

Effectiveness of Education Programme to Female Birth Companion on Labour Outcome among Parturient Mothers at RGGW & CH, Puducherry

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Abstract

Labour is a profound and often stressful event in a woman's life, accompanied by significant pain and heightened anxiety. Despite being a natural physiological process, institutional deliveries often lack the emotional support women need, as many hospitals restrict the presence of companions during childbirth. The World Health Organization (WHO) strongly recommends birth companionship as a simple, cost-effective intervention to improve maternal comfort, reduce anxiety, and facilitate better labour outcomes. In India, however, its practice remains limited in most institutional settings. This quasi-experimental study was conducted at Rajiv Gandhi Government Women & Children Hospital (RGGW&CH), Puducherry, with 60 parturient mothers. Thirty mothers in the experimental group were supported by trained female birth companions, while 30 in the control group received standard hospital care. The companions underwent a structured educational programme focusing on emotional reassurance, comfort measures, encouragement of mobility, and support during labour. Labour pain was measured using a standardized pain assessment scale, and anxiety was assessed using a Visual Analogue Scale. Findings revealed that mothers accompanied by educated birth companions had significantly reduced pain and anxiety compared with the control group ($p < 0.05$). In addition, mothers in the experimental group expressed higher satisfaction and better coping ability. Significant associations were noted between demographic factors such as parity and gravida with maternal outcomes.

The study concludes that educational programmes for female birth companions represent a low-cost and effective nursing intervention. Wider integration of trained birth companions into institutional maternity care can positively transform childbirth experiences.

Keywords: Parturient mothers, Labour pain, Anxiety, Birth companion, Nursing interventions

Introduction

Childbirth is both a natural biological event and a deeply personal life experience. Despite advances in obstetric care, many women continue to describe labour as one of the most painful and stressful events of their lives¹. Pain during labour is influenced by multiple factors, including maternal expectations, cultural beliefs, and physiological changes^{2,3}. Beyond physical discomfort, women often experience fear and anxiety due to unfamiliar hospital

environments, lack of autonomy, and absence of emotional support⁴. These psychological stressors can interfere with the natural progression of labour, increase maternal exhaustion, and contribute to negative birth experiences⁵.

The World Health Organization (WHO) has long emphasized the importance of supportive care during labour and has advocated for the presence of a birth companion as a standard practice³. A birth companion is a person chosen by the mother—often a female relative, friend, or trained support person—who provides emotional and physical assistance during labour. Evidence shows that continuous support from a birth companion reduces the likelihood of caesarean sections, decreases the need for pharmacological pain relief, shortens the duration of labour, and improves maternal satisfaction.^{3,6} In high-income countries, the presence of doulas and trained companions has become common practice, leading to significant improvements in maternal outcomes.⁷ However, in many low- and middle-income countries, including India, hospital policies and cultural norms have historically restricted the presence of companions during delivery⁸. As institutional deliveries rise due to government initiatives, women increasingly give birth in environments where family support is absent. Consequently, labour is often experienced in isolation, heightening fear and distress⁹. Recent studies from India have highlighted the positive impact of trained female birth companions on maternal experiences. Presha and Vahitha⁷ found that women supported by companions during labour reported reduced pain intensity. Similarly, Bharti and Kumari⁸ documented improved satisfaction and anxiety reduction following implementation of a birth companion policy at a tertiary hospital. These findings underscore the need for structured education programmes that prepare companions with effective skills to provide reassurance, physical comfort, and encouragement during labour.

This study was therefore designed to evaluate the effectiveness of an educational programme for female birth companions in reducing labour pain and anxiety among parturient mothers admitted to RGGW & CH, Puducherry. By addressing the emotional and psychological needs of mothers, the study aimed to provide evidence for integrating birth companionship as a standard component of institutional maternity care.

