

Malta Midwives' Journal



Malta Midwives Association

Issue 18

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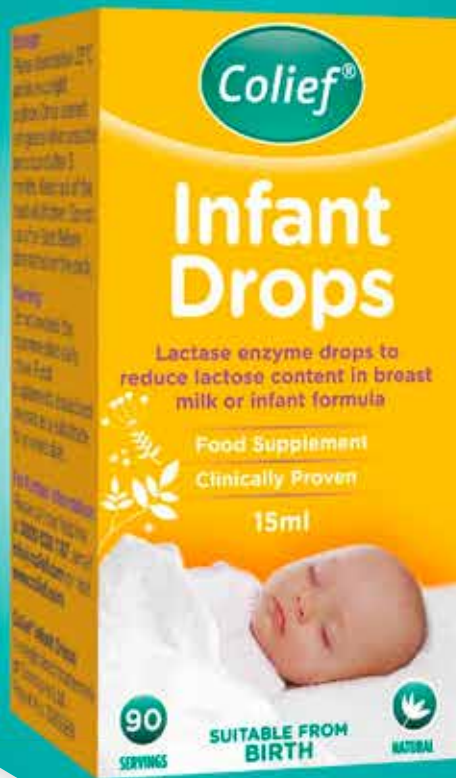
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The views expressed in the Journal are those of individual contributors and are not necessarily those of the Midwives' Association.

Editorial

Dear Member,

We welcome you to our second issue of the year for the Malta Midwives' Journal. In the past six months, since our last issue, midwives and other frontline healthcare workers have been working around the clock amidst the global pandemic of COVID-19, despite the fall in national daily cases and ease of protective measures. The constant change in policies was challenging but overall, all healthcare workers in our maternity department kept striving to deliver the best possible care to all our mothers and families, including those childbearing mothers who were positive for COVID-19.

From a childbearing perspective, during this pandemic, the workload in the maternity sector was perceived to be more than usual. Delivery suite and obstetric wards remained continuously occupied, with the constant turnover of patients impacting greatly midwives' and obstetricians' wellbeing. Evidence shows that high workload negatively impacts the physical and emotional wellbeing of the healthcare worker; to the detriment of the patient. This type of work-related stress may lead to an increase in physical aches and pains, and burnout which as a result lead to increase in uptake of sick leave, leading to lack of staff and thus even more workload on the remaining working staff, having a higher patient allocation but less bedside patient care. This begs the question, where are we going wrong? Can we blame it on the increase in the local population, dependent mainly on only one public maternity department? Or going beyond that, are we not adequately taking care of our department's staff wellbeing?

The childbearing demand in the population increased, especially with people immigrating from Europe and beyond; yet bed state and staffing levels which make up the department, remained the same. The maternity department in the local, public hospital cares for not only labouring mothers and postpartum families but also those patients who require long-term care in the antenatal period in addition to other emergencies and out-patients. The wards caring for in-patients remained the same; with one of them caring for covid-19 patients for the past year. As for staffing levels; midwives continuously come and go with a great change in shift rosters and allocation. Despite having approximately ten to fifteen midwives graduate per year, this fluctuation is mainly due to most employed midwives being of childbearing age, thus the incidence of midwives on maternity leave remains a constant; and upon return, they are highly likely to make changes to their work arrangements to accommodate their family needs. This directly impacts our maternity wards as well as the rest of the staff who remained working full-time.

This should serve as an eye-opener for management to take care of existing staff in order to reduce burnout and further consequences, as well as encourage and support family-friendly measures for those midwives who have to juggle work and home life, simultaneously. Moreover, the midwifery profession is not completed at graduate level. It is based on continuous professional development and training; how can one, especially those midwives who are parents, find the courage to develop their career further if they are burnt-out? Unfortunately, work fatigue is becoming a prevalent problem in all settings, both locally and abroad; hence, it is of major importance to implement measures to reduce it as much as possible. Hopefully, over the next coming months, the pandemic will ease yet its effects, including healthcare fatigue and burnout will remain for more time to come. Thus, the time to act is now.

Lauren Marie Grech
Co-editor



Message from the President

Dear Midwives,

Welcome to the second edition of the Malta Midwives' Journal for the year 2021. I hope that this finds you in good state of health and well-being.

It has been another challenging year with the continuous mandates of social distancing and quarantine regulations, imposed travel restrictions and adherence to strict regulations on the use of face masks amongst other inconveniences. But hopefully now, with most of the population fully vaccinated, we may see some light at the end of the tunnel. It seems that the world needed a pause while nature replenished itself. Mother Nature forced us to slow down and get our priorities right!

ICM: Building the enabling environment for midwives

I would like to say a few words on a report which was drawn up by the International Confederation of Midwives (ICM) who with the support from Ariadne Labs published the document, 'Building the enabling environment for midwives: a call to actions for policy makers' (2021). This report highlights the important role that midwives have in the delivery of care in diverse settings across the globe, across the childbirth continuum and across sexual and reproductive health and rights (SHRH). Midwives are trained and educated to deliver accessible, equitable, high-quality, sexual, reproductive, maternal, newborn, and adolescent health (SRMNAH).

The report identifies the necessary policies to improve, develop and support an enabling environment to scale midwifery-led continuity of care. This model of care accentuates the concepts of community-based care, foster close relationships, antenatal and postnatal wellness and the avoidance of unnecessary interventions that may lead to long term complications. It is being recommended that for midwifery models of care to make a significant impact, they need to be supported and integrated across national health systems, ensuring that women who need additional, higher-level care continue to receive care from their midwife in collaboration with the obstetrician.

This report highlights four domains: gender equality, infrastructure, professional status and system level integration. Each domain is further developed into categories which gives insight on how the concepts of midwifery-led continuity of care can be supported and achieved.

This report provides a strong evidence on how countries worldwide have documented positive outcomes for mothers and newborns when models of midwifery care were integrated into their health system.

A call to action emphasizes the need that health systems identify, prioritise and implement customised strategies and policies that are specific to the enabling environment and to take the necessary steps towards a more positive birthing experience for women. The full report can be downloaded from ICM website.

What facilitates or hinders the development of midwifery-led models of care locally?

Locally, all midwives working in the health sector are fully educated, regulated to international standards and are licensed to practice midwifery within their scope of practice. This means that local midwives are all qualified to provide midwifery-led care if they have an enabling environment. An enabling environment for midwifery-led care demands a system-level integration within the health system that is: implementation of continuity of care across all levels of the health system, interdisciplinary collaboration and teamwork throughout the continuum of care.

For many people, change is never welcome, at least in the beginning. Any change in the setting or practice may be seen as a threat and often is met with resistance. However, resistance to change is often the result of fear and self-interest.

The way local maternity services are structured requires a paradigm shift to put back the focus on continuity of care, as fragmented services actively work against midwives forming meaningful relationships with women.

