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Comparative Survey Oof Impact Oof Private Midwife Wwith Itrained Aaccompany Oon Ithe Bbedside Oof Mother Oon Labour Aand Child Birth In Nulliparous Women Visited Aat Sabalan Hospital, Ardabil, Iran

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ABSTRACT:

Background; and goal: Widespread pain of parturition and its undesired effects on the mother and fetus requires to identify methods effective on reducing pain. Mother's satisfaction of parturition is considered an important index of mother care quality not only affects the mental health of family and society but also affects the mother's spirit in the final result the process of delivery. Midwife's support reduces anxiety and stress, leads to a parturition with good outcomes and satisfaction of mother and her familyand finally contributes the final result of the delivery. Leaving the midwife in delivery environment leads to anxiety and its consequences on the process of delivery. One of non-medical methods of relieving parturition pain and reducing parturition period and ensuring parturition satisfaction is continuous support of the mother.

Aim: This study took place with the aim of To comparinge the effects of continuous support of private midwife and informed company of the mother during labour and parturition on reducing stress and anxiety resulted from parturition and also reducing the parturition period in the nulliparous women.

Methodology; In this semi-interventional experiment, a number of 100 of nulliparous women aging 18 to 45 which were qualified to enter the study, were selected using random sampling in parturition section of Sabalan Hospital in Ardabil in 2018 and were randomly put into two groups of control and test. In this study, people in the test group were under continuous support of A private midwife who has been with the mother since pregnancy and childbirth will also come through her (under instructions of support for natural childbirth) including emotional, information and physical support. And the control group only received the ordinary routine midwifery care procedure of the hospital and care of accompany, (Pregnant mother or her sister or her friend or dula). The two groups were admitted since dilation of 1-3 centimeters of cervix in the first stage of parturition and at the beginning of the admission, Spielberger's questionnaire were completed by them to measure their state-trait anxiety. Then again, their state-trait anxiety was measured upon dilation of 9 centimeter of cervix. In the test group, until one hour after the parturition, a private midwife was present—while in the control group, one of the mother's family ordula or friends, chosen by mother herself since the admission until one hour after the delivery was present by the mother. Midwifery cares for both groups were the same. Parturition observation and survey from the midwife and other information were completed by the questioner and the statistical test of independent T-test, paired sample T-test and chi-square were taken by SPSS. The data collection tool included the questionnaire and checklists. Data were analyzed using software.

Findings: This study indicated that the two groups had no statistically meaningful difference in terms of demographic properties, gestational age, fetus weight, anxiety state upon admission. The anxiety state-trait in the group with private midwife was significantly less than the group with company. (Results Data before and after the test) support of midwife compared to the trained company while labour and parturition had significantly led to less stress and anxiety of the mother (Results Data before and after the test). In terms of labour active phase length and also parturition period, there was a significant reduction. But between early nutrition with the mother's milk and Apgar of first minutes It was no different.

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INTRODUCTION

Childbirth is a global life-giving phenomenon and yet a stressful and one of the most important events of the women's life. Women during childbirth, due to its painful nature and consequences, need support. Therefore, factors leading to reduce pain and duration of delivery the least intervention are a priority for the researchers(Firouz Bakht 2013 ; Khavandizadeh Aghdam2015). The women would remember the childbirth experience until their last momet. This memory forms their mind about themselves as a woman and as a mother and it could affect their positive relationship with other members of the family, therefore, the quality of support which the mother receives while labour and childbirth is important for continuous health of all family members(Sangestani,2013). The supportive escort or dula could reduce the mother's stress via massage and emotional supports (Toosi 2013). The findings of the study showed that the support of a companion during childbirth significantly reduced apparent anxiety, onset early breastfeeding increases maternal satisfaction childbirth (Nobakht 2012). Severe labor pain has deleterious effects on the mother and fetus, including increased cardiac output, increased blood pressure and mother's heart rate, decreased contractility, slowed labor, decreased placental blood flow, and limited oxygen supply to the fetus.(Pashib 2016). Severe labor pain, in addition to its detrimental effects on maternal physical and mental health, also affects maternal sexual intercourse due to fear of future pregnancies.(Beigi 2010).

tThe factors affecting the childbirth period are psychosocial, biochemical, physiological, cultural and ethnic factors. Fear and anxiety are two of psycho-social factors which could extend the childbirth period, because fear and anxiety usually results in less contractile activities and blood flow in the uterus and more resistance against dilatation of the cervix which finally contribute to extended childbirth period (Khavandizadeh Aghdam2015). Given the high prevalence of labor pain and its adverse effects, safe and effective control of labor pain is essential. (Dowell 2016).