Methodology

This study adopted a quasi-experimental pre-test and post-test control group design. It was conducted at Rajiv Gandhi Government Women & Children Hospital (RGGW & CH), Puducherry, a tertiary maternity care centre. A total of 60 parturient mothers were selected using purposive sampling and allocated into two groups: 30 in the experimental group and 30 in the control group. Mothers in the experimental group were accompanied by a female birth companion who had undergone a structured educational programme, while the control group received routine hospital care. The educational programme for companions included training in emotional reassurance, massage, encouraging ambulation, maintaining hydration, and providing continuous presence. Labour pain was assessed using a standardized pain scale validated for obstetric populations¹, while anxiety was measured with the Visual Analogue Scale². The tools demonstrated high reliability ($r = 0.89$ for pain scale and $r = 0.91$ for anxiety scale). Ethical clearance was obtained from the institutional ethics committee, and informed consent was obtained from all participants. Data were analysed using descriptive statistics (mean, frequency, SD, percentages) and inferential statistics (paired t-test, chi-square test). A p -value < 0.05 was considered statistically significant.

Result:

Table 1. shows Age distribution of parturient mothers

Age group (years)	Experimental (n=30)	Control (n=30)
<20	4 (13.3%)	5 (16.7%)
20–25	18 (60.0%)	16 (53.3%)
26–30	6 (20.0%)	7 (23.3%)
>30	2 (6.7%)	2 (6.7%)

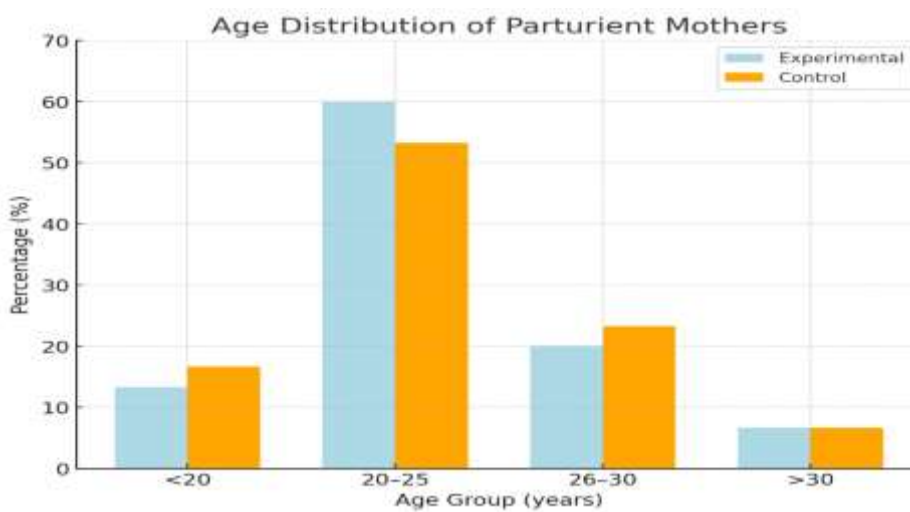


Figure 1 shows the age distribution of parturient mothers

Table 2. shows the educational status of mothers in both experimental and control groups

Education level	Experimental	Control
Illiterate	2 (6.7%)	3 (10.0%)
Primary	5 (16.7%)	6 (20.0%)
Secondary	11 (36.7%)	10 (33.3%)
Higher secondary	8 (26.7%)	7 (23.3%)
Graduate & above	4 (13.3%)	4 (13.3%)

