Design Your Own Midwifery Unit - Making the Evidence Count

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As part of the final theory module in a Shortened Midwifery Programme (PG Diploma) at the University of the Highlands and Islands, student midwives were invited to design their own ‘dream’ community midwife-led unit (MLU) based on Scotland’s *The Best Start* recommendations. Using the evidence to support their individual designs students demonstrated their understanding of the impact of the environment and the importance of continuity of care(r). Each MLU was thoughtfully designed and displayed the students’ firm grasp of the ‘ideal’, and the ‘dream’ midwife-led environment – supported by the evidence.

‘Being a midwife, *Best Start and the Context of Care*’ was the title given to the final module of the Shortened Midwifery Programme and the focus corresponded with recommendations within *The Best Start* review of maternity services in Scotland.

As one of several formative challenges the students were invited to design their own ‘dream’ community midwife-led unit based on those recommendations. They were also advised to incorporate art (as has been the practice throughout the programme). Using the evidence to support their ideas each group presented a PowerPoint presentation to the class to describe their unit designs, what each unit would offer to women and to demonstrate their understanding of the impact of the environment on women including the importance of continuity of care/carer.

**Box 1. The evidence for CMUs**

Studies into the benefits of continuity of care and provision of midwifery care in Community Midwifery-led units (CMUs) are abundant. For low risk, nulliparous women, giving birth in a CMU is as safe as hospital for place of birth. Others have identified that women who received midwife-led care were less likely to experience intervention and to have greater satisfaction with their care.
Three groups of students were formed with the challenge of producing a design for their own Midwife-led Unit (MLU), taking *The Best Start* into account. The designs were to be predicated on two key facts: that Covid-19 had been eradicated and that money would be no object...! They were invited to suggest a name for their unit, a philosophy including beliefs, values and goals, to design the birthing environment and rooms with diagrams of their plans, and to identify specific practices in their units that would ensure a non-clinical and friendly environment throughout the childbirth continuum.

Three designs for MLUs were presented under potential names (see boxes 2-4). The aim of this article is to demonstrate the students’ enthusiastic uptake of the evidence and provide a synthesis of their designs of midwife-led units which could potentially be a template for the future in the north of Scotland.

**Box 2. Highland Oak Birth Unit**

Presented by Caroline Macleod, Louise Wilson, Lindsay Ross and Roslyn Lohse

So named because the oak tree is the image with which midwives like to compare childbearing women - strong and empowered.

**Box 3. Sonas Birth Unit**

Presented by Lucy Halls, Caroline MacDonald, Klaudia Zbikowska, and Eilidh Ryan.

So named because **Sonas** in Gaelic means happiness, bliss, passion, success.

**Box 4. Highland Serenity Birth Unit**

Presented by Alison Henderson-Wright, Dawn Searles, Joanne McMaster and Dianne Goodlad

‘Serenity’ is defined as ‘a state of being calm, peaceful and untroubled leading to a calm, relaxed and friendly atmosphere.’ The aim of the Highland Serenity Birth Unit is for every woman and family who walks through the doors, to achieve this positive state of inner peace.
Designs

Sonas MLU Design of Labour Room

Sketch by Eilidh Ryan

Highland Oak MLU

- At Reception - a mural of an oak tree representing the name of the Unit where women/families would be invited to leave a memory tag after the birth of their baby.

There will be therapeutic outdoor spaces and gardens with views to seafront and woodland settings for couples and staff to enjoy.

Highland Serenity MLU
Philosophy of each MLU (see Box 5)

MLU environment

Each unit wanted to create a comfortable, safe, nurturing ‘haven’ for low-risk women and their families throughout the childbearing continuum. It would be a friendly, welcoming, homely, supportive and multi-sensory environment to aid relaxation during low-risk pregnancy and labour. A quiet, calming environment in terms of light, temperature, music and privacy, as care with dignity can decrease the need for medical intervention in labour. It would include opportunity for enjoying nature, gardens and fresh air.

Safe, effective evidence-based care

Emphasis was placed on the importance of the highest possible standards of safe, effective, evidence-based care and the provision of information according to best practice as supported by the UK’s Nursing and Midwifery The Code.

Continuity of Carer

All women would have continuity of named midwife throughout their entire maternity journey in order to provide individualised and personalised care developing meaningful, trusting and therapeutic relationships.

Informed choice and decision-making

Familiar with the experience of the Sandwell and West Birmingham NHS Trust, which found that when women are relaxed they are more able to make decisions and voice their choices about labour and birth, the design of all three MLUs by the students, included the promotion of women’s birth rights, and support, honour and respect of their informed choices. Decisions would be made together by the woman and her midwife and in more complex situations, the obstetrician would also be involved.

Multidisciplinary team working

While working in a multi-agency team culture, midwives would enjoy professional autonomy and accountability in an environment that meets the needs of the women they serve, with everyone’s contribution being equally valued. General Practitioners (GPs) would be involved as they provide long term support for women and their babies.

Family-centred care

All three MLUs would provide woman/family-centered care that would deliver a positive experience for women and their families, with a strong emphasis on collaborative and holistic birthing with love and compassion where everyone matters.

Active birth

Women would be encouraged to mobilise during labour to minimise intervention in the absence of complications, thus promoting active, natural childbirth.
Breastfeeding support

Breast feeding support workers, groups, and clinics for drop-in support would be provided. Serenity MLU aimed to ensure all members of the team were trained and regularly updated according to Baby Friendly Initiative (BFI) standards.¹⁴

Box 5. Shared themes in the philosophy of each MLU

- Comfortable, safe, nurturing
- Continuity of carer
- Informed choice and decision-making
- Multi-disciplinary team working
- Safe, effective, evidence-based care
- Personalised, individualised care
- Family-centred care
- Active birth
- Breastfeeding support

Additional specifics at the Highland Serenity MLU (HSMLU)

Place of birth

Women would be fully informed on the evidence around their choice of place of birth. A 24-hour home birth service would be available, based on the evidence that home birth is safe for low-risk women who begin labour with a plan to birth at home.¹⁵

Communications

HSMLU identified the importance of high quality, professional, caring, compassionate and consistent communications which are continuously monitored and improved upon through service user feedback, reflection, regular debriefing, and supervision using the Scottish Clinical Supervision model.¹³

Midwives’ Charter at HSMLU

Midwives will:

- Be highly skilled, safe, empathic, trustworthy and sensitive to women’s needs and emotions.
- Continually update their skills through ongoing education and training in child protection, domestic abuse, newborn examination, trauma-informed practice, perinatal mental health, neonatal resuscitation and intrapartum emergencies.
- Never be complacent and continually assess practice and care through monthly audits and service user feedback, with the goal of improving care provision and standards.
- Care for each other’s emotional and physical wellbeing, and continually assess satisfaction and working hours, in-
order to avoid burnout.

- Have two preceptors for 12 months for newly qualified midwives.\textsuperscript{16}

### Themes found in all the MLU’s additional services

All midwives will be trained in complementary therapies including aromatherapy, massage, acupuncture, yoga, aquanatal and hypnobirthing as well as education on diet and physical activity. It is anticipated that the effects of a physical exercise programme including aerobic water exercise will reduce the need for analgesia during labour, reduce dystocia and increase maternal satisfaction.\textsuperscript{17}

### Additional services

- Focus on the importance of practising with cultural awareness, sensitivity and safety to ensure appropriate, individualised, culturally congruent care that is inclusive and accessible for all women including:
  - Celebration and nurturing of diversity that would challenge discrimination and racism
  - Engagement of all midwives in the three cultural competence modules\textsuperscript{18}
- Preconception clinic
- Fertility clinic
- Early Pregnancy Support group
- Mindfulness classes to manage pain and reduce stress and anxiety\textsuperscript{19}
- A tour (virtual and face-to-face) of the unit including all services
- A small, peaceful room will provide sleeping/resting space where staff living in rural areas may stay overnight when on call when the weather is bad.
- Midwives’ photographs on display on entrance to the unit, with information about who is on duty
- Parentcraft classes and postnatal support groups
- ‘Meet the Midwives’ monthly informal sessions with refreshments
- Post-dates clinic providing a choice of interventions to reduce the need for induction of labour.
- ‘Birthtime Story’ evenings to celebrate the birth of babies
- Newborn examination
- Newborn hearing screening
- Follow up clinics for smears and contraception
- Clinic for treating ‘tongue tie’
- Social media platforms used to gather women’s and families’ views
- Information and news would be shared via social media platforms
- A lending library for books or equipment
- Free WiFi

### Common to all designs for the labour and birth environment

- Welcoming, quiet, calming and comfortable environment
- Tones of greens, deep purple and blue, all of which have been found to have a relaxing and calming effect
- A safe, private, sanctuary-like environment that allows for flexible, unhurried ‘watchful waiting’, will promote calm and healing for women who have suffered previous trauma\textsuperscript{20}
- Spa design with wood-effect tiled floors and furniture to instil a sense of calm
• Plants and flowers and a focus on the natural environment
• Artwork on the walls to provide a focal point on which the woman can concentrate to distract her from the intensity of the contractions
• Music to facilitate a relaxed and multi-sensory ambiance
• Optimal room temperature to aid oxytocin production
• Subdued, soft, mood lighting, as harsh artificial lighting can provoke release of adrenaline which inhibits the natural physiology of labour
• Ensuite facilities in each room with walk-in shower
• The bed will either be in an unobstrusive point in the room, or it will be a ‘fold down’ double bed providing shared sleeping accommodation which is essential to promote oxytocin secretion during labour\(^{21,22}\)
• The woman and her partner will be able to freely move around a spacious room and have frequent positional changes using ‘peanuts’, birthing ‘balls’ and slings or ropes
• A pool for labour and/or birth\(^{22-26}\) will be central to creating a sense of privacy, and safety reducing the fear of birth\(^{6}\)
• A recliner chair or comfortable seating
• Each room would have hidden built-in storage containing drugs and concealing equipment, to optimise the birth environment and mitigate against anxiety and the medicalisation of childbirth\(^{27}\)
• After the birth the couple will be able to remain together throughout the woman’s total stay\(^{20,21}\)
• Café serving light snacks
• Kitchenette area for women, families and staff.

**Staffing common to all MLUs**

Each MLU developed a weekly staffing and on-call rota ensuring 24-hour cover and correct skill mix based on a complement of 11 whole time equivalent midwives and four maternity support workers for a caseload of 400 women (100 births) per year

Each unit considered:

• The daytime shift pattern
• Individual midwives’ hours depending on whether full time or part time
• Annual leave and study leave
• Frequency of being ‘on-call’
• Caseload holding
• Preceptorship of newly qualified midwives
• Clinics
• Home births
• Self-rostering.

**Conclusion**

As the educational midwifery team we were very impressed with the three excellent designs of midwife-led units created by our students. They were soundly based on the evidence, complemented by an obvious flair for artistic and aesthetic design and illustrated by graphics, images and personal art. It confirmed to us that the students were well prepared to lead the way in the north of Scotland in terms of the development of an appropriate birthing environment, based on the evidence and the recommendations by the Scottish Government,\(^{1}\) in order to provide the model of midwifery care that women want and which
the students are eager to provide.

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International CMV Awareness Month

What is CMV?

