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DISCUSSION

Breastfeeding practices in women with type 1 diabetes: A discussion of the psychosocial factors and policies in Sweden and Australia

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ABSTRACT

Background: Women with type 1 diabetes (T1DM) face many challenges during their pregnancy, birth and in the postnatal period, including breastfeeding initiation and continuation while maintaining stable glycaemic control. In both Sweden and Australia the rates of breastfeeding initiation are high. However, overall there is limited information about the breastfeeding practices of women with T1DM and the factors affecting them. Similarities in demographics, birth rates and health systems create bases for discussion.

Aim: The aim of this paper is to discuss psychosocial factors, policies and practices that impact on the breastfeeding practices of women with T1DM.

Findings: Swedish research indicates that the overall breastfeeding rate in women with T1DM remains significantly lower than in women without diabetes in the first 2 and 6 months after childbirth with no differences in exclusive breastfeeding. Breastfeeding initiation and continuation among women with T1DM in Sweden has been shown to be influenced by health services delivery, supportive breastfeeding polices and socio-economic factors, particular perceived support from social networks and health professionals.

Conclusion: There is limited research on the impact of attitudes towards breastfeeding, emotional and social well-being and diabetes-related stress on the decision of women with T1DM to initiate and continue to breastfeed for at least 6 months. A more comprehensive understanding of the breastfeeding practices and psychosocial factors operating during the first 6 months after birth for women with T1DM will be instrumental in the future design of interventions promoting initiation and continuation of breastfeeding in Sweden, Australia and elsewhere.

1. Introduction

Breastfeeding has well recognised maternal, infant and public health benefits.[1] The World Health Organization (WHO) recommends exclusive breastfeeding (only breast milk and medicines) for babies to 6 months of age, and the continuation of breastfeeding for at least 2 years, together with complementary foods.[2] Breastfed infants have a lower risk of developing gastroenteritis, respiratory illnesses, otitis media and Sudden Infant Death Syndrome than infants who are not breastfed.[3] Infants who are not breastfed are at a higher risk of developing type 1 diabetes mellitus (T1DM) and of developing obesity in later life.[4] Despite strong evidence underpinning the WHO recommendations there are marked regional variations in breastfeeding rates. In women with T1DM, breastfeeding rates are suboptimal.

In Australia, initiation rates of breastfeeding have been reported to be between 92% and 96%[5]; however there is a sharp decline in the rates of 'exclusive' and 'any' breastfeeding in each month

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following birth.[6] While Australian rates of breastfeeding initiation and breastfeeding at 3 months are comparable to many OECD (Organization for Economic Co-operation and Development) countries including Sweden, by 6 months they are significantly lower.[7] In the Australian general population in 2011–12, nearly three-quarters (73.9%) of children aged 4 months or less were still receiving breast milk, however by the ages of 6–9 months this figure had decreased to 60%.[8] Less than one-third (29.7%) of children aged 9–12 months were still receiving breast milk (Australian Bureau of Statistics (ABS), 2014).[9] Exclusive breastfeeding to 2 months of age occurred in over half (57.8%) of all children, while 38.6% of children had been exclusively breastfed to at least 4 months or age. Exclusive breastfeeding to at least 6 months occurred in 15–17.6% of children (ABS, 2014)[9,8] with regional variation.[8]

Two Australian national surveys[8,10] have investigated the relationship between socio-economic status and women's attitudes, infant feeding practices and breastfeeding initiation and duration to 3, 6 and 12 months. They found that the gap has widened between the most and least disadvantaged,[8] with higher levels of education and income associated positively with rates of initiation, intensity and duration of breastfeeding.[10] These findings are echoed in a Victorian study[11] that found breastfeeding rates were lowest among women from lower socio-economic groups, those with lower education and incomes, and those from specific cultural groups. Research on the influence of psychosocial factors on breastfeeding initiation and duration specifically among women in Australia with T1DM is lacking.

