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Research Article

Effectiveness of an Empowerment-Based Approach on Postpartum Blues among Post Caesarean Section Mothers in selected hospitals in Erode, India

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Abstract

Postpartum blues is one of the most common psychological disturbances experienced by mothers during the early postpartum period, especially among post caesarean section mothers due to physical discomfort, hormonal fluctuations, emotional stress, and adaptation to motherhood. Untreated postpartum blues may progress to postpartum depression and adversely affect maternal and infant well-being. This study evaluated the effectiveness of an empowerment-based approach on postpartum blues among post caesarean section mothers.

A quantitative evaluative approach with a quasi-experimental non-equivalent pretest-posttest control group design was adopted among 60 post caesarean section mothers (experimental group = 30; control group = 30) selected through purposive sampling. The experimental group received an empowerment-based approach consisting of empowerment affirmations, deep breathing exercises, and progressive muscle relaxation techniques in addition to routine care, whereas the control group received routine hospital care only.

Postpartum blues were assessed using the Likert "Am I Blue?" Scale. The findings revealed that most mothers in both groups had severe postpartum blues during pretest. Post-intervention, 80% of mothers in the experimental group had mild postpartum blues, whereas 74% of mothers in the control group continued to have moderate postpartum blues. The mean postpartum blues score in the experimental group decreased from 48.4 to 17.4 compared with a reduction from 46.8 to 27.2 in the control group. The calculated paired t value in the experimental group was 30.6 and the unpaired t value between groups was 10.9, which were statistically significant at $p < 0.05$. Significant associations were observed between postpartum blues and selected variables such as type of marriage, previous history of abortion, and gender of the newborn. The study concluded that the empowerment-based approach was highly effective in reducing postpartum blues among post caesarean section mothers.

Keywords: *Postpartum blues, Empowerment-based approach, Caesarean section mothers.*

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Introduction

Postpartum blues is a transient psychological condition characterized by emotional instability, tearfulness, irritability, anxiety, restlessness, and mood fluctuations occurring during the first week following childbirth. Although postpartum blues is generally self-limiting, persistent symptoms may increase the risk of postpartum depression and negatively affect maternal-infant bonding and family functioning.

Mothers undergoing caesarean section are particularly vulnerable to postpartum psychological disturbances due to postoperative pain, limited mobility, delayed recovery, hormonal changes, and emotional stress related to surgery and newborn care. Primiparous mothers often experience additional anxiety and uncertainty associated with their new maternal role, which may further intensify emotional distress.

In India, sociocultural expectations regarding motherhood and family responsibilities often increase emotional pressure during the postpartum period. Many mothers experience inadequate emotional support, fear regarding infant care, and feelings of helplessness following caesarean delivery.

Empowerment-based interventions focus on enhancing self-confidence, emotional coping, positive thinking, and psychological resilience. Positive affirmations, deep breathing exercises, and progressive muscle relaxation techniques are evidence-based non-pharmacological strategies that promote relaxation, reduce anxiety, and improve emotional regulation. Such approaches may help mothers cope effectively with postpartum stress and facilitate psychological well-being.

Methodology

A quantitative evaluative research approach was adopted using a quasi-experimental non-equivalent pretest-posttest control group design to determine the effectiveness of an empowerment-based approach on postpartum blues among post caesarean section mothers. Both groups underwent baseline assessment (O_1). The experimental group subsequently received the empowerment-based intervention (X) in addition to routine care, whereas the control group received routine hospital care only. Posttest assessment (O_2) was carried out after completion of the intervention.

Setting and Participants

The study was conducted at private hospitals, Erode, Tamil Nadu. The maternity hospitals with approximately 150 beds and well-equipped obstetric services, including regular caesarean section deliveries. The target population comprised post caesarean section mothers, and the accessible population included primi mothers admitted during the period of data collection who fulfilled the inclusion criteria.

Sampling and Sample Size

A total of 60 post caesarean section mothers were selected through non-probability purposive sampling. Thirty mothers were assigned to the experimental group and thirty to the control group. Mothers aged 20–35 years, primi mothers, mothers with postpartum blues scores greater than 10, those able to understand Tamil or English, and those willing to participate were included in the study. Mothers with severe obstetric complications, psychiatric illness, traumatic delivery history, cognitive impairment, or prolonged neonatal intensive care admission were excluded.

Intervention Description

The empowerment-based approach consisted of empowerment affirmations, deep breathing exercises, and progressive muscle relaxation techniques. The intervention was initiated on the 2nd postoperative day and administered for 20 minutes daily until discharge. The empowerment affirmations included positive statements related to motherhood, self-confidence, emotional strength, gratitude, and coping abilities. Mothers were encouraged to repeat these affirmations using instruction cards provided by the researcher. Deep breathing exercises focused on slow abdominal breathing through inhalation and exhalation cycles to induce relaxation and emotional calmness. Progressive muscle relaxation involved systematic tensing and relaxation of major muscle groups from feet to facial muscles to reduce physical tension and stress.

