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This is the published version of a poster presented at
27th Japan Academy of Midwifery Conference, Kanazawa.

Please cite this article as:


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Outcomes in moderate risk pregnant women undertaking integrated continuity of midwifery care are of considerable interest given international research evidence that effective clinical outcomes and lower rates of medical interventions occur in healthy low risk women receiving care through midwifery continuity models. This study poster provides an overview of a Midwifery Group Practice (MGP) model providing services for all groups of pregnant women at a major tertiary maternity hospital in South Australia. It presents comparative clinical effectiveness and facility use findings between MGP and Standard Hospital Care (SHC) in the moderate risk group. These findings form part of a large data linkage project analyzing quality, efficiency and effectiveness in public maternity services. The research project aims to understand outcomes between a standard hospital maternity service and an integrated midwifery maternity service over a seven year timeframe, 2004 – 2010, as well as short term postpartum maternity service.

Background

Some common population features of women classified as having a ‘moderate’ risk profile. More than half the women in the service are now an established part of SA integrated care. Women and Birth 22(1), 3-9.

Midwifery Group Practice (MGP) improves clinical outcomes and resource use in women whose pregnancies are classified as moderate obstetric risk. Further, MGP is cost effective care and MGP can be a safe “all – risk” maternity service model.

This study examined outcomes for 13 462 women classified as having ‘moderate obstetric risk’ from metropolitan postcodes in South Australia; 5523 nulliparous women and 7939 multiparous women were included. SHC and MGP service groups were compared after proportional matching for parity 74.9% v 24.1% (nulliparous) and 71.8% v 28.2% (multiparous), respectively.

Findings: Medical Intervention and Morbidity

Women undertaking care in MGP service experienced a lower rate of induced birth compared to women in SHC (24.9% ± 3.1%) vs (p = 0.001). Odds of epidural in labour were 0.78 times lower in MGP (95% CI 0.64 - 0.78) compared to SHC. More women in MGP had spontaneous vaginal birth (87.1% v 57.4%). They were also less likely to experience instrumental birth (95% CI 0.71 - 0.91) (11.2% v 13.8%). A significant association for women having elective caesarean section and SHC group was documented (p < 0.001), with odds of an elective caesarean 0.45 times lower in MGP (95% CI 0.35 - 0.52). However, there was no significant association between group and woman having an emergency caesarean. Odds of an inert puerperal urine were 1.13 times greater in the MGP (95% CI 1.03 – 1.24). Fewer MGP women had an episiotomy (0.55 v 0.12), although odds of having a first degree perineal tear were 1.5 times greater for MGP women (95% CI 1.36 - 1.72). Women in MGP were 0.83 times less likely to have a PPH ≥ 500ml than women in SHC (95% CI 0.75-0.92), and 0.64 times less likely to experience infections prior to discharge from hospital (95% CI 0.40 - 1.02). A greater number of MGP babies delivered recto in mother as compared with SHC (79.2% ± 6.4%).

Findings: Hospitalization and Resource Consumption

Hospitalization and resource consumption findings for both MGP and SHC midwifery care model (p < 0.001). These trends were evident in both the antenatal and immediate postnatal periods. They include fewer women's assessment and emergency presentations to hospital in the antenatal period and fewer incidences of antenatal admissions +1% in MGP compared to SHC (9.5% v 14.9%) (1.4% v 3.4%). The range for hospital antenatal admission for MGP women was also lower at 0 – 12 days, as compared to the range in SHC which was 0 – 40 days. There was a significant association between group and number of antenatal visits (p = 0.0001) with MGP women having more antenatal visits, (MGP median = 6, antenatal visits compared with Standard Hospital Care = 5). Length of maternal bed stay in the postnatal period was equivalent (MGP median = 3 days v SHC median = 3 days) Fewer MGP babies were admitted to Special Care Baby Nursery across all levels of acuity (24.8% ± 35.3%).

Findings: Comparative Intervention and Morbidity Outcomes: SHC v MGP

Comparative Intervention and Morbidity Outcomes: SHC v MGP.

Outcomes with no substantive difference for which there was no significant difference in association between outcomes in MGP and SHC included:

- the emergency caesarean section rate (15.1% v 15.8%),
- median postpartum haemorrhage rate 1 500 ml
- birth type (% spontaneous vaginal delivery v induced)
- age and occupational status
- resource use outcomes such as length of stay, length of emergency department stay, length of hospital stay, length of hospital emergency stay and length of hospital bed stay.

Conclusion: Implications for Policy and Practice

MCP care integrated with collaborative and allied health services can improve health outcomes for parthenant women and their babies where moderate obstetric risk status is identified at booking or develops during pregnancy. MGP can reduce routine use of interventions that contribute to maternal and infant morbidity and mortality. The demographic of women in MGP suggests that equity of access is an issue that needs to be addressed. Broader research needs to be given to the expansion of integrated continuity of maternity services to all women at risk status as an important consideration in public health policy and future reform of maternity services in Australia.