Cytomegalovirus (CMV) is a common virus that belongs to the herpes family of viruses and can infect people of all ages. Most children and adults won’t even know that they have it because there are few signs or symptoms and no long-term effects. 80% of people will catch it at some time in their life. However, if a pregnant woman catches CMV and passes it to her unborn baby via the placenta (known as congenital CMV or cCMV) it can pose serious risks to her child. CMV is one of the leading causes of hearing loss in children and one of the main causes of childhood disability.

The majority of babies born with congenital CMV will not have any symptoms at birth and will not suffer any long-term problems. However, two to three babies are adversely impacted by the CMV virus every day in the UK – almost 1,000 babies every year. CMV can cause miscarriages and 5 out of every 1,000 babies born with CMV will die at birth or in their first year of life. Some children are very severely affected leaving them unable to talk, feed, move or make sense of the world around them.

Managing the risks

There is currently no vaccine against CMV but the good news is that the virus is destroyed by soap and water, so ensuring good hygiene such as regular hand washing, and making simple changes where possible, such as not sharing food, drink and cutlery with small children, and kissing them on the head instead of the lips, can make all the difference. “Don't share, wash with care”.

Research has shown that the majority of women who contract CMV during pregnancy catch the virus from a toddler or young child. Therefore, mums with a young child or children at home, are more at risk. Currently pregnant women receive no advice about CMV or reducing their risk of infection. Pregnant women are warned of the dangers of toxoplasmosis (from pet litter trays) which affects around 20 babies a year and listeriosis (from soft cheeses) which affects around 30 babies annually.

Petition for newborn screening

This month (June) is International CMV Awareness month. CMV Action, the only UK charity offering advice and support to
families affected by congenital CMV, is petitioning the Government to review and fund newborn screening tests for cCMV.

Congenital CMV can be diagnosed shortly after birth by detecting viral DNA in urine or saliva. CMV Action believes screening of all newborn babies is important because:

1. The majority of babies born with cCMV have no symptoms but they can develop them later. Half of hearing loss, due to the CMV virus, can be progressive or late onset. Screening all babies would allow them to be treated and monitored for symptoms caused by the virus, including hearing loss in a timely manner.

2. Diagnosis within the first 21 days is critical to establish that the CMV infection is congenital rather than postnatally acquired. After this time the blood spot test needs to be relied on and this can delay diagnosis.

3. Anti-viral treatment has to be started within the first 28 days of baby’s life in order to be effective. Therefore, delayed diagnosis, waiting for hearing tests or other diagnostic tests, means this window of opportunity can be lost.

The aim of the petition is 10,000 signatures. Please add your name to the petition and share with your colleagues, family and friends.

Please sign the petition here: petition.parliament.uk/petitions/587186

For more information and support visit: www.CMVaction.org.uk

Twitter: cmvaction.org.uk
Understanding Consent in Maternity Care: Offers, Threats, Manipulation and Force

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Summary

Informed consent is a fundamental tenet of good maternity care. Law, policy and guidance are clear about the standard midwives should meet with regards to this. Yet what are the philosophical and ethical underpinnings of this standard and how do they relate to everyday midwifery practice? Using examples from my own qualitative research on freebirth, I introduce some very basic philosophical concepts that explore offers, threats, manipulation and force. The aim of this article is to prompt discussion and help practising midwives feel confident that their interactions with pregnant women and people meet relevant legal and ethical standards.
Introduction

‘Gone are the days when it was thought that, on becoming pregnant, a woman lost, not only her capacity, but also her right to act as a genuinely autonomous human being.’ Lady Hale in Montgomery v Lanarkshire Health Board, 2015, para. 116.

Informed consent is the cornerstone of all medical intervention and central to woman-centred care. It is embedded in international and domestic law and is a constant theme within obstetric, midwifery and NHS literature. But how do we know when someone consents to a medical procedure? When can a midwife feel confident that consent has been freely given? And is that consent ever eroded, invalidated or nullified? We can scrutinise consent in several ways. Typically, analyses centre on three aspects: whether the person had mental capacity, whether all of the material risks were explained and whether consent was given without any form of coercion. In this article, I wish to focus very specifically on the last point.

Using examples from my own research on women’s experiences of freebirthing (intentionally giving birth without doctors or midwives present) in the UK, I will explore consent and its surrounding philosophy in relation to experiences as reported to me by participants in my study. My research consisted of face-to-face interviews with 16 women about their freebirthing experiences and, although consent was not the focal point, issues around consent became an important area of discussion. Based on this, what follows is a short introduction and exploration of concepts such as offer, threat, manipulation and force. In all the examples I use to explain these concepts, women’s accounts are given with pseudonyms to protect their identities. My aim is to highlight circumstances where informed consent is absent or has become jeopardised and to spark debate within the midwifery community about how such circumstances can be avoided.

Law and ethics

Pregnant women and people have the right to decline any medical intervention ‘for religious reasons, other reasons, for rational or irrational reasons or for no reason at all’. The NHS confirms this by highlighting that such a decision must be respected, even if it would result in the death of the pregnant woman or her unborn baby. If a clinician fails to honour this, any non-consensual touching could potentially be an assault or battery. With regards to ethics, when making decisions regarding care, the ideal circumstance is what Beauchamp describes as ‘autonomous authorisation’. For the purposes of informed consent, a person ought to be able to act autonomously in a space absent of deception, control, coercion, threat and any manipulation that restricts free choice. Consent is a positive act that goes beyond a situation where a patient simply acquiesces, yields or complies with the instruction of a clinician.

Offer

In NHS maternity provision, interventions should be ‘offered’. This language emphasises woman-centred care and avoids notions of paternalism. Wertheimer unpacks in great detail the philosophical underpinnings of an offer. Offers are freedom enhancing, voluntarily accepted and the recipient can opt to decline them. Slippages in language may serve to undermine informed consent if compliance is presumed and interventions seen as routine. Jocelyn provides an example: ‘And, when she’d [midwife] – she’d say things like: “Right, I’m going to take your blood now”, it was never a “Would you like me to take your blood?”’ From this very simple example, the concept of an offer is lost and the option of declining the intervention is not presented. Jocelyn may be aware that she can decline a blood test, but what if she is not aware of this? To what extent has this undermined informed consent? While the invasive act may be considered minor, the ethical standard of the interaction is nonetheless questionable. This is particularly important if the context of blood taking is replaced with some other procedure, such as a vaginal examination.
Offers that cannot be refused

It is somewhat anomalous to describe an offer as one that ‘cannot be refused’ because the phrase has negative connotations of words or circumstances linked to threats. There is a significant body of philosophical literature related to this, but the foundational text is Nozick’s 1969 essay entitled Coercion. In brief and of most relevance to consent is that threats appear when one person communicates to another that there will be negative consequences if that second person pursues a particular course of action. Such a set of circumstances is motivational for the listener who acts to avoid the consequence that the speaker will bring about. This is demonstrated with the following example from Grace, who attempted to decline antenatal appointments that a midwife wished to schedule for her: ‘I just want[ed] to access certain bits of it [antenatal care]... And she [midwife] said: “Yeah, you do have a right to these things, but we also have a right to be concerned, and we also have a right to report you in situations like this.” And I remember, I just went, like, cold, and I was like, “You’re gonna report me? Who are you gonna report me to?” And then she was like, “Well, we might have to put in a case to social services.”’ Applying Nozick’s theory would conclude that this offer of antenatal care should be better understood as a threat. In this example, there is no opportunity for informed consent. In fact, any consent to treatment may be potentially nullified by the way in which agreement has been extracted from Grace. Invasive acts ensuing from such an encounter become morally and legally problematic.

Manipulation

Manipulation affects autonomy by perverting the way a person ‘reaches decisions, forms preferences or adopts goals’. Manipulation has been the subject of much academic scrutiny and incorporates a wide range of circumstances, including the use of tactics such as charm, deception and emotional blackmail. One form of manipulation that Faden et al explore as a way in which clinicians may undermine informed consent is via ‘manipulation of information’. Deception is an obvious example and consists of intentional strategies such as lying to make a person believe something that is false. The following example provided by Emilia is illustrative of such a situation: ‘The same midwife who I liked so much told me that she wasn’t sure the placenta was whole... She wasn’t sure, so she was trying to convince me to have the [intravenous] drip... I mentioned it [at] one of my post-natal check-ups, saying, like, “Oh, but the midwife in the hospital said the placenta possibly wasn’t full, like, maybe, it was a bit missing,” and she [second midwife] was horrified. She said that was clearly a lie, that [the first midwife] was trying to coerce me into, into taking the drip...’ In this case, the deception had altered Emilia’s understanding of her need for an intravenous drip as the true nature of the situation had been distorted. The real purpose of the intervention was obscured thus prohibiting Emilia from becoming informed on even a very basic level. The question as to whether she had given informed consent must be reformulated: did the provision of incorrect information mean she would even be able to give informed consent?
Philosophy may seem a million miles away from everyday midwifery practice, but the reality is that it underpins the ethical standards that healthcare professionals must meet.

Physical force upends or subverts concepts of autonomy and bodily integrity. It removes a person’s ability to act freely as the recipient is not afforded agency and her body is manhandled, touched or entered without her agreement. So obvious is the use of violence as a form of coercion and a means to negate consent, that rich discussion of the subject rarely features in academic literature. However, it is sometimes touched upon in texts that explore rape because the existence of consent is crucial to understanding whether such an offence has been committed. In the realms of maternity provision, the use of force moves away from informed consent and very visibly into the realms of obstetric violence as illustrated by Lottie’s experience: ‘And she [midwife] just came in my bathroom, no announcement of who she was. She was like, “You need to get off that toilet now.”... and then she, like, laid me on the bathroom floor. And then, without asking me she did a...[vaginal] exam. And I was just like, “Eh, what are you doing?” And she was like, “I need to check if your waters have gone.” I was just like, “No”, and I put my foot on her shoulder and pushed her off.’ In this example, there is no opportunity for informed consent; indeed, no attempt at an offer is made. An invasive act is carried out without adequate justification or explanation. An uninvited refusal only takes place while the act is being carried out, and this is in the form of the physical removal of the midwife from Lottie’s body. Outside a clinical encounter this would be a battery or assault. Given that this was not an emergency scenario, it is difficult to conceive why it would not be one in the present circumstance.

Typically, analyses centre on three aspects: whether the person had mental capacity, whether all of the material risks were explained and whether consent was given without any form of coercion.

Conclusion
What does all this mean for a practising midwife? Philosophy may seem a million miles away from everyday midwifery practice, but the reality is that it underpins the ethical standards that healthcare professionals must meet. What I have presented is a tiny drop in a huge ocean of literature on this subject. Some people have spent their whole careers exploring concepts such as coercion and their work touches on a wide range of disciplines, some of which are totally unrelated to midwifery. Nevertheless, due to the importance of consent, these ideas become relevant to the day-to-day interactions that occur between midwives and pregnant women. Practising midwives cannot be expected to find the time to explore the philosophical aspects of consent and coercion in all their nuances and specifics. However, a basic understanding of the philosophical foundations of these concepts is useful. Such knowledge can be used to enhance the ethical standard of midwives' practice and help to ensure that the autonomy of the people they support is fully respected. TPM

References

Decolonising Midwifery Education Part 1: How Colour Aware Are You When Assessing Women With Darker Skin Tones in Midwifery Practice?

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Summary

In midwifery practice, skin assessment is an important element of any physical examination of women. Fundamentally, key practice recommendations are centred on visual and tactile cues to assist with the identification of changes in skin appearance. Although visual signals are more readily discernible in women with light skin tones, they may be more challenging to detect in women with darker skin tones. As a means of decolonising midwifery theory and practice, this article highlights ways in which midwives can develop confidence in skin assessment when caring for women with dark skin tones.*

*NB we have sourced images via stock websites and from the generous public, to whom we are grateful for supporting this important work of decolonising the curriculum.

