

Supplementary information

The Complementary Therapies for Labour and Birth study protocol, based on the She Births® course and the acupressure for labour and birth protocol,¹, consisted of a two-day course (no cost to participants) to be held at either Site H or Site N on a nominated weekend. The course consisted of the following program:

Complementary Therapies for Labour and Birth protocol –the program, philosophy and techniques, are designed to support a woman during her pregnancy and labour by introducing techniques to enhance a natural state of relaxation for the optimal birth experience,². The program introduces concepts of birth as a natural physiological process, and evidence-based CM techniques by which the normal birth process can be managed,³. These are described below.

‘Acupressure for pain relief in labour’ protocol– Acupressure consists of applying moderate pressure to acu-points using locations described in Traditional Chinese Medicine (TCM) texts. The location and uses of a variety of acupressure points for the purpose of assisting the physiological processes of labour, as well as the emotional support for the woman were taught to the woman and her birth partner. A booklet accompanied this session to facilitate review and home practice, with suggestions for most appropriate uses of certain points and point combinations,¹.

Participants were advised to practice at home from 37 weeks’ gestation, practicing once a week for five minutes at 37 weeks, followed by two to three times a week for 7-10 minutes at 38 weeks, four to five times a week for 10-15 minutes at 39 weeks, and after 40 weeks’ gestation, they could use the induction combination of points every two hours to assist in bringing on labour.

Six main points used:

Sp-6 (Sanyinjiao) for induction and augmentation of labour

L.I.-4 (Hegu) for pain relief

G.B.-21 (Jianjing) has a descending action to aid the first and second stages of labour and can stimulate uterine contractions. Also useful for bleeding following birth.

Bl-32 (Ciliao) for pain relief

Ki-1 (Yongquan) for relaxation and calming effect, especially during transition

Bl-60 (Kunlun) used during first stage of labour, promotes the descent of the baby during labour

Other useful points

Pc-6 (Neiguan) for nausea and vomiting during labour, and can be especially useful if epidural analgesia used

Bl-67 (Zhiyin) for malposition of the baby prior to labour

St-44 (Neiting) for reflux

Point combinations

Sp-6 + L.I.-4 + Bl-32 for induction of labour

Bl-60 + L.I.-4 for posterior presentation during labour

Sp-6 + L.I.-4 for unestablished labour or failure to progress

Sp-6 + Bl-32 for swollen cervical lip at full dilation

G.B.-21 + L.I.-4 for failure to progress during second stage

Outline of the labour process in terms of the anatomy and physiology of birth – a description of what happens physically to the body during ‘normal’ labour and birth. The couples are taught about the anatomical structure of the uterus and the function of the three layers of the uterus in facilitating birth. The stages of labour are described and what the contractions may feel like and how long they are likely to last. The sympathetic and parasympathetic nervous systems are described and the reactions of the body when each are activated, and its effect during labour. Having an optimal mindset for the labour was also discussed. How participants could mentally approach labour as if they were training for an athletic event, and to have the right frame of mind to prepare for it. From a basis of knowledge and understanding of the stages of labour and the body’s response, then further concepts can be introduced.

The hormonal cycle during birth - Hormones that are produced during the birth process were described and their effect on the body during stressed and relaxed states. The hormones discussed were oxytocin, relaxin, beta-endorphins, adrenalin and prolactin, and the natural cascade of these hormones that occur during an uninterrupted labour. Additionally, the effect on these hormones when pharmacological pain relief, or synthetic oxytocin (syntocinon) for induction and augmentation is introduced, was also described.

Techniques:

Breathing: Mindfulness of breath or conscious breathing combined with relaxation are powerful tools for labour⁴. There are three types of breathing techniques taught in Complete Birth: Blissful Belly (BB) breaths. Participants were instructed to breathe in through the nose to the count of 10, and then slow release to the count of 10. The goal was three breaths in one minute, but practice was required for most people to achieve this. Partners were instructed how to count their partner in, and how to use this technique during a contraction. This was

rehearsed numerous times during the course. The second technique was the Soft Sleep (SS) breaths that were to be used in between contractions and are the soft relaxed breathing that occurs when going to sleep. This was to re-focus the women between each contraction and conserve energy. The third technique is the Gentle Birthing (GB) breath, and is used to assist the descent of the baby during the second stage of labour. This technique is an alternative to active pushing during the second stage, and both techniques are practiced by the women to demonstrate the difference in focus. For the GB breath, the focus is on keeping the jaw loose, pressure on the out breath from the top of the abdominal muscles and the pelvis tilted slightly forward. In this way the perineum is also kept relaxed.

