

ABSTRACT

Background: The role of Midwife Obstetric Units (MOUs) as lead caregivers for low risk pregnancies has been a topic of much debate in recent years. It has been suggested that MOUs are more cost effective, and have a less interventionist approach to low risk pregnancies, when compared to Consultant Obstetric Units (COUs).

Objectives: The primary objective of this study was to compare intrapartum delivery procedures, methods of delivery, and maternal and neonatal wellbeing for low risk pregnancies between a MOU and a COU. The second objective was to investigate the predictors of key outcomes such as caesarean sections and perineal tears. The research was carried out at a private obstetric unit in Gauteng from January 2005-June 2006.

Materials and Methods: The study design was a retrospective cohort study, by means of a record review of routinely collected data. 808 subjects (212 COU and 596 MOU patients) satisfied the criteria for a low risk pregnancy during the defined period and were included in the analysis.

Results: Overall the MOU had fewer interventions than the COU, but had very similar maternal and neonatal outcomes. MOU patients were less likely to have an epidural than COU patients ($p<0.001$), and more likely to utilise a bath for pain relief ($p<0.001$). The MOU was also less likely to induce a patient than the COU ($p=0.002$). Primiparous patients accounted for more than 95% of the caesarean section (C/S) rate ($p<0.001$), with the COU performing 2.2 times more C/S on primiparous patients than the MOU. Vaginal birth in the MOU was 2.6 times more likely to be an underwater birth (UWB) than the COU ($p<0.001$). Positive predictors for C/S were COU care, primiparous status and induction of labour. UWB was a positive predictor for grade 1 and 2 perineal tears. There were no maternal or neonatal deaths, in either unit, during the study period.

There were no significant differences between the MOU and COU for maternal morbidity indicators (tears, postpartum haemorrhage, and retained placenta) or neonatal morbidity indicators (Apgar < 7 at 5 minutes and neonatal ICU admission).

Conclusion: The MOU had fewer intrapartum interventions (epidurals and induction of labour) and lower C/S rates than the COU for low risk pregnancies, yet maternal and neonatal outcomes were similar. This study suggests that the MOU can function just as effectively as the COU for low risk pregnancies. Therefore the establishment of more MOUs would have immense resource implications for both the public and private health sectors in South Africa.