Maternal support during labor and childbirth can be provided by your spouse, family, friends or by professionals who are trained in the field of pregnancy (Dadshahi 2018). World Health Organization considers the women's health needs as an important priority due to close relationship of their health with the future generation's health and announces that mothers should be supported during labour and childbirth. And this support should be provided by those with whom the mother feels convenient (Bruggemann 2007). Thus, in the developed countries, in 95% of the cases, the mother receives support from the spouse or other family members (Essex 2008). Researches in the developed countries indicate that continuous presence of midwife at the bedside of the woman and providing effective emotional and physical support during childbirth shortens the childbirth period and specifically reduces cesarean (Khavandizadeh 2015). According to studies birth as the most stressful physical and mental event for women affects the physiological and psychological parameters of women during childbirth (Salary 2013). Severe pain of childbirth not only damages the physical and mental health of mother and fetus, but also the proper relationship between the mother and fetus and it will have bad effects on the sexual relationship of the mother due to fear of future pregnancies (Ahmadi 2010). Childbirth's severe pain, specifically the second stage pain leads to intense fear of natural childbirth and increase in cesarean rate about 8 to 22 percent among pregnant women in the society which accompanies surgery and anesthesia side effects. According to widespread pain of childbirth and its undesired and harmful effects on the mother, fetus and the parturition and pregnancy results, safe and effective control of childbirth pain is of most necessity (Ahmadi 2010). One of non-medical, yet effective methods to relieve the childbirth pain is continuous support midwife and massage during labour childbirth(Mutawali). These supports could be provided by a doula. Doula is a person which attends the childbirth room as a supporter of the mother and brings about safety and security feeling for the mother by providing continuous physical and emotional support (Khavandizadeh Aghdam2015).

According to different viewpoints about presence of private midwife or mother's company during the childbirth and necessity of studying its effects on the mother, fetus and the childbirth. This study, aiming to compare the effect of presence of private midwife by the mother, with a trained company of the mother herself for the nulliparous women on the apparent anxiety during childbirth and its effects on alabour period and surveying the problems arising from such intervention in the childbirth from the viewpoint of midwives was designed in Sabalan hospital, Ardabil, Iran.

METHODOLOGY

This half-experimental trial study, after obtaining permits from the deputy research of the Azad University and after required coordinations with the hospital authorities, was performed in 2018 on a number of 100 nulliparous women who referred to SabalanHospital in Ardabil for natural childbirth. The sample size was determined to be 50 people in each group based on previous studies with confidence factor of 95% and test power of 80% using compare means formula. There was no decline in the sample size until the end of the study. Data collection tool in this study included demographic questionnaire, standard partograph form and pain measurement questionnaire (T-square). information registration form consisted of two parts, first of which included personal information of the study units (age, education, occupation, etc.) and the second part included registration of active phase period (from 3 centimeters dilatation until 10 centimeters dilatation), childbirth second stage period (since complete dilatation until fetus exit) which were registered by observation and examination in this section (partograph form). Information registration form was prepared according to the study goals and using credible scientific books, articles, and sources. Then using

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a survey from 10 of faculty members and after applying certain modifications, its scientific credit was approved. As for the confidence about information registration form, standard partogram form, the scientific confidence of which is approved, was used. As for the timer, time control and adjustment was being performed on a daily bases using the official country time. -The criteria for entering the study: nulliparous women in the 38th - 42nd week determined by precise last menstruation_period_(LMP) or medial ultrasound of the early pregnancy which were willing to give birth naturally, mothers aging 18-45, automatic start of pregnancy pains, 2-3 centimeters dilatation of the cervix, Single live fetus, display of intact head and amniotic sac in the diagnosis. Criteria for exiting the study included automatic rupture of amniotic sac before 2-3 centimeters dilatation, excessive increase or decrease in amniotic fluid, having any records of underlying disease such as blood pressure and diabetes, fetus distress, early separation of the placenta, and mother's unwillingness to continue participation in the study. The mothers qualified to enter the study had given their written consent. Sampling was done in a simple manner.

