Midwifery interventions for the promotion of physiological birth

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This article discusses which midwifery interventions are appropriate to consider when an early 'deviation from the normal' is detected before considering referral to an obstetrician. This topic is considered in relation to women in spontaneous labour at term with a singleton cephalic presentation and no identified 'risk factors' for the mother and baby antenatally. In spite of best attempts by the media to persuade us otherwise, the majority of women giving birth in New Zealand are in this category.

When considering a 'deviation from the normal', one must consider that midwifery interventions are aimed at enhancing the physiological processes which are taking place for mother and baby during labour. This requires a delicate balance between timely action and/or inaction. Midwives are mindful that any intervention has the potential to interrupt normal physiology and the pattern of labour. Obviously the desired result is to ensure the optimal outcome for mother and baby, and sometimes judicious use of 'inaction' is the best intervention that the midwife can undertake.

More than any other profession, midwives have the opportunity to observe and care for women during labour which is uninterrupted by intervention. Midwifery knowledge is grounded in what is 'normal' during the course of a labour. Midwives apply this knowledge and individualised assessments of what is known about each woman's context and stage of labour when providing care. Rigid thresholds for intervention do not apply. For example, a labour can appear to 'stall' when a woman transfers to hospital due to the surge in maternal adrenaline in response to the change in environment. Sometimes there is also the lull in the pattern of contractions after transition before the second stage commences.

There is no consensus as to what is the length of a normal labour.[1] Midwifery assessments focus on the well being of the mother and baby throughout the process rather than the length of labour. Assessments in labour are not isolated intermittent actions but part of a holistic ongoing assessment. The midwife maintains an overview of the progress of labour at all times and is ideally placed to practice in this way, providing continuous care to women in labour.

Midwifery care in labour is not viewed as a 'stand alone' event but rather seen in the context of continuity of care and antenatal preparation by the woman for labour. The woman will have confidence in caregiver and choices. She will have discussed and prepared for the birth, and feel confident in her ability to give birth. She will be supported to give birth in the place of her choice, in an environment which allows the physiological processes to be maximised. The midwife has involved the support people present and they will know how to offer constructive assistance, their presence enabling her to labour effectively.

Physiological influences will not be the only determinant of the outcome of a woman's labour.[2] Choice of caregiver, the woman's expectations and birth environment is known to have an effect on the birthing woman and will have influence over the outcome. A midwifery framework acknowledges these influences and the midwife has interventions related to them in her toolkit.

Interventions in the midwifery toolkit to support the optimal hormonal and physical processes of labour include:

- **Maximising the environment**
  The woman should feel that she is in the right place for her to labour 'safely'. For some women this will be a tertiary hospital, for others this will be at home. Lighting should be dim, her privacy should be maintained, she should feel free to vocalise as desired, and she should be able to move around freely and adopt positions which are most comfortable to her.[3]

- **Position**
  Prone positioning does not aid rotation and descent of the baby and has been linked with fetal distress.[4] Upright positions are favoured and most women will naturally adopt such positions if not directed otherwise.

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- **Eating and drinking as desired**
  Women should be encouraged to eat and drink as desired to avoid dehydration and ketosis. Although a mild ketotic state can be expected, severe ketosis can slow the progress of labour.[5]

- **Reviewing women early in labour**
  Women who are reviewed early in labour have less epidurals and less syntocinon augmentation.[6] If planning to give birth in a hospital, encouraging women to stay out of hospital until labour is well established is an important midwifery intervention. A home visit by the midwife in early labour can reduce unnecessary interventions.

- **Using evidence based fetal monitoring**
  Intermittent auscultation is the desired method for 'low-risk' women and babies.[7] Admission CTG recordings for 'low-risk' women are not supported by evidence.

Maternal concerns which may arise that warrant intervention include:

1. **A prolonged latent phase**
   Midwifery actions in this instance are aimed at supporting the woman to conserve energy, maintain hydration and oral intake. Avoiding early amniotomy is important as if performed early, the fetal head loses its manoeuvrability and potentially can take longer to rotate and descend.[8]

2. **Hypotonic contractions**
   A careful and full assessment is needed to determine the cause. Had labour truly established and then slowed? Is the apparent drop off on intensity in response to environmental or emotional effects or is it a result of maternal dehydration or ketosis, a malpresentation, malpositon or uterine aetiology.

   Midwifery actions at this point will depend on the cause of the reduced uterine activity.

   - **Anxiety or fear causing a surge in adrenaline and disrupting labour** – consider environment, emotional support, response to pain of labour and stage of labour.
   - **Dehydration** – consider fluid balance, urinalysis and rehydration.
   - **Position** – are upright positions being adopted; is the woman ambulatory?
   - **Malposition or malpresentation** – careful assessment of fetal position is important. If maternal and fetal well being is in no way compromised, a timeframe for reassessment can be made.
   - **Uterine aetiology** – comprehensive history taking and identification may warrant referral
   - **Amniotomy** – could be considered at this stage but midwives are mindful that it should only be considered for labours that are not progressing normally and use this intervention with caution.[9]

3. **Anterior lip of cervix**
   Midwifery interventions include: positioning the woman to avoid pushing feelings; and taking the pressure off the cervix, such as having her lie on her side. Reassessment will assist the woman to know when it is time to push.

4. **Delay in second stage**
   Assessments include: How long has she actually been pushing effectively? How is the baby reacting to the second stage? How is maternal energy? What is the baby's descent and rotation?

   Directing the woman to push before she is ready will lead to maternal exhaustion and eventually ineffective efforts. Midwifery actions should encourage the woman to push as she desires. Ongoing assessment will reveal whether there is truly a delay or dystocia. Midwifery actions include: encouraging a change in position; adopting poses which maximise pelvic opening, such as supported squatting; and standing. Ambulation or stair walking can assist to rotate a transverse position.

5. **Fetal concerns**
   One very real concern for midwives and woman is a suspicious variation in fetal heart rate. Fetal monitoring recordings made during labour will provide a comparison to use when considering changes. Again, the emphasis is on the midwife's ongoing comprehensive assessment which takes into account the woman's stage of labour. Possible causes need to be considered.

   - **Maternal position** – consider a change of position
   - **Maternal dehydration or pyrexia** – is this the possible cause of a fetal tachycardia?
   - **Baby's head compression in second stage** – is the baby's head entering the pelvis?

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Any abnormalities noted will require a closer monitoring regime and consideration for referral to an obstetrican, depending on the severity of the concern. The threshold for referral will depend on the assessment and baby's response to corrective measures, the availability of obstetric help and the imminence of birth.

The scope of midwifery practice, clearly defined and internationally recognised, and her professional standards determine the extent and direction of the midwife's actions.

The midwife understands, promotes and facilitates the physiological processes of pregnancy and childbirth, identifies complications that may arise in mother and baby, accesses appropriate medical assistance, and implements emergency measures as necessary. When women require, referral midwives provide midwifery care in collaboration with other health professionals.[10]

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