Introduction

There is a dearth of literature regarding the nuanced presentation of clinical features in mothers and babies with darker skin tones. Yet skin examination is a vital component of any physical assessment of maternal and neonatal wellbeing, not least because it plays a crucial part in determining physiological parameters alongside blood pressure, temperature, respirations and pulse, and aids in the timely recognition of developing complications that may lead to poor outcomes.

A recent MBRRACE report1 on maternal morbidity and mortality in the UK highlighted the stark health disparities between women from Black, Asian and Minority Ethnicities (BAME) compared with those who identify as white. The COVID-19 pandemic has also magnified the problem. Therefore the specific risk to women with darkly pigmented skin should no longer be overlooked. It might be possible that lack of understanding on how deviations from the norm may manifest in individuals with Brown and dark skin could mean that early developing morbidity is missed.2 Against this background, the drive towards decolonisation in midwifery theory and practice is helpful in building momentum in terms of midwives being colour aware.
instead of colour blind. This will close the gaps, reduce health inequalities and rebalance the Eurocentric perspective of the language used to communicate assessment and documentation of skin changes in women with darker skin tones. Furthermore, the lack of resources showing a balance between how critical illness may manifest in dark skinned women compared with their white-skinned counterpart is of concern, as it reinforces colour blindness and whiteness as the norm.

The skin is the largest organ in the body; as alluded to earlier, it can be readily observed in an unobtrusive way to provide a gauge of perfusion, body temperature and oxygen saturation levels. A full and thorough skin assessment should include a detailed history taking, listening to women and effective communication, both verbal and written. Commonly, midwives are educated to recognise certain changes in skin colour that signal deviations from normality. Much of this knowledge is based on the care of women with light skin tones. It is much more challenging to determine these visual cues in women with darker skin. It is imperative therefore that midwives are educated to assess and recognise skin changes in all skin tones in order that they can care for women with confidence using clinical judgement. This article is the first in the series of two that places the spotlight on the subtleties involved when assessing the skin of women with darker skin tones. The second article will explore the neonatal context.

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Colour awareness is an important consideration when conducting examination of maternal skin in midwifery practice. This is a necessary step in order to reduce health disparities and be thorough and inclusive in our approach of all women, regardless of their ethnicity and skin colour.

**Colour awareness vs colour blindness**

In acknowledging the diversity in skin tones, it is important to remind midwives that skin pigmentation relies on four main factors: the variety of carotene pigments in the subcutaneous layer of the skin; the amount of haemoglobin and general oxygenation; the degree of melanin present in the epidermis; and the presence of other essential pigments such as bile. Melanin is the dark natural pigment that gives skin, hair and eyes their colour. The amount of melanin present in a person’s skin is primarily determined by their genetic inheritance. The levels of melanin are also influenced by lifestyle and behaviours that result in frequent exposure to the sun. More melanin is produced with repeated sun exposure. Therefore, melanin plays an important role in protecting the skin from the harmful effects of UV radiation, filtering sunlight before it damages the cells of the skin. Hence the close association between an individual’s skin tone and their (or their parents) place of origin. Clearly, individuals with dark skin tones have more melanin than those with lighter skin tones. Melanin is synthesised by a specialised group of cells known as melanocytes and sunlight promotes the synthesis of melanin, leading to darkening of previously synthesised melanin. The variations and differences in skin pigmentation across the racial spectrum are due to the amount of melanin produced rather than the number of melanocytes per se.

Decolonisation in midwifery theory and practice is helpful in building momentum in terms of midwives being colour aware instead of colour blind.

**Classification of skin types**
There are a number of nomenclature used in determining skin type when assessing individuals. The popularised Fitzpatrick\(^5\) system (see Table 1) of classification lists six gradations. However, it is argued that this spectrum is quite limited and biased towards Caucasians as only one category is used to depict the myriad of individuals with variations of darker skin tones, therefore see Picture 1 for greater variation.

Antepartum period: Skin conditions of significance

The pregnant woman will experience a number of changes and this includes vicissitudes to the skin. Some changes to the skin may be aesthetic in complication and resolve after birth but, as in the case of melasma, the dermatoses are more prominent in skin of darker tones and the characteristic dark patches to the woman’s face can create significant distress and may not fade immediately after birth. Treatment measures are complex and often contraindicated in pregnancy and with breastfeeding.\(^6\) Polymorphic eruption of pregnancy is a rash that can present across the body and create significant discomfort; namely pruritus, burning and stinging. The presentation of the lesions in lighter skin tones is pink or red\(^6\) but in darker skin tones will be the tone of the skin or darker, which may not be immediately noticeable and thus requires a review of symptoms experienced by the woman (see Picture 2). Atopic eruption of pregnancy is suggested to be benign,\(^6\) however, it causes chronic eczema with dry, thickened and itchy areas.
In darker skin tones, it can cause complications like dark spots or hyperpigmentation in the presence of acne or other skin irritations. Early treatment, particularly with acne, is therefore suggested but many pharmacological preparations are contraindicated in pregnancy. Pemphigoid gestationis is a rare autoimmune disorder that can occur in pregnancy and after birth. It presents as inflammatory skin lesions and severe pruritus. Although it is more common in fairer skin tones, the presentation in darker skin tones will be a darker-toned rash that develops into blisters rather than a pink rash.

**Bruising**

Bruises, irrespective of skin tone, will develop in the same way in antepartum women. The expected redness to the skin, however, will not initially present in darker skin tones (see Pictures 3-5). This is significant as trauma, including cases of domestic abuse, have the potential of being missed. In darker skin tones the affected area, as the bruise develops, will become darker in colour. The anticipated bluish or purple colour will be seen on lighter skin tones. The palpation of the skin where obvious bruising is not seen may identify a swelling, which will warrant further investigation.
Pallor and cyanosis

Skin colour is often used as a predictor for morbidity in antepartum women. Although this may be a useful indicator of compromise, the presentation will differ depending on the skin tone of the woman. Cyanosis is often indicated by a woman’s skin colour and in lighter skin tones the bluish tint of the skin and mucous membranes is evident. In darker skin tones, however, it will be recognised as a greyish or white colour, which will be seen to the skin in the region of the mouth and conjunctivae. Pallor, too, which may indicate anaemia, in darker skin tones is assessed by examining any paleness to the conjunctivae and mucosa rather than the limbs.

The midwife’s confidence, therefore, in the holistic assessment of women postnatally, including women of varied skin tones, is essential to ensure anomalies and potential complications are recognised and referred appropriately.

Admission to hospital and/or stay in hospital

During labour in a hospital setting, each NHS hospital has clinical guidelines and risk assessment proforma such as the Braden scale (reported to be the most validated and reliable risk assessment tool) to identify women at risk in order to prevent pressure ulcer formation. Regardless of skin colour, an initial risk assessment of the skin must be carried out within two hours of the admission process for all women who present with known risk factors, such as altered level of consciousness/sensory impairment and impaired mobility. For the majority of women who do not have any identifiable risk factors, the risk assessment must be performed within six hours of admission. For women who are immobile and/or at greater risk, for example, those with major disability, especially where mobility is affected, there must be re-evaluation of the skin at intervals. This is particularly important if there is any change in the woman’s condition, such as epidural in situ or delay in the second stage of labour; following obstetrical interventions such as an instrumental birth or episiotomy; handover of care/change of shift; if the woman is transferred to a postnatal ward and on discharge from the hospital setting (how to assess for ulcers is provided in the postnatal section). While we were unable to source an appropriate image for this article, there are numerous pictures of pressure ulcers in darker skin tones that can be accessed via Google.
Intrapartum period

Many midwives use their skills of observations to identify visual cues during labour when assessing progress in women who present in spontaneous physiological labour.\textsuperscript{11,12} These visual cues are commonly referred to as the purple line and rhombus of Michaelis, recognised as less intrusive means of assessment compared to digital vaginal examinations. The purple line is described as a reddish/purplish or even brown line that arises from the anal cleft/margin, which extends between the buttocks as labour advances.\textsuperscript{11,12} It is easier to identify on women who are light-skinned but is less useful in women with dark skin tones.\textsuperscript{11,12,13} However, the rhombus of Michaelis might be a more helpful sign in women with dark skin tone.\textsuperscript{13} This is where a kite-shaped area between the sacrum and ilea can be observed, regardless of skin colour. It is noticeable towards the commencement of the second stage of labour when the fetal head is deep within the pelvis and the wings of the ilea push outwards to increase the pelvic diameter.\textsuperscript{11,12} Creating an environment that is conducive to a spontaneous physiological birth often means dim lighting will be a challenge when observing the skin of women with darker skin tones. A torch in this instance can be invaluable, as well as actively listening to women and noting any changes to symptomatology they report. The parameters outlined previously to assess the skin during the antepartum period will also apply in labour.

Postpartum assessment

As midwives, it is urgent that we address the continued racial inequities that exist in healthcare including the fact that women categorised as BAME are more likely to die during the six week postnatal period than white women.\textsuperscript{1} The midwife’s confidence, therefore, in the holistic assessment of women postnatally, including women of varied skin tones, is essential to ensure anomalies and potential complications are recognised and referred appropriately. Below we offer information of how to carry out a postnatal assessment that is inclusive to women with Black/Brown skin colours.

Breasts

An inspection of the breasts is important where nipple trauma, for instance, may present. Skin lesions to the nipple is considered to be pink or red in colour and during inspection the trauma is clearly visualised but in darker skin tones these typical colour representations will not be evident and will require a consideration of features other than colour.\textsuperscript{14} These include listening to the woman and asking her about the signs and symptoms she is experiencing. Women who experience breastfeeding complications such as mastitis are often asked to observe for indications like redness to the breast, but in darker skin tones this will not be evident. However, changes to the skin colour, like hyperpigmentation, may be seen. In addition, bruising, is a potential complication of breastfeeding and may also be present. Although the process of bruising, irrespective of skin pigmentation, is mainly consistent, the presentation will vary. In darker skin tones, the trauma may not initially be detected because the reddening of the skin will not be seen, but the skin will appear darker in shade and a swelling might be evident and palpable at the site. Unfortunately, there is a dearth of images related to breastfeeding complications and we hope to update this article at a later date.

Perineal assessment

The skin is assessed to ensure wound healing\textsuperscript{15,16} during the examination of the perineum; the abdominal wound for signs of infection; and wound breakdown as part of the postnatal examination. Injury to the genitalia of darker skin tones, however, is often not visualised and more likely to be missed and not treated. It is questionable therefore, how effectively perineal trauma, after birth, is recorded for women of darker skin tones. Furthermore, the UK and Ireland Confidential Enquiry into Maternal Deaths identifies that mortality related to genital tract sepsis was largely contributed to delayed diagnosis and
incomplete assessment. It is suggested that the rate of wound healing varies and scars will eventually fade. Yet, in skin of a darker pigmentation, we know that keloid scarring (over granulation/overgrowth of scar tissue extending beyond the original wound) is more common, which can lead to pain and discomfort. The additional aesthetic complication of wound healing where dyspigmentation results can also have a negative psychological impact.

