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**Welcome** to the eleventh issue of Midwifery Research Review.

We begin this issue with an interesting study evaluating the relationship between maternal diet and alcohol consumption and discover that women have a heightened awareness of their diet and alcohol intake during pregnancy and consequently will make a determined effort to eat healthily and moderate their alcohol intake. Following on, we investigate the impact of mode of delivery on long-term health-related quality of life with our review of a prospective population-based study from the UK. Among the other studies included in this issue we look at the influence of hospital routines on skin-to-skin contact in the first 2 hours after birth, customised management of the third stage of labour, the effect of maternal obesity on labour duration, Australian policies and guidelines for water immersion during labour and birth, the uptake of external cephalic version for term breech presentation and castor oil for induction of labour in post-date pregnancies.

We hope you enjoy reading this review and look forward to your comments and feedback.

Kind Regards,

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**Exploration of dietary patterns and alcohol consumption in pregnant women in the UK: A mixed methods study**

Authors: Coathup V et al.

**Summary:** This UK mixed methods study used the Alcohol Use Disorders Identification Test Consumption to measure alcohol consumption, a Food Frequency Questionnaire (n = 350), and in-depth semi-structured interviews (n = 6), to investigate relationships between maternal diet and alcohol consumption. Women with frequent alcohol consumption before and during pregnancy were more likely to have a ‘Prudent’ dietary pattern. There was no relationship between alcohol consumption and the ‘Cafeteria’ dietary pattern. Qualitative analysis of the interviews identified six themes (1) pregnancy as a time to review behaviour; (2) listen to your body, it will tell you what you need; (3) treats are still important on special occasions; (4) social and cultural expectations constrain behaviour; (5) inconsistent or ambiguous information creates uncertainty; and (6) confidence increases following a successful pregnancy.

**Comment (KB):** This important and interesting study investigates the association between maternal dietary patterns and alcohol consumption during pregnancy and explores what influences women’s decisions between the factors. 95% of women in this study reported consuming some alcohol 12 months prior to their pregnancy with 41% of the sample drinking up to 2-3 times a week. During pregnancy, the alcohol consumption of this particular group of women changed remarkably, with 67% of the women testifying that they did not drink any alcohol during pregnancy. The remainder of the sample who continued to consume alcohol admitted to consuming 1-2 units a week. In addition, dietary intake was also assessed with two different types of diets being evaluated. The diets included the ‘Prudent’ dietary pattern, which comprised of fresh fruit, vegetables, fish, salad and pulses. The other diet was classed as a ‘cafeteria dietary pattern’, which was characterised by fried food, chocolate, sweets, pudding and cakes. Interestingly, women who reported drinking alcohol 2-3 times a week before pregnancy were much more likely to follow a ‘Prudent’ style diet compared with women who reported drinking alcohol on a less than monthly basis prior to pregnancy. Similarly, during pregnancy women who reported drinking alcohol 2-4 times per month had a significantly higher adherence to the ‘Prudent’ diet when compared to women who reported no alcohol consumption during pregnancy. Unlike previous studies, which have come from non-pregnant populations, there was no relationship between the quantities of alcohol consumed and maternal dietary patterns. All the women in the study understood that there was a risk of harm to the growing fetus from a heavy consumption of alcohol. Women who continued to drink low amounts of alcohol believed that there was minimal risk to the fetus by continuing to consume low amounts of alcohol during their pregnancy. Women themselves reported feeling confused about the safe limits of alcohol intake due to the inconsistent advice they received from midwives and other healthcare professionals. As a consequence, many women appeared to follow the advice from family and friends. This tells us that the importance of social and cultural expectations should not be underestimated, for example women who continued to drink alcohol during their pregnancy described this as the accepted norm within their own social group. However, this same group also stated that they would refrain from social drinking if they perceived that this would be considered as socially unacceptable within a particular group that they found themselves socialising with. In summary, the findings from this study suggest women have a heightened awareness of their diet and alcohol intake during pregnancy and as a consequence will make a determined effort to eat a healthy diet and moderate their alcohol intake during pregnancy.