MMA Premises

It is with pleasure to announce that MMA is renovating its premises. The committee agreed to do maintenance work and paint the common parts as well as paint the two offices, install new LED lights, and hang new frames and pictures on the walls. We hope that with these renovations, the premises will be more attractive and welcoming.

Website

This summer, MMA applied to a Student Summer Placement scheme with MITA. This gave MMA the opportunity to modernise its website and make it look nicer and more userfriendly.

Finally, I would like to wholeheartedly thank all contributors to this publication. Without their altruistic efforts to share information, this publication would not have been possible.

Take care and stay safe.

Pauline Fenech

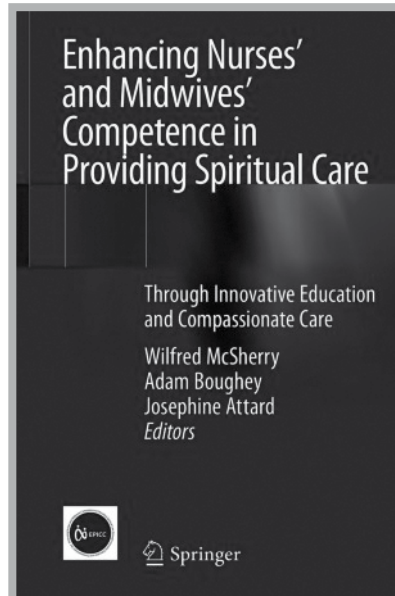
Book

Enhancing Nurses' and Midwives' Competence in Providing Spiritual Care

Through Innovative Education and Compassionate Care

W. McSherry, A. Boughey, J. Attard

- Provides a dynamic and interactive text that has been co-produced by leading experts in the fields of nursing and midwifery practice, education and research
- Offers a unique resource for nursing and midwifery educators and students, helping them develop a new awareness and enhance their expertise in the area of spiritual care
- Reports the outcomes of an Erasmus+ K2 Strategic Partnership project that involved over 40 nursing and midwifery educators, key stakeholders and students from 18 European countries including the University of Malta



about what matters to them. This is the art of caring: to see past the tasks and see the person beneath.

This book is the first of its kind, addressing key issues in the teaching and learning of spirituality and spiritual care in the context of nursing and midwifery practice. The content is based on the outcomes of a European-wide project (EPICC) that brought together leading nursing and midwifery educators and practitioners from 21 countries.

It highlights the importance of ensuring student nurses and midwives receive sufficient educational preparation to provide spiritual/person-centred care. In turn, the book puts forward an innovative and creative

The work of a nurse or midwife can be challenging, and clinical environments can be busy demanding places in which to work, and it can be all too easy to rush from one job to another and forget about the person receiving care. For them it is anything but routine and is uniquely stressful. The content of this book reminds the reader that even in a busy clinical environment it is essential to make time to connect with the human being receiving care and have meaningful conversations with that person

approach to the teaching of spiritual/person-centred care, based on an evaluation of best practice across Europe. The content and activities presented will enable nursing and midwifery educators to acquire new knowledge/skills for learning about and teaching on the personal, religious and spiritual aspects of person-centred care. Both interactive and engaging, it will equip nursing and midwifery students to holistically address the needs of the people they care for.

ICM News

PUSH Campaign

PUSH - For Rights, For Women, For Midwives

Several organisations including the International Confederation of Midwives (ICM), Laerdal, With Women, The White Ribbon Alliance, Ariadne Labs, Every Mother Counts have recently launched a ten-year campaign: PUSH FOR RIGHTS, For Women, For Midwives. The agenda of these organisations is primarily towards upscaling reproductive, maternal and newborn health globally, as well as gender equality and considers women's rights, women's health and midwives as intricately linked.

The aim of the PUSH global campaign is to support midwives to reduce maternal and neonatal mortality, to make advances in sexual and reproductive health and rights while addressing key barriers to midwifery leadership roles.

Midwifery is a predominantly female profession (over 90% of midwives globally are women), midwives have long been marginalized and subject to sexism, harmful treatment, and lack of decision-making authority. This impacts the quality of care midwives are able to deliver to women and newborns, and unnecessarily limits the scope of their practice. Therefore, the campaign aims to enhance the respect, the status and the autonomy of the midwife.

<https://www.pushcampaign.org/>



World Health Organisation

Kangaroo Mother Care Started Immediately After Birth is Critical for Saving Babies' Lives

In May 2021, WHO issued a departmental news report after a new research showed that:

'Immediate kangaroo mother care for preterm and low birthweight babies requires dedicated Mother-Newborn Intensive Care Units'.

GENEVA, 27 May 2021

- **Kangaroo mother care, which involves skin-to-skin contact and exclusive breastfeeding, significantly improves a premature or low birthweight baby's chances of survival**
- **Starting kangaroo mother care immediately after birth has the potential to save up to 150,000 more lives each year, compared with the current recommendation of starting it only once a baby is stable**
- **Mother-Newborn Intensive Care Units (ICUs) will be critical to support the mother, or a surrogate, in providing this immediate, ongoing skin-to-skin contact from birth.**

The results of a new clinical trial published in the New England Journal of Medicine, (WHO Immediate KMC Study Group, 2021) show that immediate kangaroo mother care, which involves skin-to-skin contact with the mother and exclusive breastfeeding, **started as soon as a preterm or low birthweight baby is born**, dramatically improves survival.

Current World Health Organization (WHO) recommendations indicate starting kangaroo mother care only after the baby is stabilized in an incubator or warmer, which can take on average 3-7 days. This new study suggests that, when compared with the existing practice, starting kangaroo mother care immediately after birth can save up to 150,000 more lives each year.

Kangaroo mother care and COVID-19:

The COVID-19 pandemic has affected the quality of care provided to babies in all regions of the world and threatening implementation of life-saving interventions like breastfeeding and kangaroo mother care. A recent analysis showed that there is an increased risk of death among preterm or low birth weight babies if kangaroo mother care is not practiced, and this risk is 65-fold higher than the risk of death due to COVID-19 infection among newborns.

"Keeping the mother and baby together right from birth with zero separation will revolutionize the way neonatal intensive care is practiced for babies born early or small," said Dr Rajiv Bahl, Head of the Newborn Unit at WHO, and the coordinator of the study. "When started at the soonest possible time, kangaroo mother care can save more lives, improve health outcomes for babies and ensures the constant presence of the mother with her sick baby."

The results of the immediate kangaroo mother care study indicate the need for a global paradigm shift in the care of small babies with zero separation of babies from their mothers by having dedicated **Mother-Newborn ICUs**. "The best way to nurture the newly born low birthweight

baby, including in high-income countries, is through ongoing skin-to-skin contact with the mother, in a mother-newborn couplet care unit that provides care and medical treatment for both," said Dr Bjorn Westrup, of the Karolinska Institute, Sweden, and a technical expert for the study.

Kangaroo mother care is already known to be effective, reducing mortality by 40% among hospitalized infants with a birth weight less than 2.0 kg when started once they are clinically stable. However, this important new study provides new evidence to show a further **25% reduction when it is initiated immediately after birth**, either with the mother or a surrogate.

