labor process Satisfaction and Laceration Rates among Nulliparous Women

Sara Azima¹, Roya dakhilalah², Maasumeh Kaviani¹, Sezaneh haghpah⁴

1. M.Sc., Department of Midwifery, School of Nursing and Midwifery, Shiraz University of Medical Sciences, Shiraz, Iran
2. M.Sc., Student Research Committee, Shiraz University of Medical Sciences, Shiraz, Iran
3. PhD. .Department of Biostatistics, Shiraz University of Medical Sciences, Shiraz, Iran

*Corresponding Author email: azimas@sums.ac.ir

ABSTRACT: Background and objective: Labor pain is an inevitable part of the process of labor This study aimed to investigate the effect of Cold therapy on Delivery Satisfaction of Nulliparous Women. Method: The present study was performed on 70 nulliparous women. The satisfaction level of the person with the labor process was measured 2 h after the delivery by Mickey’s standard questionnaire. Also, the intensity of birth canal tearing and frequency of episiotomy were measured in both groups. In order to compare qualitative variables between groups, chi-square test was used. Given the significant level of p <0.05 was considered significant. And the software SPSS ver.17 was used for analysis. Results: The difference between the two groups was not statistically significant rate of satisfaction with the delivery process (p = 0.239). No significant difference was observed between birth canal tearing in both test and control groups (p=0.335). Conclusion: companionship of mothers during delivery is still one of the most important effective factors for women’s satisfaction with their labor.

Keywords: labor; Nulliparous; Episiotomy; Satisfaction, Laceration

INTRODUCTION

Since labor pain is one of the most severe pains that a woman could experience during her lifetime and also one of the most natural and sweetest events in a woman's life, which is not caused by any diseases or injury, it requires proper management with appropriate interventions (1). Paying attention to the delivery issue is critical, because it is one of the most important and probably one of the most painful and stressful events in the lives of women, in which the involvement of psychological, emotional, and physical stress is inevitable. Also, as an event with psychological, social, and deep emotional aspects, it is left on the minds of mothers forever and the unpleasant events of delivery can leave bad psychological effects (2-3). Negative experience of delivery can cause traumatic anxiety in mother, communication problems with and attachment to the infant, and affect the mother’s point of view toward her future planning for pregnancy and delivery method (4-5). Tension and stress caused by pregnancy crisis is intensified during delivery by the hospitalization of mother in hospital along with many stressful factors such as dealing with strangers, loneliness of mother, complex devices, environmental noise, and common measures such as intravenous injection, continuous monitoring of fetal heart rate, mother’s movement restriction, and so on. It is obvious that, if the person is not satisfied with natural childbirth, the experience will be transmitted to others and can make many people pessimistic about it. In contrast, stating the positive experience about delivery in the discussions among family members, friends, and healthcare providers is effective in promoting natural childbirth (6-8). Considering that labor pain is one of the most important and effective factors for the occurrence of fear and feeling of dissatisfaction among pregnant women, delivery pain relieving methods are widely used (9). Therefore, this study is aimed to use cold therapy in labor on the satisfaction of labor process among nulliparous women.

METHOD

This work was a clinical trial performed on the nulliparous women referring to Hazrat Zainab Hospital, Shiraz (south of Iran) in 2015. Seventy nulliparous women with spontaneous vaginal delivery who had the...
inclusion criteria were selected. The sampling method was simple purposive sampling. The studied samples were randomly divided using permuted block randomization method into test and control groups. The inclusion criteria were term pregnancy (37-41 weeks), singleton pregnancy, vertex show, being nulliparous, and no high-risk pregnancy. The exclusion criteria were lack of desire to continue the study and disturbance in labor stages (prolonged labor stages, dystocia, abruption, cord prolapse, etc.). In the test group, an ice pack was used at the first labor stage with the start of the active phase (3-4 cm dilatation) every 30 min for 10 min in the upper and lower parts of the abdomen and the lower back. At the second labor stage, the ice pack was used in the perineum every 15 min for 5 min. The satisfaction level of the person with the labor process was measured 2 h after the delivery by McKey's standard questionnaire. This questionnaire contains 34 questions in 4 parts of parturient women's satisfaction with their function, midwives’ function, infants’ state, and general satisfaction with labor and delivery experience, which is answered using the 5 Likert scale of “Very satisfied” (score 5) to “Very dissatisfied (score 1)”. Dowlatian et al. (2008) translated McKey’s delivery satisfaction questionnaire into Persian and confirmed its validity and reliability using content validity method and Cronbach’s alpha of 0.92, respectively (10). Also, the intensity of birth canal tearing and frequency of episiotomy were measured in both groups. In order to compare the qualitative variables between the groups, Chi-square test was utilized. The data were considered at the significance level of p <0.05 and SPSS (ver. 17) software was used for the analysis.

