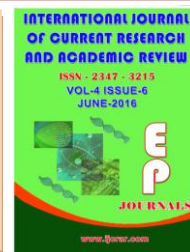




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The effect of massage on reduction of labor pain and duration of labor in primiparas women

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KEYWORDS

Massage,
Pain reduction,
Declining
prolong labor

A B S T R A C T

The main purpose of the research is to study the effect of massage on reduction of labor pain and duration of labor in 18-34 years old primiparas women. Population of the research is all admitted pregnant women in period of five months in delivery section of Chmran hospital in Borujerd. With regard to their conditions, eighty women with singleton nulliparous in 18-34 years old with 3 or 4 cm dilatation and 38 to 42 weeks gestational age divided to two groups of massage therapy and control randomly. Data collection tool contains: questionnaire or interviewing from with individual characteristics, gestational history, family status, and ... stop watch, ruler of visual analogue pain (ruler) and Mac Gil questionnaire to determine the intensity of pain by using pain reflection criteria. Descriptive statistics (mean, standard deviation, percentage and frequency chart) and inferential statistics (independent t test) are used to analyze data. The results showed that in t test about reduction of pain, the amount of t is (-24.239) and the amount of t about reduction of duration of labor is (-11.268), that with regard to amount of sig, is larger than t in the table. Therefore the assumption of equality of means between two groups of control and massage therapy is rejected and with comparison of mean of two group it is clear that in the effect of massage on reduction of pain, the mean of massage therapy group (2.7500) is larger than control group and in the effect of massage on duration of labor, the mean (2.8750) is larger than control group (1.6000) on the other word, using massage on two factors of reduction of pain and duration of labor has significant influences.

Introduction

Labor pain is one of the most intense pains reported in humans, so that it is compared to the pain of fingers mutilating (1, 2).

All societies believe that laboring is accompanied with pain; however, personal feeling about pain, behavioral reactions to

pain and cultural perception of it at the time of labor differs by culture and society (3).

For a long time, birth-giving is the pinnacle of a stage which has been regarded as the miracle of life. Moreover, although childbirth (labor) is one of the most unique moments of a woman's life, it is full of anxiety and stress. Therefore, reduction of duration of labor has always been a dream to obstetricians (4). Hemorrhage, infection, and prolonged labor are the most important causes of maternal mortality at the time of labor and the first days following labor. Prolonged labor accounts for 8% of maternal mortality in developing countries (5, 6).

Waters et al. stated that labor pain is caused by stimulation of neural receptors after contraction of uterine muscles. This pain is felt in the lumbosacral region, pelvic region, and viscera (7). Methods of relieving labor pain can be classified into the following three categories: pharmaceutical, psychological, and physiological methods (8). Pain relieving methods and their efficiency has always been disputable (10-15).

Nowadays, several pharmaceutical and non-pharmaceutical methods are used to relief labor pain and most sedatives have harmful side effects on the mother and fetus (16). Prescription methods for narcotics, sedatives, inhalational sedatives, pudendal blocks, paracervical and epidural anesthetics (17).

An example of the harmful side effect of these drugs is the most common complication of Pethidine (mostly used at the time of labor) that is neonatal respiratory depression, especially if administered 2 to 4 hours before the child's birth (18). In recent years, most developed countries have employed new methods of labor pain

reduction regarding the risks associated with anesthesia, surgery, and C-section (19). Considering the sedating effects of massage therapy, this method could be considered as a new valuable technique for quality and process of labor. The results of this study are also expected to be useful for introducing a method that allows for reducing labor pain and making it tolerable without pharmaceutical interventions. It is hoped these results reduce unreasonable cases of C-section and help control the maternal fear and anxiety caused by natural labor in young mothers. For hundreds of years, in some cultures, touching and massaging is used at the time of labor (12). Massage therapy is a scientific art, which involves application of manual systematic techniques to dermal soft tissue, muscles, ligaments, tendons, and fascia as well as movements of hands, feet, knees, and forearms (13). The mechanism of massage works by releasing endorphins, controlling the neural gate, and reducing ischemia by increasing and improving topical blood circulation and relieving the skeletal muscle through sympathetic stimulation. It also leads to muscular sedation (14).

In his study, Chang (2000) evaluated labor pain in three phases of delayed, active and transition through massaging and observed that massage groups showed lower pain actions in all of the three phases (15). Massage therapy during the course of labor leads to a state of tranquility, followed by quick and easy childbirth and a pleasant experience (16). Hence, use of new vindicative pain relief methods such as massage therapy can turn the labor process into a pleasant and enjoyable event. So that, in addition to providing an effective emotional support during labor, the pain and fear of labor is reduced, and tendency for optional C-section declines. Since, nowadays, the reason for many C-section

operations is not to guarantee the mother's and fetus' health, but to escape the labor pain (17).

