

Quality of Life Among Postnatal Mothers With Twin Delivery: A Cross-Sectional Study

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ABSTRACT

Several psychological, physiological and social changes impact women's health and wellbeing after giving birth. The health of mothers and their new-borns may be improved by prompt diagnosis of issues, treatment, and interventions. Consequently, the purpose of this research was to examine postpartum women's QoL and the variables that contribute to it.

Method: Eighty women hospitalised to several hospitals in Bikaner, Rajasthan, after giving birth participated in a cross-sectional research that took place in a hospital setting. Postpartum women's quality of life was evaluated using the Maternal Postpartum Quality of Life Instrument (MPQOL-I).

Results: Among women who gave birth, the average MPQOL-I score were 52.06, and over half of the participants, or 39 people, reported a poor quality of life. An average EPDS score of 8.34 was given. A worse quality of life was linked to higher postpartum depression symptoms, as shown by a substantial negative association ($r = -0.797$) between the MPQOL-I score and EPDS score. In addition, postpartum women's quality of life was highly correlated with criteria including their spouse's educational attainment, profession, socioeconomic level, and whether or not they started breastfeeding.

Conclusion: The quality of life was poorer for almost 48.8% of the postpartum women hospitalised to the hospitals that were chosen. Important characteristics related with mother quality of life include symptoms of postpartum depression, socioeconomic status, the educational and career standing of the husband, and the decision to start breastfeeding. Improving postpartum women's well-being may be possible with early assessment and suitable supportive measures.

KEYWORDS: Postpartum mothers, quality of life.

INTRODUCTION

A woman's body goes through slow changes and almost recovers to its pre-pregnancy condition during the six weeks after giving birth, which is called the postpartum period. This period of labour, which starts just after birth and may last up to six months, is known as the fourth stage. In the first, acute phase, which occurs during the first six to twelve hours after birth, there is a subacute phase that occurs between two and six weeks later, and finally, there is a delayed phase that may continue for up to six months.

Hormonal swings, physical recuperation after giving birth, and the responsibilities of caring for a baby are just a few of the difficulties that postpartum women often face. Postpartum depression, anxiety, exhaustion, genital infections, bodily pain, disturbed sleep, incontinence of urine, and problems returning to sexual activity are all possible outcomes of these variables. Postnatal maternal health outcomes may be impacted by sociodemographic characteristics such as mother age, educational level, and reproductive history.

Mothers' physical, mental, and social QoL may be profoundly impacted during the postpartum period. An individual's opinion of how her physical, mental, emotional, and social functioning has been affected by her pregnancy, delivery, postpartum changes, healthcare services, and treatments makes up her health-related quality of life (HRQoL) in maternity populations.

Few studies have examined postpartum women's quality of life, despite the fact that this is an important time for maternal health. While there is some research on postpartum physical difficulties, the most of it has concentrated on these narrower issues, rather than the mother's overall health and quality of life. Both moms and babies might suffer from diminished health and well-being if postpartum evaluation and follow-up are inadequate.

Developing effective and focused treatments to enhance maternal health outcomes requires an understanding of the characteristics related with quality of life during the postpartum period. Improved mother and baby health may result from prompt treatments, proper counselling, social support, and early detection of postpartum depression.

Consequently, this research aimed to evaluate postpartum women's quality of life by administering the Maternal Postpartum Quality of Life Instrument (MPQOL-I) and to determine the variables linked to postpartum quality of life.

OBJECTIVES

1. To assess the quality of life among postnatal mother's with twin delivery
2. To study the associated factors related with quality of life among postnatal women with twin delivery.

MATERIALS AND METHODS

Study Design and Setting

Selected hospitals' postnatal wards served as the sites of this cross-sectional investigation. Study participants were moms hospitalised to the postnatal wards after giving birth who gave their written informed permission and were ready to participate.

Sample Size and Sampling Technique

A total of 96 people were needed for the sample, which was determined using Cochrane's method. This was done by assuming a prevalence of 50% and an acceptable error of 10%. Eighty postpartum women were included in the current research after considering the study's length and practicality. Researchers used a random number table to choose research subjects at random from the postnatal wards.