Relaxation and visualisation: a description of the relaxation response when the parasympathetic nervous system is activated was given to the participants. The relaxation techniques comprise of four guided relaxation exercises on a CD. These are practiced during the course and then given to women and partners for home practice as often as they wanted to do it. The four exercises included progressive relaxation, lotus flower, count down, visualisation of the ligaments and muscles of the pelvis. Included in the relaxation CDs were visualisations including seeing the baby coming into an optimal position; visualisation of the optimal birth experience; and visualisation of your special place in nature where you feel completely safe and relaxed.

Movement and yoga positions: Using positions with hips wide open, using gravity and your alignment to assist with labour's progress. Standing, leaning, using furniture, fit balls, partner support to aid the baby's descent. Movement should be effortless and meditative. Yoga positions encouraged relaxation, physiological positioning for labour, opening of the pelvis and downward descent of the baby, and can be performed by women in labour,⁴. There were five yoga postures taught:

Baddha Konassana (cobbler pose): which is a resting pose for between contractions.

Spiralling movements can be added for pain relief or focusing concentration

Balasana (child's pose): which is also a resting pose for between contractions, and for regaining energy when tired. This position is also helpful when pain relief is sought from acupuncture or massage techniques

Upavishta Konassana (legs wide stretch): for opening hips before labour, during pre-labour and in the first stage while comfortable

Marjaryasana (cat pose or stretch): for pain relief during and after contractions to stretch out the stomach muscles

Malasana (squat pose): used for upright positioning for pain relief and the descent of the baby during second stage. This can be modified with the use of chairs or cushions for a seated squat, or on the knees or with the support of the partner. This pose is practiced after 20 weeks and until 37 weeks' gestation for shorter periods of time, and can be held longer to assist with induction following 37 weeks. This posture is contraindicated if there is any pubic symphysis present, or the placenta is low lying.

Massage: Massage techniques are useful during birth for pain relief,⁵. Two techniques were taught, and home practice was encouraged as often as the couples liked. The techniques were:

Strong massage technique is used to 'meet' the contraction where the woman is feeling the strongest sensation. The partner uses the heel of his/her hand and squeezes and rotates at the points on the buttocks, especially the piriformis muscle to interrupt pain perception during the contraction.

Endorphin technique is a soft technique used during the time between contractions to increase the release of natural opiates. Skin contact and soft rhythmic movements up and around the back, shoulders and arms is instructed.

Supplementary Table 1: CM therapies used during labour

Complementary Therapy Used	No EDA n=67 (%)	Yes EDA n=21 (%)	Risk ratio P value
Acupressure	29 (43.3%)	12 (57.1%)	0.78 [0.61-0.98] P=0.11
Breathing technique: Belly Breaths (first stage)	42 (62.7%)	11 (52.4%)	1.1 [0.23-2.04] p=0.68
Breathing technique 2: Gentle Birthing Breaths (second stage)	23 (34.3%)	8 (38.1%)	0.91 [0.7-1.2] p=0.56
Yoga	29 (43.3%)	11 (52.4%)	0.83 [0.65-6.79] p=0.22
Massage	30 (44.8%)	10 (47.6%)	0.91 [0.70-1.2] p=0.55
Visualisation	38 (56.7%)	11 (52.4%)	0.99 [0.72-1.35] p=1.0

References:

1. Betts D. Acupressure techniques for use during childbirth and pregnancy. Childbirth solutions Online Available at: VRL: <http://www> Accessed 2015 2005.
2. Buckley S. Undisturbed birth. Nature's blueprint for ease and ecstasy. Midwifery today with international midwife 2002(63):19-24.
3. Jones L, Othman M, Dowswell T, et al. Pain management for women in labour: an overview of systematic reviews. Cochrane Database of Systematic Reviews 2012;**3**:CD009234.
4. Smith CA, Levett KM, Collins CT, et al. Relaxation techniques for pain management in labour. Cochrane Database Syst Rev 2011(12):CD009514.
5. Smith CA, Levett KM, Collins CT, et al. Massage, reflexology and other manual methods for pain management in labour. Cochrane Database of Systematic Reviews 2012;**2**:CD009290.