Samples under study, with private midwife (test group), or with trained company of the mother (control group) entered labour after admission. Test group were under support since entering the labour in addition to ordinary cares provided in the childbirth room, by a trained private midwife (who had passed 18 hours physiologic childbirth course). The control group entered the labour room along with their trained company which had attended the birth preparation classes along with the mother herself and received the ordinary midwifery cares by the midwifery staff of childbirth room. Both groups were equally cared for in terms of receiving ordinary cares of the childbirth room, pelvic examinations, and labour control. Rupture of amniotic sac was performed in the ordinary manner of the hospital upon 4-5 centimeters dilatation for both groups. Vaginal examinations took place every one hour by the help of the researcher, using which the period of childbirth active phase from 3 centimeters to 10 centimeters dilatation of the cervix was calculated and recorded, also calculation of childbirth second stage period since complete dilatation of the cervix until fetus exit was performed and recorded. Giving birth in both groups took place by the childbirth room staff midwife, but in the test group, the trained midwife was present until placenta exit. Data was analyzed with statistical software (SPSS v22) and independent T-test, chisquare, and Fisher's exact test after collection. P-value less than 0.5% was considered meaningful.

Findings

According to Table 1, the highest frequency percentage in terms of age in the test group was in range of 34-39 and 28-33 in the control group. In terms of education the most number of participants in the test and control group had bachelor's degree or higher. Both groups of participants lived in the city. As for the occupation, most of the participants were housewives. In terms of economic status, most of the test group had a good economic status and in the control group, most participants had an average status.

Table1._ddemografikphic

| Variable | | Tes | t Group | Control Group | | l |
|-----------------|---------------------|-----|---------|---------------|------|---|
| | | 40 | % | 40 | % | 1 |
| Age | 16-21 years-old | 4 | 10 | 9 | 22.5 | 1 |
| | 22-27 years-old | 7 | 17.5 | 9 | 22.5 | 1 |
| | 28-33 years-old | 9 | 22.5 | 13 | 32.5 | 1 |
| | 34-39 years-old | 11 | 27.5 | 5 | 12.5 | 1 |
| | 40-45 years-old | 9 | 22.5 | 4 | 10 | 1 |
| Education | Illiterate | 1 | 2.5 | 3 | 7.5 | 1 |
| | Under diploma | 10 | 25 | 14 | 35 | 1 |
| | Associate degree | 13 | 32.5 | 8 | 20 | 1 |
| | Bachelor and higher | 16 | 40 | 15 | 37.5 | 1 |
| Residenc | City | 33 | 82.5 | 34 | 85 | 1 |
| е | village | 7 | 17.5 | 6 | 15 | 1 |
| Occupatio | Employee | 14 | 35 | 8 | 20 | 1 |
| n | housewife | 26 | 65 | 32 | 80 | 1 |
| Economic status | Low income | 3 | 7.5 | 11, | 27.5 | 1 |
| | Average income | 15 | 37.5 | 24 | 60 | 1 |
| | Good income | 22 | 55 | 5 | 12.5 | 1 |

According to Table 2 natural childbirth with episiotom in the test group was 77.5% and 72.5% in the control group natural childbirth without episiotomy in the test group wa 12.5% and 5.0% for the control group. Also childbirth with vacuum was zero in the test group and 2.5% for the control group. Cesarean rate in the test group was 10.0% and 20% for the control group.

According to Table 3 apparent stress and anxiety in the test group was 43.8 and 48.7 in the control group. Namely, the control group had more apparent stress and anxiety compared to the test group.

Hidden stress and anxiety rate was 44.3 and 48.3 percer for the first and second group, respectively. Namely second group had more hidden and underlying stress an anxiety compared to the first group.

According to the results given in Tables 3, 4, and 5 the anxiety mean in both scales, anxiety state (apparent anxiety) and hidden anxiety is less in the first group and according to the T-test, which is negative, one could say that the anxiety in the first group is lower. Also, student test which is meaningfully below 0.5 indicates that there is a significant difference between the two groups in terms of stress and apparent anxiety. This amount is relatively less in the first group. There is also a meaningful difference in comparison of hidden anxiety vein between the two groups where the hidden anxiety in the first group is less than the second group (P=0.001).

According to Table 1, the highest frequency percentage in terms of age in the test group was in range of 34-39 and 28-33 in the control group. In terms of education the most number of participants in the test and control group had bachelor's degree or higher. Both groups of participant lived in the city. As for the occupation, most of the participants were housewives. In terms of economic status,

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| <u>.vV</u> ariable | | Test | group | Control group | |
| | | n | % | n | % |
| Childbirth result | Natural childbirth with episiotomy | 31 | 77.5 | 29 | 72.5 |
| Natural childbirth without episiotomy | | 5 | 12.5 | 2 | 5.0 |
| | Childbirth with vacuum | 0 | 0.0 | 1 | 2.5 |
| | Cesarean | 4 | 10.0 | 8 | 20.0 |
| Total | | 40 | 100.0 | 40 | 100.0 |

According to Table 2 natural childbirth with episiotomy in the test group was 77.5% and 72.5% in the control group, natural childbirth without episiotomy in the test group was 12.5% and 5.0% for the control group. Also childbirth with vacuum was zero in the test group and 2.5% for the control group. Cesarean rate in the test group was 10.0% and 20.0% for the control group.