Procedure and Methodology

After obtaining written informed permission, data were gathered from postpartum moms who met the inclusion criteria using a well-designed, pre-tested, and validated questionnaire.

There were three parts to the survey:

Part A: Included were clinical and socio-demographic factors.

Part B: Utilisation of the Maternal Postpartum Quality of Life Instrument for the purpose of evaluating quality of life (MPQOL-I).

Part C: Edinburgh Postnatal Depression Scale (EPDS) screening for postpartum depression.

Maternal Postpartum Quality of Life Instrument (MPQOL-I)

One specific instrument developed to measure postpartum women's quality of life is the Maternal Postpartum Quality of Life Instrument (MPQOL-I). During the postpartum transition phase, it assesses many aspects of the mother's well-being.

Using exploratory factor analysis, the MPQOL-I identifies five key domains, and its sixteen questions assess these areas:

Edinburgh Postnatal Depression Scale (EPDS)

To detect signs of postpartum depression, many people utilise the Edinburgh Postnatal Depression Scale (EPDS), which is a self-report screening tool. It is a 10-item inventory measuring symptoms of depression that have been present over the last seven days.

Statistical Analysis

The SPSS version 26 was used for data analysis. The socio-demographic and clinical characteristics were summarised using descriptive statistics. When looking for correlations or strengths of correlation between categorical variables, the tools utilised were the odds ratio and the Chi-square test. The association between MPQOL-I and EPDS scores was examined using Pearson's correlation analysis. The predictive connection between the MPQOL-I score and the EPDS score was evaluated using linear regression analysis. Statistical significance was determined by a p-value less than 0.05.

RESULTS

Postpartum women's quality of life and its antecedents were the subjects of the current research. For this study, researchers surveyed 80 women who had just given birth and were hospitalised to certain hospitals' postnatal wards.

Table 1. Socio-demographic characteristics of the study participants (N = 80)

Variable	Category	Frequency (n)	Percentage (%)
Age Group (years)	≤20	20	25.0
	21–25	33	41.3
	26–30	17	21.3
	31–35*	10	12.5
Place of Residence	Rural	41	51.3

Variable	Category	Frequency (n)	Percentage (%)
Educational Status	Urban	39	48.8
	Middle school	18	22.5
	High school	31	38.8
	Higher secondary and above*	31	38.8
Employment Status	Housewife	54	67.5
	Self employed	14	17.5
	Govt./Private job	12	15.0
Socio economic status (Modified BG Prasad Socioeconomic Class)	Class I–III*	26	32.5
	Class IV	43	53.8
	Class V	11	13.8

The age range of the 80 people who took part in the research was 18–35 years old, with a mean age of 24.1. Out of the total number of participants, 41.3% were between the ages of 21 and 25, 25.0% were 20 or younger, and 21.3% were between the ages of 26 and 30. A total of 41 participants, or 51.3% of the total, lived in rural regions, while 39 people, or 48.8%, called metropolitan places home. Of those who were asked about their level of education, 31 (or 38.8%) had finished high school, while 18 (22.5%) had finished middle school. Out of the total number of participants, 54 (67.5%) were housewives and 14 (17.5%) were self-employed. Class IV was represented by 43 individuals (53.8%) on the modified BG Prasad Socioeconomic Scale, whereas Class V was represented by 11 people (13.8%).

Variable	Category	Frequency (n)	Percentage (%)
Education of Spouse	Illiterate	11	13.8
	Middle school	18	22.5
	High school	26	32.5
	Higher secondary & above	25	31.3
Occupation of Spouse	Unskilled	25	31.3
	Self employed	24	30.0
	Govt./ Private job	31	38.8
Family Structure	Joint family	42	52.5
	Three-generation family	23	28.8
	Nuclear/Others	15	18.8

A considerable number of the spouses had finished secondary education; 26 (32.5%) had done so, followed by 18 (22.5%) who had completed middle school. Nonetheless, eleven (13.8%) partners could not read or write. When asked about their occupations, most spouses were either self-employed (30.0%) or worked as unskilled labourers (25, 31.3%). Nearly half of the participants (52.5%) belonged to joint families, while nearly a third (22.8%) belonged to three-generation households.