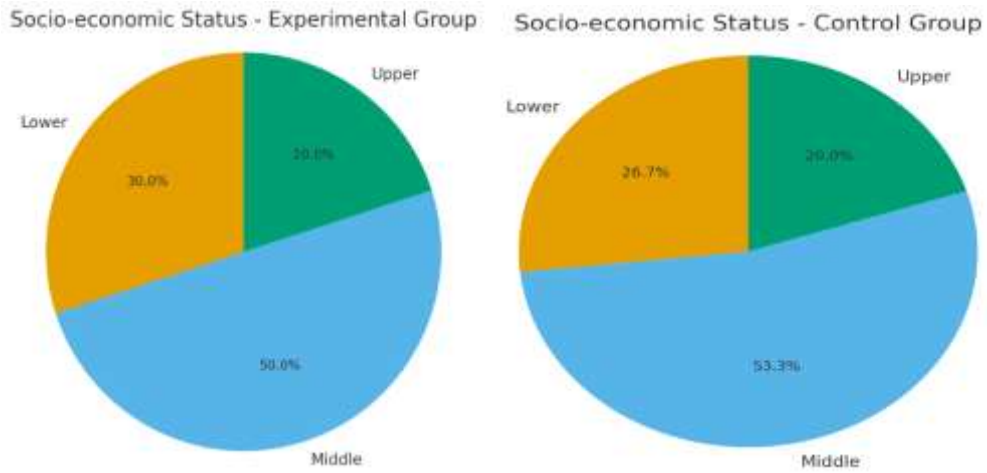


Figure 2 , Shows the various Socio-economic status among the experimental and control group

Table 3. shows the Obstetric profile (Gravida),among the experimental and control group

Gravida	Experimental	Control
Primi	17 (56.7%)	16 (53.3%)
Multi	13 (43.3%)	14 (46.7%)

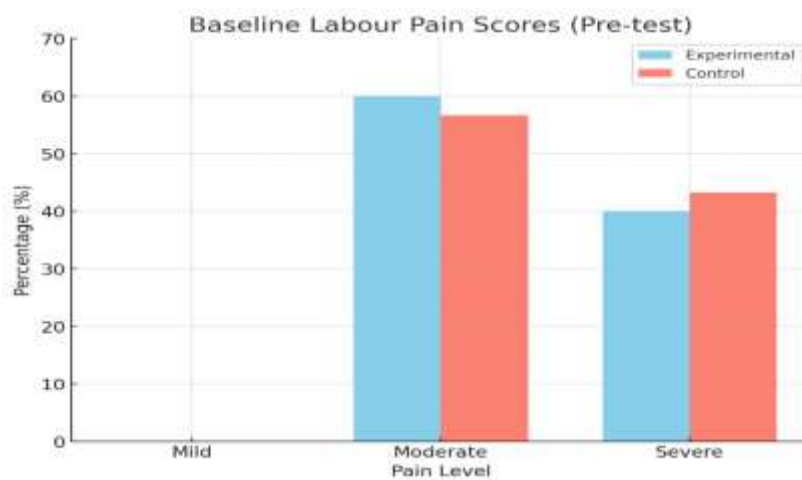
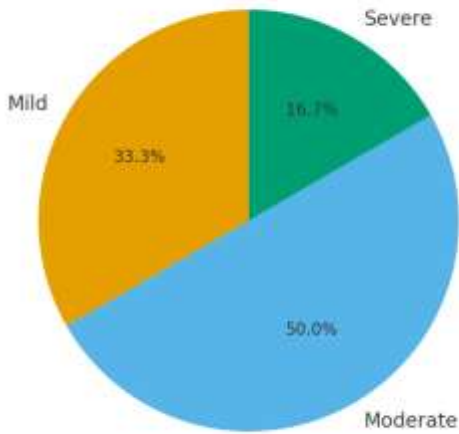


Figure 3, shows the . Baseline labour pain scores (Pre-test) among the experimental and control group