Table 3- Anxiety analysis

| Anxiety | Test g | roup | Control group | | |
|---|--------------|-------|---------------|-------|--|
| | (x) | (Sd±) | (x) | (Sd±) | |
| Anxiety | 43.8 | 5.50 | 48.7 | 6.56 | |
| Anxiety state apparent (anxiety, patient's emotions while responding) | | | | | |
| hidden anxiety | 44.3 | 6.23 | 48.3 | 5.98 | |

According to Table 3 apparent stress and anxiety in the test group was 43.8 and 48.7 in the control group. Namely, the control group had more apparent stress and anxiety compared to the test group. Hidden stress and anxiety rate was 44.3 and 48.3 percent for the first and second group, respectively. Namely, second group had more hidden and underlying stress and anxiety compared to the

Table 4- Independent test table to compare anxiety state (state

| apparent anxiety) in two groups | | | | | | |
|---------------------------------|----------|-------|----------|-----------|---------|--|
| Group | <u>X</u> | Sig | (t-test) | <u>df</u> | P-value | |
| Private midwife | 43.87 | 0.269 | _3.562 | 78 | 0.001 | |
| Patient's company | 48.70 | | | | | |

Table 5. Independent T-test for comparison of hidden anxiety in the two groups

| Group | × | | | Sig | | | + |
|-------------------|----------|-------|--------|----------------|-----------|---------|---|
| Private midwife | 44.30 | | | 0.923 | | | 7 |
| Patient's company | 48.35 | | | | | | L |
| Group | <u>X</u> | Sig | -(t-te | est) | <u>df</u> | P-value | |
| Private midwife | 44.30 | 0.923 | -2.9 | <u> 165</u> | <u>78</u> | 0.004 | |
| Patient's company | 48.35 | | | | | | ĺ |

According to the results given in Tables 3, 4, and 5 the anxiety mean in both scales, anxiety state (apparent anxiety) and hidden anxiety is less in the first group and according to the T-test, which is negative, one could say that the anxiety in the first group is lower. Also, student testwhich is meaningfully below 0.5 indicates that there is a significant difference between the two groups in terms of stress and apparent anxiety. This amount is relatively less in the first group. There is also a meaningful difference in comparison of hidden anxiety vein between the two groups where the hidden anxiety in the first group is less than the second group (P=0.001).

DISCUSSION:

The purpose of this study was to compare the effect of private midwifery presence on the reduction of labor length in primiparous women. Pregnancy, receiving prenatal care, and the location of these cares, attending prenatal preparation classes and teaching painless methods were similar.(Darvishi 2019).

Kazemzadeh, Roft, showed in a study, that sufficient support has to be provided for the mothers while parturition so that they would have a positive and satisfactory experience (Kazemzadeh, 2014). Thus, it could be concluded that the ability in providing continuous support for the mother and gaining her trust, making an intimate relationship with the mother during childbirth, constitutes an important part of a proper and correct midwifery care (Bennet2009). It seems that a trained midwife at the bedside of the mother could provide the required support and care during childbirth and consequently, increase uterine contractions and cervix dilatation progression and decrease delivery Length (Lundgren I 2010). In the study of Salari et al, Acute stress during childbirth was measured by a visual scale indicating acute and momentary stress. Salivary cortisol was present at delivery Butbut there was no significant relationship between maternal anxiety level and salivary cortisol (Salari 2013). -In the current study, presence of a midwife at the bedside of the mother led to less fear, stress, and anxiety and eventually, reduced the active phase and second stage of the childbirth period. Landgreen's study showed that continuous care during childbirth by the Companionship doula reduces childbirth period, oxytocin consumption, cesarean rate, and instrumental delivery and increases natural delivery and results in childbirth satisfaction (p<-0.01) (Lundgren I* 2010). The current study. Kazemzadeh, Roft_In one study controlled trials in -concluded that childbirth period in a group where the mother was under support and accompanied by a Private midwife reduces the length of delivery (p< 0.01) that these studies are equal in terms of (t-test) ntribution of (gidwife (Kazemzadeh, 2014).