Abdominal wound assessment

The skin is also assessed following a caesarean section to ensure effective wound healing. Although in lighter skin tones some redness to the scar may be seen and the scar is expected to fade, in darker skin tones a white or brown discolouration to the scar tissue is likely (see Picture 6). Keloid (see Picture 7) and hypertrophic (raised at the wound only) scarring, following caesarean section, are also more likely in darker skin tones and excessive scarring can impact on the mother’s physical and psychological health.

Pressure ulceration

Pressure ulceration, which is not given enough consideration, is an avoidable injury to the mother. For women who are immobile for any length of time, it is
imperative to assess for ulceration. Early changes in the skin are noted through the use of inspection and tangible signs like non-blanching erythema response, but this will not be visualised with darker skin tones. Furthermore, the dependence on redness as an indicator of inflammation is not suitable for all skin tones. Other cues that establish tissue perfusion need to be considered. These include:

- applying light pressure and assessing for any pain or discomfort
- when observing for pallor, the mucous membrane must be examined in darker skin tones as abnormal lightening of the skin will not be seen as would be the case in lighter skin tones
- changes in skin colour other than redness:
  - like darker tones that is suggestive of hypoxia
  - increased warmth in comparison to surrounding skin
    the skin may appear oedematous, indurated, taut and shiny.

For women who are immobile for any length of time, it is imperative to assess for ulceration

An assessment by touch, therefore, will be as invaluable as visualisation – see Picture 8 and 9 for advanced pressure sores – to be avoided.

Legs

The maternal legs are examined to identify complications like thromboembolism, in particular deep vein thrombosis. Not all typical signs like redness to the affected area will be seen in darker skin tones and will require a review of maternal concerns and an assessment of signs and symptoms of deep vein thrombosis that include:

- Skin changes: oedema, warmth and discolouration (although typically red, the affected area should be compared to a non-affected area to identify any changes in skin tone).
- Unilateral calf pain or tenderness.
Case vignette (postnatal period):  

A primigravid woman, Layla, had a spontaneous vaginal birth using epidural anaesthesia. You complete her postnatal examination the day after birth. She informs you that her buttocks are sore and she is unsure if it is because she was in the same position for a lengthy period of her labour. She is unable to sit for long periods, making it difficult to breastfeed.

You examine the affected area with consent but you are unable to clearly visualise the skin. You note that Layla's skin tone is of a darker pigmentation.

1. What measures will you take to enable you to complete a thorough assessment of the skin integrity?
2. You suspect Layla has a pressure ulcer. What are the likely signs, symptoms and presentations of pressure ulcers within diverse skin pigmentation?

<table>
<thead>
<tr>
<th>Signs and symptoms of pressure ulcers</th>
<th>Presentation in darker skin tones</th>
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Practice points

- **Enhancing your learning:** explore wound images to identify pressure ulcers of a diversity of skin tones as well as at various stages of injury.

- **Inspection:**
  - Ensure you have ambient lighting during the assessment process. Where possible use natural light or a halogen light source, to minimise changes in the skin’s usual colour.
  - When examining the skin integrity or wound changes, compare the affected site to a non-affected area and make a note of the appearance of the affected area.
  - Ensure you complete a thorough examination, especially when the typical representations of compromise to skin integrity is not evident.

- **Palpation:**
  - Gently feel for warmth and induration as the blanch test may not be indicative of compromise in darker skin tones.

- **Listen to the mother:**
  - Pain and discomfort are suggestive of the development of a potential complication and so take time to listen to the woman.

Recommendations for practice

- Ensure teaching aids and resources are available that depict a variety of skin pigmentation to enhance an awareness of skin colour in the assessment of maternal wellbeing.

- Ensure there are no barriers, including language, that compromise the quality of communication with the mother and the potential for complications to be recognised and referred appropriately.
The expected redness to the skin, however, will not initially present in darker skin tones. This is significant as trauma, including cases of domestic abuse, have the potential of being missed.

Conclusion

Maternal skin colour, including the assessment of varied skin tones, plays a substantial role in the assessment of wellbeing. Colour awareness, therefore, is an important consideration when conducting examination of maternal skin in midwifery practice. This is a necessary step in order to reduce health disparities and be thorough and inclusive in our approach of all women, regardless of their ethnicity and skin colour. This is a good example of how midwives can help close the gap and prevent inequalities in care. Additionally, real change in midwifery theory and practice requires vision and courage to confront uncomfortable truths and identify areas where care can be improved. To achieve this, midwives require safe spaces where they can come together and allow enlightening conversations to flow. Finally, to aid personal reflection, readers are asked to review the accompanying case vignette as well as the recommendations for practice and the related questions pertinent to the assessment of skin colour. **TPM**

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Neurodiversity and Maternity 3. Autism and Breastfeeding Part 2: A Sad Taboo

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Summary

Differences between autistic people and neurotypical people can lead to misunderstandings between patients and healthcare professionals that jeopardise care provision. Understanding the possible impact of communication,
sensory and pain differences can enable you to ensure clear communication and effective care for neurodivergent
women in your care. In this third article of the series, Joanna tackles the difficult topic of the intersect between
breastfeeding, sexual abuse and autism.

Introduction

In my last article I wrote about the intersect between being autistic and being a breastfeeding mother. I listed aspects of autism that might impact the experience of breastfeeding. For example, sensory differences making the physical sensation of breastfeeding different, social differences making access to support harder to obtain and societal expectations placing extra pressure on autistic mothers. I was aware as I was writing that there was one difference I wasn’t mentioning. Something that can be much harder to talk about. This article, final of this mini-series, tackles the difficult topic of the intersect between breastfeeding, sexual abuse and autism. Readers are reminded that this topic can be triggering to some and to proceed with self-care.

Sexual abuse

Sexual abuse is not an aspect of autism in the way that sensory processing differences or communication differences are, it is an experience that is all too common for women as the #metoo movement so clearly articulated, and sadly it is all the more common for autistic women. Research has consistently found autistic people to be more at risk of sexual abuse than their neurotypical peers. As with the neurotypical community, autistic women have been found to be more at risk of sexual abuse than autistic men (Pecora et al 2019)\(^3\) and autistic women are more at risk than neurotypical women. (Ohlsson Gotby et al 2018, Bargiela et al 2016 and Roberts et al 2015).\(^{1,2,4}\)

Research has consistently found autistic people to be more at risk of sexual abuse than their neurotypical peers
Understand the risks and consider each women individually

In light of these grim findings, when you are faced with an autistic woman in your practice, it should be in your mind to consider whether she might have experienced sexual abuse. Of course, every person’s experience is unique to them and not every autistic woman will have experienced sexual abuse. I wrote in my first article how I am remarkably typical for a late diagnosis autistic woman of my generation and, sadly, this is another example of me being typical. In my life I have experienced sexual assault in a number of forms:

- There have been times in relationships where my inability to articulate emotion has led to what I retrospectively call consensual rape. I did not want to have sex, or a sexual encounter, but I gave consent. I gave that consent because in the moment I could not know, did not feel, so deferred to what the other person wanted and what I presumed from the context, in that this was a person I was in a relationship with. In every instance, the other person would have stopped if I had said no. Afterwards I’ve felt sad, I’ve felt shame and I’ve felt guilt. Sad that it happened, shame that it happened because of me and guilt because I knew how upset the other person would have been if they had realised what happened.

- There have been times when my communication differences have landed me in situations that were dangerous. I have not spotted that someone was being malicious. I have given out the wrong signals. These situations ended with me being grabbed or touched in ways I did not wish to be. When that contact happened I recognised it and got away.

- There have also been a half dozen or so occasions in which I was plainly and clearly assaulted. Occasions I do not care to go back to in my memory, but were I to spell out here you would be in no doubt that I was assaulted. One of these occasions ended up with me contributing evidence that led to a conviction of rape. In all but one of these situations autism played a role in making me vulnerable.

To be clear: I am not in any way saying autism causes rape, any more than a woman wearing a short skirt does. The guilt is always with the perpetrating party. The risk was increased by autism. So, for example, I always walk instead of catching a taxi because my communication difficulties make the thought of small talk with a taxi driver worrying. Walking across an unfamiliar town late at night puts me in harm’s way.

My history effects my present
Now I am in a loving relationship. We have a new baby. He’s gorgeous. We dote on him as new parents have a right to do. But... we are tired. At night, I long for sleep. When I am woken in the small hours and I have to tear myself out of my sleep, orientate my limbs and offer my nipple to someone who will hurt it... it is very confusing. I do not want to wake. I do not want to do this. I do not want someone touching my nipple. And yet I have to. The pressure to breastfeed is enormous and rightly so, because the benefit to the child is enormous. No one puts more pressure on me to do it than myself. It is that particular night feed that is hardest, but I feel it to some extent every time I feed him. After abuse you feel grubby, you want to wash, to cleanse. There is a particular tawdry sensation that I know from those experiences and that I feel during every feed. And so, I check my phone, I watch TV, I do anything and everything to distract myself. We are closing in on three months and I am still breastfeeding. I wonder if people watch me and think how terrible I am for prioritising the awful daytime TV over the chance to gaze lovingly down at my infant. I am not looking at him because I do not want to associate this feeling with him. If you are supporting a mother who needs distraction when feeding as I do, ask yourself why.

Sensory differences making the physical sensation of breastfeeding different, social differences making access to support harder to obtain and societal expectations placing extra pressure on autistic mothers

Conclusion

Autistic women are at greater risk of experiencing sexual abuse than neurotypical women. All women face significant risks of sexual mistreatment. Being aware that experiences of sexual abuse can affect a woman’s ability to breastfeed and impact her mental wellbeing as she seeks to breastfeed can help you to provide sensitive, responsive care. TPM

This article uses identity-first language over person first language out of respect for the autistic community’s preference. Please contact the author at www.thesensoryprojects.co.uk/contact if you are curious to know more about this choice. Joanna Grace is author of The Subtle Spectrum, which will be published by Routledge in 2021.

References


We Need to Talk About Abortion
Summary

One-third of women in the UK will have an abortion before their 45th birthday. Yet the midwife’s role in pregnancy choice counselling, abortion provision and support of women’s decisions remains a taboo. This opinion piece calls for an open conversation around termination of pregnancy and a better understanding among midwives of abortion as a medical procedure. Recognising the global impact of unsafe abortion, the author rallies the midwifery profession to take a clear pro-choice stance and demand the decriminalisation of abortion in the UK.

