

Impact of various birth companion in labour and maternal outcomes terms of nutritional status, analgesia requirement and duration of labour: A hospital based cross sectional type of observational prospective study

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Abstract

Background: Companionship in labour is also known as labour support referring to the care, guidance and encouragement provided by a non-medical person to the parturient that aim to support labour physiology and a woman’s of control and participating in decision making during labour. Present study aimed to study the impact of various birth companion in labour and maternal outcome

Materials and Methods: This Hospital based cross sectional type of observational prospective study was conducted included 350 pregnant women of 37 to 41 weeks in active labour were enrolled out of which only 8 pregnant women (Group B) did not have eligible birth companion.. “Group A” included pregnant women with eligible birth companion who should be a female relative and has undergone the process of labour ,wearing clean clothes, not suffering from any contagious disease, willing to stay with pregnant women throughout labour ,not interfering with worker of hospital staff , treatment

procedure and should not attend the other women in labour ward.

Results: In Group A good feeding was maintained in 94.4 % , 99.4 % did not require any analgesia and 91.1% among primigravida patient had duration of labour less than 12 hours and 78.3% among multigravida had duration of labour less than 8 hours. Among group an on comparison of various birth companion it was found that good feeding in 100%, no analgesia in 99.4 % , less duration of labour in primigravida (91.3%) and in multigravida (78.4%) among participants with eligible birth companion from maternal side.

Conclusion: We concluded that birth companion should be there and the infrastructure of all maternity hospitals should be such that they provide privacy to all labouring women even if they wanted their spouse inside the labour room and we also found that birth companions from maternal side were more supportive for the participants during labour and child birth.

Keywords: Birth companion, Respectful Maternity Care,

LAQSHYA Programme

Introduction

Birth companion are the supporters who have experienced the process of labour and provide continuous one to one support to their women undergoing labour and child birth.¹ Significant progress has been made globally in maternal and neonatal health (MNH) care, and both maternal and neonatal mortality rates have dropped in recent decades. But the quality of care during labour has deteriorated over the time.² Women's experience with birth companion at this time have impact to empower and comfort or to have lasting damage and emotional trauma, adding to or detracting to women's confidence and self-esteem and their childbearing experiences stay with them for a lifetime and are shared with other women, contributing to change of confidence or doubt about childbearing.³ Allowing women to have companion of choice during delivery can be a low cost and effective intervention to improve the maternity care.⁴ The absence of companionship during childbirth is known to be responsible for negative emotional birth experience, which can increase the risk of postpartum depression and post-traumatic stress disorder. Confinement during Covid-19 pandemic could increase the rate of negative experience and mental disorders.⁵ In LAQSHYA program by government of India (GOI) is incorporating the concept of respectful maternity care (RMC) in labour ward under national health mission (NHM), seven rights of childbearing women.⁶ Thus present study was conducted with the objective to compare the impact of various birth companion on labour and maternal outcomes in terms of nutritional status, analgesia requirement and duration of labour and find out the most preferred type of birth companion.

Material and Methods

This Hospital based cross sectional type of observational prospective study was conducted at Department of

Obstetrics and Gynaecology, SMS Medical College, Jaipur. This hospital is one of the largest tertiary care centre of Northern India. The study was conducted from March 2020 to December 2021. A total of 350 consecutive pregnant women were enrolled in study after dividing in Group A with eligible birth companion who are willing to participate in the study and fulfilling criteria for inclusion in the study and Group B without eligible birth companion. Birth companions were divided in 4 groups i.e., maternal relatives, in law relatives, friends, health workers and there was another group of participants without birth companion as they were not fulfilling criteria for eligible birth companion. The inclusion criteria were pregnant women in labour at term who can undergo normal vaginal delivery with or without eligible birth companion. The exclusion criteria were women who cannot undergo normal vaginal delivery. All information was recorded using a predesigned semi structured proforma. Ethical clearance was obtained from Institutional Ethics Committee.

Statistical Analysis

Data entry was done using Microsoft excel sheet. Statistical analysis was done using computer software. Continuous variables were summarized using descriptive statistics as mean & SD and analyzed by using unpaired t-test. Nominal /categorical were summarized as proportion % and analyzed by using chi-square test. Inference statistics were used to establish association between type of birth companion and fetomaternal outcome. In statistical analysis a p-values <0.05 was considered statistically significant.

We evaluated the impact of various birth companion on labour and maternal outcomes terms of nutritional status, analgesia requirement and duration of labour and found the most preferred type of birth companion.

