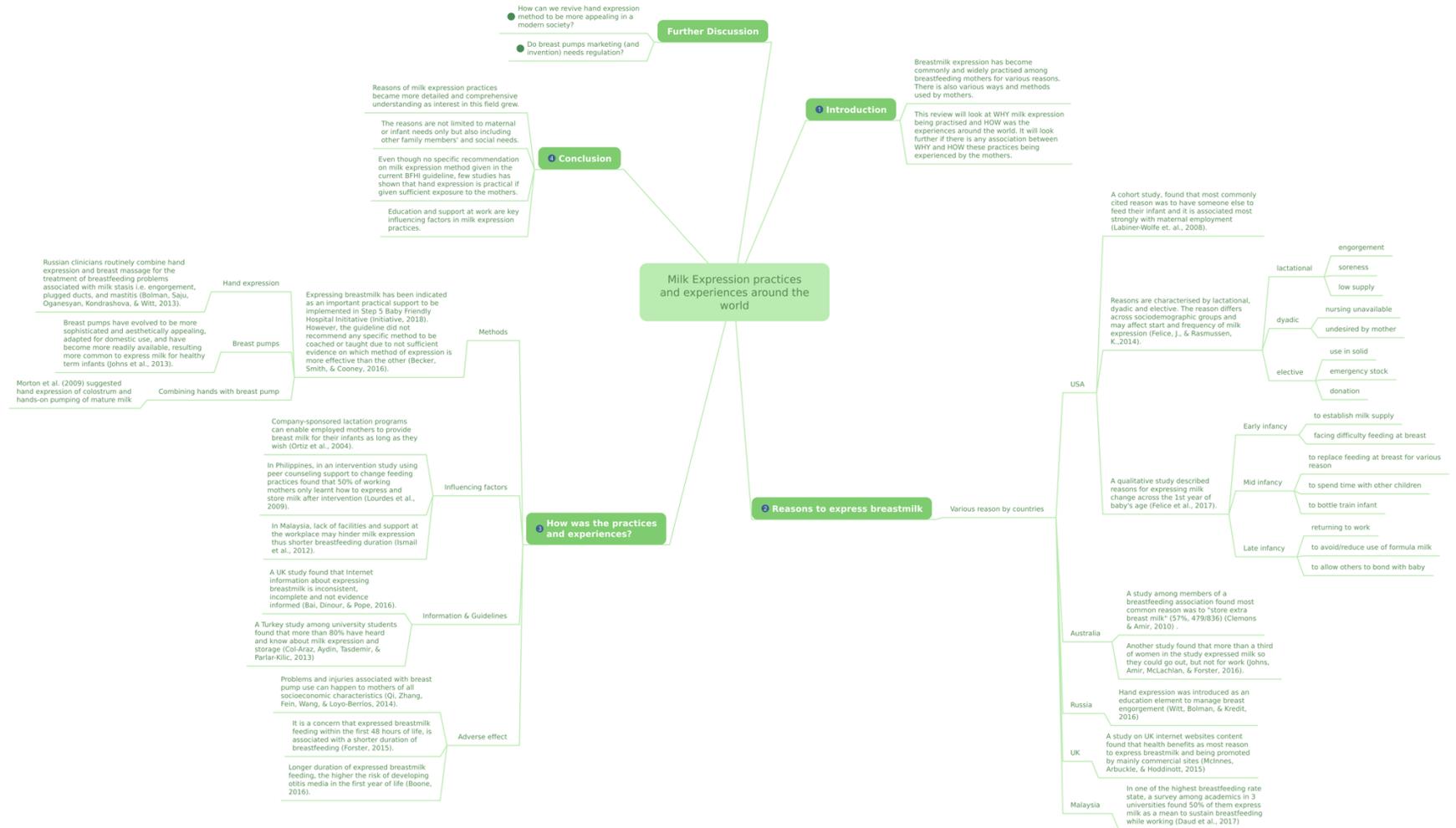


Milk Expression Practices and Experiences Around the World





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1 Introduction

Breastmilk expression has become commonly and widely practiced among breastfeeding mothers for various reasons. There is also various ways and methods used by mothers. This review will look at WHY milk expression being practiced and HOW was the experiences around the world. It will look further if there is any association between WHY and HOW these practices being experienced by the mothers.