Introduction: The global picture

I never intended to become an abortionist. It happened when I was abroad, working in the humanitarian sector. As a former labour ward midwife, I arrogantly assumed I would have all the skills I needed to give excellent care and save lives anywhere in the world. I had cared for women in all situations, including families ending their pregnancies early due to fetal anomaly. While I knew abortion would be part of my role, I thought I had it covered. I was completely unprepared for the number of patients I would see suffering from the after effects of unsafe abortion. Every day women would arrive at hospital with septic abortions, haemorrhages, perforations and lacerations, which would, inevitably for some, turn into life-long disabilities. I was unprepared for regularly seeing women die after desperately turning to an unsafe abortion by any means. Unsafe abortion is the fifth-leading cause of maternal death worldwide, and the only completely preventable cause. Worldwide, at least 22,000 women a year die from the complications of unsafe abortion, and a further seven million are hospitalised. In some countries, unsafe abortion accounts for 33% of all maternal deaths. I chose to help, to provide safe abortion to those who sought it.
Supporting choice ‘with woman’

Back in the UK, I took a job with one of the country’s leading abortion providers. A lot of friends and colleagues asked whether I was still a midwife. The answer is a resounding yes! In fact, our unit is staffed almost entirely by midwives. A midwife is ‘with women’ throughout her pregnancy – whenever and however it ends – and supports every pregnant person and their family through life-altering decisions, without judgement. My job ticks all those boxes, and yet I never see myself represented in discourse on midwifery. I am not the archetypal ‘good midwife’. My work is discreet and unacknowledged. I work in the last area of taboo in our profession. One in three women in the UK will have an abortion before her 45th birthday. Every day I am grateful that our system prevents the deaths and complications I saw elsewhere. Yet one would think that nobody outside our clinic has ever had an abortion. Even as midwives, we don’t talk about it. The majority of services are run by the charity sector and, in my experience, transfers to the NHS, for complications can be met with suspicion and hostility. I have found that a lot of midwives lack understanding around the different methods of abortion and therefore struggle to support women completely. In many regions, there is a two-tier medical system, and only women undergoing termination of pregnancy for fetal abnormality are given access to hospital labour wards and bereavement services. Anecdotally, this leads to harsher judgement by inexperienced staff towards women seeking abortion for any reason other than fetal anomaly. This could all be avoided if we just talked, if we acknowledged that this is a medical procedure that a significant minority of women will go through, and if we worked together to provide excellent, non-judgemental care.

Pregnant person or potential criminal?

We need to talk about our laws and legislation. In England, Scotland and Wales abortion is a criminal offence unless it is approved by two doctors. The Abortion Act 1967 states that an abortion is justified if continuing the pregnancy would involve greater risk to the health of the woman than a termination of pregnancy. The known and unavoidable risks of abortion before 24 weeks are largely the same as those of childbirth at term, and haemorrhage and infection are the most common complications. However, the earlier in gestation a pregnancy ends, the smaller the relative risks become. For example, postpartum haemorrhage affects up to 10% of term births but only 0.5% of abortions before 24 weeks. In effect, therefore, the law allows abortion for every woman. Practically, the law simply means that a handful of doctors are employed to spend their days remotely signing legal documents based on medical examinations carried out by nurses or midwives. In my experience, requests are almost never turned down. The consequences are that charities spend money employing doctors in this role, and that women are inconvenienced while they
wait for this process to be completed. It is simply a hangover of the paternalistic sentiment that pervades so much of maternity care, which views women as wayward children rather than as adults capable of making their own decisions.¹⁰

Worldwide, at least 22,000 women a year die from the complications of unsafe abortion, and a further seven million are hospitalised. In some countries, unsafe abortion accounts for 33% of all maternal deaths.

Practically, though, the law has other consequences. While great strides have been made recently - particularly during COVID-19 - to widen access to home abortion, this is only legal up to 10 weeks' gestation.¹¹ Upwards of this, all abortion treatment must be undertaken on licensed premises. While this sounds sensible, in practice it means that women’s choices are restricted. Women undergoing medical abortions at later gestations cannot be supported in the privacy of their own home by a midwife. Many women having an abortion experience it as a bereavement, whether their reasons are medical or ‘social’¹² and arguably should be able to reduce any emotional impact by having control over place of delivery and choice of carer. Medically, for most women, there is no reason to be in a hospital setting, as long as they are cared for by an experienced practitioner. But women are denied the right to choose how and where they receive care, simply because of the control that the health and legal systems have over their bodies and options.

**Conclusion**

We need to talk about abortion. And we need to trust women. Putting aside our own personal feelings, we must recognise as a profession that abortions happen, and that they have a significant impact on the lives of the women we care for. The question of whether women should have abortions polarises views, but nevertheless women will always wish to end unwanted pregnancies. A more pragmatic debate would be on how we want this to happen, how we choose to educate ourselves on the issue, and how we as a nation want to treat the one-third of women who choose abortion at some point in their lives. Do we consider abortion to be a medical procedure or a potential criminal act? Should this be a hot political topic, or should it be a decision made between a family and a midwife, nurse or doctor? I believe we, as a profession, need to have this conversation. Let’s start talking about abortion. **TPM**
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Summary

Commonly, there is a sense that once the baby has been safely birthed, the important work is finished. Conversely, the hour immediately after birth is crucial to the psychobiological health for all mothers and babies, and the effects are evident well into the postnatal period and beyond. Understanding what the primitive mammalian mother-infant dyad are expecting to survive and optimise their post-birth health, we can reflect on what and how our practices affect this important emerging relationship. This final article in the Normal Birth series will explode the misunderstanding that physiological birth ceases with the birth, providing you with the knowledge to support this critical period.
Introduction

From the moment of conception, maternal and fetal physiology is intrinsically linked in a synergistic partnership. As midwives, we support this partnership with the provision of care through the birth continuum, focusing on the promotion of antenatal health and wellbeing, detection of abnormalities, supporting mothers with their birth alternatives, facilitating their choices and meeting their needs. The ability of this partnership to develop securely can be directly affected by the care midwives provide during the time immediately after birth, particularly during the first critical hour. The ability of this partnership to develop securely can be directly affected by the care midwives provide during the time immediately after birth, particularly during the first critical hour.

Care provided during the birth continuum fluctuates in its focus and importance and there is less urgency following birth, despite the fact that most maternal and infant deaths globally occur during this time. The postnatal period is a critical phase in the promotion of health for all mothers and babies, 'yet, this is the most neglected period for the provision of quality care'. Improving care immediately following birth is dependent on our understanding of what positively promotes and supports the mammalian mother and infant’s physiology and psychological needs, and appreciating what is expected for survival. The following practices, such as physiological third stage; uninterrupted skin-to-skin contact between the mother and her baby for up to an hour following birth; and limited separation of the baby immediately following birth, all support and enhance both the maternal and neonate’s postnatal physiology.

REFLECTION POINT 1

Reflect on the care you provide as a midwife immediately following birth. How does it promote and support maternal and infant physiology? Is it affected by time pressures or based on ritualistic cultural practices, hospital guidelines or parental choice?

What matters during that critical precious first hour?
The third stage

Following an undisturbed physiological birth should come an undisturbed third stage. This involves a healthy mother and baby at the end of the second stage, uninterrupted skin-to-skin contact between the two for a minimum of one hour following birth, delayed cord clamping until the cord has stopped pulsating and the mother birthing the placenta independently through maternal effort.

‘Physiological care is the safest and best way to provide care to women at low risk of PPH’

Placing the baby on its mother’s chest immediately aids the production of oxytocin, which is increased during the first hour after birth. Oxytocin aids placental separation through uterine contractions, thus facilitates a reduction in the size of the uterus, reduces blood loss, induces maternal relaxation and mothering interaction. The mother could take up to one hour to birth her placenta. Although this may seem like a lengthy time when we have timed priorities, like post-birth paper/computer work, and checking and weighing the baby, this safeguards precious moments with her baby, allowing maternal-infant physiology to remain undisturbed and oxytocin to flow. This is the mother’s opportunity to reap the rewards of her labour, relaxing in the bath of oxytocin and endorphins produced post birth. It is important during this period to support the mother’s oxytocin production by continuing to provide her with a safe, uninterrupted and calm atmosphere.

The initial meeting between mother and baby - if managed in the correct habitat: the mother’s chest - the baby is able to take advantage of experiencing the positive calming effects of oxytocin, promoting self-searching for the breast and recovery from the birth

This necessitates educating the parents on this crucial post-birth hour antenatally, discussing the importance of not interrupting the maternal-infant partnership - for example, ensuring skin-to-skin contact - to facilitate cultural rituals such as weighing the baby and making phone calls. ‘During the third stage of labour, when mother and baby meet for the first time, the gap between our instincts, genetic code and our culture’s usual birth practices, is especially wide’ Although we perceive the third stage as being a risky stage in terms of possible postpartum haemorrhage (PPH),
multiple authors highlight that blood loss post birth is a physiological requirement, aiding the body’s transition back to its pre-pregnant form. The majority of healthy women are not haemodynamically compromised by blood loss of 500-1,000mls, due to their normal state of hypervolemia in pregnancy, which amounts to 1,500-2,000mls. Blood loss at birth also reduces the pressure on the kidneys during a period of urinary diuresis postpartum. Undisturbed physiological third stage promotes a practice of ‘hands off the uterus’, protecting the woman from further risk of haemorrhage. Additionally, the physiological third stage process of delayed cord clamping (DCC) by two to three minutes after delivery, positively benefits the baby’s physiological adaptation to extraterine life. It allows fetal blood remaining in the placental circulation to be transfused to the newborn, improving the baby’s iron stores up to six months, and improving ventilation, cardiovascular and cerebral hemodynamic stability. Recent research has proven neurological benefits for those infants experiencing DCC, which are evident up to the age of four in a low-risk population. Recognition of the positive physiological effects of DCC has seen its practice recommended for preterm babies and those term babies requiring resuscitation.

REFLECTION POINT 2

Reflect on your own practice as a midwife, pertaining to the management of the third stage of labour. Do you offer women that experience of physiological birth: the opportunity to complete her labour with a physiological third stage? Do you persuade women to have oxytocic drugs to aid the delivery of the placenta because you don’t feel confident with facilitating a physiological third stage of labour? If so, think about increasing your skills set by approaching your practice development midwife for training and support.

The importance of uninterrupted skin-to-skin contact post birth

While awaiting the birth of the placenta, the infant should be placed on its mother’s chest, skin to skin, and left uninterrupted for one hour. This is a critical period for maternal-infant attachment, transition from intrauterine to extraterine life and the opportunity for the infant and mother to mutually regulate their physiology. The presence of the mother ensures the baby’s wellbeing, provides security, warmth, love and nutrition, creating a ‘hot house’ in which the infant’s development can unfold. Unlike other mammals, human neonates are neurologically and behaviourally altricial. This means they are underdeveloped at the time of birth and are born with only 25% of their adult brain size, and developing only with the presence and attention of their parents over several years. It is suggested that the human gestation period actually may be around 18 months, but that the fetus must be delivered half-way through that period in order to be born safely, due to the restriction placed on neonatal cranial size by the narrow bipedal pelvis. This is a trade-off for upright walking, necessitating humans to complete their gestation outside the uterus!

Despite this, the newborn is capable of eliciting care-giving attention from its mother and to seek food, through multiple primitive reflexes, which enable him to crawl, find the breast and self-attach before successfully suckling. They are highly skilled and adaptable to the environment they ‘expect’ to be born into. Newborns expect to be nurtured, fed, kept safe and cared for in close contact with the mother’s body.

‘The capacities of our newborns are perfect for the environment that they will inhabit - the mother’s body - and for the learning and growing that will eventually make them perfectly adapted for their adult environment’

The initial meeting between mother and baby – if managed in the correct habitat: the mother’s chest – the baby is able to
take advantage of experiencing the positive calming effects of oxytocin, promoting self-searching for the breast and recovery from the birth. Although this first meeting may just be perceived as a ‘lovely way’ to introduce the baby to its mother post birth, this contact is vital for the survival of the baby. Neonatal neurological development is dependent on it, as is the facilitation of a strong maternal-infant attachment.

