

Efficacy of selected intervention on backpain and selected feto-maternal parameters among primigravida mothers

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Introduction

Childbirth is associated with the sensation of pain. Labour pain is frequently described as the most intense pain ever felt, and it is often the aspect of childbirth that the expectant mother fears the most. The goal of eliminating labour pain is based on the premise that pain invariably leads to suffering. Many pharmacological approaches are used to relieve pain, which has a negative impact on the health of the mother and foetus. Massage therapy is one of the most wonderful methods for using during labour, with numerous physical and emotional benefits. An aromatherapy massage provided by a partner or a member of the birth team is an excellent way to help women relax and relieve the pain of contractions. The oils help to reduce friction on the skin while also providing therapeutic benefits. Women who have had skilled massage during labour report that it was beneficial and pain relieving. Pain during labour is a nearly universal experience for women who are expecting a child. Pain and its relief for women in labour has been a topic of discussion since the dawn of time. Pain relief during childbirth is typically achieved through the use of pharmacological techniques. Complementary, non-pharmacologic pain relief methods are part of nursing practise and can be safely introduced in early labour. Massage is an excellent non-pharmacological therapy for labour. It has the potential to reduce the intensity of pain, relieve muscle spasms, promote general relaxation, and reduce anxiety. A back massage is always soothing, especially if the woman is suffering from back pain.

One of the essential oils used in labour is jasmine oil. Jasmine is one of the best essential oils for labour because of its ability to reduce pain and spasms while also increasing contraction strength. Massage with jasmine, clary sage, rose, and lavender around the lower back has been reported to provide subjective benefit during labour. It causes the body to release endorphins, which are natural pain relievers and mood boosters. Massage is thus recommended by childbirth experts because it has been shown to relieve pain and anxiety during the first stage of labour, as well as being associated with shorter labours and a lower risk of postpartum depression.

Methodology

This study employed a quasi experimental design [pretest post test control group design]. The study used an evaluative research approach and was conducted at the Gonda Government Hospital. The conceptual framework used in this study was adapted from Wiedenbach's—helping art of clinical nursing theory (1969). The sample size was limited to 100 primi mothers. The samples for the control and experimental groups were chosen using a convenient sampling method. The visual analogue scale was used to assess the level of low back pain, the fetomaternal parameter grading scale was used to assess the fetomaternal parameters, and the rating scale was used to assess the level of satisfaction with the Jasmine oil back massage. The simple sampling technique was used to select 100 samples, 50 for the experimental groups and 50 for the control groups. The samples for the control and experimental groups were chosen on different days. Each day, 1-2 samples were chosen for the experimental group. The investigator gave the primi mothers a brief introduction.

The pretest for both the experimental and control groups was assessed using a visual analogue scale for low back pain and fetomaternal parameter grading for fetomaternal parameters. In the experimental group, 10 ml of Jasmine oil was applied to the back for 10 minutes every hour for three times. The post-test was performed after a 15-minute back massage with Jasmine oil. The primi mothers in the control group received routine hospital care, and the post test was performed one hour after the pre test. Finally, the experimental group's post-test level

of satisfaction with Jasmine oil back massage was assessed using a rating scale. Using descriptive and inferential statistics, the collected data was analysed and tabulated.

OUTCOME AND DISCUSSION

According to the study's findings, the majority of primi mothers (70%) belonged to the age group of 18-25 years, while the least (30%) belonged to the age group of 26-30 years. In the control group, the majority of mothers (70%) were between the ages of 18 and 25, while the minority (40%) were between the ages of 26 and 30. In the experimental group, the majority of the mothers (50%) had a higher secondary education, 30% were illiterate, 10% were graduates, and the remaining 10% had only a primary school education. In the control group, the majority of mothers (40%) had primary education, 16 percent had secondary education, 14 percent were illiterate, and only 30 percent were graduates. In the experimental group, the majority of the mothers (57%) were from rural areas, while the least (43%) were from urban areas. In the control group, the majority of the mothers (50%) lived in rural areas, while the minority (50%) lived in urban areas. In terms of family structure, the majority of primi mothers (57%) in the experimental group were from nuclear families, while the minority (43%) were from joint families. In the control group, the majority of primi mothers (53%) came from nuclear families, while the minority (47%) came from joint families.

In terms of income, the majority of mothers (73%) in the experimental group earned more than Rs 5000 per month, while 20% earned between Rs.3000- Rs.5000 and 7% earned less than Rs.3000. In the control group, the majority of mothers (46 percent) earned between Rs.3000- Rs.5000, 34% earned more than Rs5000, and 20% earned less than Rs 3000. In terms of religion, the majority of primi mothers in both the experimental and control groups were Hindu. Hindus made up 67% of the experimental group and 87% of the control group. In the experimental group, fewer primi mothers (23%) and (10%) were Christian and Buddhist, whereas in the control group, fewer primi mothers (10%) and (3%) were Christian and Buddhist.