A recent Swedish and Australian comparative study of breastfeeding in rural areas highlighted that Swedish women without diabetes were more likely to breastfeed 2 months after birth than the Australian women.[12] However, primiparous women in Sweden were significantly less likely than Australian women to be satisfied with the available resources to support breastfeeding, such as the practical help with breastfeeding, information about breastfeeding and formulas as well as breastfeeding support after 2 months.[12] Australian women who were identified as having received optimal assistance the first time they breastfed were more likely to continue breastfeeding 2 months after birth.[12] Moreover, the study highlighted several other factors that possibly influenced breastfeeding outcomes; these included the attitudes of women, their partners and health professionals, as well as socio-economic factors.[12]

The Swedish general population has one of the highest rates of breastfeeding at 6 months in the world, with 65% of infants breastfed (any breast milk) and 10% breastfed (exclusively).[13] This difference between Swedish and Australian breastfeeding continuation is despite many demographic similarities between the two countries; both are high income countries with similar birth rates and total health expenditure. This suggests differences in attitudes and policies impact on practice. Understanding differences might provide critical insights into factors which will positively influence continuation of breastfeeding and might be of particular benefit to 'at risk' populations such as mother and infant affected by T1DM.

The psychosocial and economic predictors of breastfeeding initiation and duration among women with T1DM may identify protective factors for breastfeeding and inform intervention strategies. The aim of this paper is to discuss psychosocial factors, policies and practices that impact on the breastfeeding practices of women with T1DM.

2. Breastfeeding in women with type 1 diabetes

The prevalence of T1DM in pregnancy is approximately 0.3% in Australia[14] and 0.5% in Sweden.[15] The condition is associated with increased maternal morbidity, longer periods of hospitalisation, impairment of quality of life (QoL) and higher rates of medical intervention.[16–18] In addition, there is a greater risk of adverse perinatal outcomes,[19] increased perinatal mortality and morbidity, congenital anomalies, prematurity, macrosomia, neonatal hypoglycaemia, respiratory distress syndrome, polycythaemia and jaundice.[20] Exclusive breastfeeding infants of T1DM mothers is an important component of optimising neonatal outcomes.[19] Despite this women with diabetes are less likely to initiate breastfeeding, and are likely to breastfeed for a shorter duration than other childbearing women.[21,22] Breastfeeding can be problematic for women T1DM because of glycaemic instability in the postpartum period, especially in the first 2 months.[23] There is evidence that women with T1DM have rapid cessation of brestfeeding[18] and compared to women without diabetes report reduced general emotional well-being and higher levels of anxiety and depression.[23]

Infants of women with T1DM are at increased risk of hypoglycaemia.[24] The need for management of neonatal hypoglycaemia, and the increased likelihood of admission to a special care nursery, can influence early initiation of breastfeeding.[24] Separation of mother and infant further decreases the likelihood of successfully establishing breastfeeding.[25] Women with T1DM often experience a delay in lactogenesis of up to 24 h compared to women without diabetes,[26] further compounding the risk of their infant receiving non-breast milk supplementation where breast milk from a breast milk bank is not accessible. Despite the fact that the Australian National Breastfeeding Strategy 2010–15 identifies diabetes as a major barrier to breastfeeding,[27] there are currently no identified Australian studies of breastfeeding rates in women with T1DM and there is little research internationally concerning breastfeeding in women with T1DM. However, recently Swedish researchers have published in this specific area. For example, a Swedish cohort study revealed that while the overall breastfeeding rate was significantly lower among women with T1DM[28,29] (62% versus 77%) there was no significant difference in exclusive breastfeeding rates at either 2 or 6 months between women with T1DM and those without diabetes. Breastfeeding intention is known to be a strong predictor of breastfeeding, and two available studies indicate that women with T1DM have less intention to breastfeed than women without diabetes.[21,22]

The Swedish study found that diabetes does not affect long-term breastfeeding directly, however it is likely to impact on breastfeeding initiation due to factors indirectly linked to diabetes.[29] Therefore, supporting initiation in women T1DM could have a significant impact on breastfeeding at 6 months.

While there is substantial literature on the role of psychosocial factors in breastfeeding there is very limited research on breastfeeding among women with T1DM. A recent systematic review focusing on women without diabetes examined psychological correlates of exclusive breastfeeding to 4–6 months duration.[30] This review reported that psychosocial factors are not only implicated in exclusive breastfeeding duration but they can also be changed through intervention and experiences. These findings are highly relevant to health professionals in Australia and other OECD countries. However, review of the literature highlights the gap in our knowledge about psychosocial factors in breastfeeding practices and T1DM.

3. The impact of psychosocial factors on breastfeeding and well-being in transition to motherhood

Our appraisal of the literature relating to pregnancy in women with T1DM indicates that while numerous studies[31,32] have focused on the physical and medical aspects of the condition, fewer have been concerned with psychosocial impacts. This gap in evidence has been addressed in part by a recent emerging body of