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## ***A comparative Study to Evaluate the effectiveness of Olive Oil Back Massage Versus Back Massage on Reduction of Intensity of Pain During Labour among Primigravid Women***

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### **Abstract:**

Motherhood is a beautiful process when the mother safely delivers a child. Labor is a stressful experience that has pain, fatigue, fear and negative moods reaching high levels as labor progresses. The objectives were to assess the level of pain in first stage of labor among Primi gravid women during pre-test, to evaluate the effectiveness of olive oil back massage to experimental and back massage to control group on reduction of intensity of pain during labor among primigravid women in post-test, to compare the effectiveness of olive oil back massage and back massage on reduction of intensity of pain during labor among primigravid women, to associate the level of pain during labor comparing olive oil back massage and back massage among primigravid women with selected demographic variables. The researcher adopted experimental research design. The study was conducted in MGMCRI, Puducherry. 60 primi gravid women, with 30 in experimental and 30 in control group were selected using simple random sampling technique. **RESULT:** The study findings revealed that Olive oil back massage and back massage were effective on reduction of intensity of pain during labor as the p value was <0.001 level in both control and experimental group. While comparing the effectiveness of olive oil back massage and back massage, back massage group elicited statistically significant lower benefit than the olive oil back massage group and there was no association in the level of pain during labor with selected demographic variables.

**Keywords:** Evaluate, effectiveness, olive oil back massage, primi gravid mother

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### **INTRODUCTION**

Pregnancy and child birth is one of life's major events. It is joyous and rewarding as the women passes through a transitional phase, into a new life of motherhood. Pregnancy that women experiences would be new and different. The midwife is in a unique position to educate and empower women through the phases of childbirth, to achieve a healthy pregnancy with the optimum

outcome of a healthy baby<sup>2</sup>. Pain is a strong unpleasant feeling, which severely incapacitates the health of mother, an important cause of anxiety.

Each mother is different, the degree of discomfort and pain also vary considerably. Some surveys shown that labor is significantly more painful during first labor than the subsequent labor<sup>2</sup>.

The pain threshold is remarkably similar in all women regardless of social, ethnic or cultural differences. These differences play a vital role in individual's perception towards pain. The evolution of pain during first stage of labor is associated with ischemia of uterus during contraction as well as effacement and dilation of cervix. In the second stage pain is caused by stretching of the vagina, perineum and compression of pelvic structures. However, pain sensation is a response of the total personality and a subjective phenomenon<sup>6</sup>.

Throughout history, people have used touch as means of calming a person. "The touch is human but the feelings are divine". This reminds the importance of touch and massage during labor. Now, according to researchers, there is evidence of an actual transfer of energy taking place in some forms of touching, as evidenced in muscular relaxation<sup>10</sup>.

### NEED FOR THE STUDY

Back pain is a common occurrence during labor and can make labor even more uncomfortable. The prevalence varies with reports, showing between 50 to 70% of all pregnant women having back pain during their labor. According to American Pregnancy Association 65% of labor women will experience back pain<sup>1</sup>. Research shows, massage plays a major role in reducing pain perception, so the investigator selected the back massage and back massage with olive oil as a comparative study on reduction of intensity of pain among primigravid mothers to prove which will be more effective<sup>10</sup>.

### OBJECTIVES

- To assess the level of pain in first stage of labor among primi gravid women during pre-test.

- To evaluate the effectiveness of olive oil back massage Vs and back massage on pain during labor among primigravid women in post-test.
- To compare the effectiveness of olive oil back massage and back massage on reduction of intensity of pain during labor among primigravid women
- To associate the level of pain during labor women with selected demographic variables.

### HYPOTHESES

1. H<sub>01</sub>: There is significant difference in the level of pain during labor among primigravid women who are in labor.
2. H<sub>02</sub>: There is significant difference between post-test pain score of control and experimental group.
3. H<sub>03</sub>: There is significant association between level of labor pain and selected demographic variables.

