

Infant & Toddler Feeding Case Files

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 Baby Friendly Hospital Initiative Hong Kong Association

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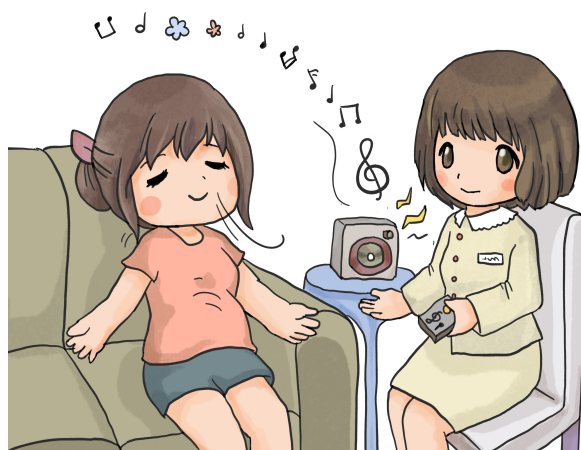
Relaxation and Breastfeeding

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Case History

Apart from socio-economic status and cultural environment, breastfeeding is influenced by the physical and psychological conditions of the mother as well as the baby's behaviour. Maternal stress and anxiety significantly hinder the milk ejection reflex by reducing the release of oxytocin.¹¹ Continued impairment of milk ejection may result in incomplete emptying of the breast after each feed, coupled with elevated serum cortisol and decreased insulin sensitivity in a distressed mother culminating in a reduction in milk production. Helping a mother to manage stress with relaxation techniques during pregnancy and lactation is of utmost importance.



Ann's Story

Ann gave birth vaginally to her baby boy at term. Due to maternal Group B Streptococcus status, he was observed at the Special Care Baby Unit and given some bottle feeds. Ann was keen on breastfeeding. She expressed breastmilk soon after delivery. She started direct breastfeeding once he returned to her in the postnatal ward the next day. After skill support from the ward nurse, breastfeeding was progressing well. The baby continued to latch well after the mother-baby dyad was discharged on Day 3.

On the night of Day 12, Ann was very tired after being visited by her friends. She slept through the night for 9 hours without being wakened up by her maid who gave the baby 2 feeds of breastmilk with the bottle. The next morning, Ann's breasts were swollen and painful. Her baby had difficulties in latching and easily slipped off her breast. Ann tried every means she knew to soften her breasts, including cold compress, chilled cabbage, etc. She became increasingly worried as the amount of breastmilk expressed was reducing.

Her anxiety escalated as her baby cried every time she put him on her breast. She knew her milk ejection reflex was not working. She turned on some light music, did a gentle breast massage, and asked her maid to do shoulder and back massage for her in order to relieve her breast swelling. However, the situation did not improve. Her baby could not suckle properly. Milk flow was diminishing. Her breasts became more swollen and painful. People from social media advised her to switch to bottle feeding. She felt frustrated and disappointed, thinking that she would fail to breastfeed by then. Aggravating the situation was that her husband had left for a business trip after a week of paternity leave. In the meantime, she had to shoulder everything herself before he would return a week later.

In the afternoon of Day 13, she attended the lactation clinic alone. She was well groomed but looked apprehensive. She talked fast, looked very tense, and cried when expressing her wish to relieve her engorgement. She had thought of stopping breastfeeding as she did not want to have painful breasts again. On examination, her breasts were moderately engorged but not erythematous. She was afebrile.

Helping Ann to Improve the Milk Ejection Reflex

The lactation specialist, Esther, listened to Ann's story attentively and acknowledged her feeling of frustration. She gave Ann cool compression on her breasts while taking the history. Meanwhile, Ann's pace of speaking started to slow down, reflecting a good sign of being listened to and her tension being released. Soon after, Esther offered to do the shoulder and back massage for her. However, Ann showed reluctance as she felt uneasy to be touched intimately by someone other than her husband at a place outside her home. Then, Ann was guided to do a deep breathing exercise, with some soft music. However, she was seen to be adopting chest breathing rather than diaphragm breathing. This reflected that she was not relaxing adequately. Her tension was still considerable. Esther then presented her with a video on progressive muscle relaxation which was simple and easy to understand. Ann followed well with the video.

Stress and Breastfeeding

The human body responds to stress with an increase in the level of stress hormones (cortisol, adrenaline, and noradrenaline) and an elevation in heart rate, blood pressure, breathing rate, muscle tension, and oxygen consumption.³

The effect of stress on lactation is complex.⁵ Depending on whether the stress impacts prolactin (which is responsible for milk production), oxytocin (which helps ejection of milk), or both, the timing and duration of lactation difficulties may vary. One common pathway is believed to be the **impairment of milk ejection by stress, resulting in incomplete breast emptying**, reduction in prolactin and FIL, and thus **a decrease in milk production in the longer run**.

