

## **Birth technology: Induction of birth and its impact on maternal, infant, neonatal mortality and morbidity in Northern Jordan**

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### **Abstract**

Birth technology overuse is an issue of international concern for health professionals, policy makers and families. In spite of the WHO recommendations that no country should have an induction rate more than 10%, the rates of induction of birth have doubled from 10% in 1989 to 20% in 2001 with very wide variations between countries and institutions (WHO, 2001).

In order to provide baseline data about the use of birth technology and its impact on morbidity and mortality in Northern Jordan, an exploratory descriptive study with multi methodological triangulation was performed with a convenience sample of 200 primigravida women who gave birth in 2004. Approval to conduct the study was given by the Human Subject's Committee at JUST.

Data were collected using a self-assessment questionnaire, subject to pre-testing through three pilot studies. Data were analysed using descriptive analysis, bivariate correlations and structural equation modelling. Qualitative data were subject to thematic analysis.

### **Findings**

The majority of women (n=161, 81%) were induced, 27 (14%) had planned caesarean section and 12 women (6%) gave birth spontaneously. Statistical modelling confirmed that Induction of labour leads to significant morbidity for mother and baby ( $P=.068$ ,  $GFI=.925$ ,  $RMSEA=.030$ ,  $CI(.000-.047)$ ). Lower infant Apgar scores, admission to ICU and readmission to hospital were significant outcomes ( $P<.005$ ). Operative deliveries, perineal trauma, lower haemoglobin and postpartum haemorrhage were significant higher for mothers ( $P<.005$ ). Structured equation modelling demonstrated that the technological cycle, once initiated, progressed to a series of further technological interventions. Qualitative findings demonstrate that Jordanian women tended to have negative recollections of their birth experience.

### **Conclusion**

Induction technology is associated with excessive morbidity for mother and baby.