2 Reasons to express breastmilk

Various reason by countries

USA

1. A cohort study, found that most commonly cited reason was to have someone else to feed their infant and it is associated most strongly with maternal employment (Labiner-Wolfe et. al., 2008).
2. Reasons are characterized by lactational, dyadic and elective. The reason differs across sociodemographic groups and may affect start and frequency of milk expression (Felice, J., & Rasmussen, K.,2014).

Lactational : *engorgement, soreness, low supply*

Dyadic : *nursing unavailable, undesired by mother*

Elective : *use in solid, emergency stock, donation*

3. A qualitative study described reasons for expressing milk change across the 1st year of baby's age (Felice et al., 2017).

Early infancy : *to establish milk supply, facing difficulty feeding at breast*

Mid infancy : *to replace feeding at breast for various reason, to spend time with other children, to bottle train infant*

Late infancy: *returning to work, to avoid/reduce use of formula milk, to allow others to bond with baby*



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Australia

1. A study among members of a breastfeeding association found most common reason was to "store extra breast milk" (57%, 479/836) (Clemons & Amir, 2010) .
2. Another study found that more than a third of women in the study expressed milk so they could go out, but not for work (Johns, Amir, McLachlan, & Forster, 2016).

Russia

Hand expression was introduced as an education element to manage breast engorgement (Witt, Bolman, & Kredit, 2016)

UK

A study on UK internet websites content found that health benefits as most reason to express breastmilk and being promoted by mainly commercial sites (McInnes, Arbuckle, & Hoddinott, 2015)

Malaysia

In one of the highest breastfeeding rate state, a survey among academics in 3 universities found 50% of them express milk as a mean to sustain breastfeeding while working (Daud et al., 2017)

③ How was the practices and experiences?

Methods

Expressing breastmilk has been indicated as an important practical support to be implemented in Step 5 Baby Friendly Hospital Initiative (Initiative, 2018). However, the guideline **did not recommend any specific method** to be coached or taught due to not sufficient evidence on which method of expression is more effective than the other (Becker, Smith, & Cooney, 2016).

1. Hand expression

Russian clinicians routinely combine hand expression and breast massage for the treatment of breastfeeding problems associated with milk stasis i.e. engorgement, plugged ducts, and mastitis (Bolman, Saju, Oganessian, Kondrashova, & Witt, 2013).

2. Breast pumps

Breast pumps have evolved to be more sophisticated and aesthetically appealing, adapted for domestic use, and have become more readily available, resulting more common to express milk for healthy term infants (Johns et al., 2013).

3. Combining hands with breast pump

Morton et al. (2009) suggested hand expression of colostrum and hands-on pumping of mature milk



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Influencing factors of practices

Company-sponsored lactation programs can enable employed mothers to provide breast milk for their infants as long as they wish (Ortiz et al., 2004).

In Philippines, in an intervention study using peer counseling support to change feeding practices found that 50% of working mothers only learnt how to express and store milk after intervention (Lourdes et al., 2009).

In Malaysia, lack of facilities and support at the workplace may hinder milk expression thus shorter breastfeeding duration (Ismail et al., 2012).

Information & Guidelines

A UK study found that Internet information about expressing breastmilk is inconsistent, incomplete and not evidence informed (Bai, Dinour, & Pope, 2016).

A Turkey study among university students found that more than 80% have heard and know about milk expression and storage (Col-Araz, Aydin, Tasdemir, & Parlar-Kilic, 2013)

Adverse effect

Problems and injuries associated with breast pump use can happen to mothers of all socioeconomic characteristics (Qi, Zhang, Fein, Wang, & Loyo-Berríos, 2014).

It is a concern that expressed breastmilk feeding within the first 48 hours of life, is associated with a shorter duration of breastfeeding (Forster, 2015).

Longer duration of expressed breastmilk feeding, the higher the risk of developing otitis media in the first year of life (Boone, 2016).

4 Conclusion

- Reasons of milk expression practices became more detailed and comprehensive understanding as interest in this field grew.
- The reasons are not limited to maternal or infant needs only but also including other family members' and social needs.
- Even though no specific recommendation on milk expression method given in the current BFHI guideline, few studies has shown that hand expression is practical if given sufficient exposure to the mothers.
- Education and support at work are key influencing factors in milk expression practices.

Further Discussion

- How can we revive hand expression method to be more appealing in a modern society?
- Do breast pumps marketing (and invention) need regulation?