Comparison of Effects of Companionship During Labour on The Perception of Pain and Timely Initiation of Breast-Feeding

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ABSTRACT

Objective: To compare the effect of companionship in labour in terms of pain reduction in the active phase of labour and timely initiation of breastfeeding.

Study Design: Quasi-experimental study.

Place and Duration of Study: Department of Obstetrics and Gynecology, Holy Family Hospital, from Jan to Jul 2016.

Methodology: Sixty-two primigravida women with singleton pregnancy and cephalic presentation presenting in the active phase of labour were allocated randomly by lottery method into the intervention companion-group and the control group without a companion. The companion-group received standardized instructions. The pain during labour was measured using the numeric rating scale. Women were interviewed in the postnatal ward one hour after the delivery for timely breastfeeding initiation.

Results: The mean age of the intervention and the control groups was approximately similar, i.e., 25 ± 3 years. The mean pain score in the intervention group (7.27 ± 1.06) was significantly lower than the mean pain score in the control group (8.21 ± 0.81) (p=0.038). Women in the intervention group had a significantly higher frequency of timely breastfeeding initiation than women in the control group (p=0.001). There was no significant difference in pain reduction based on the relationship of the companion. However, the frequency of timely breastfeeding initiation was significantly higher (p=0.02) when the companion was the mother of the parturient.

Conclusion: The presence of a companion during labour decreases pain and increases the frequency of timely breastfeeding initiation compared to having no companion.

Keywords: Companion during labour, Companion relation, Labour, Perception of pain, Timely initiation of breastfeeding.

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INTRODUCTION

Childbirth is the most important event in the life of every female. Pain during childbirth is sharp and progresses rapidly in intensity, but none of the analgesics can be used with complete reliability due to some side effects. This warrants the use of non-pharmacological techniques like a companion in labour and massage therapy, which have been found effective in decreasing the pain perception without any side effects.[1]

For women with a companion, labour is a good experience and they even say that they would recommend (66.7%) and repeat it (59.6%) in their subsequent pregnancy.[2] Having someone they know by their side during labour gives them a sense of control and satisfaction and thus decreases the perception of pain and subsequently improves breastfeeding frequency. Literature also tells us that mothers with continuous support tend to have lesser analgesia during childbirth.[3] The companionship shortens labour time, improves chances of having a spontaneous vaginal delivery, and reduces the number of caesarian section.[3] The born babies with attended labour also have lesser chances of a low APGAR score.[3] On the other hand, some women have been reported to have opted for not having any companion during labour.[4]

Across the world, breastfeeding has been found as the least demanding, practical and most effective life-saving method essential for the acceptable development and growth of newborn children and avoidance of infantile diseases. Nearly one-fourth of neonatal deaths can be avoided if all the babies are started breastfeeding within the first hour of birth, which is termed as "timely initiation of breastfeeding (TIBF)".[5] A meta-analysis carried out by Debes *et al*, showed that neonatal mortality was 44% lower and infection-related mortality was 45% lower in breastfed infants.[6] The most important factors affecting TIBF are maternal illness and immediate skin-to-skin contact,[7] which is only possible if the woman has suffered less pain and is in a good physical and emotional state. Women with

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a companion have a higher chance of breastfeeding (51%) than those without support (29%).[8] Women without a companion tend to have a longer interval between delivery and initiation of breastfeeding, while those with a companion have a higher percentage of breastfeeding, opt for early initiation of breastfeeding.[9] However, some other researchers did not observe any difference in this regard.[10]

Thus, because of these contradictions and inadequate indigenous data, more research is needed to evaluate the effects of companionship in labour. It would help change the current trend of not allowing any companion during labour in most setups in Pakistan, unlike the developed world, thus improving the experience of birth and percentage of breastfed children leading to better postnatal outcomes.

