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Spousal support to reduce anxiety during labor among primigravida mothers

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Abstract
Labour is a physically and emotionally demanding experience for primi mothers. Anxiety during labour can adversely affect maternal cooperation, labour progress, and neonatal outcomes. Continuous emotional support from the spouse could be a simple, non-pharmacological intervention to reduce maternal anxiety. Current quasi experimental study aimed to assess the effectiveness of spousal support in reducing anxiety during labour among primigravida mothers. By using simple random sampling, 60 primigravida mothers were selected and allocated into intervention (n=30) and control (n=30) groups. The intervention group received structured spousal support during the active phase of labour, while the control group received routine care. Maternal anxiety was assessed using a standardized anxiety scale before and after the intervention. Results revealed that mean anxiety score of primigravida mothers in the experimental group was significantly lower than that of the control group (p < 0.001) after the intervention. Spousal support was found to be effective in reducing anxiety during labour.

Keywords: Spousal support, anxiety, labour, primigravida, intrapartum care

1. Introduction
1.1 Background of the study
Labour is a significant life event marked by intense physical sensations and emotional responses. For primigravida mothers, labour is often accompanied by fear, uncertainty, and anxiety due to lack of prior experience, concern for fetal well-being, and anticipation of pain. Elevated anxiety during labour has been associated with prolonged labour, increased perception of pain, higher rates of medical interventions, and negative childbirth experiences. Globally, studies indicate that nearly 40% of first-time mothers experience significant anxiety during labour. In India, anxiety during childbirth remains under-recognized, despite evidence showing that 30-50% of primigravida mothers experience moderate to severe anxiety during labour. Emotional support has been identified as a key factor in reducing anxiety and improving labour outcomes.

Spousal support during labour provides emotional reassurance, physical comfort, and psychological security to the mother. Continuous presence of the spouse has been shown to reduce anxiety, enhance coping, and improve maternal satisfaction. However, spousal involvement during labour is still limited in many healthcare settings due to cultural practices and institutional barriers.

1.2 Need for the study
Anxiety during labour is a common problem among primigravida mothers and has been shown to adversely affect labour progress, pain tolerance, and maternal and neonatal outcomes. Globally, studies report that 30-60% of first-time mothers experience moderate to severe anxiety during labour (WHO, 2023). In India, maternal anxiety remains under-recognized, with research indicating that 40-50% of primigravida women experience significant anxiety during labour, particularly due to fear of pain and lack of emotional support.

International evidence demonstrates that continuous support during labour, especially from spouses, significantly reduces anxiety, shortens labour duration, and improves maternal satisfaction (Hodnett *et al*., 2023) [2]. Indian studies have also reported lower anxiety levels and better childbirth experiences among primigravida mothers who received spousal support compared to those who received routine care.

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However, spousal involvement during labour is still limited in many Indian healthcare settings due to cultural and institutional barriers.

Therefore, there is a need to assess the effectiveness of spousal support in reducing anxiety during labour among primigravida mothers, to generate evidence for promoting family-centered maternity care and strengthening nursing practice.

1.3 Statement of the Problem

A study to assess the effectiveness of spousal support in reducing anxiety during labour among primigravida mothers admitted in selected maternity hospitals.

1.4 Objectives

- To assess the pre-test level of anxiety among primigravida mothers in experimental and control groups.
- To assess the post-test level of anxiety among primigravida mothers in experimental and control groups.
- To determine the effectiveness of spousal support in reducing anxiety during labour among primigravida mothers.
- To find the association between selected demographic variables and pre-test anxiety levels.

1.5 Research Hypothesis

There will be a significant difference in post-test anxiety scores among primigravida mothers who receive spousal support compared to those who receive routine care.

2. Materials and Methods
2.1 Research Approach and Design

A quantitative research approach was adopted to evaluate the effectiveness of spousal support in reducing anxiety during labour among primigravida mothers. A quasi-experimental pre-test and post-test control group design was used, which enabled comparison of anxiety levels before and after the intervention between the experimental and control groups.

2.2 Setting of the Study

The study was conducted in the labour rooms of selected maternity hospitals.

2.3 Population

The population for the study consisted of primigravida mothers admitted in the labour room for normal vaginal delivery during the data collection period.

2.4 Sample Size and Sampling Technique

A total of 60 primigravida mothers were selected for the study. The participants were selected using simple random sampling technique and were equally allocated into:

- Experimental group (n = 30) - received spousal support during labour

- Control group (n = 30) - received routine intrapartum care only

2.4.1 Inclusion Criteria

- Primigravida mothers in active labour
- Willing to participate
- Spouse available and willing to provide support

2.4.2 Exclusion Criteria

- High-risk pregnancies
- Mothers undergoing emergency obstetric interventions
- Mothers with diagnosed psychiatric illness

2.5 Intervention

The experimental group received structured spousal support during the active phase of labour, which included continuous presence of the spouse, emotional reassurance, verbal encouragement, comforting touch, assistance with breathing techniques, and psychological support. Spouses were oriented by the investigator regarding supportive measures prior to labour room entry. The control group received routine intrapartum care without structured spousal involvement.