Audio recordings and instruction pamphlets were provided to facilitate home practice for ten days following discharge. Attendance sheets were maintained by participants to ensure adherence. The control group received routine postpartum care only.

Outcome Variable and Instrumentation

The dependent variable was postpartum blues assessed using the Likert “Am I Blue?” Assessment Scale. The scale consisted of 10 items with six-point Likert responses ranging from Never (1) to Always (6). Scores were categorized as Mild (10–20), Moderate (21–40), and Severe (41–60).

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Content validity was established through expert review by specialists in obstetrics and gynaecological nursing, obstetrics and gynecology, and statistics. Reliability was assessed using the split-half method with Spearman-Brown prophecy formula, yielding a reliability coefficient of r = 0.94, indicating high reliability.

Data Collection Procedure

After obtaining informed written consent, demographic variables and baseline postpartum blues scores were assessed during the pretest on the 2nd postoperative day. Mothers scoring above 10 on the postpartum blues scale were included in the study.

The experimental group received the empowerment-based intervention along with routine care, whereas the control group received routine postpartum care alone. Posttest assessment was conducted on the 15th day using the same assessment scale.

Ethical Considerations

Ethical approval and administrative permission were obtained before data collection. Written informed consent was obtained from all participants. Confidentiality, anonymity, and privacy were maintained throughout the study. The intervention posed no harm to participants, and participation was voluntary.

Results and Interpretation

Demographic Variables

The experimental (n = 30) and control (n = 30) groups were demographically comparable. Most mothers in both groups belonged to the age group of 20–25 years (67%). The majority belonged to nuclear families and had support systems available. Elective caesarean section was common in both groups, and most participants had no family history of postpartum blues or pregnancy complications.

Assessment of Postpartum Blues

Within-Group Comparison

In the control group, pretest findings showed that 93% of mothers had severe postpartum blues and 7% had moderate postpartum blues. During posttest, 74% had moderate postpartum blues and 26% had mild postpartum blues, indicating only moderate natural improvement with routine care.

In the experimental group, 87% of mothers had severe postpartum blues during pretest, whereas posttest findings revealed that 80% had mild postpartum blues and 20% had moderate postpartum blues, indicating substantial improvement following the intervention.

Mean and Standard Deviation Comparison

Group	Pretest Mean ± SD	Posttest Mean ± SD	Difference in Mean (%)	Paired 't' Value	Significance
Control Group	46.8 ± 1.04	27.2 ± 1.05	33%	19.8*	$p < 0.05$
Experimental Group	48.4 ± 1.97	17.4 ± 1.81	52%	30.6*	$p < 0.05$

The paired t-test value for the experimental group was 30.6, which was statistically significant at $p < 0.05$. The control group also showed significant but smaller improvement with a paired t value of 19.8.

Between-Group Comparison

Unpaired t-test analysis demonstrated significant differences between the posttest scores of the experimental and control groups. The calculated unpaired t value was 10.9, which exceeded the table value at $p < 0.05$, confirming that the empowerment-based approach was significantly more effective than routine care alone in reducing postpartum blues.

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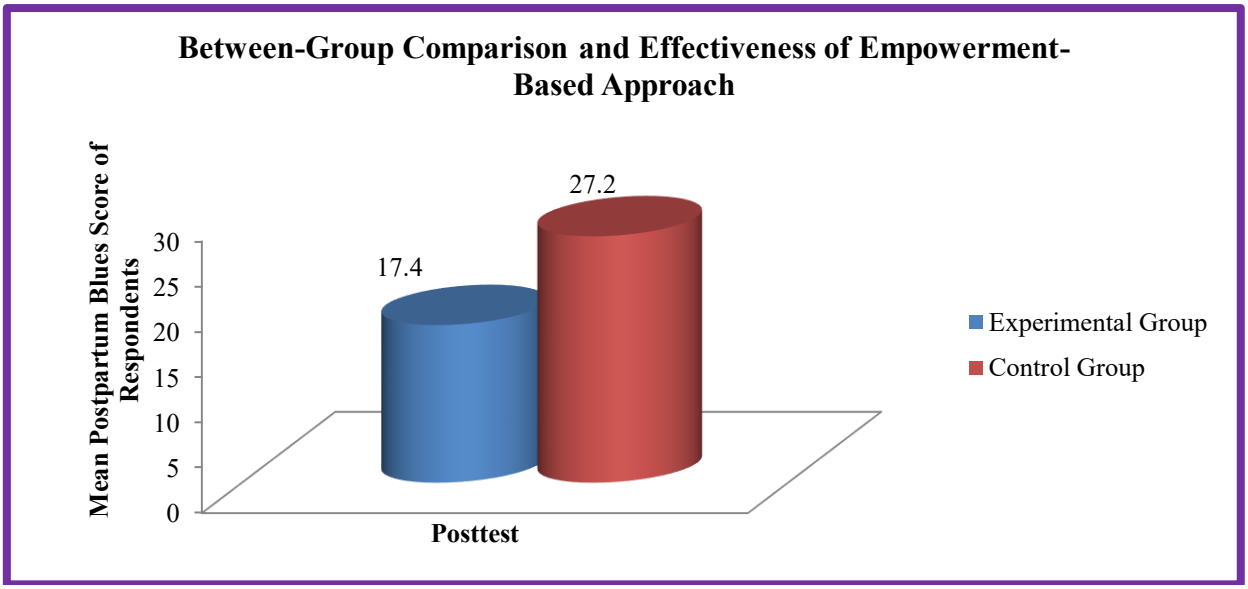