Reference: Midwifery 2017;51:24-32

**Abstract**
Mode of delivery and long-term health-related quality-of-life outcomes: A prospective population-based study

Authors: Petrou S et al.

Summary: This English prospective population-based study examined mode of delivery effects on long-term (12 months postpartum) health-related quality of life (HRQoL; EuroQol Five Dimensions [EQ-5D]) outcomes among 2161 mothers. Overall HRQoL profiles of the cohort resembled those of the English adult population determined in national health surveys. 12-months postpartum, more women delivering by caesarean than those undergoing spontaneous vaginal delivery reported some, moderate, severe, or extreme pain or discomfort. Multivariate analyses, after controlling for maternal socio-demographic characteristics, indicated that caesarean delivery without maternal or fetal compromise was associated with a decrease in EQ-5D utility versus spontaneous vaginal delivery in all women (-0.026; p = 0.038) and in mothers of term-born infants (-0.062; p < 0.001). This also occurred in models that controlled for all maternal and infant characteristics in term-born infants (utility decrement -0.061; p < 0.001).

Comment (KB): Globally, caesarean section rates continue to increase, and empirical evidence informs us that women who give birth by caesarean section are at a much higher risk of experiencing maternal morbidity than those who give birth vaginally. This study by Petrou and colleagues adds to the evidence by exploring the effects of mode of birth on long-term HRQoL outcomes in women. It is already known that women who gave birth vaginally in the short term (first few months following birth) have significantly better outcomes in terms of physical, mental, social and pain dimensions of HRQoL measures. Therefore, it is timely that we now consider the long-term outcomes associated with different modes of birth. Mode of birth for this particular study was categorised as spontaneous vaginal, instrumental vaginal or caesarean birth. The study revealed that a significantly higher proportion of women delivering by caesarean section reported some, moderate, severe or extreme pain or discomfort at 12-months postpartum compared with women who experienced a spontaneous vaginal birth. Additionally, it was noted that the negative influence of caesarean section on long-term HRQoL might be mediated through operative complications, elevated risks of maternal morbidity and adverse outcomes in subsequent pregnancies. The strengths of this study lie in the fact that it was a geographically large population cohort (n = 2161) and was assessed using validated research instruments and a comprehensive econometric strategy.


Abstract

Hospital routines promote parent-infant closeness and cause separation in the birthing unit in the first 2 hours after birth: A pilot study

Authors: Niela-Vilén et al.

Summary: This Finish single-centre, qualitative, descriptive pilot study from the point of view of midwives or auxiliary nurses (n = 14), explored parent-infant closeness and separation in the first 2 hours after birth, and factors that promote closeness or result in separation in the birthing unit. An application downloaded on a smartphone was used over 20 work shifts to record all closeness and separation events they observed between infants and parents. Participants described more closeness than separation events and indicated that the staff aimed for mother-infant closeness, with father-infant closeness a secondary goal. Closeness was mostly skin-to-skin contact and conducted as a normal routine care practice. Where infants were separated from their parents it was for routine measurements and because of compromised infant health.