The mother and her infant are actually one psychobiological organism, mutually regulating their physiology to meet their needs

A mother and baby dyad: A single psychobiological organism

Nils Bergman,15 an eminent South African neonatal professor, suggests that the mother and her infant are actually one psychobiological organism, mutually regulating their physiology to meet their needs: ‘Nothing an infant can or cannot do makes sense, except in light of mother’s body’.16 Physical interactions between a mother and her baby, particularly skin-to-skin contact and being held or carried will contribute to physiological stability and psychological regulation. This involves the mother and baby exchanging information, influencing each other’s body processes for ongoing wellbeing and optimal development. The benefits of mutual regulation for the infant and mother are vast. For the infant, these include: eye-to-eye contact, which stimulates brain growth in the areas concerned with vision and facial recognition; activation of the parasympathetic nervous system: the ‘rest and digest’ body programme that switches off stress; optimising transitional physiology by stabilising vital signs, enhancing digestion, healing and growth; imprinting baby’s calm and connection through the hormone of oxytocin; and immediate skin-to-skin contact, which provides the initial colonisation of the baby’s microbiome outside of the mother, helping to develop the neonate’s immune system.7,15,16 For the mother, skin-to-skin contact and breastfeeding increases maternal hormones that activate the brain’s maternal circuit. This stimulates maternal behaviours in all mammals, including the development of ferocity – an ability to inhibit her ‘fear centre’, making her prepared to defend her offspring no matter what. This circuit includes a powerful reward system, which motivates mothers to care for their offspring and rewards them for it with the calming effects of oxytocin and endorphins. Finally, high levels of prolactin produced through breastfeeding help women to mother well by making us more ‘tolerant of monotony’.7,15,16

Long-term effects of skin-to-skin contact

The effects of skin-to-skin contact are not just evident in the immediate critical first hour but can affect the infant’s development and attachment beyond infancy. Long-term effects include: improved immunity during the first year; increased maternal interaction and bonding with the infant a year later; and the infant’s ability to handle stress increased one year later, as is the infant’s ability to interact socially. For the mother, breastfeeding initiation, facilitated by skin-to-skin contact, lowers stress levels, improves sleep, lowers blood pressure and in turn lowers the risk of developing certain cardiovascular disease and type 2 diabetes.5

Routines that negatively impact the immediate critical hour following birth
Routines that separate, delay, interrupt skin-to-skin contact or affect the ability of the infant to smell his mother may suppress the newborn’s primitive reflexes, leading to behavioural disorganisation and making self-attachment and breastfeeding more difficult. One of the most important abilities that aids skin-to-skin contact, self-attachment, breastfeeding and induces a sense of security for the infant, is being able to smell his mother. The odours of milk and of the lactating breast stimulate pre-feeding reflexes, aiding location of the nipple. Infants that are held in skin-to-skin contact or who breastfeed, are able to rapidly become familiar with their mother’s unique body odour, developing the capacity to recognise her olfactory signature within a few days of birth, inducing security. It has been suggested that the wearing of scents by midwives and visitors in the initial postnatal period may impact the infant’s ability to self-search for the breast. Interrupting skin-to-skin contact or separating the infant from its mother during the first critical hour can be detrimental to the initiation of breastfeeding. Delaying the first feed may make it more difficult for the baby to learn this skill at a later opportunity, as the first feed is an important imprinting experience.

‘Imprinting and subsequent latchment is a primary stage of emotional and neurobehavioural development in which the infant recognises its mother through oral tactile memory for continuing evolutionary survival.’ Infants separated from their mothers display a unique distress call, which rises cortisol levels, resulting in sensory overload, causing the baby to temporarily shut down in order to reorganise his or her nervous system. Infants expect to be held frontally by their mothers and if laid flat in a cot or pram in the early postnatal period, will often protest, as they perceive separation as danger. Even the routine of weighing the baby supine before the first feed can cause the infant stress, triggering an exaggerated moro reflex, where adrenalin is released, affecting normal neonatal physiology and makes further breastfeeding attempts challenging. Lying the infant prone during weighing reduces stress for the infant.

**REFLECTION POINT 3**

Reflect on what the barriers are to implementing uninterrupted skin-to-skin contact in your practice area. What could you do to improve your practice to ensure all babies are offered one hour of uninterrupted skin-to-skin contact?
It is important during this period to support the mother's oxytocin production by continuing to provide her with a safe, uninterrupted and calm atmosphere.

Conclusion

Physiological birth is an amazing, empowering event for all women and every effort should be made to continue to support the maternal-infant physiology beyond the birth and into the early postnatal period. During a woman's pregnancy and birth, her infant’s psychobiology is inherently linked to her own, and this unique relationship continues into the postnatal period. The success of this relationship hinges on the events of the critical first hour after birth. The most fundamental role we have as midwives is to acknowledge this time as a critical, sensitive period for maternal-infant attachment and wellbeing, which will have long-reaching effects on both the mother and her infant beyond our care. As midwives, we need to ensure our post-birth practices promote and support physiology beyond the birth.

TPM

References

A Personal Reflection on ‘Unlearning’ and Fighting Unconscious Bias

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Summary

Unconscious bias and institutionalised racism is affecting the way we care for the Black and Brown birthing community. As healthcare professionals, we all have a duty to do better. In this article, I reflect on some of my feelings following recent events and my journey of unlearning and relearning.
The Curse of Corona

The year 2020 was definitely a challenging one for us all. The arrival of COVID-19 hit the world like a freight train, causing much panic and devastation. Then there were two other events that made (some) of us stop and think: the release of the MBRRACE report and the horrific murder of George Floyd. These events once again highlighted the extent of institutionalised racism and its devastating effects on the lives of Black and Brown people. My first feelings were of anger. The world watched while George Floyd lay dying for eight minutes and 46 seconds and, although many people were suitably horrified, others dared to make completely unacceptable excuses: ‘It isn’t that bad over here in the UK’, ‘This only happens in the States’ – as if this somehow made it better. The MBRRACE report\(^1\) (2018) found that Black women are five times more likely to die in pregnancy and childbirth than white women. Despite these shockingly unacceptable figures, the report drew much of the same reactions as the George Floyd incident. Social media gave quite the insight into just what some people really thought. Frighteningly, some of these shocking views came from fellow healthcare professionals.

My anger soon turned to irritation: irritation at the well-meaning (white) friends, who all of a sudden wanted to discuss all things race and were shocked at what was going on. On the one hand, I wanted to vent and let out all my frustrations and on the other hand, I did not want to be poked and prodded for information. My thoughts were: how could they not have known that racism has always been an issue and why suddenly was I their reference library? Some of the anger was also directed at myself. I reflected on what I had done to protect the rights of Black and Brown women and birthing people in my job. I have been a midwife for nearly 18 years and as a Black midwife and mother, I have certainly had many a microaggression thrown my way. I have sat with Black and Brown friends and colleagues while we have compared stories like soldiers comparing battle wounds. I remembered those times when I just knew that someone had been treated differently because of the colour of their skin or their ethnicity; when generalisations about an assumed culture got thrown in at handover; when jokes were made about an unusual name. I comforted myself knowing that I have always made sure I respect people’s culture and beliefs when looking after women in my personal practice but, until recently, I had never had the courage to speak up or out against the unconscious bias I have witnessed perpetuated by others in practice.

Back to my roots

As a Nigerian, I see how institutionalised racism and unconscious bias affected the education I received even in my own country. I was born in the UK, but my father moved our family to Nigeria when I was six years old. I did not come back for another 13 years. My formative years were all in Nigeria. My education was very much white-washed. When I say this, I do not speak for all Nigerians, but I am sure many can identify with me on this. It was always impressed on us that the ways of white people were so much better and more civilised than our own. I remember classmates being encouraged to sound more ‘sophisticated’ when speaking in English rather than embrace their beautifully enthusiastic accents. Any advice that was given by well-meaning elders to those travelling abroad to seek their fortune always had to do with ‘facing your studies’ and ‘not getting in with the “wrong crowd”’ – the wrong crowd always being some description of weed smoking, unemployed Black or Brown people. They never seemed to associate anything negative with white people and, worse still, they did not seem to see the irony of their prejudice. Fast forward to the present, and I think about how this kind of upbringing can continue to marginalise our Black and Brown women and birthing people. Bias that has developed as a result of institutionalised racism can mean that Black and Brown staff can also be responsible for treating marginalised groups unfairly and white members of staff can justify their own behaviour by claiming that it cannot be racist if it is also perpetuated by Black and Brown members of staff.
On the one hand, I wanted to vent and let out all my frustrations and on the other hand, I did not want to be poked and prodded for information.

**Less talk, more action!**

Moving forward, we need to stop talking and actually act on the evidence. We don't need another report to tell us what we already know. We need to decolonise the curriculum so that our midwives in training learn from the very beginning how to look after people of all different skin colours. As qualified midwives, we need to have cultural awareness and sensitivity training as part of our mandatory training. More importantly, we need to be responsible for educating ourselves. I have to admit, although I am aware of institutionalised racism, I am still learning how deeply ingrained it is in our society. I have recently been learning a bit more about the Tuskegee experiment, which makes for depressing reading. Colman (2020) reminds us of the research conducted on Black American men in the 1930s during a study on syphilis. The study was supposed to last for six months and instead carried on for 30 years resulting in the unethical treatment of the subjects and the devastation of many lives. Similarly, Marion Sims, who has been hailed as the father of gynaecology, practised his trade on enslaved women. Sadly, recent articles appear to defend his actions, with some even claiming he had the women's consent. Petros et al (2018) suggest that trashing Sims' priceless gift for cheap political gain using the racist slur of exploitation is ironic as many sufferers of obstetric fistulas are African women. Wall (2020) states that critics are quick to attack without taking into consideration the extent of the women's injuries from the fistulas. Take a minute to digest that if you will. I'm still trying to figure out how one could assume enslaved women were in a position to give consent.

We need to decolonise the curriculum so that our midwives in training learn from the very beginning how to look after people of all different skin colours.
Thinking outside the box

We have a long way to go to change current thinking. To my colleagues, especially those of you who may have had a similar upbringing to mine, I encourage you to explore those hidden bits of history that should be part of our curriculum and learn the truth. Make yourselves visible wherever you can. Think outside the box. Sometimes being an instrument for change does not always mean doing things within your unit. There are many ways in which we can make our voices heard. Social media is a great way to make connections, with students who are looking for a bit of guidance in particular. They need to see midwives who look like them and can relate to their experiences. Consider speaking at midwifery conferences. Get involved with any curriculum development programmes at your local universities.

With great power...

To my white colleagues, I ask you to be our allies. We need everyone in this because we are all responsible for ensuring that Black and Brown people do not continue to suffer. This is not about you, so please don't make it so. Call out suspect behaviour, listen to what the Black and Brown community are saying and hear them when they speak. If you are not already receiving unconscious bias training, ask why? Use your superpower of privilege for good, not evil. Whatever you do, don't do nothing.