Pre and post test levels of low back pain in the experimental group show that during the pre test, the majority of primi mothers (47%) had severe low back pain and (43%) had moderate low back pain. Whereas in the post-test, the majority of primi mothers (81%) had moderate low back pain and 30% had severe low back pain. Pre and post test levels of fetomaternal parameters in the experimental group show that during pretest and post test, all samples (99 percent) had normal foetal heart rate ranges. In terms of uterine contraction duration, all samples (98 percent) were in the normal range during the pretest, while the majority (74 percent) of primi mothers' uterine contraction duration was in the normal range during the post test; all mothers' (98 percent) uterine contraction frequency, systolic blood pressure, and diastolic blood pressure were all in the normal range during the pretest and post test.

Pre and post test level of low back pain in the control group shows that during the pre test, the majority of primi mothers (77%) had moderate level of low back pain and (23%) had severe level of low back pain, whereas during the post test, the majority of primi mothers (64%) had severe level of low back pain and (36% had moderate level of low back pain). The pre and post test levels of fetomaternal parameters in the control group show that during the pretest and post test, all samples (100%) had foetal heart rate ranges within normal limits. The majority of primi mothers' (97%) uterine contraction duration ranges were within normal limits both before and after the test; all mothers' (100%) uterine contraction frequency, systolic blood pressure, and diastolic blood pressure were within normal limits both before and after the test.

The data analysis revealed that the post test mean score of level of low back pain was 8(SD0.547) lower than the pretest mean score of 10(SD1), and the paired 't' value was 11.12 (table value=3.33) at p0.05 level of significance, indicating that there is a significant difference in the level of low back pain between the pretest and post test in the experimental group. The findings are consistent with those of Jeyalakshmi S., (2008), who conducted a study at Andhra Mahila Sabha in Chennai on the effectiveness of Jasmine oil massage therapy on the low back pain of parturient mothers in the first stage of labour. The study findings revealed that the post test mean score of level of low back pain was 6.12(SD+0.491) was lower than the pre test mean score of 7.82(SD+0.656), and the paired 't' value was 17.433, indicating a significant difference in the level of low back pain between pretest and posttest.

As a result, the research hypothesis H1: There is a significant difference in the level of low back pain in the experimental group was accepted. In terms of fetomaternal parameters, the post test mean score of uterine contraction duration 65(SD+8.700) was higher than the pretest mean score 59.03(SD+5.542), and the paired 't' value was 5.150 (table value = 4.239) at p0.05 level of significance, indicating a significant difference in uterine contraction duration between pretest and post test. The paired 't' value was 8.909 (table value = 1.699) at p0, and the post test mean score of uterine contraction frequency was 2.719(SD+0.496), which was lower than the pre

test mean score of 3.819(SD+0.629). The 0.05 level of significance indicates that there is a significant difference in the frequency of uterine contractions between the pretest and posttest. Other fetomaternal parameters, such as foetal heart rate, systolic blood pressure, and diastolic blood pressure, had the same mean in both the pretest and posttest.

The findings are consistent with those of Jeyalakshmi S., (2008), who conducted a study on the effectiveness of Jasmine oil massage therapy on parturient mother's low back pain during the first stage of labour. According to the study findings, the mean and standard deviation of uterine contraction frequency interval before therapy in the experimental group was 4.21 (SD+0.642) compared to 3.46 (SD+ 0.501) after therapy. Before therapy, uterine contraction duration was 57.67(SD+6.045) compared to 71.83(SD+7.234) after therapy. Massage therapy increased the duration of uterine contractions while decreasing the frequency interval of contractions. Other fetomaternal parameters, such as foetal heart rate, mother's pulse rate, and blood pressure, had the same mean before and after therapy.

As a result, the research hypothesis H2: There is a significant difference in the levels of fetomaternal parameters in the experimental group was accepted.

The data analysis revealed that the post test mean score of level of low back pain was 8(SD0.547) lower than the pretest mean score of 10(SD1), and the paired't' value was 11.12 (table value=3.33) at p0.05 level of significance, indicating that there is a significant difference in the level of low back pain between the pretest and post test in the control group. The findings are consistent with those of Jeyalakshmi S., (2008), who conducted a study on the effectiveness of Jasmine oil therapy on the low back pain of a relevant mother during the first stage of labour. The results showed that the post test mean score of level of low back pain was higher than the pretest mean score of 7.68(SD0.593), and the paired't' value was 6.085, indicating that there is a significant difference in the level of low back pain between the pretest and post test in the control group.