Comment (KB): Immediate skin-to-skin contact of newborns with their mother after birth is highly recommended as best practice in that it promotes the physiological adaptation to extrauterine life and promotes breastfeeding. However, in some situations this optimal mother-infant interaction may not occur as some infants are separated from their mother, either due to the wellbeing of the newborn at birth or due to current hospital systems and work practices. These barriers are even more prominent for those women whose babies are born by caesarean section. This qualitative descriptive study examined what factors promoted and supported maternal-infant closeness in the first 2 hours after birth. The study was conducted in a maternity hospital in Finland, where skin-to-skin contact, regardless of the type of birth, is considered as best and normal practice. In this particular hospital, the normal practice following a caesarean section is to place the baby skin-to-skin with the father until the mother is transferred into recovery. Once settled in recovery the baby is transferred to the mother for skin-to-skin. In the case of a vaginal birth, skin-to-skin with the father was not promoted until after the newborn received their first breastfeeding. The findings from this small study demonstrated that although the staff (11 midwives and 3 auxiliary nurses) strived to promote mother-infant closeness, including skin-to-skin, this was secondary to ensuring that they adhered to hospital policies and routines without fully understanding the evidence behind why promoting skin-to-skin was important. The theatre setting appeared to present some challenges for early maternal-infant skin-to-skin and although this presented an opportunity for fathers to be close with their newborn infant, this should not be at the cost of maternal skin-to-skin. Indeed, regardless of the theatre setting, early skin-to-skin should be encouraged. It is considered that it is purely organisational concerns such as the clinical environment that prevent this from happening. Every effort should be made to reduce such obstructions, especially when a caesarean birth is known to reduce the initiation of breastfeeding, by increasing the length of time before the first breastfeeding can occur.

Reference: Birth 2017;44(2):167-72

Abstract
Customised management of the third stage of labour
Authors: Springhall E et al.
Summary: This was a single centre analysis of the impact of a protocol change in management of third stage labour from oxytocin alone (n = 549) to Syntometrine® (oxytocin/ergometrine; n = 333), on the postpartum haemorrhage (PPH) rate in women with a singleton, full-term vaginal birth. PPH rate did not change with change in protocol and there was no interaction between labour types, third stage uterotonics and PPH. Non-significant differences were observed in PPH rates in spontaneously labouring women who received Syntometrine® (19% oxytocin; 14% Syntometrine®) and when Syntometrine® was used for induction (22% oxytocin; 27% Syntometrine®). PPH rate was unchanged in women whose labour was augmented (34% for both uterotonics).

Comment (KB): PPH is defined as an estimated blood loss equal to or greater than 500 mL and it is a leading cause of maternal morbidity and mortality worldwide. Despite the advances in clinical knowledge and evidence, the rates of PPH in developed countries appear to be increasing. There are several suggestions that could account for this increase, including an increased maternal age, maternal obesity and an escalation in augmentation and caesarean section rates. In response to this increasing rate of PPH, a hospital in Melbourne purposefully changed their protocol for the management of the third stage of labour from oxytocin to Syntometrine® for women undergoing an induction or augmentation of labour. However, the results from this quasi-experimental study, which involved a random sample of 1200 women, demonstrated that the use of Syntometrine® in the third stage of labour did not significantly reduce the rate of PPH when compared to oxytocin. In the group of women who underwent induction or augmentation of labour the rate of PPH was in fact slightly higher in the group of women who had received Syntometrine®. (27% Syntometrine®, 22% oxytocin). Additionally, the findings from this study indicated that the rates of PPH differed by labour type, 19.3% for spontaneous labour, 34% for augmented labour and 26% for induced labour. Overall, the results from this study confirm the findings from previous studies, that oxytocin is as effective as Syntometrine® in reducing the risk of a postpartum haemorrhage, especially in low risk populations. Nevertheless, Springhall and colleagues do acknowledge that there are some limitations with their findings, for example, this was not a RCT. They also stress the importance of standardisation before drawing too many conclusions about relative efficacies of uterotonics as some risk factors can have a stronger association with PPH than others.

Abstract

Maternal obesity and its effect on labour duration in nulliparous women: a retrospective observational cohort study
Authors: Elikjær KL et al.
Summary: This Danish, single-centre, retrospective observational cohort study described the relationship between early-pregnancy BMI and duration of labour in 1885 nulliparous normal weight (BMI <25 kg/m²; n = 1246), overweight (BMI 25-29.9 kg/m²; n = 350) and obese (BMI ≥30 kg/m²; n = 203) women. The duration of total or first stage active labour did not differ between normal weight and overweight (aHR 1.01; 95% CI 0.88-1.16) or obese (aHR 1.07; 95% CI 0.90-1.28) women; median active labour duration was 5.83, 6.08 and 5.90 hours. However, the caesarean delivery risk was increased in overweight (OR 1.62; 95% CI 1.18-2.22) and obese women (OR 1.76; 95% CI 1.20-2.58), and caesarean deliveries were performed earlier in labour in obese women (HR 1.80; 95% CI 1.28-2.54).

