

SUMMARY

The nurse plays an important role in providing pharmacological and non-pharmacological pain relief measures for laboring woman such as breathing and relaxation techniques play a more important role in providing non-pharmacological management, which needs no medical order (*Corrie, 2008*).

Non-pharmacological measures include a wide variety of techniques such as patterned breathing, massage, or therapeutic touch, activity and position changes mental imaging and local applications of heat or cold. There are several advantages to non-pharmacological methods. As they do not harm mother or fetus, they do not affect progress of labor, they provide adequate pain control and they carry no risk for allergy or adverse drug effects (*Thompson, 2008*).

This study aimed to assess the effect of using natural measures on the relief of pain during the labour and labour outcome. The current study was carried out at the delivery room at Benha University Hospital. During the period from the first of August 2010 to the end of April 2011 in order to assess the effect of using heat application and back massage technique during labor.

The sample size consists of 100 mothers who were randomly selected, 50 mothers used back massage and 50 mothers used heat application during labor.

Inclusion criteria for selection were, primigravidas, 18-35 years of age, normal full term pregnancy without any medical and obstetric

complications, single fetus, inactive phase of labor, cervical dilatation (3-4 cm), and no indication for C.S.

Study tools included an interviewing questionnaire; follow up sheet (partogram) and the visual analogue scale for reporting the scores of labor pain. In addition, the apgar scores were evaluated for the baby at 1 and 10 minutes after labor and an opinionnaire was designed and applied to assess mother's satisfaction for natural measures relief used.

The majority of mothers had fears from labor pain pre-intervention, compared by less than half of them post intervention, the difference is highly statistical significant at p value <0.001 . The most common source of fear was from labor pain pre and post intervention. Pain was also assessed quantitatively, using a Visual Analogue Scale. There was high statistical significant difference in pain grades assessment between pre intervention and after application of back massage and heat application.

The results of the measurement of vital signs in the two groups before and after the intervention. As regards blood pressure demonstrated no statistically significant differences between pre and post heat application, but it shows highly statistically significance difference between pre and post back massage application. Concerning the pulse rate, mothers in the heat application group had statistical significant difference between before and after the intervention.

The present study concluded that, use of heat application and back massage technique during labor had an impact in improving progress of labor and shorting its duration.

Maternal labor complications, very few complications were observed in the two groups of parturient mothers.

Apgar scores at one and ten minutes for newborns of women among groups were significantly different ($p < 0.001$).

Women in back massage and heat application groups were mostly satisfied with the used method and they stated that they prefer to use it in their future pregnancies.

Almost correlation association between mother's age and vital signs of both fetal and neonatal heart rates. It is clearly that there was highly positive correlation at p value < 0.001 between mother's age and fetal heart rate.

The present study recommended that all pregnant women, especially primigravidas, should be psychologically prepared for the experience of labor; use of pharmacological measures for pain relief during labor should be strictly limited and replaced by natural measures; back massage and heat application, nurses and birth attendants should learn about natural methods for pain relief.