2.6 Tools for Data Collection

Data were collected using a demographic data sheet and a standardized anxiety assessment scale. The anxiety scale consisted of structured items scored on a Likert scale, with higher scores indicating greater anxiety. Content validity of the tool was established by experts in obstetrics, psychiatry, and nursing. Reliability testing yielded a Cronbach's alpha coefficient of ≥0.80.

2.7 Data Collection Procedure

Pre-test anxiety assessment was conducted during the early active phase of labour for both groups. Post-test assessment was carried out during the late active phase using the same tool.

2.8 Data Analysis

Data were analyzed using descriptive statistics (frequency, percentage, mean, and standard deviation) and inferential statistics. Paired t-test was used to compare pre- and post-test anxiety scores within groups, independent t-test to compare post-test scores between groups, and chi-square test to determine associations between demographic variables and pre-test anxiety levels. Statistical significance was set at $p < 0.05$.

2.9 Ethical Considerations

Ethical approval was obtained from the Institutional Ethics Committee. Written informed consent was secured from all participants. Confidentiality, anonymity, and the right to withdraw at any time were ensured throughout the study.
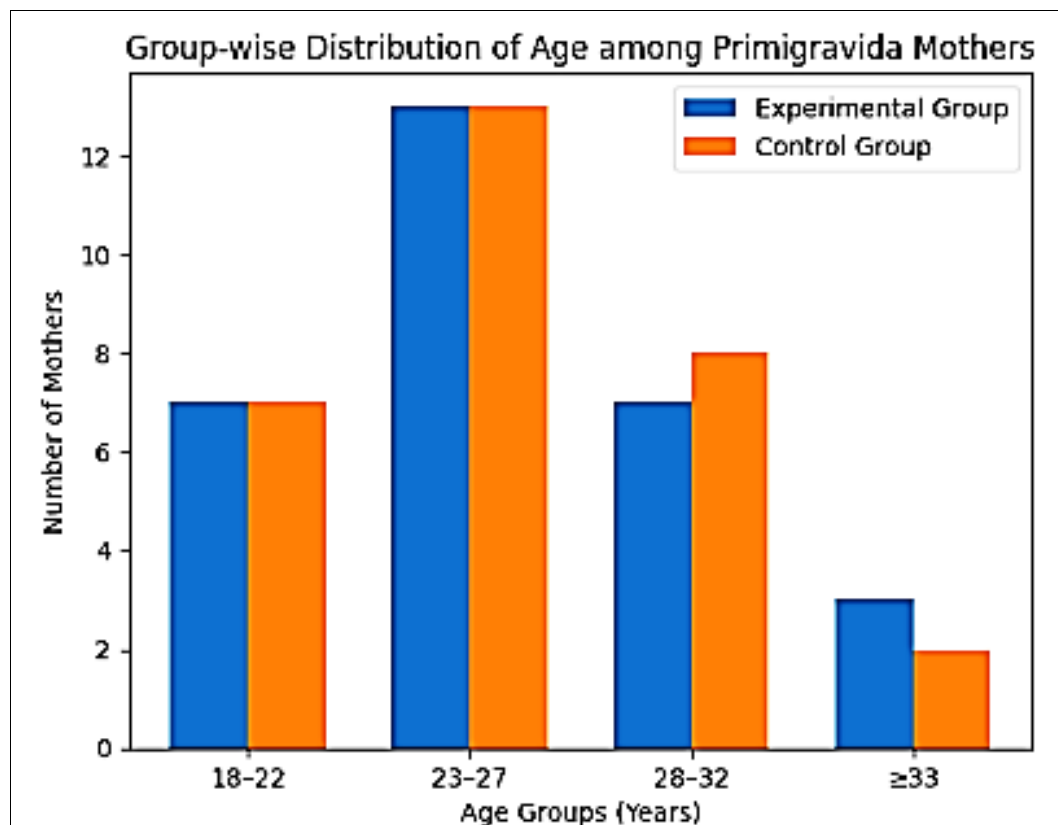
3. Results

Table 1: Frequency and Percentage Distribution of Selected Demographic Variables of Primigravida Mothers (N = 60)

S. No	Demographic Variables	Category	Experimental group (n=30)	Control group (n=30)
1	Age (years)	18-22	4 (13)	6 (20)
		23-27	16 (53)	18 (60)
		28-32	7 (23)	4 (13)
		≥33	3 (10)	2 (7)
2	Educational Status	Primary education	2 (7)	1 (3)
		Secondary education	7 (23)	9 (30)
		Higher secondary	15 (50)	16 (53)
		Graduate & above	6 (20)	4 (13)
3	Occupation	Homemaker	11 (37)	13 (43)
		Employed	19 (63)	17 (57)
4	Type of Family	Nuclear	16 (53)	18 (60)
		Joint	14 (47)	12 (40)
5	Gestational Age (weeks)	37-38	24 (80)	22 (73)
		39-40	6 (20)	8 (27)
		>40	0	0
6	Place of Residence	Urban	12 (40)	11 (37)
		Rural	18 (60)	19 (63)

As shown in table 1, in both groups, the majority of participants were aged 23-27 years, accounting for 53% in the experimental group and 60% in the control group. Most participants in both groups had completed higher secondary education (experimental: 50%; control: 53%). The majority of participants were employed, resided in rural areas and belonged to nuclear family in both the groups. Majority delivered at 37-38 weeks of gestation.