Study by Javad Noori et al which aimed to investigate

2.96the effect of dontrinuous support of the company on the labour procedure, indicated that continuous support of the company reduces the childbirth period (Javadnoori 2008). Study by SamieizadehTtoosi et al, which aimed to investigate the impact of company's presence on the childbirth period and willingness to breastfeeding in the nulliparous mothers, indicated that continuous support of the company reduces the childbirth period which aligns with this study (p < 0.01) (Samieizadeh T 2011). In the current study, childbirth period in the test group (with the company)

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was significantly shorter (p< 0.01). These results was in compliance with the results of stated that in the group supported with trained midwife, the childbirth period is shorter (Lundgren I 2010, Javadnoori 2008, Samieizadeh T 2011). Also in Brugmen's study, there was a statistically meaningful difference in the childbirth period of the women who were supported by a midwife (doula) during labour and childbirth, compared to the women who were not. However, in the supported group, satisfaction rate of the childbirth was higher and meconium excretion of the fetus was lower. Also the women who were supported by a midwife during the childbirth had no statistically meaningful difference with the group without company in terms of childbirth period which might be due to difference of the current study because of cultural, social and ethnic differences in the two societies (Bruggemann2007). One of the most important stages of any woman's pregnancy and childbirth is the role of the midwife in this area not covered by anyone .Today, international organizations, including the WHO(2014) have realized that the Millennium Development Goals can be achieved, this is not possible unless the midwifery and services provided by the midwife strengthened(Pourassad2014). In a study by JavadNooriin Dezfool, the active phase period of childbirth, need for parturition intensification using oxytocin, pain intensity and cesarean was reduced in the supported group. Moreover, mother's satisfaction of the childbirth experience was much better (Javadnoori 2008).In the study by Parvin Salary(2013) it has been illustrated that women who have stress have a lot of anxiety, experience more severe childbirth pain too (Parvin Salary2013).Several other studies show that continuous support of mother by the midwife has countless physiological and psychological benefits, since it reduces the pain intensity, less pain killer medicine is required and pregnancy and childbirth results are improved (Pashib2016).

In the study Darwish Masoumeh, According to the results of one-way ANOVA test, the lowest duration of labor in both stages belonged to the midwife group (p <0.05). The results also showed that the midwifery group used less oxytocin compared to the other groups (p-=-0.004), thus, having a midwife beside the mothers of mothers gave a non-invasive and effective intervention in physical and mental health. It is psychological during labor and delivery (Darvishi 2019)._A look at studies shows that there are different results about using the results of incorporating supportive treatments during childbirth process. Moreover, some unsatisfied people in the supported group also indicates that presence of the company in all cases might not be beneficial. Maybe because the company might not be the most important of supporters or since these women have not experienced unsupported childbirth. On the other hand, the support provided by the family or friends during childbirth has not always been a positive experience. Hence, although supporting women during childbirth seems useful, yet the nature and scope of these benefits are not exactly examined and more research has to be done to determine the effect of supporting women during childbirth by different people. Since the cesarean delivery rate is growing in the countries and also that providing midwifery care during labour and childbirth is one of the issues affecting the childbirth results.

One of the limitations this study faces was the difference in mental state of research units and the personal understanding of childbirth and also cervix's different response to uterine contractions so that the researcher was unable to homogenize the personal features of people and their cervix's response to the utering contractions. Since in this study only the nulliparou women were considered, therefore, we recommend that similar study take place on multiparous women as we Also, considering some other beneficial effects of midwife presence at the bedside of the mother that might be see in short or long term, it is suggested that a study take plac regarding the effect of midwife presence on the childbirt type, oxytocin usage, baby apgar, infection and depressio after childbirth, continuity of breastfeeding and stronge relationship between mother and the child. Therefore, thi study was done to compare the effect of private midwife with trained company at the bedside of the mother on the labour and childbirth process in nulliparous wome referring to Sabalan_Hospital in Ardabil. In the end, it suggested that in order to shorten the childbirth period, private midwife be hired instead of company midwife at the mother's bedside in the hospitals. The ethica considerations of this study included obtaining written permit from the honorable deputy research of Ardabi Medical Sciences University, Dear Management SabalanHospital in Ardabil and obtaining written consent letter from the participants and announcing the results to the authorities

CONCLUSION

Presence of company midwife from the beginning of admission until childbirth reduces the childbirth period which in turn has positive effects on the mother and baby's relationship without considerable intervention by the company midwife in the midwifery and medical cares. Also the cesarean rate in people who were supported by private midwives was less compared to those who were not. Hence this method, which is a suitable, feasible, easy, without side effects, and cost effective, is suggested to be used for supporting the mother and reduce the childbirth period.

authorities of the childbirth room of SabalanHospital in Arabil who helped us throughout this study.

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