However, the **causal relationship between breastfeeding and stress is probably bidirectional**. There is evidence showing that **breastfeeding reduces maternal distress**, as evidenced by a significant lowering of salivary cortisol levels following breastfeeding, with longer suckling times associated with lower cortisol levels.⁶ Helping mothers reduce stress would enable them to breastfeed successfully as well as improve their mental health.

The body's "relaxation response" acts as an antidote to the stress response, counteracting the negative effects of stress³. Relaxation has the effect of slowing the heart rate and breathing rate, lowering blood pressure, stabilising the blood sugar level, increasing blood flow to major muscles, and lowering fatigue. It also reduces the activity of stress hormones, thus reducing anger and frustration, and improving mood, focus, and sleep quality. It allows more time for oneself and ultimately boosts confidence to manage problems.

The Relaxation Techniques

Practicing simple relaxation improves health and overall well-being, both physically and psychologically¹², and there is some evidence indicating that it may improve breastfeeding outcomes.⁸ There are many ways of relaxation e.g., deep breathing, exercise, spending time outdoors, listening to feel-good music, watching a comedy, taking a nap, etc. The **Focused Relaxation Techniques⁴** are particularly helpful when feeling tense or stressed. It involves **refocusing one's attention on something calming or pleasant experiences** (sensation, thought, and feelings), and **increasing awareness of the body**. It helps to stop the escalation of negative thinking associated with discomfort, pain, or low mood. They are **deep diaphragm breathing, autogenic relaxation, progressive muscle relaxation, mindfulness⁹, and guided imagery in meditation**.

Studies have shown relaxation by guided meditation tape (breathing exercise and muscle relaxation coupled with music) to achieve a mindful state is effective in reducing stress during breastfeeding. This favourably affects the hormones that are responsible for initiating and maintaining lactation. Thus, breastmilk composition, and infant sleeping behaviour and growth are positively influenced.^{1,7,10}



Ann's Story (continued)

Upon further exploration, Esther found that at times of stress, Ann was able to relax whenever her husband sang for her. Recordings were saved on her mobile phone. Esther asked Ann to turn on the recordings and loosen her bra without undressing while she conducted a brief shoulder massage. Soon after, Ann felt the tingling sensation over both breasts, and milk started dripping.....

Conclusion

When working with lactating mothers, apart from understanding their individual needs and teaching them breastfeeding skills, helping them minimise stress and relax is equally important. However, most mothers, when confronted with various tasks and demands after delivering the baby, would devote their energy to the baby and family but not themselves. Relaxation is seldom taken seriously. Setting a goal of practicing relaxation regularly for at least a few minutes a day e.g., after waking up in the morning, will not only facilitate breastfeeding but also help the mother to develop this good habit in the long run.

Key Messages:

1. Numerous hormones are responsible for initiating and maintaining lactation after delivery. Stress has a negative impact on the orchestration of these hormones.
多種激素負責啟動和維持分娩後乳汁的分泌。壓力會對這些激素的協調產生負面影響。
2. Mothers who are able to practice relaxation regularly are likely to cope better with day-to-day stress, enabling a more enjoyable breastfeeding journey.
經常練習放鬆的母親通常會更好地應對日常壓力，使母乳餵哺的旅程更愉快。
3. Health professionals working with breastfeeding mothers are recommended to learn basic relaxation techniques so that they can introduce them to the mothers.
建議從事支援母乳餵哺的醫護人員學習基本的放鬆技巧，以便將這些技巧介紹給母親們。
4. Explore with the mother ways of relaxation that she is familiar with, able to master, or enjoys.
與母親一起探索一些她熟悉、可掌握或享受的放鬆方式。
5. Equipping mothers with relaxation techniques can broaden their coping strategies which is beneficial not only to breastfeeding but also to the developmental trajectory of the mother and baby.
裝備母親一些放鬆技巧可以擴展她們的應對能力。這不僅有利於母乳餵哺，也對母親和嬰兒的發展有裨益。

Useful Links to Videos on Relaxation Techniques

Student Health Service, Department of Health - Emotional Health Tips <Relaxation Exercise> (videos):

Body Scanning (6'53"), Breathing Exercise (4'22"), Progressive Muscle Relaxation Exercise (4'45")

衛生署學生健康服務 - 情緒健康小錦囊 <鬆弛練習>影片：身體掃描練習、腹式呼吸法練習、漸進式肌肉鬆弛練習

https://www.studenthealth.gov.hk/tc_chi/emotional_health_tips/eh_tips/eh_tips.html

Progressive Muscle Relaxation Training, by Mark Connelly & Jennifer Bickel (2015), Children's Mercy, Bazillion Picture (15 minutes video) <https://www.youtube.com/watch?v=ih002wUzgkc&t=893s>

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Views expressed in this article are the author's and do not necessarily reflect the opinion or position of the BFHIHK.

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