



**Acupressure for post-date
pregnancy:
a sequential mixed-methods
feasibility study**

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CERTIFICATE OF ORIGINAL AUTHORSHIP

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as part of the collaborative doctoral degree and/or fully acknowledged within the text.

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*Do not follow where the path may lead. Go instead where there is no path and
leave a trail.* – Ralph Emerson

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Statement of contributions to jointly authored works contained in the thesis

This thesis consists of four publications that were produced during my PhD candidature and that are incorporated as chapters 2, 4, 5 and 7. All four publications are data-based papers that involve analysis of primary or secondary data to create new insights, and are published in peer-reviewed scholarly journals.

Publication details for each chapter are outlined below, together with statement of contribution and percentage contribution for each author. The publications are included with permission of Elsevier.

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Abbreviations

ACM	Australian College of Midwives
AIHW	Australian Institute of Health and Welfare
ALSWH	Australian Longitudinal Study on Women's Health
CAM	Complementary and alternative medicine
CHBQ	CAM Health Belief Questionnaire
CI	Confidence Interval
CS	Caesarean section
CMP	Community team Midwives Program
CTG	Electronic fetal monitoring
DAU	Day assessment unit
EPO	Evening primrose oil
FRCT	Feasibility randomised controlled trial
GP	General Practitioner
HREC	Human Research Ethics Committee
LHD	Local Health District
MAC	Midwife Antenatal Clinics
MGP	Midwifery Group Practice
MCRM	Maternity Clinical Risk Management Committee
NCCIH	National Centre for Complementary and Integrated Health
NMBA	Nursing and Midwifery Board of Australia
NPT	Non-pharmacological treatment
NSW	New South Wales
NSWNMA	New South Wales Nurses and Midwives Association

NSWNMB	New South Wales Nurses and Midwives Board
PR.E.P.A.RE	PRimigravida Experiencing Post-date pregnancy Acupressure REsearch
RA	Research assistant
RCT	Randomised controlled trial
SA	South Australia
SPSS	Statistical Package for Social Science
TCM	Traditional Chinese medicine
US	United States
UK	United Kingdom

Acupressure—meridians

BL	Bladder
GB	Gall bladder
KI	Kidney
LI	Large intestine
SP	Spleen

Abstract

Around one-quarter of women experiencing their first full-term pregnancy continue past the due date, leading to an induced labour with potential negative sequelae. Acupressure may increase the likelihood of spontaneous labour onset in post-date pregnancy, but current evidence is very limited and of poor quality. There is also scarce information on complementary and alternative medicine (CAM) strategies that midwives in Australia discuss or recommend to women experiencing a post-date pregnancy.

Aim

This project aimed to assess the feasibility of undertaking a randomised controlled trial (RCT) of acupressure for post-date pregnancy in the Australian maternity setting by addressing the eight components of 'feasibility': acceptability, demand, implementation, practicality, adaptation, integration, expansion and limited-efficacy testing.

Methods

A sequential mixed-methods study was undertaken. Study 1: a feasibility RCT of acupressure to assist spontaneous labour onset for primigravid women experiencing a post-date pregnancy (n=44), together with a survey of trial participants (n=29) and five focus groups with health professionals (n=25). Study 2: a national survey of members of the Australian College of Midwives (n=571/3552) regarding their professional discussions, personal use, attitudes and knowledge of CAM, particularly acupressure, for post-date pregnancy. Quantitative analysis included descriptive and logistical regression modelling (SPSS v.23); thematic analysis was undertaken for qualitative data using generic qualitative description.

Results

The RCT was feasible in this setting, where acupressure is an established part of clinical practice. Randomisation was well received, with 65.7% of eligible women willing to participate, and compliance with the acupressure protocol was high (81%).

The representative national survey found that most midwife respondents discuss (91.2%) and recommend (88.6%) self-help/CAM strategies to women experiencing a post-date pregnancy. Midwives were more likely to discuss strategies if they personally used CAM ($p<0.001$), were younger ($p<0.001$) or had worked fewer years as midwives ($p=0.004$). Australian midwives demonstrated interest in learning about CAM and 50% had completed some form of CAM education.

Conclusion

While providing valid and important insights into the components of feasibility, the small number of women and staff participants in Study 1 limits generalisability of the findings. An acupuncture RCT is feasible, but may need to be conducted in settings where acupuncture is not an established part of clinical practice to ensure that the required sample size of 994 (80% power, $\alpha=0.05$) can be met. Two implications arising from this study are the need for a CAM module in midwifery education curricula, and the publication of a national position statement on midwifery practice and CAM.