Ethical considerations

After obtaining the ethical code from Ethics Committee of Shiraz University of Medical Sciences and Iranian Registry of Clinical Trial with code IRCT2015022321200N1, the objectives of the study were explained to the pregnant women with the inclusion criteria and their written consent form was obtained for the participation in the study.

RESULTS

The present study was performed on 70 nulliparous women. According to the results, there was no significant difference between the demographic characteristics of mothers at the time of entering the study. According to the results and using Chi-square test, no significant difference was observed between birth canal tearing in both test and control groups (p=0.335). In other words, the ratio of different types of birth canal tearing was the same in the test and control groups and also no significant difference was observed between the groups in terms of the frequency of episiotomy (Table 1). Based on Table 2 and using Fisher's exact test, the difference between the groups in terms of satisfaction with labor process (in 4 parts of the questionnaire) was not also significant (p=0.239) (Table 2).

DISCUSSION

The first objective of this study was to compare satisfaction with labor process in the test and control groups, which was measured using McKey’s standard questionnaire 2 h after the delivery. According to the data, in general, no significant difference was found between the test and control groups, which was probably due to equally performing all the healthcare routines for both groups.

Jafari et al. (2012) conducted a study to comparatively examine mothers’ satisfaction with physiological delivery using McKey’s satisfaction questionnaire. The results showed that the mothers’ satisfaction with physiological delivery was higher (11), but in the present study, there was no difference in terms of satisfaction level. The reason for such a difference could be related to the fact that, in the present study, the presence of midwives besides parturient women was compulsory at all the labor stages and all the mothers were satisfied in this regard.

In another study entitled “Examining Satisfaction with Natural Childbirth and its Associated Factors” by Dowlatian et al., McKey’s satisfaction questionnaire, but with 18 questions taken from the mentioned questionnaire, was used which was different from the 34-question one. In this study, the pregnant women were adequately satisfied with their functional area during delivery (10). The difference between that work and the present study is that, in this research, satisfaction existed in 4 parts of the questionnaire. The second objective of this study was to compare the intensity of birth canal tearing in both test and control groups. According to the data, no significant difference was observed between the test and control groups and there was no difference in the frequency of episiotomy. Also, cold therapy had no impact on the frequency of birth canal tearing. According to Abedian et al. (2006) who compared the effect of cooling gel pad with ice pack on the perineal pain after episiotomy among nulliparous women, pain assessment was conducted using a numerical scale and wound healing by Reeda scale.
The researchers concluded that the use of cooling gel pad is effective in reducing the perineal pain and need for medication (12). In the present study, the intensity of tearing was examined, but the pain caused by tearing was not measured. One of the limitations of this study was the low number of samples and no assessment of the pain caused by tearing.

<table>
<thead>
<tr>
<th>Table 1. Comparison of the degree of laceration in both control and experimental groups</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Experimental</strong></td>
</tr>
<tr>
<td>Grade 1 laceration</td>
</tr>
<tr>
<td>Grade 2 laceration</td>
</tr>
<tr>
<td>Episiotomy</td>
</tr>
<tr>
<td>Laceration and Episiotomy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 2. Comparison of labor process satisfaction in both groups</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Groups</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Experimental</td>
</tr>
<tr>
<td>Control</td>
</tr>
<tr>
<td>Sum</td>
</tr>
</tbody>
</table>

**CONCLUSION**

According to the results of the study, it seems that use of cold therapy has no impact on the intensity of birth canal tearing and satisfaction with labor process. Also, companionship of mothers during delivery is still one of the most important effective factors for women’s satisfaction with their labor. Further studies with larger sample size and anxiety level measurement are recommended.

**REFERENCES**