Comment (KB): The main purpose of this retrospective study was to explore the association between a high BMI and length of labour. The worldwide prevalence of obesity has increased substantially over the past few decades and this is thought to be due to economic, technologic, and lifestyle changes. The risks and complications of a maternal high BMI are thought to include gestational diabetes, preeclampsia, macrosomia and shoulder dystocia. The findings of this study did establish a slight increase in labour duration during the second phase of labour for women with a raised BMI, but overall showed no actual difference in the total length of labour when compared with normal weight women. There was also an increase in the caesarean section rates in the group with a raised BMI; however, this particular finding must be considered with the realisation that when compared to women in the normal-weight group, women with a raised BMI had tighter time restrictions placed upon them during the second stage of labour. It is also important to acknowledge that a high BMI does not always necessarily equate to being unhealthy or unfit, for example some professional athletes may have a high BMI because they have a higher muscle mass, which is not excess fat, yet in pregnancy they could find themselves being labelled and placed in a high-risk category.

Reference: BMC Pregnancy Childbirth 2017;17(1):222
Abstract

A critical analysis of Australian policies and guidelines for water immersion during labour and birth
Authors: Cooper M et al.
Summary: This 3-phase mixed-methods study used critical discourse analysis to determine how 25 Australian water immersion policies and guidelines were informed, were interpreted the evidence and how they facilitate options for labour and birth. The authors suggest that the policies/guidelines reflect subjective opinions and views of current literature in favour of risk-focused obstetric and biomedical discursive practices. Written with a degree of hegemonic influence, the policies/guidelines impact the autonomy of both women and practitioners.

Comment (MS): I would encourage all midwives to read this paper irrespective of whether they have an interest in water birth. This paper describes a working environment most midwives will be familiar with. There has been an increasing emphasis on risk assessment, with the introduction of policies and guidelines deemed to be part of the wider governance issue that promotes “safe birth”. But as you read this paper think carefully about what is happening to women’s choice within this movement, and how it impacts upon midwifery knowledge and practice. The description of “hospital midwifery” where the dominant obstetric and biomedical discourses disempower midwives and restrict their intuitive and reflexive practice will resonate with many of you. The control and management of a woman’s use of water in labour and birth is the topic under review here, but it could relate to many other areas where women see their choices denied and midwives their practice restricted. The worrying thing outlined in this paper is the inappropriate and selective use of “evidence”. Midwives should challenge and claim back their practice and support the research that creates an alternative “body of evidence”. In the case of water immersion and birth, support the women, support the practice, undertake the studies, and take back control.

Reference: Women Birth 2017;May 18 [Epub ahead of print]
Abstract

Independent commentary by Associate Professor Mary Sidebotham & Dr Kathleen Baird

Associate Professor Mary Sidebotham is a registered midwife and is currently employed by Griffith University as the Program Director of Primary Maternity Care degree programs. She is a visiting Associate Professor at the Gold Coast University Hospital Queensland and a member of the research ethics committee. Mary is the Midwifery Editor of the Nurse Education in Practice Journal. She contributes to maintaining professional standards through her work as a midwifery educational program assessor for the Australian Midwifery Accreditation Council, an approved panel member for the NMBA and as an assessor for the Queensland Civil and Administrative Tribunal.

Dr Kathleen Baird is a Midwifery Lecturer within the School of Nursing and Midwifery at Griffith University, Queensland, Australia and is the Director of Nursing and Midwifery Education, Women’s and Newborn Services, Gold Coast University Hospital. She is also joint director of the newly formed Centre for Women’s and Newborn Research, Gold Coast University Hospital and Menzies Health Institute Queensland. Kathleen is an educational program assessor for the Australian Midwifery Accreditation Council, and holds an appointment as a Senior Research Fellow with the University of the West of England.
Uptake of external cephalic version for term breech presentation: an Australian population study, 2002–2012

Authors: Bin YS et al.

