Country of origin: Iran

Title Reviewing the effect of reflexology on the pain and certain features and outcomes of the labor on the primiparous women

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Disease / illness Labour in primiparous women

Type of study Quasi-experimental study

Number of clients 88

Control type No treatment

Primiparous definition – A woman who has bourne only one child.

Methods

88 primiparous women from selected hospitals in Isfahan, 18-36 years of age, and who met the inclusion criteria, took part in this quasi-experimental study.

They were randomly assigned to one of two groups – a reflexology group and a control group who did not receive reflexology.

At the time of entering into the active phase of labour reflexology was given for 60 minutes (30 minutes on each foot). The treatment included 15 reflex areas listed below.

Solar plexus, areas related to the digestive system, pelvic area, pituitary,

outside and inside sides of the feet (including lower and upper extremities and spinal chord), lungs, shallow chest area, ovaries, uterus and fallopian tubes. Treatment also included specific areas relating to labour pain such as liver, spleen, kidney, pituitary, solar plexus and uterus. These specific areas received a further reflexology treatment a second time, for at least five minutes, at dilation 9-10cm. The mothers in this group also received 1000cc of dextrose-saline serum from the beginning of the active phase through to after the labour.

In the control group routine care was carried out which included monitoring the foetal heart and contractions every 15 minutes and vital signs every hour. From the beginning of the

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active phase the mothers in this group received 1000cc dextrose-saline f serum containing 10 units of Oxytocin, and after that additional 10 units of Oxytocin were added.

Data collection was by observation, examination and questionnaire.

There were three parts to the questionnaire –

individual information made up of demographics and age at gestation.

Features and outcomes of labour which included -

1. the lengths of the active phase of the first stage of labour and of the second and third stages

2. agpar score in the 1st to 5th minutes after labour

3. haemorrhage rate after labour (based on the number of pads used in the 4th stage (1 hour after labour).

4. vital signs in the first hour after labour (4th stage of labour)

Pain Rating Index (PRI) assessment was carried out using the short form of the McGill questionnaire.

This was filled in by the mothers in both groups at 3-5 cm dilation before treatment was given, and four times after treatment at 3-5 cm and 6-8 cm dilation and at 9-10 cm dilation in the second stage of labour and after the second treatment was administered.

Both descriptive and inferential statistics were used to analyse the data using software SPSS 18.

Results

No significant differences were found between the two groups for either demographic information or gestational age.

Using the Wilcoxon test a significant difference was found when comparing the mean pain intensity in the PRI scale of the reflexology group before the treatment and after each of the dilations and also the second stage after the second treatment. (p < 0.001).

A significant difference was also found in the mean pain intensity in VAS scale for the reflexology group when comparing before and after the study, and in each of the dilations 35 cm and 6-8 after the first treatment. A significant difference was also found before and after the second treatment in the 9-10 cm dilation and the second stage of labour.

An assessment scale (zero no pain to 5 pain as bad as it could be) was used to assess mean pain intensity. A Wilcoxon test on the reflexology group found that in each of the dilations of 3-5 and 6-8 cm after the first treatment, 9-10 cm after the second treatment, there was a significant difference between pain intensity before and after treatment (p <0.001).

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The difference between the two groups when comparing the duration of the active phase of labour was found to be significant (p = 0.001). Cervical dilation during the active phase of the first stage of labour was completed in 60-120 minutes for the reflexology group and 301 minutes in the control group.

ANOVA found a significant difference for both groups when comparing the Agpar score in the first minute after birth (p < 0.001) and the fifth minute after birth (p < 0.001).

ANOVA found that the haemorrhage rate (based on the number of used pads) of the control group was higher than the reflexology group (p = 0.02) and a Mann-Whitney test based on the blood stains left on the pads found the

haemorrhage rate of the control group to be significantly higher than the reflexology group (p < 0.001)

Conclusions

The researchers suggest that the results from this study indicate that reflexology can reduce the length of labour, labour pain intensity, postpartum haemorrhage and an improving Agpar score and that these can play a part in improving the health and satisfaction of the mothers.

Comments

The researchers propose that the use of reflexology when used properly in hospitals and maternity hospitals could have a consequence of preventing the use of pharmacological methods and palliative medicines which could lead to side effects.