Pretest mean scores for fetomaternal parameters such as uterine contraction duration 53.55(SD+6.46), systolic blood pressure 116.3(SD+6.31), and diastolic blood pressure 74(SD+5.53) were lower in the control group than in the post test. The pretest mean foetal heart rate was 136.9(SD+3.66) and the post test mean uterine contraction frequency was 3.43(SD+0.75). The findings are consistent with those of Jeyalakshmi S. (2008), who conducted a study on the effectiveness of olive oil massage therapy on the low back pain of a relevant mother during the first stage of labour. The results showed that the mean and standard deviation of fetomaternal parameters such as mothers pulse rate 66.98(SD+6.28), uterine contraction duration 56.17(SD+7.82), systolic pressure 116.23(SD+8.33), and diastolic pressure 76.93(SD+3.44) were lower in the control group before therapy than after therapy.

According to the data analysis, the mean post-test level of low back pain in the experimental group 6(SD+0.547) was significantly lower than the mean post-test level of low back pain in the control group 7(SD+1.095). The independent't' value of 4.310 (table value = 1.645) at p0.05 indicates that there is a significant difference in the level of low back pain between the experimental and control groups. The findings of the study are consistent with those of Khoda Karami and Safarzadeh (2006), who conducted a study to assess the effect of massage therapy on the severity of labour pain. The study's findings show that the mean of pain severity at the start of active phase (p=0.009), end of transitional phase (p=0.014), and end of first stage (p=0.01) was significantly different between the experiment group and the control group. Furthermore, the duration of the first stage of labour differed between the experimental and control groups. The study's findings are expected to lead to the introduction of massage therapy as a non-pharmacological measure to reduce labour pain during delivery.

As a result, the research hypothesis H3: A significant difference in the post-test level of low back pain between the experimental and control groups was accepted. In terms of fetomaternal parameters, the experimental group's post test mean score of uterine contraction duration 68(SD+7.800) was higher than the control group's post test mean score of uterine contraction duration 56.50(SD+7.33). The independent 't' value of 7.822 (table value = 1.64) at p0.05 level of significance indicates that there is a significant difference in the duration of uterine contractions between the experimental and control groups. The experimental group's post test mean score of uterine contraction frequency 2.719(SD+0.496) was higher than the control group's post test mean score of uterine contraction frequency 2.039(SD+0.094). The independent 't' value of 4.963 at p0.05 level of significance indicates that there is a significant difference in the frequency of uterine contractions between the

experimental and control groups. Other fetomaternal parameters such as foetal heart rate, systolic blood pressure, and diastolic blood pressure did not differ significantly between the experimental and control groups. As a result, the research hypothesis H4: A significant difference in the post-test level of fetomaternal parameters between the experimental and control groups was accepted.

The level of satisfaction with Jasmine oil massage in the experimental group shows that the majority (20(66.6 percent) of primi mothers were adequately satisfied, and the least (10(33.3%) of primi mothers were moderately satisfied. The findings of the study are consistent with those of Mei-Yueh Change (2002), who conducted a study on the effectiveness of massage on pain and anxiety during labour. According to the study findings, 26 of 30 (87 percent experimental group subjects) reported that the massage was beneficial, providing pain relief and psychological support during labour.

The study's findings indicate that there is In the experimental group, no significant association was found between the level of low back pain and age, education, residence, type of family, income, and religion ($p>0.05$). The findings of the study are consistent with those of Jeyalakshmi S., (2008), who conducted a study on the effectiveness of Jasmine oil massage therapy on the low back pain of a relevant mother in the first stage of labour. The results show that there is no significant relationship between the selected demographic variables such as age, educational status, and area of residence, type of family, family monthly income, and level of low back pain in the experimental group. As a result, the research hypothesis H5 was rejected: There will be a significant association between the level of low back pain in the experimental group and their selected demographic variables.

CONCLUSION

Pain during labour is nearly universal among childbearing women. Labor pain is a difficult issue for nurses when developing intervention protocols. The current study evaluated the efficacy of jasmine oil massage on low back pain and selected fetomaternal parameters in a government hospital in Gonda. According to the statistical findings, olive oil back massage among primi mothers reduces the level of low back pain and uterine contraction frequency while increasing uterine contraction duration in the experimental group compared to the control group. As a result, the investigator felt that more emphasis should be placed on assessing low back pain using standardised tools, after which olive oil back massage can be used as a non-pharmacological measure to reduce low back pain during the first stage of labour.

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