METHODOLOGY

This was a quasi-experimental study carried out at the Department of Obstetrics and Gynecology, Holy Family Hospital, Rawalpindi, from January to July 2016. A sample size of 61 in each group was calculated by using the standard World Health Organization (WHO) sample size calculator taking the level of significance (α)=5%, power of the test (1-β)=80%, anticipated population 1=51%,8 and anticipated population 2=29%.[11] Through non-probability consecutive sampling, study population was recruited.

Inclusion Criteria: The primigravida women with singleton pregnancy and cephalic presentation, presenting in the active phase of labour (cervical dilatation 3-10 cm by clinical examination) were included in the study.

Exclusion Criteria: Women in whom an instrumental delivery/cesarean section was opted due to preeclampsia, eclampsia, cardiac disease, fetal distress, cephalopelvic disproportion and cases with an anomalous fetus were excluded from the study.

The study was started after getting approval from the Hospital Ethical Committee. All the participants signed or provided a thumb impression on the written consent for inclusion in the study. The women fulfilling the inclusion criteria were allocated randomly by lottery method into the interventional group, i.e., with a companion and the control group, i.e. without a companion. The companion received standardized instructions, including knowledge on how to provide support. TIBF was defined as breastfeeding starting one hour after parturition.[11]

Demographics and detailed history were recorded and physical examination was carried out. The labour of both the groups was actively managed according to the protocol of the department, including the use of Oxytocin for augmentation and intermittent electronic fetal heart monitoring. The effect of the companion's presence or absence with pain at 3-10 cm dilatation in the active phase of labour and the frequency of TIBF were documented. The numeric rating scale (NRS),[12] was used to assess pain. Patients were interviewed in the postnatal ward one hour after delivery.

Statistical Package for Social Sciences (SPSS) version 20 was used for the data analysis. Before final analysis, the normality of the numerical variables was assessed through Shapiro-Wilk Test. The data for age, gestational age, and pain score significantly deviated from a normal distribution (p=0.001, p<0.001, and p <0.001, respectively). Descriptive statistics were calculated for both qualitative and quantitative variables. The mean pain score measured on NRS was correlated between the control and the intervention groups using the Mann-Whitney U-test. The Chi-square test was used to compare the frequency of TIBF in the two groups. The mean pain scores with different companions were compared using the Kruskal-Wallis H test. The association of the relationship of the companion with TIBF was checked through the chi-square goodness-of-fit test. The p-value of ≤0.05 was considered significant.

RESULTS

A total of 124 cases (62 in each group) fulfilling the inclusion/exclusion criteria were enrolled to compare the effect of companionship in labour in terms of mean pain scores in the active phase of labour and frequency of TIBF. The mean age of the intervention group was approximately similar to the control group, i.e. 25 ± 3 years. Gestational age of the foetus showed a mean value of 38.5 ± 0.5 weeks for the intervention group and 39.4 ± 1.7 weeks for the control group.

The mean pain score in the intervention group (7.27 ± 1.06) was significantly lower than the mean pain score in the control group (8.21 ± 0.81) (p=0.038). Among the companions, 32 (51.6%) were sisters, 21 (33.9%) were mothers in law, and nine (14.5%) were mothers. There was no significant difference (p=0.57) in mean pain score depending upon the relation of the companion. Comparison of TIBF among the groups was shown in the Table-I & II.

Table-I: comparison of intervention and control groups for breast feeding (n=124).

Timely initiation of breast feeding	Intervention Group (n=62)	Control Group (n=62)	*p*-value
	n (%)	n (%)	
Yes	35 (56.45)	16 (25.81)	0.001
No	27 (43.55)	46 (74.19)	

Table-II: Relationship of timely imitation of breastfeeding with respect to companion.