Dr Queen Dube, one of the study investigators, and Director of Health Services in Malawi said, *"Separating mothers from small and sick newborns adds stress for both mum and baby, at a time when they often both need close contact - immediate Kangaroo Mother Care overcomes this barrier. Keeping the mother and the baby together helps the baby to survive and thrive."*

Mother-Newborn ICUs have been established in some countries so that mothers can always be with their babies to provide continuous kangaroo care. Mothers receive their own post-birth care in these wards without being separated from their baby. If a mother is unwell, the selection of a surrogate ensures that the provision of kangaroo care continues until the mother recovers.

During the clinical trial, (WHO Immediate KMC Study Group, 2021) which was conducted across five countries in Africa and Asia, mothers or surrogates provided approximately 17 hours of skin-to-skin contact per day while in a Mother-Newborn ICU. Delivery of the intervention required close collaboration between obstetric and neonatal departments. It is crucial to note that quality care for all newborns and mothers was provided in the trial which included provision of respiratory support if required, thermal care, breastfeeding support and prevention and management of infections.

Immediate kangaroo mother care had several other benefits in addition to improved survival. It reduced infections and hypothermia, which are two big killers of small babies. The babies also had more opportunity to breastfeed.

Dr Harish Chellani, one of the study investigators, from Vardhman Mahavir Medical College and Safdarjung Hospital, India, observed, "Health care providers have been separating small and sick babies from their mothers for decades believing that was best for them. The new evidence from this study means we must establish the practice of immediate kangaroo mother care globally".

WHO is in the process of reviewing its current recommendations on kangaroo mother care, published in 2015, in light of the new evidence that has become available.

Reference

<https://www.who.int/news/item/26-05-2021-kangaroo-mother-care-started-immediately-after-birth-critical-for-saving-lives-new-research-shows>

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Can Nutrition Influence Pre-Eclampsia Risk?

Introduction

Pre-eclampsia is a hypertensive disorder of pregnancy, diagnosed when mothers present with new hypertension and significant proteinuria at or after 20 weeks gestation, which may lead to eclampsia, causing convulsions and may be fatal to both mother and baby. The only current cure for pre-eclampsia is delivery of the baby¹. An important risk factor for pre-eclampsia is having pre-eclampsia in a previous pregnancy. Others include: a body mass index (BMI) of 35 or more, underlying pre-existing medical conditions such as diabetes, high blood pressure, renal disease and antiphospholipid antibodies and a family history of pre-eclampsia (in sister or mother)². The cause of pre-eclampsia is still uncertain, however it is associated with implantation of the placenta, where endothelial cell dysfunction leads to platelet aggregation and vasoconstriction. Under-perfusion of the placenta may trigger a maternal circulatory response leading to vasospasm and hypovolaemia¹².

Body mass index

A large population-based cohort study observed that, as pre-pregnancy BMI increased, the risk of developing pre-eclampsia also increased. In fact, a lowering of 10% in pre-pregnancy BMI was associated with at least a 10% reduction in pre-eclampsia risk³. 10% of body mass or 10-20 pounds. Results of another large population-based cohort study show an increased risk of all types of pre-eclampsia as BMI increased. Obesity Class 2-3 was associated with a four-fold increased risk of mild-moderate pre-eclampsia⁴.

Excessive gestational weight gain is also linked to pre-eclampsia, however the association between the two is not clear. A recent study of weight gain in pregnancy among women who developed pre-eclampsia supported this association, however it was driven by increased fluid retention rather than fat mass. Therefore, increased weight gain may be an early indication of endothelial dysfunction, leading to excess fluid retention, rather than a causal factor⁵. A meta-analysis of 44 randomised control trials evaluating dietary, physical activity and mixed interventions affecting maternal weight showed that, compared to controls, dietary interventions during pregnancy were linked to a 33% reduction in the risk of pre-eclampsia⁶.

Dietary patterns

The association between pre-eclampsia and dietary patterns in pregnancy was analysed in a long-term prospective pregnancy cohort of Norwegian women. Dietary patterns were divided in two groups. After confounders were adjusted for, women who had a diet with a high consumption of vegetables, fruit and plant oils had a decreased risk, compared to those with a diet high in processed meat, salty snacks and sugary drinks⁷. A systematic review of eight articles examined the relationship between dietary patterns before and during pregnancy, and hypertensive disorders of pregnancy. Diets were assessed during different stages of pregnancy/preconception depending on the study. Overall, diets higher in fruits, vegetables, nuts, fish, legumes, vegetable oils and whole grains and lower in refined grains and meat were associated with a 14-29% risk reduction of pre-eclampsia. Results however, are limited in strength due to the number of patients studied, measurement and methodological issues, and the fact that most studies were observational, and causal inference is therefore difficult⁸.

Multivitamin supplements

One study showed that after adjusting for confounding factors, lean multivitamin users had a 71% reduction in pre-eclampsia risk when compared to lean non-users. However, there was no effect among overweight women.⁹ Contrarily, Vanderlelie et al reported a significant reduction in pre-eclampsia risk with multivitamin/mineral use (including folic acid) in overweight women, rather than in the whole cohort¹⁰.

One meta-analysis of six studies showed that a multivitamin containing folic acid/folic acid alone did not significantly affect pre-eclampsia incidence¹¹. However, another meta-analysis of eight observational studies showed significantly lower incidence of pre-eclampsia with folic acid supplementation when compared to none. Subgroup analysis showed no difference between taking folic acid with other multivitamins and taking folic acid alone¹².

An important limitation of these studies is that other healthy behaviours may be associated with multivitamin use, thus affecting pre-eclampsia risk.

Selenium

A correlation between serum/plasma levels of selenium and incidence of pre-eclampsia was observed in several different countries where those having sufficient levels of selenium had reduced pre-eclampsia incidence¹³. A large Norwegian retrospective cohort study implicated selenoprotein S in pre-eclampsia as it is involved in stress control in the endoplasmic reticulum and helps control inflammation, which is evident in pre-eclampsia¹⁴. 1.22; 95% CI, 1.02 to 1.46.

A case control study in the UK, assessing pre-eclampsia and selenium levels in toenail clippings showed that selenium concentration was lower in women who developed pre-eclampsia and those with the lowest concentrations developed disease earlier¹⁵. In view of these results, a randomised, double-blind, placebo-controlled pilot trial was carried out, where participants were given 60µg of selenium yeast (recommended daily intake in UK) or a placebo. Results showed that selenium supplementation did reduce pre-eclampsia risk, in women of low selenium status^{16,17}. i.e. pre-eclampsia and pregnancy-induced hypertension (PE/PIH).

Rich dietary sources of selenium include fish, poultry, meat, eggs, cottage cheese, brown rice, sunflower seeds, enriched pasta, grains and cereals and brazil nuts¹⁸. However, overconsumption of brazil nuts should be avoided to prevent selenium toxicity due to their high and extremely variable selenium content¹⁹.