Results

A total of 350 consecutive pregnant female were enrolled in this study .Out of 350 participants, group A 97.7% had eligible birth companion. In table 1, the mean age in our study was 24.39±2.08 and majority of participant were in age group 21 to 25 years in both groups. Majority of the participants were in middle socioeconomic class followed by lower socioeconomic class. This result reflects our society status.

In this study 97.7% had birth companion, 49% were maternal side, 41.4% were from in law relative, 3.7% were friend, and 3.4% were health worker. Only 2.3% had no eligible birth companion. In table 2, in group A, good feeding was maintained in 99.4% participants (p-value is <0.001). In group B only 50% participants had good nutrition .Majority of the participants , in group A 99.4% did not require any analgesia during labour and child birth where as in group B that 25%(p-value is <0.001) . In our study ,majority of primigravida participants in group A ,91.1% had duration of labour less than 12 hours as compared to group B where percentage was 33.3% only (p-value is 0.019).Majority of multigravida participants in group A, 78.3% had duration less than 8hours as compared to group B where it was only 20% (p-value is 0.012). On comparison of various types of birth companion, it was found that birth companion from maternal side prove to be best followed by in law relatives followed by friends and health care worker and then no birth companion

Table 1: Comparison of general characteristics among participants

Various parameters		Group A		Group B		P value
		N	%	N	%	
Age group (years)	18-20	3	100	0	0	0.449 (NS)
	20-25	213	97.7	5	2.3	
	26-30	118	98.3	2	1.7	
	31-35	8	88.8	1	11.2	

Socio economic status	Lower	122	97.6	3	2.4	0.506 (NS)
	Middle	144	98.6	2	1.4	
	Upper	76	96.2	3	3.8	

Table 2: Comparison of various parameters among both groups

Various parameters		Group A		Group B		P value
		N	%	N	%	
Nutrition	Good	340	99.7	7	87.5	<0.001 (S)
	IV fluids	1	0.3	1	12.5	
Analgesia requirement	No	340	99.4	6	75	<0.001 (S)
	Yes	2	0.6	2	25	
Duration of labor in primigravida	<12 hours	144	91.1	1	33.3	0.019 (S)
	≥12 hours	14	8.9	2	66.7	
Duration of labor in Multigravida	<8 hours	144	78.3	1	20.0	0.012 (S)
	≥8 hours	40	21.7	4	80.0	

Discussion

Companionship plays an important role and its impact forms the basis for the assessment of birth experiences by many women. This study show the impact of various birth companion on labour outcomes in terms of good nutritional status ,no analgesia and less duration of labour. The distribution of participants in both groups in terms of age. In our study mean age was 24.39 ± 2.09 but finding contrasted with the study done in Morhanson -Bello et al (2009) ⁷and Umeora and Obuna et al (2014) ⁸ as mean age in the study by Morhanson-Bello was 29.5 years and Umeora and Obuna was 27.5 years. The difference in mean age could be as a result of cultural differences. The comparison of feeding status among participants in both groups. In group A, 99.4% and in group B only 50% had proper nutrition in presence birth companion. p value was significant (<0.001) . We observed that in presence of birth companion nutritional status of participants was good. Our results consistent with study by P Alufani (2018)⁹ .

Table 2 shows the comparison of analgesia required among participants in both groups. In group A 0.6% and group B 25% participants required analgesia. p value was significant (<0.001). we observed that women with companion required less analgesia during labour and childbirth. Our observation was consistent with Merziah et al (2014)¹⁰ where birth companionship and acupressure during labour reduced the intensity of pain and improved the delivery outcomes and Sauls D J et al (2002)¹¹ also showed the lower rates of analgesia and anaesthesia. In group A 91.1% and in group B 33.3% had duration of labour less than 12 hours in primigravida. p value was 0.019. In group A 78.3% and in group B 20 % participants had duration of labour less than 8 hours among multigravida. p value was significant(0.012) . We observed that women with birth companion of choice at the time of birth had shorter duration of labour. Our results were consistent with results observed by Yuen Yong et al (2012)¹², Haghghi Bolbol et al (2016)¹³ and Campbell D (2006)¹⁴ which stated that shorter duration of labour is present in presence of birth companion.

Conclusion

The present study demonstrates the effect of presence of various types of birth companion during labour and child birth. It has been found to improve the labour and maternal outcome in terms of good nutrition maintained, less analgesia requirement and less duration of labour in presence of birth companion. So we should counsel the pregnant women during antenatal period about birth companion. Some of women wanted their husband to be their birth companion and in covid pandemic it was difficult for birth companion to be available at times so some participants did not have birth companion. Our study is small and larger, metacentric studies in all levels of hospitals are required to endorse our results.

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