Conclusion

Finally, we all need to reflect on our individual practice and what we can do to be better midwives and improve outcomes for Black and Brown families. I warn you that it is not easy to confront past behaviour. Deciding to be proactive about change can be even harder. I hope that I am making a bit of a difference, but sometimes the evidence and the literature around medical racism is so depressing that I am often overwhelmed with the sadness of it all – but I know that this work must go on. And so, I continue on my journey of unlearning and relearning, hoping that it will strengthen my voice and purpose. TPM

References


Understanding Research 11: Disseminating Your Findings and Linking Your Work to the Larger Body of Midwifery Knowledge/Evidence

Becky Baker - Midwife, Lecturer in Midwifery, University of Suffolk

Dr Sam Chenery-Morris - Midwife, Nurse Adult and Child, Associate Professor, University of Suffolk

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Summary

Understanding Research is a series of articles aimed at dispelling the myths around research theories and practices, and exploring just what is meant by the different terminologies encountered when reading and using research
Recapping the research process

During this research series, we have explored the research process from the beginning, considering the theories of knowledge and philosophy, through to methodologies, methods and analysing data. This final article explores how researchers disseminate their findings, which is the final part of the research process. This is also a very crucial part. One could argue that there is an ethical imperative to disseminate research once the study is complete (as diagram 1 indicates). Researchers should not undertake a study unless there is a gap in knowledge and the research has not already been completed.¹ The gap is known by undertaking a literature review. The notable exception to this is for grounded theory. It is essential that the research is necessary to ensure that researchers are not wasting time or money.¹ Once the research is planned and undertaken (see diagram) the findings are shared or disseminated. This enables others to consider whether the research is applicable to their context, which leads to a greater likelihood that they influence practice. It also ensures the involved stakeholders and policy makers are aware of the findings. Even if findings contradict the initial hypothesis or someone else’s research, or are unexpected, it is essential that they are shared. It is through discussion and engagement with a wider range of findings, concepts and ideas that practice changes for the benefit of women and their families. Researchers will need to decide how they wish to disseminate their findings. They may choose one or more ways to share what they have found.

Methods of dissemination

![Diagram 1 An ethical imperative to disseminate research once the study is complete](image)

Often the most common way of disseminating findings is that a researcher will write up their research findings for
They will need to decide what publication will work best to share their work with an appropriate audience. A researcher may choose to get their research published within an academic journal and will need to consider which journal. This could be through the subject of the journal (i.e., whether it lends itself to midwifery or psychology), or perhaps a type of research being qualitative or quantitative. Another factor that may influence the decision of which journal to publish research in, is the impact factor of the journal. Typically, the higher the impact factor, the greater the regard of the journal and therefore the more likely the work will be accessed. However, this can make it more difficult to get the work published within, and researchers must ensure that their submitted work complies with the publisher’s guidelines. Sometimes researchers may even choose to publish their work in an Open Access journal to allow the article to be read by anybody without restrictions of access to the journal. When writing for publication, it can be difficult to publish the research in its entirety due to the word counts that the journals will set. Depending on the type of research, this can be difficult to represent all the research in one journal article. You may see that researchers will publish different aspects of the research within different journals. Additionally, referring back to one of the papers we used earlier in the series, Sosa, Crozier and Stockl, published one section of their findings within this article. These are findings from Georgina Sosa’s PhD. Sosa’s thesis has been published online in its entirety, in addition to the articles, allowing you to see the entire research, which is 411 pages showing the difficulties of publishing the findings in an article alone. Completing a midwifery degree, masters or PhD requires a final dissertation or research to be submitted. Students may not consider that they could publish their dissertation findings. However, many should think about disseminating their hard work to a wider audience and we hope these articles help inspire you to do so.

One of the benefits of the personal approach to disseminating research, whether this is via social media, a webinar or conference, is the ability of the audience to ask questions and engage with the methods as well as the findings.

Chenery-Morris (2021), one of the authors of this research series, has recently had her thesis from her PhD published as a book. The book explores her research into grading student midwives’ practice. It shows how the research was conducted in detail, from initially devising the research question, the literature review, through to the methodology, the sampling, gaining ethical approval and the way in which the data was analysed. This allows you to clearly follow the research process that was used. From her findings, she is then able to make recommendations for practice, which she has considered in line with current guidance and practice; this is also an essential part.
Another common way of disseminating research findings can be presenting at a conference. This can be an oral presentation or a conference poster. Examples of these you may be aware of are the Royal College of Midwives annual conference and the International Confederation of Midwives Triennial conference. There are education conferences and many more. These conferences are filled with speakers sharing the findings of their research. The poster presentations are usually displayed around the venue for you to read during the breaks. These often enable intimate discussions with the researcher and/or the presenter may undertake a short five-minute presentation. Researchers usually submit an abstract, summarising their research, which is subject to a peer-review process, to then be selected to present at the conference.

We referred to a journal article that Feeley published earlier on in this series exploring freebirthing. Within this article, she highlights the importance of dissemination of her research findings explicitly stating it was important to provide voices to those women who freebirth, to raise awareness of the complex nature of decision making in these scenarios to maternity care professionals, as well as to create some evidence-based information, should a woman disclose that she wishes to freebirth. She outlines ways that she has disseminated her research, which include publications of articles, one of these being open access, as well as a creation of a blog. Additionally, she recognises that qualitative research can be critiqued in how likely it is to influence practice. During March and April 2021, she has been holding webinar series to look at how NHS midwives support and facilitate birth outside the guidelines sharing the findings from her PhD. Tickets have been sold online for this virtual event, meaning people nationally and internationally could join these webinars and learn from the findings to support their own practice.

Other methods of dissemination could be through the use of media and, more recently, the increasing use of social media, as well as podcasts, videos or even education materials. One of the benefits of the personal approach to disseminating research, whether this is via social media, a webinar or conference, is the ability of the audience to ask questions and engage with the methods as well as the findings. It is from this discussion that knowledge is understood, shared and sparks others’ interest. The process of asking questions about research should happen regardless of the method in which the study is shared. The term often used for questioning research findings that you are probably aware of is ‘critiquing the literature’.
Critiquing research

It is essential that as you read research, you need to be able to assess the quality of the research itself. The aim of critiquing research is to identify the strengths and weaknesses of each study and the way in which it was conducted. You may have noticed that systematic Cochrane reviews, or National Institute for Health and Care Excellence (NICE) guidelines, refer to the quality of the research that informed their overall findings. A way that you can critique research can be through the use of a critical appraisal framework that asks a series of questions to assess the value of the research. An example of these tools is on the Critical Appraisal Skills Programme website, although these can be found in research textbooks, too. Questions these include are whether there was a clear aim relevant to practice, whether the methods were rigorous, and if ethical principles were maintained. We encourage students to use these critical appraisal framework tools when writing their dissertations to consider the quality of the research they collate for their literature reviews. The table below shows some of the words that we may use when evaluating the quality of research in both qualitative and quantitative research.

Table 1 Evaluation of research terms

<table>
<thead>
<tr>
<th>Traditional criteria for evaluating research, usually associated with the quantitative paradigm</th>
<th>Alternative criteria for qualitative research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Validity: internal and external</td>
<td>Credibility or authenticity</td>
</tr>
<tr>
<td>Generalisability</td>
<td>Transferability</td>
</tr>
<tr>
<td>Reliability</td>
<td>Dependability</td>
</tr>
<tr>
<td>Replicability</td>
<td>No need to replicate as each interpretation valid and no two researchers will come to the same findings</td>
</tr>
<tr>
<td>Objectivity</td>
<td>Confirmability</td>
</tr>
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</table>

Although some of these terms noted above can be used interchangeably across qualitative and quantitative research, these are where they are most commonly associated. Quantitative research often aims to be more objective and take a scientific approach and considers the reliability and validity as part of their essential criteria. Reliability considers the consistency of the data collection tool, questioning whether it is measuring what it is supposed to, while validity is slightly more complex and considers whether the tool is really measuring what it is intending to measure. In contrast, qualitative research is thought to have greater subjectivity and instead assesses the overall trustworthiness of the findings, which includes its assessment of all those terms outlined above. Credibility is a key component of this, which is assessing that the findings should represent those experiences of the participants. Steps within the overall research process can increase or decrease the overall quality of the research.

No research sits alone; it should be situated and it is the rich tapestry of other findings and complex considerations that make research so interesting

Linking research to a wider body of knowledge

When reading the final research report, you will often find a discussion section. This is where the study in question links to
the wider body of evidence and it is in this process that rigour is demonstrated. The researcher will recognise how their findings link to other existing research. No research sits alone; it should be situated and it is the rich tapestry of other findings and complex considerations that make research so interesting, especially within the qualitative paradigm. As students, the final module many undertake is a dissertation. The point of any dissertation, whether it is a primary research study or secondary literature review, is to compare and contrast the work of others, so that the researcher situates their work within this wider body of knowledge. Once students and midwives engage with the work of others and disseminate their findings, they really can be said to be shaping practice.

Implementing research into practice

The Nursing and Midwifery Council (NMC) Code states that a midwife must always practice in line with up-to-date evidence.

There is then a term often used that midwives and nurses must adopt: ‘evidence-based practice’. This is a term that means that any decision making for providing care should be conducted by healthcare professionals, to ensure that they are using the latest research, that their decisions are appropriate and cost-effective, and will result in positive outcomes. Another essential part of evidence-based practice is that the midwife will take into account the patient views and use their own clinical judgement. Consequently, as new research becomes available, healthcare professionals will need to look at implementing this into practice. This needs to be carefully thought out to ensure it can be implemented effectively. There are a variety of considerations that need to be explored before implementing research findings into practice. These include: whether there is a gatekeeper; what the time costs and money are; the people that it will affect; the people who will need to be involved to implement it; and what needs to be done for it to be successful. All of these issues could lead to potential challenges and barriers to implementation if not considered and planned effectively. With an appropriate strategy, changes can be made in practice and these should be evaluated to check for their effectiveness.

‘Evidence-based practice’ is a term that means that any decision making for providing care should be conducted by healthcare professionals, to ensure that they are using the latest research, that their decisions are appropriate and cost-effective, and will result in positive outcomes.

Conclusion

A final point that is important to recognise is that, although research will be carried out, there will often be a delay before this research will be implemented in practice. If you consider that first the research may need to be submitted for final work such as a dissertation, a master’s project, or a thesis of a PhD, there may be a delay for this to be marked. Or, if the research is carried out in practice, there could be a delay of collecting and analysing the findings. If we consider COVID-19 as an example of this, there is still a lot unknown about this virus where research is being conducted, but not yet on a large enough scale to be able to analyse and publish the findings. Although the next step is for the researcher to disseminate their findings, it may take them a while to prepare this for publication or a presentation, which will be subject to a peer review process. This means that, again, there is a delay before these findings are even available to a wider audience. Therefore, it is important to remember that there is what can be referred to as a research gap, or research lag, and that the point of dissemination can be even years after the research, and the implementation even longer after this. So, doing research and keeping up to date with research is always an ongoing process and will be forever embedded in the life-long learning of a midwife. And that concludes the series! We hope that you have found this research series useful in helping you to understand research and perhaps even inspired you to complete your own. TPM
References

Decolonising Midwifery Education Part 2: Neonatal Assessment

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Summary

Assessment of the skin is an important element of neonatal examination. Therefore, midwives need to develop knowledge and skills in this area to recognise changes in the skin and understand what these signify. Historically, teaching in this area has been skewed towards changes seen in newborns with light skin tones, resulting in a gap in clinical knowledge and resources on the assessment of skin in newborns with darker skin tones. This second article, on the decolonisation of midwifery education and practice, focuses on clinical assessment of the skin when examining newborns.