Companion Relationship	Timely Initiation of Breast Feeding		*p*-value
	Yes, n (%)	No, n (%)	
Sister	17 (53.1)	15 (46.9)	0.724
Mother	8 (88.9)	1 (11.1)	0.02
Mother in law	10 (47.6)	11 (52.4)	0.827

DISCUSSION

The present-day medical practices during childbirth have resulted in a remarkable decline in mothers and newborns' mortality and morbidity rates. Based on scientific data, the WHO now recommends that a mother during childbirth must be accompanied by individuals she can rely on and with whom she believes herself to be settled, preferably her husband or partner, an acquaintance, a doula (female labour companion), a medical caretaker, or a birthing assistant.[12]

There has been a comprehensive evaluation of companionship provided to mothers during childbirth in the literature. RCTs conducted in different regions of the World have yielded results for the mother and the child alike when companionship is provided during childbirth.[11,12] In our study, we observed a significant reduction in pain and a significantly higher TIBF in women accompanied by a companion during childbirth. Similar results were shown by a Nigerian study, in which women without a companion showed significantly elevated pain scores (p=0.01) during labour.[10] In another Nigerian study, women without a companion during labour were found to have a significantly prolonged active phase of labour (p<0.01), more excellent pain scores (p=0.01), and lengthier periods between delivery and initiation of breastfeeding (p<0.01).[13] Hofmeyr *et al*, in their study, observed that companionship resulted in a significant reduction in mean labour pain scores (26.4 vs 44.2, p<0.01) and state-trait anxiety inventory scores (28.2 vs 37.8, p<0.01).[8] Exclusive breastfeeding was much more frequently observed among the women who enjoyed the support of a companion. In a Brazilian study, it was noted that mothers with an attendant during labour and birth remained more gratified than mothers who could not avail such a facility (p<0.01).[14] Another Brazilian study, observed that 91.2% of women opinioned that the attendant they had during labour and birth was "very helpful" or "helpful".[15] On the contrary, it is also documented that there was limited effect on the perception of pain about the presence of a companion.[16]

The influence of the relationship of the acquaintance with the mother during labour or childbirth has been investigated in many investigations in which anxiousness, self-confidence, sentiments of disappointment and trouble, along with levels of individual control and pain, were evaluated.[8,17] In the present study, preferred companion (mother of the woman) was the vital element in improving chances of TIBF among the participants, but no effect was found on pain reduction. In an RCT organized in Brazil, women with an attendant of their preference had more prominent overall contentment with labour and delivery than those in the controlled category.[14] In an Iranian meta-analysis, it was found that positive birth experience was associated with the presence of a trained birth companion of choice and relaxation through massage and music.[18] Women with their self-selected companions during the labour in a Nigerian RCT rated their satisfaction 3.3 times higher than their counterparts in the control group.[13] In a Thai RCT, the women in the intervention group, were requested to select a close female relative who assisted with labour and birth.[19] The women with the attendant of their option were more assuaged with their birth experience than the women in the comparative group.[19] In an Ethiopian study, Horii et al, observed that attendance at delivery by family and friends signified a shielding element for TIBF, whereas attendance by a typical health assistant was a risk factor for the delayed initiation of breastfeeding.[20] In a study from Haiti, the women, preferred birth at home attended by the traditional birth assistants instead of birth at a health facility because they felt isolated, neglected and physically restrained and missed the touch of compassion at the hands of the trained and expert facility staff.[2] These results contrast from those reported by Langer *et al*.[21] They reported that the type of companion had no impact on women's contentment.

Our findings endorse the observation that the care given by an attendant of the lady's preference during labour and delivery positively affected her fulfilment with the birth experience and reduced pain, as well as it helped for TIBF. Thus emotional support programs for childbearing women should be implemented in maternal health plans formulated in Pakistan.

These programs can combine successful strategies such as continuous labour support by a companion of a mother's choice and relaxation techniques in massage. There is a need for more clinical research to look for more strategies that result in a positive childbirth experience.

CONCLUSION

The presence of a companion during labour decreases pain and increases the frequency of TIBF in comparison to having no companion. The results were far better for TIBF when the companion was the mother of the parturient. However, the type of companion does not affect the pain scores during labour.

Conflict of Interest: None.

Authors' Contribution

NGN: Conception data collection manuscript writing, HA: Conception manuscript writing, SBA: Manuscript writing analysis.

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