Vitamin D and Calcium

Several studies have shown an association between a higher risk of pre-eclampsia and lower vitamin D status/intake^{20,21}. Several systematic reviews and meta-analyses showed a significant association between low vitamin D levels and pre-eclampsia risk, while supplementation reduced risk²²⁻²⁴. A Cochrane review of 15 trials assessed whether supplements taken during pregnancy, with vitamin D alone or in combination with calcium, affects pre-eclampsia risk. Both showed a lower risk of pre-eclampsia, however due to the quality of studies, conclusions cannot be drawn and further randomised trials are required to assess the role of vitamin D supplementation. Dietary sources of vitamin D include fish such as salmon, sardines, herring and canned



tuna, egg yolks, mushrooms (especially those exposed to sunlight) and fortified foods^{25,26}.

An increase in blood pressure may be related to calcium levels due to stimulation of renin or parathyroid hormone when calcium levels are low. This causes vasoconstriction, by increasing intracellular calcium concentration in smooth muscle cells, hence affecting uteroplacental blood flow²⁷. A Cochrane review assessing calcium supplementation during pregnancy to prevent blood pressure disorders, suggests that in places where dietary calcium is low supplementation may reduce the complications of pre-eclampsia. However, evidence is limited and further research is needed to determine the ideal dosage²⁸. Rich dietary sources of calcium include dark leafy greens, milk and milk products, soybeans and soy products such as tofu, sardines, canned salmon, almonds calcium-fortified cereals and calcium-fortified non-dairy drinks²⁹.

Conclusions

Mechanisms as to why certain foods affect pre-eclampsia risk are still unclear and further studies are required, nevertheless, current research allows the following advice to be given: 1) achieving a healthy BMI by encouraging healthy weight loss if the woman is obese or overweight, 2) consuming a diet rich in fruit and vegetables, while avoiding processed meat and foods high in salt and added sugar, 3) considering multivitamin/mineral supplements (within reason), particularly if fruit and vegetable intake is low 4) ensuring adequate dietary intake of calcium and selenium and 5) supplementing with 10 µg/day of vitamin D³⁰.

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Efficacy of Membrane Sweeps: Do They Really Work?

On the 25th May 2021, the National Institute for Health and Care Excellence (NICE) proposed an update to the current guideline regards induction of labour. The change would mean that women would be offered an induction at 41 weeks gestation instead of after the 41 weeks, as per current guideline. According to the latest report by the Maltese National Obstetric Information System (NOIS, 2019), 28.3% of all deliveries in Malta are induced.

However, this report fails to mention the reasons behind the induction of labour. Induction of labour has always been a controversial issue between the obstetric and midwifery worlds, with many studies serving as a tug of war between the two parties.

This is where the membrane sweep crops up. In an attempt to avoid a pharmacological induction of labour, most care providers will offer a membrane sweep to their clients. James Hamilton introduced this procedure more than 200 years ago, at a time where other resources were non-existent. The membrane sweep is a mechanical technique where the clinician inserts one or two fingers into the cervix, so as to separate the membranes from the lower uterine segment (Miranda de E et al., 2006). As a result of this, there is an increased activity of prostaglandin F₂ and phospholipase A₂ as well as cytokines from the intrauterine tissues (Blackburn, 2013). The actual stretching of the cervix may activate the Ferguson reflex by releasing oxytocin which in turn will trigger uterine activity (Blackburn, 2013). Placenta praevia and antenatal haemorrhage are two contraindications, together with an unstable lie or an active case of herpes. This procedure is widely used as it comes at no cost and doesn't require hospitalisation. But how effective is it?

In the latest Cochrane review published in February 2020, a total of 44 studies were assessed to determine the effects and safety of membrane sweeping for induction of labour (Finucae et al., 2020). The authors concluded that the stripping of the membranes is likely to increase the possibility of spontaneous labour when compared to the expectant management. This happened in 21% of mothers who underwent a membrane sweep. However, there is no evidence that it changes the outcome of labour as there is no apparent reduction in the instrumental deliveries or in the caesarean section rate. Only nine studies investigated the association between a membrane sweep and consequent augmentation of labour.

There is little evidence that there is an association between the two, however only a small percentage of the studies involved gave importance to the issue. Another factor poorly researched is maternal satisfaction with the experience, where only three studies investigated the matter. Most women reported that they were overall satisfied and they felt that a membrane sweep was less invasive than other procedures to induce labour. One has to keep in mind that all the women who participated in the study had given their consent, and that might have impacted the experience differently.

It will be very interesting to see whether these findings will be confirmed by The MILO STUDY which is currently recruiting participants. This study aims to evaluate the effectiveness including the timing and frequency of the membrane sweep. This research may give a clearer picture as to whether the membrane sweep can be used to prevent a formal induction of labour.

Most care providers are wary of performing a membrane sweep when a mother is positive to Group B strep. However, a study called the Strip-G study found that there is no increased risk when comparing outcomes between mothers who are GBS-positive, mothers who are GBS-negative and mothers who have a unknown status. This is very much questioned by Chandraharan et al., (2021) who point out the potential risks of this procedure and ask if this practice is still valid in modern obstetrics.

The authors show concern about the possibility of an ascending infection. They argue that a long and closed cervix together with its mucous plug provide a mechanical barrier against possible infections. A sweep will dislodge the mucous plug removing the innate adaptive immune function, thus possibly increasing the risk of a potential infection.

Studies have also shown an increase in prostaglandin F₂ alpha in 40.2% of women who had pre-term labour with intact membrane. This was also an independent risk factor for intra-amniotic inflammation and infection (Chandraharan et al., 2021). As previously stated, membrane sweep increases the level of prostaglandin F₂ which in itself might increase the likelihood of an infection.

Little did James Hamilton suspected that 200 hundred years later we would still be discussing a procedure so simple yet so controversial. Every care provider should provide the women in his/her care with updated information in order to obtain informed consent. Not every pregnancy carries the same risks and this should be taken into consideration especially when offering a sweep before the 40 weeks. It may also be advisable to inform women on what to expect after a membrane sweep. Most mothers are concerned that they will not be able to tell the difference between bleeding and the show. A first time mother might associate a membrane sweep with a vaginal examination.

It is our duty to explain the difference between the two examinations. Mothers should be reassured and given a contact number where they can reach a midwife for advice.

Ultimately, a membrane sweep should never become a power struggle between the care provider and the woman, but the decision should be taken by the woman after she is given the necessary information about the procedure.

Maria Schembri

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The Way Forward: To Enhance Birth Experience for Women; is an Enema Really Necessary?

Being a midwife is to be with women at all stages of pregnancy before and after. How many times have we heard or read this? The empowerment of women during their delivery should be one of the main criteria of midwifery care. The process of birth is an especially sensitive process at any time for women, even we midwives can relate to this experience through personal experience or by having assisted in the birth of close relatives or friends.

