

Abstract

# Screening for Lactation Risk Factors in Pregnancy <sup>†</sup>

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The early cessation of exclusive or any level of breastfeeding is often attributed to low milk supply. While perceptions of low milk supply are not always correct, true low milk supply may result from inadequate and infrequent milk removal, as well as postpartum complications such as major postpartum haemorrhage. There is some evidence of associations between certain anatomical and endocrine factors with shorter durations of exclusive or any level of breastfeeding. Many of these factors are identifiable during pregnancy, yet traditional models of maternity care typically do not consider lactation risk. This study aimed to determine the prevalence of anatomical and endocrine lactation risk factors and early breastfeeding outcomes in a cohort of Australian women.

De-identified antenatal lactation risk screening and infant feeding data were extracted from clinical records at maternity clinics where lactation risk screening is routinely performed. The following risk factors were recorded: pre-pregnancy body mass index (BMI, with underweight, <18.5; with normal weight, 18.5–24.9; with overweight, 25.0–29.9; with obesity, ≥30.0), breast growth in pregnancy, pre-existing diabetes, gestational diabetes mellitus (GDM), breast hypoplasia, breast/nipple surgery, nipple piercing, polycystic ovary syndrome (PCOS), thyroid disorder and pituitary disorder. “No lactation risk” was defined as having a normal pre-pregnancy BMI and none of the listed risk factors. Feeding status at 6–8 weeks postpartum was classified as ‘fully breastfeeding’: no food or fluids other than breast milk, ‘mixed feeding’ both breast and commercial infant formula milk or ‘formula only’. The relative risk for fully breastfeeding at 6–8 weeks (in relation to women with no antenatally identified risk factors) was calculated for each risk factor.

There were 581 records accessed, with complete breastfeeding screening data available for  $n = 408$  and  $n = 160$  missing one item (typically BMI or breast growth data). Two-hundred forty-three women (48.5%) had no identified lactation risk factors, 97 (19%) had one risk factor, and 161 (32%) had two or more risk factors. The most prevalent risk factors were pre-pregnancy BMI  $\geq 25.0$  (220 (42%) with overweight or with obesity), no breast growth 111 (24%), and GDM 66 (11%). Feeding outcome data were available for  $n = 414$ . Of women with no antenatally detected lactation risk factors, 81 (77%) were fully breastfeeding at 6–8 weeks postpartum. Relative risks of not fully breastfeeding at 6–8 weeks were obesity BMI ( $RR = 2.01$  (1.44–2.81,  $p < 0.001$ )); overweight or obesity BMI ( $RR = 1.74$  (1.30–2.34,  $p < 0.001$ )), the presence of two or more risk factors ( $RR = 1.76$  (1.33–2.32,  $p < 0.001$ ) and BMI  $\geq 25.0$  together with GDM ( $RR = 2.18$  (1.58–3.01,  $p < 0.001$ )).



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Lactation risk factors may be identified in half of all pregnant women, so lactation risk screening may offer an important strategy in providing targeted breastfeeding education and support to optimise breastfeeding outcomes.

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