

**Antenatal hand expression of breastmilk and mothers' self-
efficacy with breastfeeding**

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CERTIFICATE OF ORIGINAL AUTHORSHIP

I, Junko Schettino declare that this thesis, is submitted in fulfilment of the requirements for the award of the Master of Midwifery, in the Faculty of Health at the University of Technology Sydney.

This thesis is wholly my own work unless otherwise referenced or acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis. This document has not been submitted for qualifications at any other academic institution.

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GLOSSARY AND ABBREVIATIONS

Antenatal hand expression (AHE)	The process of expressing breastmilk in antenatal period with intention of collecting colostrum.
Any breastfeeding	The infant receives some breastmilk (National Health and Medical Research Council [NHMRC] 2012b). This includes exclusive breastfeeding.
BSES-SF	Breastfeeding Self-Efficacy Scale Short-Form
Child and family health nurse	Registered nurses with further qualifications in the specialty of child and family health nursing—they possess knowledge and skills regarding infant feeding, child development, family functioning, infant mental health, prenatal mental health and health promotion.
Confidence	A global term: an individual's strong belief or expectation for a person to achieve a goal but it is not necessary to be competent or to achieve the goal (Bandura 1977a).
Exclusive breastfeeding	The infant receives only breastmilk with the exception of oral rehydration solution, or drops/syrups of vitamins, minerals or medicines.
EBM	Expressed breastmilk
ISLHD	Illawarra Shoalhaven Local Heal District
NHMRC	National Health and Medical Research Council
Mixed feeding	The practice of giving breastmilk and any other liquid or food simultaneously
Midwife	A person with prescribed educational preparation and competence for practice who is registered by the NMBA. The NMBA has endorsed the following International Confederation of Midwives (ICM) definition of a midwife and applied it to the Australian context (Nursing and Midwifery Board Australia, 2019)
Premature labour	The onset of labour before the 37th week of pregnancy
Self-efficacy	An individual's belief in his or her capacity to execute behaviours necessary to produce specific performance attainments

United Nations Children's Fund (UNICEF)	A leading global humanitarian and development agency that works to uphold the rights of every child
World Health Organization (WHO)	A specialised agency of the United Nations responsible for international public health

ABSTRACT

Aim

The aim of this research is to explore the maternal experiences of antenatal hand expression (AHE) and its effect on the development of maternal breastfeeding self-efficacy and breastfeeding practices in the postpartum period.

Background

AHE and breastmilk storage is potentially advantageous for all women who wish to breastfeed their infants. Until recently, only women with a high risk of developing breastfeeding problems were advised to perform AHE. Whether AHE benefits all women, including those without the high risk, needs to be researched further. Some studies indicated that AHE reduces woman's stress response to breastmilk production in the immediate postpartum period and improves breastfeeding 'confidence' or breastfeeding 'self-efficacy'. However, few studies have confirmed this.

Method

A cross-sectional web-based survey with quantitative and qualitative questions was used to collect data. The survey questions explored maternal experiences of how AHE affects maternal breastfeeding self-efficacy and breastfeeding outcomes. Participants were recruited via social media sites, including Facebook and a parenting website.

Findings

The quantitative findings demonstrated that there was no significant correlation between AHE and maternal breastfeeding self-efficacy or breastfeeding outcomes. However, women who expressed breastmilk and stored it antenatally were more likely to have

higher maternal breastfeeding self-efficacy compared with those who expressed breastmilk but did not store it antenatally. The qualitative findings highlighted that AHE *can* be a strategy to develop maternal breastfeeding self-efficacy. Of note, within the qualitative findings the women identified numerous issues regarding AHE education or support and contemporary breastfeeding education that require improvement. The issues were as follows:

- Adequate information regarding AHE was not provided during antenatal breastfeeding education programs.
- Individualised one-on-one support for women was not regularly provided.
- Midwives or other health professionals provided inconsistent or conflicting breastfeeding advice.
- The quality, level and content of contemporary breastfeeding education classes varied among hospitals.

Conclusion

Learning to express breastmilk during the antenatal period is a useful skill to help women gain confidence and competence during pregnancy. Developing this skill during the antenatal period will benefit maternal self-efficacy and her ability to breastfeed her infant. This study highlighted issues regarding AHE support and contemporary breastfeeding education and made four main recommendations to resolve them:

including AHE information in antenatal breastfeeding education as a compulsory measure:

improving individualised one-one-on support.

improving staff education regarding providing breastfeeding support.

improving the quality of and access to antenatal breastfeeding education classes.