Table 3. Distribution of Study Participants According to Obstetric Characteristics (N = 80)

Variable	Category	Frequency (n)	Percentage (%)
Parity	Primiparous	42	52.5
	Multiparous (≥2)	33	41.3
	Grand multiparous (≥5)	5	6.3
Mode of Delivery	Normal vaginal delivery	42	52.5
	Caesarean section	38	47.5
Gender of Baby	Male	48	60.0
	Female	32	40.0
Birth Weight	Normal birth weight	56	70.0
	Low birth weight	24	30.0

Correlation between Total EPDS and MPQOL-I Scores

While the mean EPDS score was 8.34 (range: 0-25), the mean MPQOL-I score was 52.06 (range: 27-77). In the research, out of 80 individuals, 39 (48.8%) had a worse quality of life (MPQOL-I score <52), whereas 41 (51.3%) had a higher quality of life (MPQOL-I score ≥52). Higher quality of life was linked to lower levels of postpartum depression symptoms, as shown by a substantial negative association ($r = -0.797$) between the MPQOL-I and EPDS scores (Figure 1).

Values (N = 80):

Variable	Frequency (n)	Percentage (%)
MPQOL-I <52 (Low QoL)	39	48.8
MPQOL-I ≥52 (High QoL)	41	51.3
Total	80	100.0

Table 4. Factors Associated with Quality of Life among Postpartum Women (N = 80)

Variable	Category	Low QoL (n = 39)	High QoL (n = 41)	Odds Ratio (95% CI)	p-value
Spouse's education	Up to High School	30	21	3.78 (1.44–9.97)	0.005*
	Above High School	9	20	Reference	
Spouse's occupation	Unskilled	20	5	38.38 (8.42–74.97)	0.001*
	Skilled/Semi-skilled	19	36	Reference	
Socioeconomic status	Class IV & V	30	24	2.98 (1.27–7.01)	0.011*
	Class I–III	9	17	Reference	
Breastfeeding initiation	Not initiated	10	2	5.56 (1.71–18.02)	0.002*
	Initiated	29	39	Reference	

Significant at $p < 0.05$.

A greater quality of life was reported by women whose husbands had completed higher levels of education, compared to those whose husbands had only completed high school ($p = 0.005$; OR = 3.78, 95% CI: 1.44-9.97). Women were more likely to have a low quality of life if their husbands were unskilled workers ($p = 0.001$; OR = 38.38, 95% CI: 8.42-74.97), and this was also true for the quality of life of mothers overall. Similarly, compared to women from higher socioeconomic classes, those from lower socioeconomic classes (Class IV and V) were more likely to have a poor quality of life ($p = 0.011$; OR = 2.98, 95% CI: 1.27-7.01). Another significant association between not starting breastfeeding and a worse quality of life was found ($p = 0.002$; OR = 5.56, 95% CI: 1.71-18.02).

Table 5: Linear Regression Analysis of MPQOL-I Score Based on EPDS Score (N = 80)

Predictor Variable	Dependent Variable	R	Adjusted R ²	Regression Coefficient (β)	p-value
EPDS Score	MPQOL-I Score	-0.797	0.632	Negative association	<0.001*

For this study, researchers looked at postpartum women and their EPDS and MPQOL-I scores using linear regression analysis. A robust inverse association between postpartum depression symptoms and quality of life was shown by the correlation coefficient ($R = -0.797$). According to the results, MPQOL-I ratings were lower in those with higher EPDS scores. According to the adjusted R-squared value (Adjusted $R^2 = 0.632$), EPDS scores accounted for about 63.2% of the variance in MPQOL-I ratings. The statistical significance of the connection between EPDS and MPQOL-I scores was found to be $p < 0.001$. Variability in quality of life outcomes among postpartum women was shown by the anticipated values ranging from 25.83 to 65.18, with an average expected MPQOL-I score of 52.06 ± 12.96 .

Summary

Parameter	Value
Sample size (N)	80
Mean predicted MPQOL-I score	52.06
Standard deviation	± 12.96
Predicted value range	25.83–65.18
Explained variance (Adjusted R^2)	63.2%
Significance level	$p < 0.001$
Significant at $p < 0.05$.	