Summary: This retrospective analysis of routine hospital and birth records described the uptake of external cephalic version (ECV) for term breech presentation (n = 32,321) in New South Wales from 2002–2012. In total, 10.5% underwent ECV, 22.3% were ineligible, and 67.2% were eligible but did not have ECV. Women who had ECV were likely to be older, multiparous, overseas-born, public patients, and to deliver in tertiary hospitals in urban areas than those who were eligible but did not undergo ECV (p < 0.01). Fewer women who had ECV smoked during pregnancy, were morbidly obese, and/or had a hypertensive disorder of pregnancy. In 25.9% of successful versus 95.6% of unsuccessful ECVs a caesarean section was required. ECV success did not affect infant outcomes.

Comment (MS): The wide-scale uptake of the recommendation to offer a woman whose baby is in a breech presentation at term a caesarean section is a major contributor to the global increase in caesarean section rate. ECV is an alternative that should be offered to eligible women, but this paper shows that the majority of women who have a breech presentation at term in New South Wales do not appear to be offered or are accessing the procedure. There are interesting differences in demographics between those women who do and those who do not access ECV. For example it is more commonly performed in the public sector, with higher rates in urban and tertiary centres. Whilst there is an increasing recognition that some women will elect vaginal birth in these circumstances, ECV should be made available as an option for all women who want this choice. This means ensuring clinicians develop and maintain this skill. Solutions should be sought to widen access. The authors suggest the development of specialist breech clinics in tertiary centres may account for the results seen in this paper. Is this the only solution though? Some midwives may question who should perform an ECV? Could midwives undertake the procedure? The important thing is to start the conversations. What can and should we do to improve on the figures reported here? This is a real opportunity to reduce surgical birth and one that midwives and obstetricians should work together in an evidence-informed way to ensure all women are offered and have access to this procedure.

Reference: BMC Pregnancy Childbirth 2017;17(1):244

Abstract

Castor oil for induction of labor in post-date pregnancies: A randomized controlled trial

Authors: Gilad R et al.

Summary: This RCT examined the use of 60 mL of castor oil (n = 38) or 60 mL of sunflower oil (control; n = 43) as an outpatient induction agent for post-date pregnancies in women with low-risk post-date singleton pregnancy (Bishop score ≤7). An interaction between castor oil and parity was found to be significant (HR 3.29; p = 0.026) and 48 (HR 2.78; p = 0.042) hours after consumption of castor oil versus sunflower oil. Fewer women who had ECV smoked during pregnancy, were morbidly obese, and/or had a hypertensive disorder of pregnancy. In 25.9% of successful versus 95.6% of unsuccessful ECVs a caesarean section was required. ECV success did not affect infant outcomes.

Comment (MS): The wide-scale uptake of the recommendation to offer a woman whose baby is in a breech presentation at term a caesarean section is a major contributor to the global increase in caesarean section rate. ECV is an alternative that should be offered to eligible women, but this paper shows that the majority of women who have a breech presentation at term in New South Wales do not appear to be offered or are accessing the procedure. There are interesting differences in demographics between those women who do and those who do not access ECV. For example it is more commonly performed in the public sector, with higher rates in urban and tertiary centres. Whilst there is an increasing recognition that some women will elect vaginal birth in these circumstances, ECV should be made available as an option for all women who want this choice. This means ensuring clinicians develop and maintain this skill. Solutions should be sought to widen access. The authors suggest the development of specialist breech clinics in tertiary centres may account for the results seen in this paper. Is this the only solution though? Some midwives may question who should perform an ECV? Could midwives undertake the procedure? The important thing is to start the conversations. What can and should we do to improve on the figures reported here? This is a real opportunity to reduce surgical birth and one that midwives and obstetricians should work together in an evidence-informed way to ensure all women are offered and have access to this procedure.