Do enemas administered to women during the first stage of labour benefit women and their babies? "Systematic reviews show there is insufficient evidence to recommend..., enemas..." (Cuervo et al., 2007). Relevant research pertaining to this procedure tends to lean more to the no advantage than the advantage. Implications for practice: Enemas during labour are unlikely to benefit women or their newborn babies (Reveiz et al., 2006). An enema has not shown any effects on reducing the duration of labour; hence, WHO does not recommend routine use of an enema to reduce the duration of labour (WHO, 2015).

Research on this issue is unfortunately somehow outdated; especially due to the lobbying of verging towards the natural birth thus enema has taken a back bench seat, in the process of the care offered to the labouring women. Mothers are more proactive and aware of what happens to their body during labour thus, they are more empowered to set a birth plan.

If pregnant women don't want an enema, then we don't give them an enema, but before we only didn't give enemas when there was a contra- indication"... now we have a new opinion – to give mothers the right to make decisions themselves, and if we want to do something for her we should give an explanation (Qian et al., 2006).

Birth plans are an indication of the women's wishes but this does not mean that varying processes will not lead to a deviation of the birth plan but the aim of any midwife is to adhere to such a plan as much as possible.



The emergence of evidence from a number of interviews in a number of narrative studies have given scope to a more informed client base questioning practice; on the other hand, midwifery staff, exposed to evidence that does not support routine enemas may actually start offering choice. It is clear from research on midwifery scenarios that midwives informed about evidence based standards are frequently keen to abandon an enema, because they make a mess and create work (Smith, 2002). It should also be considered that midwives' are obliged to give women more choice during childbirth (Liebman, 2012).

Carrying out an enema during labour has been routine practice in delivery suites of many countries and settings. Occasionally women tend to leak from their back passage whilst giving birth and it was thought an enema in early labour would reduce this soiling and the consequent embarrassment for women. It was also implied that emptying the back passage would give more room for the baby to be born, thus reduce the length of labour and concurrently reduce the chance of infection for both the mother and the baby. It was also recommended that it would reduce bowel movements after birth which often causes women concern due to the fear of constipation.

The inconveniences triggered were that it is a very unpleasant practice and causes increased pain for women during labour, whilst as a result, enemas could produce a watery faecal soiling whilst giving birth which could drastically increase the risk of infections. A review carried out by Reveiz et al identified four studies involving 1917 women. These studies found no significant differences in any of the outcomes assessed either for the woman or the baby. However, none of the trials assessed pain for the woman during labour and there were insufficient data to assess rare adverse outcomes. Thus the evidence speaks against the routine use of enemas during labour (Reveiz et al., 2013). Enemas are frequently used in obstetric settings because they are thought to reduce the risk of puerperal and neonatal infections, shorten the duration of labour and make delivery cleaner for attending personnel (Romney et al., 2013). However, the use of enemas is controversial and there is little evidence of their effectiveness. Enemas are upsetting and humiliating for women in labour (Drayton et al., 1981).

A systematic review of the literature of 222 women, found no difference in puerperal or neonatal infections. However, it only followed women while they remained hospitalized; this time may be too short to identify outcomes that could be affected by enemas. The review concluded



that there was insufficient evidence to recommend the use of enemas during labour and called for additional RCTs (Cuervo et al., 2006).

A natural birth that takes place of its own accord without interventions of any sort is a complicated process in itself, but also equally fine-tuned and balanced, prone to having its optimal properties eliminated with each intervention. Therefore, the only intervention asked of those supervising childbirth should be to respect this awe-inspiring phenomenon and adhere to medicine's first fundamental principle which reads 'Primum non nocere' (Calik et al., 2018).

Advances in medical technologies have undeniably provided significant benefits in terms of maternal and infant health, especially in high-risk pregnancies and premature births (Chen et al., 2006). In recent years in some countries, (including Malta), however, almost all pregnant mothers undergo interventions such as an enema, without proper assessment of whether it is really needed (Chalmers et al., 2009).

A study carried out with two hundred and seventy-four women which were admitted for delivery of singleton infants, were studied for the effects of a preparatory enema on faecal contamination, duration of labour, and the incidence of infection in the newborn. Altogether 149 of the women were given an enema (controls) and 125 were not. The two groups showed no significant difference in the degree of faecal contamination during the first and second stages of labour, and the incidences of gross contamination were similar.

Contamination after an enema was especially difficult to control, since it was more likely to be fluid. Seven neonates in each group showed evidence of infection, bowel organisms being isolated from four in the no-enema group and two in the control group. Durations of labour, though not strictly comparable, were similar in the two groups. The findings suggest that when preparing for normal labour the enema should be reserved for women who have not had their bowels open in the past 24 hours and have an obviously loaded rectum on initial pelvic examination.

Pre-existing attitudes

The midwives were also united in their attitude. Most objected strongly to managing mothers in labour unless an enema had been given and the bowel emptied. They thought that without an enema labour would be prolonged and the incidence of instrumental delivery increased. They foresaw faecal contamination of the baby and thought that offensive odour would embarrass both staff and mothers.

The most interesting feature of the research was the attitudes of the midwives attending the mothers in labour. At the commencement, there was some hostility to the trial, which caused problems in design. During the study, however, the midwives' opinions changed, and the random study was terminated prematurely, when objections were raised to subjecting mothers to an enema without good reason. No evidence was found that enemas were harmful, but they caused distress to a few patients and discomfort to many. The enemas did not reduce the incidence of faecal contamination or infection, and nor was there any evidence of a significant influence on the duration of labour (Romney et al., 1981).

In some facilities, it is routine practice to administer an enema during the first stage of labour. Evacuating the rectum by an enema was thought to facilitate descent of the head and reduce negative feedback inhibition of uterine contractions, thus reducing the length of labour. A Cochrane review included four trials, two of which reported the effect of enema on the duration of labour (Reveiz et al., 2013). Routine use of enemas has not been shown to reduce the duration of labour. In addition, it might be inconvenient to women without any clinical benefit (WHO, 2014).

Keeping all this in mind we as midwives, should not enforce the procedure of an enema on the mother. We should not make her feel that this is the normal procedure of labour and that if she refuses it she is doing something wrong that could endanger her child. If the mother asks for an enema, it should be administered accordingly but if the mother informs us that she has had bowel movement in the last 24 hours, this should not be administered.

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Caring for the Wound of a Caesarean Section

One of the roles of the midwife is to care for the postpartum mother, also after giving birth via a Caesarean section (CS). Deliveries via elective or emergency CS are common in western medicine. According to the National Obstetric Information System (NOIS, 2020) annual report for 2019, the CS rate in Malta reached 31.9% out of 4455 births (Gatt & Zahra, 2020). Thus, midwives employed in various Maltese maternity settings are regularly faced with ensuring the best management of the post-operative wound; including hands-on care in hospital and giving the best evidence-based advice about wound care at home.