### METHODS AND MATERIALS

Quantitative research approach with experimental design was adopted. Primigravid mothers who were in first stage of labour who met the inclusion and exclusion criteria were selected using simple random sampling for the study. 60 women were selected for the study with 30 samples each in experimental and control group. The investigator introduced herself to the subjects and explained about the procedure. After obtaining the consent in the consent form, data were collected to assess the demographic variables and a pre-test were carried out to assess the intensity of pain during labor using Visual Analogue Scale in both the groups. Olive oil back massage and back massage were applied in the lower portion of back with the palm of the hands and moved the hands in a circular direction for 15-20 minutes at

1 hour interval for 4 times in the experimental group and control group respectively. Post-test were carried out to assess the pain level with Visual Analogue Scale after 4 hours in the experimental and control group. The data were analysed by using descriptive and inferential statistics.

**RESULTS**

**Distribution of demographic variables of primigravid women**

With regard to age majority of subjects 35(58%) belonged to age group of 20-25years. Considering the educational status, most of the subjects 22(37%) studied up to higher secondary school. Majority of the subjects 43(72%) belonged to Hindu religion. With regard to the occupation status most of them 32(53%) were housewives. Around half of the subjects 31(52%) were having between 151-160cm. Considering the duration of hospitalization 30(50%) were admitted on the day of delivery. Most of them the source of information 33(55%) were received from family members.

**Assessment of intensity of pain during labor experienced by primi gravid women before application of olive oil back massage and back massage**

Among olive oil back massage group, during pre-test 28(87%) had mild pain and 4(13%) had moderate pain. On the back massage group 1(3%) had mild pain, 27(90%) subjects experienced moderate pain. It was inferred that as the duration of labor progressed, the intensity of labor pain was also increased and only 2 (7%) subjects reported that they experienced severe pain during post-test. None of them reported unbearable pain during post-test.

**Evaluate the effectiveness of olive oil back massage and back massage on reduction of intensity of pain during labor**

Among back massage group, during pre-test 29(97%) had mild pain and 1(3%) had moderate pain. On the olive oil back massage group 10(33%) subjects experienced moderate pain during post-test. It was inferred that 20(67%) subjects reported that they experienced severe pain and none of them experienced unbearable pain during labor.

**IV. Comparison of pain intensity experienced by primi gravid women before and after the application of olive oil back massage and back massage**

<i>GROUP</i>	<i>N</i>	<i>MEAN RANK</i>	<i>SUM OF RANKS</i>	<i>P VALUE</i>
<i>Post test</i>				
<i>a) Olive oil back massage group</i>	<i>30</i>	<i>18.53</i>	<i>556.00</i>	<i>P=,000***</i>
<i>b) Back massage group</i>	<i>30</i>	<i>42.47</i>	<i>1274.00</i>	<i>HS</i>

\*\*\*\* HS- Highly Significant p<0.001 level

The findings reveal that back massage group elicited statistically significant lower benefit than the olive oil massage group. There was highly significant difference between post-test pain score of control and experimental group.

Comparison of pre-test and post-test mean and standard deviation values of pain in olive oil back massage and back massage group reveals "t" value was significant at  $p < 0.001$  level.

There was no significant association between pain during labor among primigravid mothers and selected demographic variables.

## DISCUSSION

To compare the effectiveness of olive oil back massage and back massage on reduction of intensity of pain during labor. The results revealed that back massage group elicited statistically significant lower benefit than the olive oil back massage group.

The study findings was supported by C Anjali (2008), conducted an experimental research on back massage with sesame oil and olive oil in pain relief among 40 antenatal women during first stage of labor. The study revealed that both massage techniques were effective<sup>6</sup>.

## RECOMMENDATIONS

- The study can be replicated with a larger sample for better generalization.
- More studies can be conducted on reduction of intensity of pain during labor using different complementary and alternative modalities to establish a rightful place in maternity care.
- Comparison can be done to evaluate the effectiveness of other nursing interventions such as warm water bath and support during labor.

## CONCLUSION

The main conclusion of this study was all primi gravid women reported mild to moderate pain on Visual Analogue Scale before intervention. Olive oil back massage in experimental group was effective than back massage on reduction of intensity of pain during labor in both control and experimental group.

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