The bar diagram depicts the age-wise distribution of primigravida mothers in the experimental and control groups. In both groups, the majority of participants belonged to the 23-27 years age group. The distribution of participants across age categories was comparable between the experimental and control groups, indicating homogeneity of the sample.

Table 2: Mean Dimension-wise Post-test Anxiety Scores of Experimental and Control Groups (N = 60)

Dimensions of Anxiety	Experimental Group (n = 30) Mean ± SD	Control Group (n = 30) Mean ± SD	t value	p value	Inference
Physiological Anxiety	12.30 ± 2.85	17.90 ± 3.10	6.97	<0.001	Significant
Psychological Anxiety	13.20 ± 3.10	17.40 ± 3.20	5.52	<0.001	Significant
Cognitive Anxiety	12.60 ± 2.70	15.30 ± 3.05	4.12	<0.001	Significant
Overall Anxiety Score	38.10 ± 5.92	50.60 ± 6.88	8.94	<0.001	Significant

Table 3: Comparison of Pre-test and Post-test Mean Anxiety Scores within the Experimental Group (n = 30)

Test	Mean ± SD	Mean Difference	t value	p value	Inference
Pre-test	52.40 ± 6.85	14.30	12.46	< 0.001	Significant
Post-test	38.10 ± 5.92				

Table 3 depicts that the post-test mean anxiety score was significantly lower than the pre-test score in the experimental group, indicating the effectiveness of spousal support.

Table 4: Comparison of Pre-test and Post-test Mean Anxiety Scores within the Control Group (n = 30)

Test	Mean ± SD	Mean Difference	t value	p value	Inference
Pre-test	51.90 ± 7.10	1.30	1.12	> 0.05	Not Significant
Post-test	50.60 ± 6.88				

As per table 4, there was no statistically significant difference between pre-test and post-test anxiety scores in the control group.

Table 5: Comparison of Post-test Mean Anxiety Scores between Experimental and Control Groups

Group	Mean ± SD	Mean Difference	t value	p value	Inference
Experimental (n=30)	38.10±5.92	12.50	8.94	< 0.001	Significant
Control (n=30)	50.60±6.88				

The post-test anxiety score of primigravida mothers in the experimental group was significantly lower than that of the control group, confirming the effectiveness of spousal support during labour.

4. Discussion

The present study demonstrated that spousal support during labour significantly reduced anxiety levels among primigravida mothers in the experimental group compared to the control group. This finding supports the effectiveness of emotional and psychological support as a non-pharmacological intervention during childbirth.

The significant reduction observed across physiological, psychological, and cognitive dimensions of anxiety is consistent with international studies by Hodnett *et al*. and Bohren *et al*., which reported that continuous support during labour decreases maternal anxiety and enhances coping. Similar findings have been reported in Indian studies, where partner presence during labour was associated with improved emotional comfort and reduced fear among first-time mothers.

The absence of a significant association between demographic variables and pre-test anxiety scores indicates that labour-related anxiety is a common experience among primigravida mothers, regardless of socio-demographic background. This aligns with previous research suggesting that anxiety during labour is primarily influenced by emotional and situational factors rather than demographic characteristics.

Overall, the findings reinforce the importance of incorporating spousal support into routine intrapartum care to promote maternal emotional well-being and positive childbirth experiences.

5. Conclusion

The study concludes that spousal support during labour is an effective non-pharmacological intervention for reducing anxiety among primigravida mothers. Mothers who received structured spousal support demonstrated significantly lower anxiety levels compared to those receiving routine care. The intervention promotes emotional well-being, enhances coping, and contributes to a more positive childbirth experience.

6. Nursing Implications

- **Clinical Practice:** Nurses and midwives can facilitate spousal participation during labour to provide continuous emotional and psychological support, improving maternal comfort and satisfaction.
- **Patient Education:** Orientation programs for spouses on supportive roles can enhance the effectiveness of non-pharmacological interventions.
- **Policy and Administration:** Incorporating spousal support into routine intrapartum care guidelines can foster family-centered maternity care.
- **Future Research:** The findings encourage further studies on partner-assisted interventions across diverse cultural and institutional settings.

Conflict of Interest

Not available.

Financial Support

Not available.

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