Optimal wound care and management, especially in the community is vital to prevent and avoid potential immediate post-op wound complications such as surgical-site infections or wound dehiscence (Yao, et al., 2013). Surgical site infection (SSI) is a common complication which may lead to increase in length of hospital stay or readmission with more adverse outcomes such as sepsis or necrotising fasciitis (NICE, 2021). As a consequence, this gives rise to maternal morbidity as well as economic and financial burden on the health care system. Hence, all necessary standard precautions to avoid such complications should be followed and strictly adhered to.

Prior to ensuring the best wound care, the midwife must be aware of the phases of wound healing. Primarily understanding how wounds heal, enables midwives to recognise when wounds are healing well and to apply the appropriate management to support the healing process (Brown, 2015). There are three phases of wound healing. The first phase is inflammation. It is a natural response and starts immediately after surgery, lasting up to 3 days. This is responsible for the classic signs of inflammation including minor redness, localised heat, swelling and pain due to vasodilation around the site and the presence of histamines (Yao et al., 2013; Brown 2015). The inflammation process is primarily physiological and is not associated with a wound complication, in the absence of other clinical features. Thus, it is important to take into account the whole clinical picture when making an assessment.

The wound then is naturally cleansed by white blood cells which digest any bacteria or tissue debris followed by regeneration of granulation tissue. This is known as the proliferation phase. The last phase, known as the maturation or remodelling phase, occurs once the wound is closed. Epithelial cells move over the granulation tissue and collagen is reorganised to form a scar. This process lasts between 21 days and 2 years (Brown, 2015).

Apart from antibiotic prophylaxis, there are further non-pharmacological interventions to reduce infectious morbidity when having a CS; pre-surgery, during as well as post-surgery. A basic pre-operative precaution is skin preparation; ensuring that the site of incision, i.e. the lower abdomen, right above the pubic symphysis is free of hair. Removal of hair should be done, if necessary, not routinely; using only single-use electric clippers on the day of surgery. Use of razors is not recommended (NICE, 2020). The following stage of skin preparation is then, using an antiseptic agent immediately prior to making the surgery incision. The first choice of agent depends on the type of surgery and surgical site. Lastly, choice of skin closure methods may also affect healing of the wound. Considering sutures over staples is recommended to reduce the risk of superficial wound dehiscence. Evidence shows that the incidence of wound dehiscence increases when using staples for wound closure when compared to using suture material. However, most studies referred to when updating the guideline, did not include obese women; hence NICE made the recommendation only to consider sutures over staples depending on the clinical scenario (NICE, 2020).

The main precautions of post-op wound care include timely review of the surgical site, appropriate cleansing and dressing as well as recognition of wound complications. These are crucial elements in midwifery care due to the longer patient-contact midwives have with the postpartum mother; especially recognising warning signs of wound infection; such as severe redness around the surgical site, presence of haematomas, gapping of wound edges, secretion of seroma or pus from the wound, swelling and site tenderness with or without pyrexia. Additionally, there are patient factors which also affect healing and increase the risk of post-op complications such as certain medical conditions, medications, tobacco smoking and malnutrition (Yao, et al., 2013). Thus, being fully aware of the patient history is also vital.



Once wound infection is suspected, active management is recommended. Taking wound swabs for culture and sensitivity is the first line management to identify the responsible pathogen/s in order to select the appropriate antibiotic therapy. Common pathogens responsible for SSIs in obstetric and



gynaecological surgery include Gram-negative bacilli, enterococci, anaerobes and Group B streptococci (Yao et al., 2013; Singhal et al., 2021). Moreover, there are certain instances, where it is necessary to consult with a tissue viability professional.

According to the NICE guideline (2021) recommendations for recovery after CS, wound care includes removing standard dressing 24 hours after the caesarean birth, regular monitoring for pyrexia, assessing the wound for dehiscence or signs of infection, gentle daily cleansing of the wound, encouraging women to wear loose clothing and cotton underwear as well as timely planning of removal of sutures, if needed. The NICE guideline for prevention and treatment of SSIs (2020) recommends using an aseptic non-touch technique for changing or removing surgical wound dressings, using only sterile saline water. After the dressing is removed, tap water is safe for use.

In line with the appropriate advice and care based on current evidence, it is also important that midwives and obstetricians responsible for care, work as a team while following evidence-based guidelines; with the aim

of reducing post-op infectious morbidity postpartum and hospital readmissions as much as possible.

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The Golden Hour After Birth

What is it and Why is it so important?

Soon after birth, babies find themselves in a completely different environment. This is devoid of the cosiness, security, and warmth that the womb usually provides. Babies slowly start to realize that there are things which will now have to be dealt with by themselves in order to thrive, including breathing and nutrition. Thus, the transition from the womb to the outside world can be quite a challenging period for the newborn.

The 'Golden Hour', also known as the 'Magical Hour', refers to the first hour after a baby is born (Sharma, 2017). Evidence suggests that the care received by a newborn in this initial hour has significant lifelong implications, with equal benefits for both term and preterm babies (Neczypor and Holley, 2017; Niela-Vilen, Axelin and Flacking, 2020). Such care includes practices that involve skin-to-skin sessions, delayed cord clamping and early initiation of breastfeeding (Neczypor and Holley, 2017; Sharma, 2017).

In hospital settings, there can be multiple instances that lead to mother and baby separation within the first hour after birth (Moore, Bergman, Anderson and Medley, 2016). One typical example is during umbilical cord cutting, whereupon the baby is often also examined, weighed and cleaned. Thankfully, times are changing, as the benefits of the 'golden hour' are now being recognised (Neczypor and Holley, 2017; Sharma, 2017). Current evidence for healthy newborns suggests that skin-to-skin should be initiated immediately after birth (within 10 minutes) and continue for as long as possible during the first 24 hours of life (Moore, Bergman, Anderson and Medley, 2016; Widström, Brimdyr, Svensson, Cadwell and Nissen, 2019). With skin-to-skin positioning, the newborn is left undressed and placed on the mother's bare chest (Moore, Bergman, Anderson and Medley, 2016). Thus, it is essential to avoid wrapping or dressing up babies in their mothers' arms, placing the newborn in open cribs or under radiant heaters soon after birth. Delaying the initial newborn checks and weighing could also help in leaving mothers more focused on their new bundle of joy for at least an hour (Neczypor and Holley, 2017). During this time, mothers may be thinking about how the baby looks like, his or her smell and how amazing it feels to finally having the little one in their arms.

Not long ago, early clamping of the umbilical cord was one of the first routine medical interventions after the second stage of labour (Weeks, 2007). Unless medically indicated, recent evidence now suggests that the umbilical cord should be left untouched for the first few minutes after birth (Neczypor and Holley, 2017). Studies have shown that delayed cord clamping for one minute leads to a transfer of an extra 80ml of blood, while a delay of three minutes leads to a total transfer of 100ml of extra blood to the newborn (Sharma, 2017). This blood transfusion naturally helps in increasing the baby's iron storage (Davies and McDonald, 2020). Having said this, in previous years, delayed cord clamping was thought to cause higher rates of hyperbilirubinemia and subsequent use of phototherapy, but more recent evidence suggests

that this is not the case (Bruckner, Katheria and Schmölzer, 2021). In fact, apart from reducing the risk of anaemia and iron deficiency in the newborn, delayed cord clamping is now also considered to improve neuro-developmental outcomes (Bruckner, Katheria and Schmölzer, 2021; Surak and Elsayed, 2021).