Reference: BMC Pregnancy Childbirth 2017;17(1):244

A survey of Australian midwives’ knowledge, experience, and training needs in relation to female genital mutilation

Authors: Turkmani S et al.

Summary: This paper reports the findings of an online, self-administered, descriptive survey, conducted through the Australian College of Midwives’ website, on the knowledge, experience and needs of midwives caring for women with female genital mutilation (FGM). Of 198 responses, 24% indicated no knowledge of the correct classification of FGM, almost half (49%) indicated no FGM training during midwifery education, and 8% had been asked, or knew others who had been asked to perform FGM in Australia. Many were unclear about the law or health data related to FGM and were not aware of referral paths.

Comment (MS): This survey reports on midwives self-reported knowledge on the classification and management of women who have undergone FGM. It is disappointing that the responses were mainly from one State in Australia – but despite this the results confirm that this is an area of practice that midwives acknowledge the need for education and support to enable them to provide appropriate support and care for women. Australia is a multicultural society and midwives should take every opportunity to access education that will enable them to provide individualised care for all women based on their needs. This can begin by working with women in order to determine those needs. If a woman has undergone FGM she is more likely to reveal that and ask for support but also be more guarded in their relationship with a midwife who she trusts. Too often though the woman arrives in labour, meets a midwife she doesn’t know and who doesn’t know what to do, who brings in a doctor who too is faced with uncertainty. This could be avoided by greater provision of caseload care for all women, but particularly for women from refugee communities where the practice is common. The midwife could work with the woman to ensure referral for deinfibulation if needed could occur before birth, or appropriate plans including and respecting the woman’s wishes were made for birth. In order to gain the knowledge and skills needed, midwives should work with communities and be willing to learn from the community in order to support women within the community who have undergone this procedure. This includes avoiding the judgemental attitude we see all too often when condemning this practice, and instead trying to understand. As reported in the paper there has been major inroads made by the international community to restrict this practice, but in areas where women are subjugated and disempowered the risk remains. My challenge then to midwives who judge women who request re-infibulation is what is your response to the fact that many young Australian women are undergoing aesthetic vaginoplasty and labiaplasty in order to look more like what they see in films and magazines? All women need our support to be self-determining – sometimes it’s more obvious who those women are, which is why relationship-based care within a caseload model should be available to all women.

Reference: Women Birth 2017; Jul 4 [Epub ahead of print]

Abstract

Reference: Women Birth 2017; Jul 4 [Epub ahead of print]

Abstract

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Midwifery continuity: The use of social media

Authors: McCarthy R et al.

Summary: This sub-study of a larger research project on online social learning within professionally moderated social-media-based communities, examined the experiences of women using a social media platform to access known midwives (31 mothers; 4 midwife moderators), and their continuity-of-care experiences and perception through thematic analysis of 28 interviews and eight focus groups using prior themes. For both the mothers and the midwives relational continuity was identified, while informational continuity was identified by the mothers; neither group identified management continuity. Both mothers and the midwives valued the continuity provided by social media use.

Comment (MS): When I first saw the title of this paper I was really interested in reading further. I know many midwives who work in continuity use texting, Facebook messaging, Skype etc., to keep in contact with women so expected it to be aligned to midwives using social media as an adjunct to providing continuity. Readers will see though that this paper actually reports an attempt to place a sticking plaster on a very broken system. There are increasing reports from the UK of the strain the midwifery profession is under. Midwives are publically stating their workloads are too high and they wish they could give better care to women. Women too (as in this study) say midwives are overworked and do not have time for them — women feel they cannot ask questions and feel their needs are unmet — everyone appears to be dissatisfied with the ailing system of maternity care in the UK. Taken literally though, it is good to see that the four midwives and 31 women who took part in this study found the moderated Facebook group to be beneficial, but this is not a solution to the bigger problem.

Reference: Midwifery 2017;52:34-41

Abstract

For babies with dry skin:

AVEENO® Baby Dermexa Moisturising Lotion with colloidal oatmeal moisturises and protects for 24 hours