Post-test Pain Levels - Experimental Group



Post-test Pain Levels - Control Group

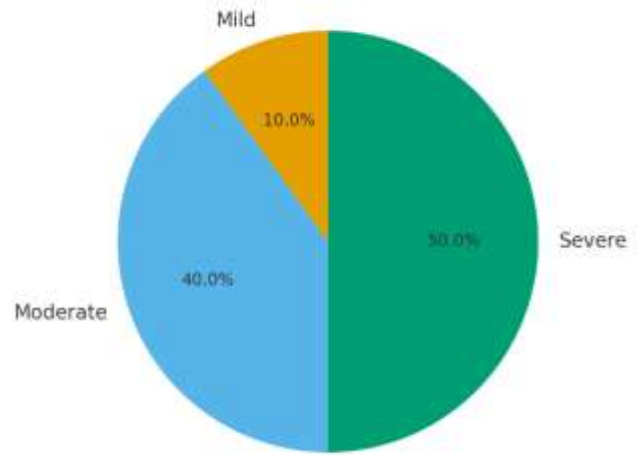


Figure 4, shows the . Baseline labour pain scores (Post -test) among the experimental and control group

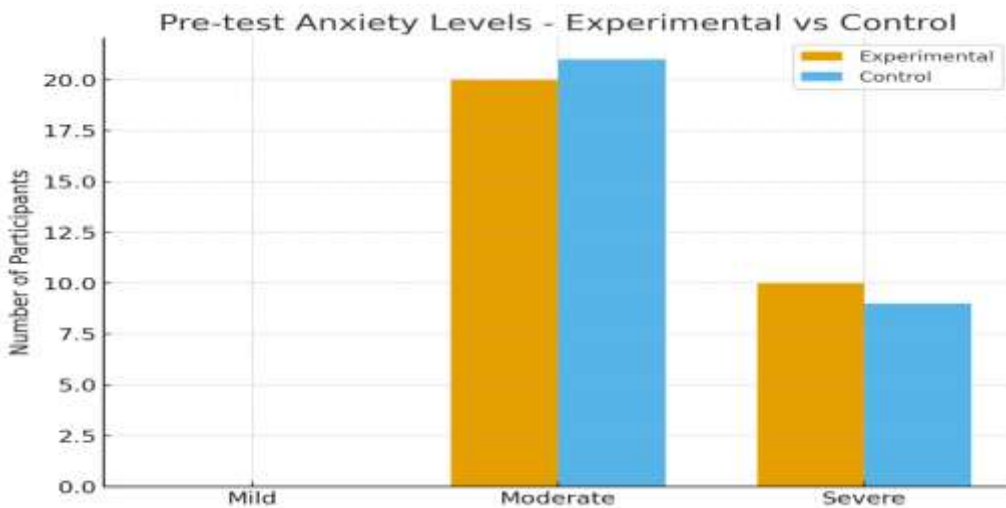
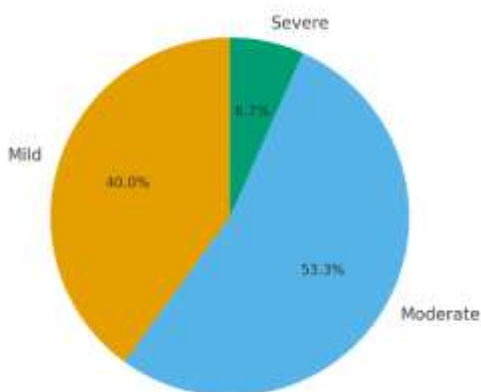


Figure 5 shows the baseline anxiety scores (Pre-test) among the experimental and control groups.

Post-test Anxiety Scores - Experimental Group



Post-test Anxiety Scores - Control Group

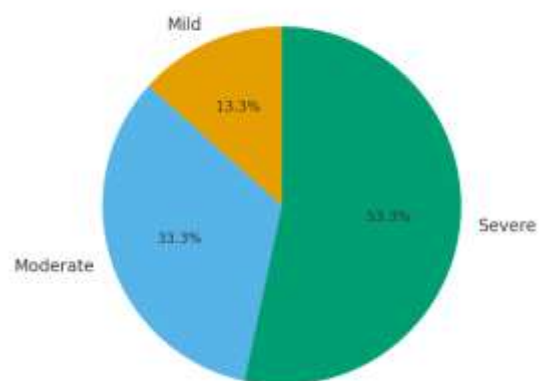


Figure 6, shows the Post-test anxiety scores among the experimental and control groups

Table 4. shows the Maternal satisfaction levels among the experimental and control groups

Satisfaction level	Experimental	Control
High	20 (66.7%)	8 (26.7%)
Moderate	8 (26.7%)	12 (40.0%)

Table 5. shows the p value, related to labour pain and anxiety scores, between the groups.