Due to the significance of good health, mothers' life quality and reduced pain, the present study aims to examine the effect of massage on natural labor free of pain and anxiety, to encourage young mothers to turn to natural labor with utmost trust in a shorter period of time and at lower cost.

Materials and Methods

The present study was an experimental clinical trial, carried out, following the approval of the Study Committee, on 80 primiparous women who visited the pain room of Shahid Chamran Hospital of Boroujerd during 2012 - 2013. The statistical sample was equally divided into two groups of control and case groups. Cases qualified with the inclusion criteria, including pregnancy age of 37 to 41 weeks, singleton pregnancy, and lack of any intervention, enrolled into the case group and the massage therapy techniques including the effleurage, deep effleurage, circular compression, stroking, and friction methods were employed. In order to collect data, the information form, a chronometer, a visual assessment standard (VAS) ruler for pain, and McGill questionnaire, were used, and intensity of pain was measured using the pain reflection scale on patient's face. The independent t-test method was also used to compare the groups.

Results and Discussion

Primary hypothesis:

Is massaging contributes to reducing the intensity of labor pain?

Results shown in Table (1) suggest that the t-value obtained is -24.530; and since the

significance level of the test is lower than 0.05, the study hypothesis is approved. That is to say, massaging contributes to reducing the intensity of labor pain.

Second hypothesis: Does massaging contribute to peace of mind?

Results shown in Table (2) suggest that the t-value is calculated -25.239, and since the significance level (sig) of the test is lower than 0.05, the study hypothesis is approved. In other words, massaging contributes to peace of mind.

Third hypothesis: Does massaging contribute to the decrease in duration of labor?

Results shown in Table (3) indicate that the t-value is calculated -11.268, and since the significance level (sig) of the test is lower than 0.05, this hypothesis is also approved. That is to say, massaging contributes to the decrease in duration of labor.

Fourth hypothesis: Does massaging contribute to the ease of placenta removal?

Results shown in Table (4) indicate that the t-value is calculated -16.421, and since the significance level (sig) of the test is lower than 0.05, the study hypothesis approved. That is to say, massaging contributes to the ease of placenta removal.

The first hypothesis states that massaging contributes to the decrease in intensity of labor pain. Results presented in Table (1) indicate that the calculated t value is -24.530, and since the significance level (sig) of the test is lower than 0.05, the study hypothesis is approved. In other words, massaging contributes to the decrease in labor pain. Results of this study comply with the study by KhodaKarami et al (2015), entitled "the effect of massage therapy on

intensity of pain and future of primiparous women". Findings of this study indicated that the score of pain intensity with the dilatations of cervix (duration of the first phase of labor) was lower in the massage therapy group as compared to the control group.

Moreover, the study by Chang et al. (2000) in the southern Taiwan indicated that the massage therapy group showed lower pain actions in the delayed, active, and transition phases; and 26 out of 30 members of the massage therapy group (86%) reported that massage therapy was highly useful and contributed to their sedation and emotional

support at the time of labor. The second hypothesis states that massaging is effective on peace of mind.

Results presented in Table (2) indicate that the calculated t value is -25.239 and since the significance level (sig) of the test is lower than 0.05 the study hypothesis is approved. In other words, massaging contributes to peace of mind. Results of this study comply with results of the study by Henjeni et al. (2012), entitled "the effect of reflexology on labor anxiety of primiparous women".

Table.1 The results of first hypothesis test

t	df	Mean Difference	Sig. (2-tailed)	95% Confidence Interval of the Difference	
-24.530	78	-1.80	0.000	Lower -1.964	Upper -1.653

Table.2 The results of second hypothesis test

t	df	Mean Difference	Sig. (2-tailed)	95% Confidence Interval of the Difference	
-24.239	78	-1.75	0.000	Lower -1.888	Upper -1.611

Table.3 The results of third hypothesis test

T	df	Mean Difference	Sig. (2-tailed)	95% Confidence Interval of the Difference	
-11.268	78	-1.275	0.000	Lower -1.500	Upper -1.049

Table.4 The results of fourth hypothesis test

t	df	Mean Difference	Sig. (2-tailed)	95% Confidence Interval of the Difference	
				Lower	Upper
-16.421	78	-1.550	0.000	-1.737	-1.362

Table.5 The results of fifth hypothesis test

t	df	Mean Difference	Sig. (2-tailed)	95% Confidence Interval of the Difference	
				Lower	Upper
-8.029	78	-0.900	0.000	-1.123	-0.676

They studied the relationship between reflexology and labor anxiety. Results of this study revealed that levels of anxiety were equal in the case and control groups before the intervention ($p=0.15$), but after the intervention, levels of anxiety declined significantly in the case group as compared to the control group.

