

Risk Factors Associated with Caesarean Section and Post-operative Morbidities among Postnatal Mothers: A Descriptive Study in a Tertiary Care Hospital, Haryana

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ABSTRACT

Introduction: Caesarean section (CS) is a vital obstetric intervention that reduces maternal and neonatal mortality when medically indicated. However, increasing CS rates have raised concerns regarding associated maternal morbidity and postoperative complications. Identifying contributory risk factors and evaluating post-surgical outcomes are essential to optimise maternal healthcare services.

Aim: The aim of the study is to assess and describe the risk factors associated with caesarean section and the prevalence and pattern of post-operative morbidities among postnatal mothers admitted to a selected tertiary care hospital in Haryana, with a view to identifying major maternal, obstetric, and clinical factors contributing to caesarean delivery and post-operative complications, thereby generating evidence to support early identification of high-risk mothers, appropriate post-operative management, and improved maternal health outcomes.

Materials and Methods: A hospital-based quantitative descriptive study was conducted among 100 postnatal mothers who underwent caesarean section in a tertiary care hospital in Haryana. Participants were selected through purposive sampling. Data were collected using structured tools assessing socio-demographic characteristics, risk factors for caesarean section (56-item checklist), and post-operative morbidity (45-item checklist). Reliability coefficients were satisfactory (Cronbach's $\alpha=0.98$; KR-20=0.87 and

0.80). Statistical analysis was performed using SPSS version 25. Descriptive statistics, chi-square tests, Odds Ratios (OR), and 95% Confidence Intervals (CI) were calculated. A p-value <0.05 was considered statistically significant.

Results: Emergency caesarean section accounted for 81% of procedures. Major indications included previous caesarean section (23%), hypertensive disorders (15%), oligohydramnios (17%), and foetal distress (12%). Most mothers (92%) were categorised as low risk, while 8% were moderate risk. Moderate post-operative morbidity was observed in 58% of participants (Mean score=6.89 $\pm$ 3.33). Emergency caesarean section was significantly associated with higher risk status ($\chi^2=12.67$, $p=0.002$; OR=4.85, 95% CI: 1.76–13.32). Multigravida status was associated with increased risk ($\chi^2=6.98$, $p=0.008$; OR=3.12, 95% CI: 1.29–7.54). Previous caesarean delivery significantly predicted moderate-to-severe postoperative morbidity ($\chi^2=10.21$, $p=0.006$; OR=3.67, 95% CI: 1.45–9.29).

Conclusion: Emergency caesarean section and previous obstetric history significantly increase maternal risk and postoperative morbidity. Strengthening antenatal screening and enhancing postnatal surveillance may reduce preventable complications and improve maternal outcomes.

Keywords: Maternal risk factors, Obstetric complications, Postoperative morbidity.

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