Parameter	Experimental Group (Mean ± SD)	Control Group (Mean ± SD)	p-value
Labour pain	4.2 ± 1.1	6.7 ± 1.4	<0.05
Anxiety score	3.5 ± 1.0	7.1 ± 1.6	<0.05

Table 6 shows the association of demographic variables with maternal outcomes

Variable	χ^2 value	p-value	Association
Age	2.15	0.14	NS
Education	4.75	0.03	Significant
Gravida	5.62	0.02	Significant
SES	1.98	0.19	NS

Discussion

The findings of this study clearly demonstrate that the presence of an educated female birth companion during labour is a highly effective, low-cost intervention that significantly reduces maternal pain and anxiety. These results align strongly with global evidence highlighting the benefits of continuous labour support. Kennell et al.⁴ were among the first to demonstrate that continuous companionship led to reduced caesarean section rates, shorter labours, and improved maternal emotional well-being. Similarly, a Cochrane review by Hodnett et al.³ consolidated findings from multiple studies across different settings, showing that women supported during labour were less likely to require pharmacological analgesia, more likely to have spontaneous vaginal births, and reported greater satisfaction with the birthing experience.

The physiological mechanisms explaining the effectiveness of labour companionship are multifaceted. Emotional reassurance and presence of a trusted companion lower maternal stress responses, thereby reducing circulating catecholamines, which are known to inhibit uterine contractility and prolong labour¹. By promoting relaxation, companions help optimize oxytocin release, facilitating effective contractions and labour progress⁶. Non-pharmacological interventions such as massage, encouraging ambulation, and hydration further improve maternal comfort and decrease the perception of pain⁷. These mechanisms highlight why

trained companions are particularly effective when compared with untrained family members who may lack such knowledge.

The findings of the present study also emphasize the importance of training birth companions. While family support is often available informally, untrained companions may not be able to provide effective emotional and physical assistance. In this study, the educational programme ensured that companions were equipped with strategies such as back massage, handholding, verbal reassurance, and maintaining calm surroundings, all of which are known to be effective in reducing maternal distress¹². Previous studies also confirm this observation; Munkhondya et al.⁶ reported that companion-integrated childbirth preparation increased maternal self-efficacy and reduced fear in primigravidae, while Wanyenze et al.⁵ found that midwife orientation of companions improved coping abilities among labouring mothers.

These findings are consistent with research conducted in India. Presha and Vahitha⁷ demonstrated that women supported by companions experienced reduced pain intensity, while Bharti and Kumari⁸ observed improved maternal satisfaction and reduced anxiety after implementing a birth companion policy at AIIMS, New Delhi. Furthermore, Vijayalakshmi²⁰ noted that social support during labour had a significant positive effect on overall outcomes. These studies confirm that birth companionship is not only feasible in Indian hospital settings but also culturally acceptable and impactful.

The implications for clinical practice are significant. Labour wards in India and other low-resource countries are often overcrowded, with limited staff available to provide individualized care. Nurses and doctors, due to workload, may not be able to stay continuously with every labouring woman. In such contexts, the integration of trained female birth companions can fill a critical gap by ensuring constant emotional and physical support^{12,14}. This intervention does not require advanced technology or high costs, making it an attractive strategy for resource-constrained healthcare systems¹⁹.