Association with Demographic Variables

Chi-square analysis revealed significant associations between postpartum blues and selected demographic variables. In the experimental group, postpartum blues scores were significantly associated with type of marriage and previous history of abortion. In the control group, significant associations were observed between postpartum blues and type of marriage and gender of the newborn. Other variables such as age, education, type of family, support system, family history of postpartum blues, pregnancy complications, and mode of caesarean section showed no significant association.

Results and Discussion

Demographic Profile and Group Comparability

The experimental and control groups were comparable across demographic and obstetric variables such as age, education, occupation, type of family, parity, type of marriage, and previous obstetric history. Baseline homogeneity between the groups minimized potential confounding variables and strengthened the internal validity of the study findings. Similar demographic comparability has been reported in postpartum psychological intervention studies conducted by **Dennis and Ross (2006)** and **Affonso et al. (2000)**, where comparable baseline characteristics ensured reliable evaluation of intervention effectiveness.

Postpartum Blues Before and After Empowerment-Based Approach

Pretest findings revealed that the majority of mothers in both the experimental and control groups experienced severe postpartum blues following caesarean section delivery. This finding is consistent with previous literature indicating that women undergoing caesarean birth are at greater risk of emotional instability, anxiety, fatigue, and postpartum psychological distress due to postoperative pain, hormonal fluctuations, sleep deprivation, and maternal role transition. Similar findings were reported by **O'Hara and McCabe (2013)** and **Beck (2001)**, who identified early postpartum emotional disturbances as common among postnatal mothers during the first week after childbirth.

Following the implementation of the empowerment-based approach, mothers in the experimental group demonstrated marked improvement in emotional well-being, with most participants shifting from severe postpartum blues to mild postpartum blues during the post-test assessment. In contrast, mothers in the control group who received routine postpartum care showed only moderate improvement.

These findings are supported by studies conducted by **Bastani et al. (2006)** and **Khadivzadeh et al. (2014)**, who reported that relaxation therapy and supportive psychological interventions significantly reduced postpartum emotional distress and improved maternal adaptation after childbirth. Similar effectiveness of breathing exercises and relaxation interventions in reducing postpartum anxiety and depressive symptoms was also documented by **Guardino and Schetter (2014)**.

Effectiveness of Empowerment-Based Approach

The present findings are consistent with previous evidence supporting psychological empowerment and relaxation-based interventions during the postpartum period. Studies by **Leahy-Warren et al. (2012)** demonstrated that emotional support and empowerment interventions improve maternal mental health and reduce postpartum psychological disturbances. Similarly, **Milgrom et al. (2011)** reported that early psychosocial interventions significantly improved emotional outcomes among postpartum mothers.

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Association with Demographic Variables

Significant associations were found between postpartum blues and variables such as type of marriage, previous history of abortion, and gender of the newborn, indicating the influence of sociocultural and reproductive factors on maternal emotional well-being. Mothers with previous adverse reproductive experiences or sociocultural stressors appeared more vulnerable to emotional disturbances during the postpartum period.

These findings are comparable with studies conducted by **Patel et al. (2002)**, who reported that reproductive history, family expectations, and sociocultural pressures significantly influence maternal psychological outcomes in developing countries. Similar associations between reproductive factors and postpartum emotional disturbances were also reported by **Rahman et al. (2004)**.

However, variables such as age, education, occupation, type of family, and support systems did not show statistically significant influence on postpartum blues outcomes. This suggests that empowerment-based interventions may be beneficial across diverse demographic categories irrespective of socioeconomic background.

Conclusion

The present study concluded that the empowerment-based approach was highly effective in reducing postpartum blues among post caesarean section mothers. Mothers who received empowerment affirmations, deep breathing exercises, and progressive muscle relaxation techniques demonstrated significantly greater improvement in emotional well-being compared with mothers receiving routine care alone. The findings support the integration of empowerment-based interventions into routine postnatal nursing care as a culturally appropriate, cost-effective, and non-pharmacological strategy to promote maternal mental health and psychological adaptation during the postpartum period.

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