Implementation of the above actions is further associated with better outcomes in breastfeeding (Putri, 2019). As a matter of fact, skin-to-skin contact is considered as an important factor in protecting the early initiation and maintenance of breastfeeding (Araújo et al., 2021; Bollipo, Pagali, Korrappolu and Rahman, 2019; Brennan and Callaway, 2014). If left skin-to-skin, babies are able to crawl to the mother's breast and attach to the nipple by themselves (Widström, Brimdyr, Svensson, Cadwell and Nissen, 2019). This phenomenon is known as the 'breast crawl' (Widström, Brimdyr, Svensson, Cadwell and Nissen, 2019). Breast crawling might not occur instantly and with every baby, but if it occurs, mothers often consider it as a beautiful process.

Multiple studies have proven that providing the latter evidence-based care during the 'golden hour' is a safe and healthy birth practice (Crenshaw, 2019; Neczypor and Holley, 2017). Following birth, babies need a lot of comfort and skin-to-skin is definitely the best option to keep them calm, settled and secure (Davies and McDonald, 2020). Skin-to-skin positioning also allows the baby to hear the mother's heartbeat and feel her warmth, resembling the intra-uterine environment (Neczypor and Holley, 2017). During this precious time, babies are better able to maintain their body temperature and breathing pattern, which in turn helps to stimulate their digestive and nervous systems (Davies and McDonald, 2020). Keeping this time quiet will also help the mother's body to go through the important post-partum physiological and hormonal changes smoothly (Barría, 2018). In addition, recent studies highlight that skin-to-skin contact immediately after birth stimulates oxytocin secretion in both the mother and neonate, leading to higher birth satisfaction and improved maternal-infant bonding (Kahalon, Preis and Benyamini, 2021; Klus, Eicher, Trammel, 2020). Despite the latter findings, mothers who have experienced a challenging labour should be counselled that they might still not connect with their baby straight away. After all, love is a process, which can take a while to develop.

Although the 'golden hour' is known to be a truly magical and indescribable moment, in some maternity hospitals, including those holding the Baby-Friendly Hospital title, women and their babies are still not given the opportunity to experience the 'golden hour', so that routine procedures and hospital policies are fulfilled (Araújo et al., 2020). Below is a short memory of a mother being given the privilege to experience an undisturbed 'golden hour' after birth.

"Finally, after seeing my baby after a long birth, made it real that I have just become a mummy! I recall having a sudden sense of calm when my



baby was put on my chest right after birth. It's like we have known each other forever, as if she knew I am her mother, seeing her cling to me as if seeking for comfort. With my first daughter, I was surprised to see her crawling up to my chest! Because of this, the first experience of skin to skin will always be a special memory for me. And because it was such a warming moment, I kept doing it at home for the first few weeks. We used to love it, both baby and me. It was our special moment of connection.

I planned to breastfeed both of my babies, and although I must admit, it's hard at the beginning, it does get much easier at a later stage. They say that first impressions count, and maybe it was because of the closeness I felt to my baby as she snuggled against me soon after birth, which kept me going through the first few hard days of breastfeeding.

To conclude, I can't encourage skin to skin right after birth enough. It is the moment parents finally meet with their baby, where their journey together starts. I can only describe the golden hour as pure closeness, fulfilling and highly practical".



The above, may give an insight and highlights the importance of maternity hospitals in adopting a standardised approach to an undisturbed 'golden hour'.

In conclusion, the 'golden hour' is a unique time for both the mother and her baby, which requires a calm environment, patience and support. Unless medically indicated, uninterrupted time with the baby soon after birth will help the mother to better learn her baby's needs and create a stronger bond. Without doubt, the 'golden hour' will serve as a beautiful memory with her loved ones for a lifetime!

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Is Breastfeeding Innate or Learned: 'Nature' or 'Nurture'?

For many years, this question was at the heart of the discourse around breastfeeding management. In this article, 'nature' refers to the innate characteristics (Brown 1993): that is the capacity of a person to act in a certain way is instinctive, hardwired, genetically built into the brain before birth. The people who supports the nature philosophy argues that the mother and the baby are born knowing how to breastfeed (Mc Nabb & Colson., 2000). In contrast, 'nurture' in this article refers to nourish, develop, educate (Brown, 1993). Nurturing is the process of a learned behaviour and starts as early as to the preferred method of feeding. The advocates of the nurture determinat of behaviour consider that the baby is born like a clean slate, ready for experiences and environmental learnings.

This debate has been heated in the past between those who believed that mothers need to be taught the skills how to breastfeed, which set the context for breastfeeding education classes: the 'nurture' end of the spectrum (Gunter, 1955); and those who argue that mothers and babies innately know how to breastfeed and automatically move into the correct positions if left on their own: 'nature' philosophy (Colson, 2010).

Another aspect that may have contributed towards the need to teach mothers how to breastfeed their babies was with the introduction of powdered baby milks in hospitals. Many hospitals encouraged the use of powdered milks which became easily available, accessible and considered an alternative to breastfeeding (Palmer, 2009). Formula companies used aggressive advertising strategies which in part contributed to convince mothers and in some instances also health professionals, that commercial formula was as good as, or better than breastmilk, which sequentially made breastfeeding seem a lost art (Palmer, 2009).

Following a drop in breastfeeding rates in many western countries (Palmer, 2009), observational studies carried out by Dr Righard in 1990, found that unmedicated newborns have the ability (unassisted) to crawl, find, latch and suckle their mother's breast, when left undisturbed and placed skin-to-skin immediately after birth. Consequently, the American Academy of Paediatrics (AAP) recommended that all "healthy infants should be placed and remain in direct skin-to-skin contact with their mothers immediately after delivery until the first feeding is accomplished".

To this end and across many disciplines, researchers now agree that both nature and nurture act and interact to influence behaviours and developmental outcomes (Slater et al., 2003).

The issue of 'nature' vs 'nurture' in breastfeeding discourse, prompted Dr Susan Colson and her research team (2008) to investigate what part the mother plays within innate, instinctive breastfeeding behaviours and whether "biological nurturing" (laid-back, natural positions that use gravity and hormonal production) could support

a prolonged duration and more enjoyable breastfeeding.

Biological Nurturing /Laid Back Breastfeeding

Biological nurturing, is a neurobehavioural approach to breastfeeding initiation. It is a collective term describing a range of optimal mother-baby breastfeeding positions, states and behaviours which reduce latching problems and early unintended breastfeeding cessation (Colson, 2008). In her doctoral study, Colson (2006) mentions six components of biological nurturing: (mother postures, baby positions, neonatal state, maternal hormonal state or complexion, primitive neonatal reflexes and innate maternal breastfeeding behaviours) interrelate constantly, producing changes even during the same feed.