Beyond reducing pain and anxiety, companionship has broader maternal and neonatal benefits. Continuous support has been linked to reduced duration of labour, fewer operative interventions, improved Apgar scores, and earlier initiation of breastfeeding^{3,4}. Emotional reassurance during labour also fosters maternal empowerment, allowing women to feel respected and in control of their birthing experience^{10,11}. This aligns with WHO's call for "respectful maternity care," where women's dignity, preferences, and choices are prioritized during childbirth³.

The findings also support a shift toward woman-centred care models. In conventional institutional deliveries, women are often isolated from family support and subjected to medical protocols that prioritize efficiency over emotional needs⁹. Birth companionship provides a balance by combining safe medical supervision with the psychological comfort of continuous support. This dual approach enhances maternal satisfaction and may improve health-seeking behaviours in the long term, encouraging more women to choose institutional deliveries¹⁵.

There are, however, practical challenges in implementing birth companion programmes. Some hospitals express concerns about overcrowding, privacy, and infection control. Others cite cultural beliefs that discourage family presence during delivery. Yet evidence from diverse settings demonstrates that these barriers can be addressed with appropriate policies and education¹³. For example, Brown and Hofmeyr¹² showed that birth companion interventions

were successfully integrated in hospital environments without compromising privacy or staff efficiency.

Another important aspect is the potential role of birth companions in bridging communication between mothers and healthcare providers. Many women, especially primigravidae, may hesitate to express their needs in an unfamiliar hospital environment. Companions can serve as advocates, conveying concerns to healthcare staff and ensuring that mothers feel heard¹¹. This strengthens trust between patients and providers, contributing to a more positive birthing experience.

The current findings also raise important implications for policy. The Government of India has already recommended the presence of a birth companion of choice during institutional deliveries under the LaQshya programme, yet implementation remains inconsistent⁸. Structured educational programmes like the one in this study can provide a standardized model for training companions, ensuring uniformity in the quality of support provided. If integrated into antenatal education, such programmes could prepare companions well in advance, enhancing their confidence and effectiveness during labour.

Globally, evidence has shown that trained non-professional companions such as doulas are as effective as healthcare professionals in providing continuous support^{14,15,18}. This highlights the feasibility of engaging community members as companions, particularly in rural and resource-limited areas. Moreover, studies have indicated that continuous support is most effective when the companion is neither a member of hospital staff nor part of the woman's immediate family, but rather an individual specifically trained for this role³. Nonetheless, in cultural contexts like India, female relatives often play this role effectively when adequately educated.

In conclusion, the discussion of this study confirms that structured education of female birth companions represents a crucial intervention for improving maternal outcomes. It bridges gaps in existing maternity care systems, empowers women, and aligns with global recommendations for respectful maternity care. Given its simplicity, affordability, and effectiveness, this intervention holds great potential for large-scale adoption across India and other low-resource countries

Conclusion

The present study provides compelling evidence that educating female birth companions significantly improves labour outcomes for parturient mothers. Women who received continuous support from trained companions experienced less pain, reduced anxiety, and greater satisfaction compared with those who underwent routine institutional care without support. These findings are consistent with international research demonstrating that continuous emotional and physical support reduces the need for medical interventions, shortens the duration of labour, and enhances maternal well-being^{3,4,5}.

The educational programme enabled companions to apply practical, non-pharmacological measures such as massage, reassurance, encouragement of mobility, and emotional presence. These simple interventions not only helped women cope with pain and fear but also strengthened their confidence and sense of control during labour. In low-resource settings like India, where staffing limitations and overcrowding are common, birth companionship offers a low-cost, highly effective strategy that can be integrated into standard maternity care^{8,12,16,17}.

This study underscores the urgent need to implement WHO's recommendations for allowing a birth companion of choice during institutional deliveries^{3,10,20}. By making companionship an accepted norm, hospitals can promote respectful maternity care, improve maternal satisfaction, and contribute to safer childbirth experiences.

Ethical Approval: Approval got from Institutional Ethics Committee

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Conflict of Interest: The authors declare no conflict of interest.

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