxiety, before and immediately after intervention and before and 60 minutes after in lavender group compared with placebo and usual care groups (P=0.001). The findings were also supported by **Mirazi F et al (2009)** that lavender decreased anxiety significantly. **Tabatabaeicheh M. et al (2020)** also given the supportive findings that aromatherapy as a complementary and alternative modality can help in relieving maternal anxiety during labour. **Lamadah M.S.etal(2016)** also given the supportive findings that aromatherapy with lavender oil reduce the anxiety during labour.

## LIMITATIONS

On the basis on the findings of the study following recommendation are made:

Sample size of the study was small i.e. 60 intranatal mothers. Hence it is difficult to make broad generalization.

Convenience sampling done from GGSMC&H Faridkot, Punjab further restricts the generalization of the study to a particular setting.

The frequency of intervention was limited only during active and transition phase, which again restricts the generalization of study.

## RECOMMENDATIONS

Similar study could be replicated on large sample to validate and generalize its findings.

A study can be conducted indifferent settings. Similar study could be undertaken using some herbal or essential oil.

Study could be undertaken on patients with pain and anxiety associated with other medical/surgical problems such as post operative patients etc.

A comparative study can be conducted with more than one intervention.

A study can be conducted to assess the knowledge and practice of health care professionals on various non-pharmacological measures available for reducing labour pain and anxiety.

Randomized controlled trial can be done for similar type of study.

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