*NB we have sourced images via stock websites and from the generous public, to whom we are grateful for supporting this important work of decolonising the curriculum.*

Introduction

Midwives have an important role in the assessment of neonates to confirm normality, detect deviations from the norm and arrange appropriate referral. Midwives examine neonates at birth, at postnatal examinations and when performing the Newborn Infant Physical Examination (NIPE). Historically, very little attention has been paid to the significance of skin colour when teaching midwives examination skills and there is a knowledge gap around the detection of clinical signs on darker skins. There has been a lack of awareness that many skin conditions can be more difficult to recognise on darker skins, and almost all clinical textbooks use examples and illustrations of people with pale skins. Generations of clinicians have been educated in this way and it is only very recently that this gap in clinical education has been recognised and is now being addressed. Neonatal skin conditions are no exception to this knowledge gap. This is the second of two articles on skin assessment in maternity care, which seek to kickstart the discussion and begin to fill that knowledge gap, plus raise awareness of some of the clinical signs and features that present differently, on darker skin tones. The first article, also published in this issue, focused on enhancing knowledge and comprehension of the nuances involved in assessing women with dark skin tones, while this article discusses the nature of neonatal skin colour, assessment of the baby at birth, signs of cyanosis, skin conditions, birthmarks and neonatal jaundice. A
Skin colour in the neonate is influenced by a number of physiological factors: the density and distribution of melanin (a dark pigment which provides protection from ultra-violet rays in sunlight); haemoglobin; bilirubin and skin thickness. Therefore, ethnicity, general health and gestational age will all be significant factors. Although we may think of ethnicity as the main determinant of skin colour, studies have shown that skin tone and ethnicity do not always correlate precisely. Skin tone varies among individuals from any given ethnic group. Therefore, it is not necessarily accurate or useful to talk about African skin or Asian skin. In fact, there is huge variety in skin colour and yet clinical textbooks on assessment of the skin are almost exclusively focused on pale skin tones. Few studies have explored this topic, although there have been recent attempts to classify neonatal skin colour. However, neonatal skin is relatively dynamic as babies are often born slightly paler than their parents; their skin colour developing in their first weeks or months and beyond as their skin is exposed to the natural light. Neonates also have areas that contain less pigment – for example, the palms of the hands – while other areas may be more pigmented – for example, the genitals, with a deeply pigmented scrotum being a common incidental finding in Black, Asian and Middle Eastern baby boys.
Visual assessment of the skin is an important part of neonatal clinical examination and any assessment must be made in relation to individual skin tone in order to confirm normality and identify abnormalities. For the midwife, examining the baby following birth using the APGAR score provides a system for rapidly assessing newborn health using five criteria: heart rate, respiratory effort, tone, reflex and skin colour. The newborn is scored (out of two) for each criterion, usually at one minute and at five minutes, allowing a maximum score of 10. However, assessment of colour is known to be the most problematic and least reliable field, because to score two the baby needs to be ‘pink all over’. As a screening tool for detecting babies who are compromised, this description is particularly problematic. Some babies with darker skin tones may be well perfused but will not look particularly pink, making it practically impossible for them to gain maximum score in this field. This is of concern because it means that darker-skinned babies may be given inaccurate APGAR scores, which could lead to unnecessary surveillance and interventions for the baby and increased anxiety for the parents. Similarly, it may be harder to assess ‘blueness’ in the skin of a Black or Brown-skinned baby and this could lead to inadequate detection of those babies who are compromised. Therefore, there is a strong argument for reviewing and developing the APGAR scoring system to ensure that it is fit for purpose for all neonates.

Midwives have an important role in the assessment of neonates to confirm normality, detect deviations from the norm and arrange appropriate referral.

Assessing for cyanosis in the neonate
Cyanosis is the blue discolouration of the skin and mucous membranes caused by deoxygenated haemoglobin. In neonates peripheral cyanosis is common in the first 24 hours of life and is not considered pathological if the baby is generally well. Central cyanosis is associated with pathology and can indicate respiratory, cardiovascular or haematological abnormalities. Therefore, it is essential that midwives are able to detect signs of cyanosis in neonates. As a fundamental skill in midwifery practice, teaching has been impaired by language and assumptions about skin colour. It has been the norm to talk of skin looking blue, white or ‘pinking up’ and, although this may reflect what is seen in paler-skinned neonates, it may not describe what happens in babies with darker skin tones. For this reason, we would strongly advocate moving away from this language and emphasise that the assessment of cyanosis should assess for any grey or blue discolouration of the skin (see Picture 1). It should always involve examination of the lips and mucous membrane in the mouth and tongue because these are areas where there is thin epidermis and a good blood supply in all skin colours and therefore sites that are reliable indicators of central cyanosis. Assessment of the nail beds is not useful for detecting central cyanosis in neonates under 24 hours of age, given that non-pathological, peripheral cyanosis may complicate the assessment. While it is essential that midwives hone their observation and examination skills for babies of all skin colours, pulse oximetry provides an important objective measurement where there are concerns. Moreover, in many maternity units this is now offered routinely as part of newborn screening.

Neonatal skin conditions
Rashes are common in neonates and therefore midwives need to be skilled at recognising normal, harmless conditions and those that may need to be referred. Erythema Toxicum Neonatorum (commonly called Newborn Rash) can look alarming but it is an insignificant, transient rash present in approximately half of babies in the first few weeks of life - see Pictures 2 and 3. It can be more difficult to assess on darker skins as erythema (redness) may be less obvious.

Neonatal pustular melanosis is uncommon in white babies but is thought to affect around 5-15% of babies with Black parents. It resolves spontaneously but similarly it can be very concerning for parents, particularly as the small pustules develop and then turn into flat, brown lesions (See Picture 4). Careful and comprehensive inspection is key and listening to parents is important because they will often be the ones to notice subtle marks and blemishes.

Birth marks

Dermal melanocytosis (also slate grey nevus or blue spot) are blue/grey or brown patches found on newborn babies. They are a type of birth mark seen on babies of all skin tones, although they are very common in dark-skinned babies and present in up to 90% of babies from Black and Asian ethnicities. They are usually present from birth and found on the buttocks or lower back and they generally disappear in the first few years of life. See Pictures 5 and 6. Although often referred to as
Mongolian blue spot, this description is an inaccurate and outdated term based on discredited race theories.\textsuperscript{13} For this reason we strongly recommend using the correct name: dermal melanocytosis or simply blue spot. Inability to accurately recognise blue spot has led to this being confused with bruising. Sadly, this has sometimes resulted in inappropriate child protection referrals, causing unnecessary distress to families.\textsuperscript{14} It is important that midwives record all birth marks and skin lesions on the body map and in all neonatal records as soon as it is noticed and continue to observe and document any changes. While remaining vigilant to the possibility of bruising from birth trauma or inflicted harm, midwives can differentiate between bruising and blue spot if they understand the distinguishing features of each.

Blue spot predominantly appears at typical sites (buttocks and back), they are patches of skin that may look blue/grey or, on dark-skinned babies, they may just look darker than the surrounding skin. They are more uniform in colour and they do not change colour.\textsuperscript{1} They are always non-tender with no associated swelling or redness. Bruises may be tender with associated inflammation. They can be blue/grey but they are less uniform in colour and the colour also changes as the bruise ages; sometimes purple and yellow tones can be seen.\textsuperscript{15} The head-to-toe examination following birth and during each neonatal examination plays a vital role in detecting bruising.

\textbf{Jaundice}
the yellow colouration of skin and sclera caused by raised bilirubin (a bile pigment) in the circulation. Neonatal jaundice affects 60% of term babies and 80% of preterm babies in the first week of life. In most cases, this is a physiological jaundice that spontaneously resolves without treatment. Less commonly, jaundice is pathological and can be life-threatening. Observation and examination of newborn babies to detect those babies who may have pathogenic jaundice and require referral is an important part of neonatal care. Measurement using a transcutaneous bilirubinometer is recommended practice in the UK, in babies with suspected or obvious jaundice, although it is not always available, particularly in community settings. Therefore, visual assessment is still a key aspect of assessing the degree of neonatal jaundice. This can be more difficult in babies with dark skin tones - see Pictures 7-9. A full visual assessment should be made in good light and particular attention should be paid to inspecting the whites of the eyes (sclera), gums, palms of the hands and small areas of skin temporarily ‘blanched’ by light digital pressure.

Again, listening to the parents is also key. They may notice changes in skin colour that are not evident to a midwife who has not seen the baby before or who lacks knowledge and experience in assessing babies with darker skins. In the vignette below, a midwife reflects on a neonatal examination of a baby with white and Afro-Caribbean heritage in relation to detection of jaundice. After reading this, use the critical questions to reflect on current practice.

A REFLECTION ON JAUNDICE ASSESSMENT OF A NEWBORN WITH WHITE AND AFRO-CARIBBEAN HERITAGE

As a community midwife, I attended a primary home visit with a final-year student midwife, to a mother who had given birth to her third baby on the previous day following an uncomplicated pregnancy and birth. The parents’ ethnicities were that of white and Afro-Caribbean heritage, the student was white and my heritage is white and Afro-Black Caribbean. During the assessment of the newborn, the student had asked me if I agreed that the newborn appeared to be jaundiced. I reassured her that the newborn was not jaundiced based on a full assessment. A discussion followed wherein the mother shared her experiences with us of the care and assessment of her first two babies when they were considered to be jaundiced during the initial postnatal period. The mother expressed that she considered the additional surveillance visits undertaken by the midwives to be unnecessary because results of the investigations were found to be within the normal ranges. Care provided with her first newborn included a referral to the hospital because there was not a transcutaneous bilirubinometer (TCB) available for the community midwife to use during the visit. The findings of the TCB were within the normal range and therefore no further intervention was necessary. The mother expressed her frustration as she felt that her newborns were healthy and that perhaps the midwives and other healthcare professionals involved were not familiar with the healthy skin tones for babies with white and Afro-Black Caribbean heritage. I felt that the commonality that we shared in our heritage enabled the mother to be open with me about her experiences. The discussion we had highlighted limitations of individualised assessment of jaundice in the newborn, because of a lack of knowledge around jaundice in neonates with skin tones that were other than white. Reassurance was given to the mother and advice provided on monitoring the health and wellbeing of her newborn. Following the visit, the student midwife expressed her concern that she had limited knowledge and experience of the assessment of babies with skin tones that were not white, which she felt would lead her to undertake a TCB or make a referral to be ‘safe’.

Conclusion

The teaching of clinical assessment of the newborn must be relevant and fit for purpose for all newborns, whatever their skin tones. Images of newborn babies with dark skin tones should be included in textbooks and other educational materials. Resources, such as clinical manikins, should reflect a range of skin tones. Those working in midwifery education have a
responsibility to ensure that what is taught is relevant and appropriate for mothers and babies of all skin tones. TPM

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Practice Points

Jaundice in assessment of the neonate
Enhancing your learning: explore images of jaundice in a diversity of skin tones.

History

• Is an interpreter required?
• Listen to the mother: are there any concerns with the colour of the skin, feeding, activity or any other concerns?

Observation

Ensure you have ambient lighting during the assessment process. Where possible use natural light or a halogen light source, as estimation of the degree of jaundice can be inaccurate due to the type of lighting and the reflective ability of surrounding objects.

Ensure you have fully undressed the newborn for the assessment to fully visualise the colour of the skin - face, abdomen, back and limbs and palms of the hands.

Ensure ‘top to toe’ examination is performed with a specific focus on general behaviour:

• Eyes – assessing the colour of the sclera
• Mouth – assessing the colour of the gums
• Nappies – observe for yellow or darker-stained urine.

Investigation

Ensure full explanation to parents and gain consent if further investigation is required

Where jaundice is suspected, ensure investigations are implemented, results followed up and referrals made as appropriate.

Documentation

Ensure findings of the assessment are accurately documented.

References

2. Anbar T, Eid A, Anbar M. Evaluation of different factors influencing objective measurement of skin color by