The third hypothesis states that massaging contributes to the decrease in duration of labor. Results shown in Table (3) suggest that the calculated t is -11.268 , and since the significance level (sig) of the test is lower than 0.05 , the study hypothesis is approved. In other words, massaging contributes to the decrease in duration of labor. Today, pharmaceutical measures for reducing labor pain are generally more effective than non-pharmaceutical actions, but the former are mostly expensive and have harmful side effects. Aromatherapy with lavender is one of non-pharmaceutical ways of pain killing. Results of this study comply with the study by Muhammad Khani et al. (2011), entitled “the effect of massage aromatherapy with lavender on intensity of pain in the active phase of labor of primiparous women”. Results of this study indicated that massage

aromatherapy with lavender considerably reduces pain in the active phase of labor. That is to say, the mean levels of pain declined after the intervention and improved the laborer’s satisfaction with the labor. The fourth hypothesis states that massaging influences duration of placenta removal. Results presented in Table (4) suggest that the calculated t -value is -16.421 , and since the significance level (sig) of the test is lower than 0.05 , the study hypothesis is approved. That is to say, massaging influences duration of placenta removal.

Recommendations

In view of the results of this study, preparing the laborer before labor reduces her stress and contributes to tolerability of labor.

Reflexology seems to reduce anxiety level during labor. Since this method is easy, cheap and non-invasive, it is recommended especially for primiparous women.

Due to the effectiveness of massaging, especially with lavender, and considering patients’ satisfaction with massage aromatherapy, this method could be used to

relieve labor pain and improve the laborer's satisfaction. As a result, not only a pleasant memory of labor remains on the woman's mind, but also optional C-section (which is selected due to the fear of the pain of natural labor) and its high costs are avoided in the treatment system.

It is recommended to use other massaging methods to help pregnant women with labor in future studies.

It is also recommended to evaluate the effect of massage on multiparous women in a similar study.

Finally, it is recommended to subject pregnant women to control and massage therapy for a longer period than this study.

References

1. Beischer N, Mackay P, 1989,.Care of the Pregnant Woman and her baby.2nd ed. Philadelphia: WB Saunders;1989.
2. Chang M Y,Wang S Y, Chen C H,Tailors S,2001. Effects of massage on pain and anxiety during labour. J and Nurs. Apr.38(1),PP:68-73.
3. Engebreston YC, Littlon Ly.2002. Maternal and neonatal and Womens health nursiny. First ed. USA: Delmar; P.517,866
4. Field T, Hernandez-Reif M, Taylor S1997.Labour Pain is reduced by message therapy. J P Sychosomat obstetr Gynecol 1997;18:286-97
5. Geden.1989,. EEffects and Music and Imagery or Physiologic and report and Analouged Labour Pain. Narsing research;38(1): 37.40
6. J.Robertwillson-Elise Reid carrin ton-Obstertincs and Gynecology 10Th edition –the c.v Mosebycompany U.S.A p 443-445
7. Joycem, Black. J, Hokanson. H, (2004), Medical Surgical Nursing Clinical Management for Positive Outcom. (7th ed) vol:1PP.457
8. Lower Milk L D, Perry Esh,Maternity & Women's Health Care, 8th ed2004,.M osby co, United State of America.
9. Litwack. K, 1995. Post Anesthesia care, Nursing, (2nd ed), mosby pp.500
10. Lowder milk,P.B.2000,.Materinty of Womens health care.Vth edi,Mosby.-2000:245
11. Lower Milk LD,Perry E Sh,Maternity & Womens Health Care,8th ed.2004Mosby co,United State of America.
12. Lurie S .2004,. Euphemia Maclean, Agnes Sampson and Pain redief during Labour in 16th Centare Edinburyh. Anaesthesia.;59(8):834-35
13. Melzack R.1984. The myth of Painless childbirth. Pain. 19(4):321-37.
14. Pharmacological Pain relief in Lobour, available at:[http:// WWW.mosby.com](http://WWW.mosby.com)
15. Potter P, Perry A,2001m, fundamental of Narsiny, 5th ed. Louis:Mosby Inc 2001.
16. Potter P,Perry A, 2001. fundamental of Nursing.5th ed:Louis:Mosby Inc 2001
17. Waters BL,2003.Raisler Jce massage for reduction of labor Pain.J Midwifery Midwifery and Womans Helth; 48:311-21.

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