In biological nurturing, the mother leans back and places the baby on her chest so that every part of the baby's body is facing, touching and closely applied to one of the mother's curves. Colson (2010), observed that as soon as the mother lay back to breastfeed, the shoulder and neck tension are seen to melt away. Nipple pain is often alleviated immediately because gravity is not dragging the baby down the upright maternal midriff. Breastfeeding in a laid-back position, the mother also has increased freedom of movement, as one or both hands are free; her body holds her baby, not her arms (Colson, 2010).

Nursing in a laid-back position opens the mother's body, which promotes neonatal locomotion by releasing up to 20 primitive neonatal reflexes which act as breastfeeding stimulants (Colson et al., 2008). The mother holds her baby for as long, as often and in as much skin-to-skin contact she wants - even when the baby is not hungry or feeding. In an unhurried and protected environment, the smell of colostrum beacons the newborn towards the breast (Righard, 1995). This instinctive action is demonstrated by the newborn to find and to latch onto the breast during the first days of extrauterine life (Colson et al., 2008).

Colson et al., (2008) observed that when babies were placed in a frontal feeding position, they latched on without help and this action frequently appeared smooth and easy. The author observed that the feeding position was characterised by a sequel of actions. First, mothers made themselves comfortable, leaning back to varying degrees of body slope. Second, the baby was neither vertical nor parallel to the mother's body. Rather, baby often positioned himself by lying longitudinally or obliquely, on top of the mother. Third, the baby often approached the breast as though searching, using the pendular head-bobbing reflex which involved the entire trigeminal area, not just the chin. Finally, mothers did not have to hold the baby, no back, neck or head pressure was necessary to achieve positional stability or to maintain the baby close and at breast level. Instead, gravitational forces helped to keep the baby on the mother's body. Gravity also appeared to apply a slight pressure, smoothing



and coordinating the reflexes. During biological nurturing, the baby became an active participant, often self-attaching with the baby achieving his own positional stability (Colson et al., 2008).

A randomized controlled study was conducted in a hospital setting in Trieste, Italy (Milinco et al., 2020), to look into the effectiveness of biological nurturing on early breastfeeding problems. One hundred and eighty eight (188) mothers participated: ninety (90) allocated to the biological nurturing group and ninety eight (98) to the usual care group. At discharge from the maternity ward, the study reported that biological nurturing significantly reduced the risk of breast problems during initiation and establishment of breastfeeding (Relative risk [RR] 0.56, 95% Confidence interval [CI] 0.40, 0.79) including cracked (RR 0.42, 95% CI 0.24, 0.74) and sore nipples (RR 0.59, 95% CI 0.40, 0.88). The study concluded that a biological nurturing approach in a hospital setting was effective in preventing breast problems. They did not observe any statistically significant difference for exclusive breastfeeding at discharge and up to four months.

Keeping Mothers and Babies Together

Biological nurturing is not just about breastfeeding: rather the approach itself encourages the mother to keep the baby in the right place, what Nils Bergman (2008) calls the mammalian habitat. Placed on the mother's chest, the baby is biologically expecting to hear the mother's familiar voice and heartbeat, the mother's smell, the taste of breast milk, and warmth from her body. With these sensations, the baby will have a more stable heart rate, blood pressure, and breathing. In the right place—mother's chest—the baby will be warmer, cry less and have higher blood sugar levels (Christensson et al., 1992). As with all mammals, human babies are born knowing how to self-attach and breastfeed (Widstrom et al., 2010)

Similarly, the full contact between the baby and the mother's body, the sight and smell of the baby together with the baby's movements and sweet noises, elicit a cascade of innate maternal responses (Colson, 2008). Biological nurturing promotes maternal comfort, allows the mother to look at her baby without craning her neck and allows for that fascinating early eye-to-eye contact and mother-baby conversations, first documented by Klaus and Kennel (1976).

For many years, breastfeeding as an acquired skill has revolved around procedures and techniques. The nurturing approach has dominated our breastfeeding understanding. Nurturing focuses attention on hospital policies and relies upon specific steps to success and instructions that do not work well for all mothers. Biological nurturing restores balance (Colson, 2010). This highlights a need to reconsider some traditional routines as for example when teaching breastfeeding skills and defining the characteristics of the "correct" latch. In reality, all breasts and nipples are circular, thus allowing a baby



to latch in many different angles. There is no right or wrong way how a mother breastfeeds her baby, as long as both are comfortable and the baby is able to transfer mother's milk successfully.

Conclusion

The biological nurturing/laid-back approach is about the relationship between mother and baby and as in any relationship there is a mix of innate and

learned behaviours. Biological nurturing data suggest that breastfeeding initiation is about triggering and conditioning the baby's reflexes. Thus, the priority exists in incorporating an environment that enables positional brushing between mother and baby to elicit the release of these reflexes.

When mother and baby start off breastfeeding using biological nurturing/laid-back breastfeeding positions early on, the baby may easily adapt to more traditional upright positions later on and may be able to maintain good latch and milk transfer. The mother will benefit by feeling more empowered, confident and competent.

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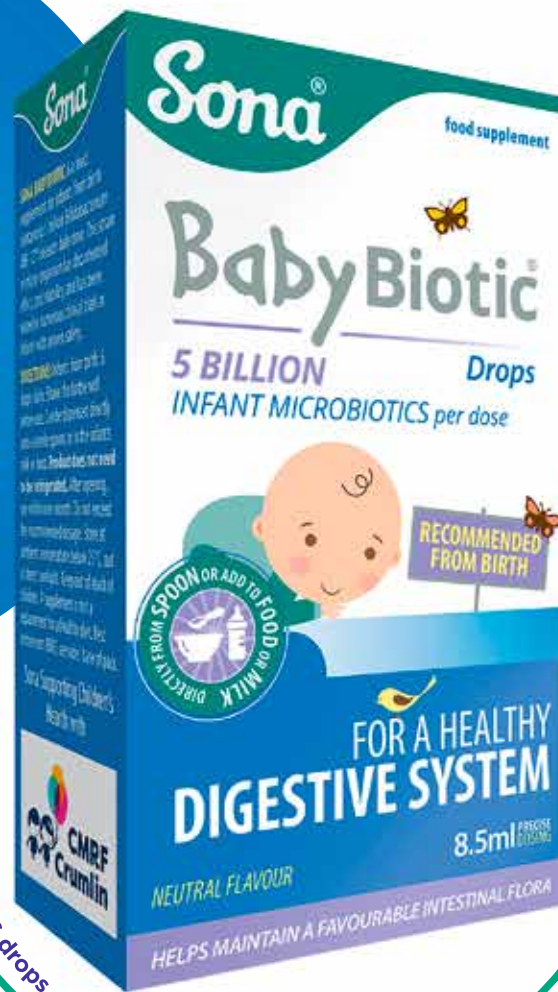
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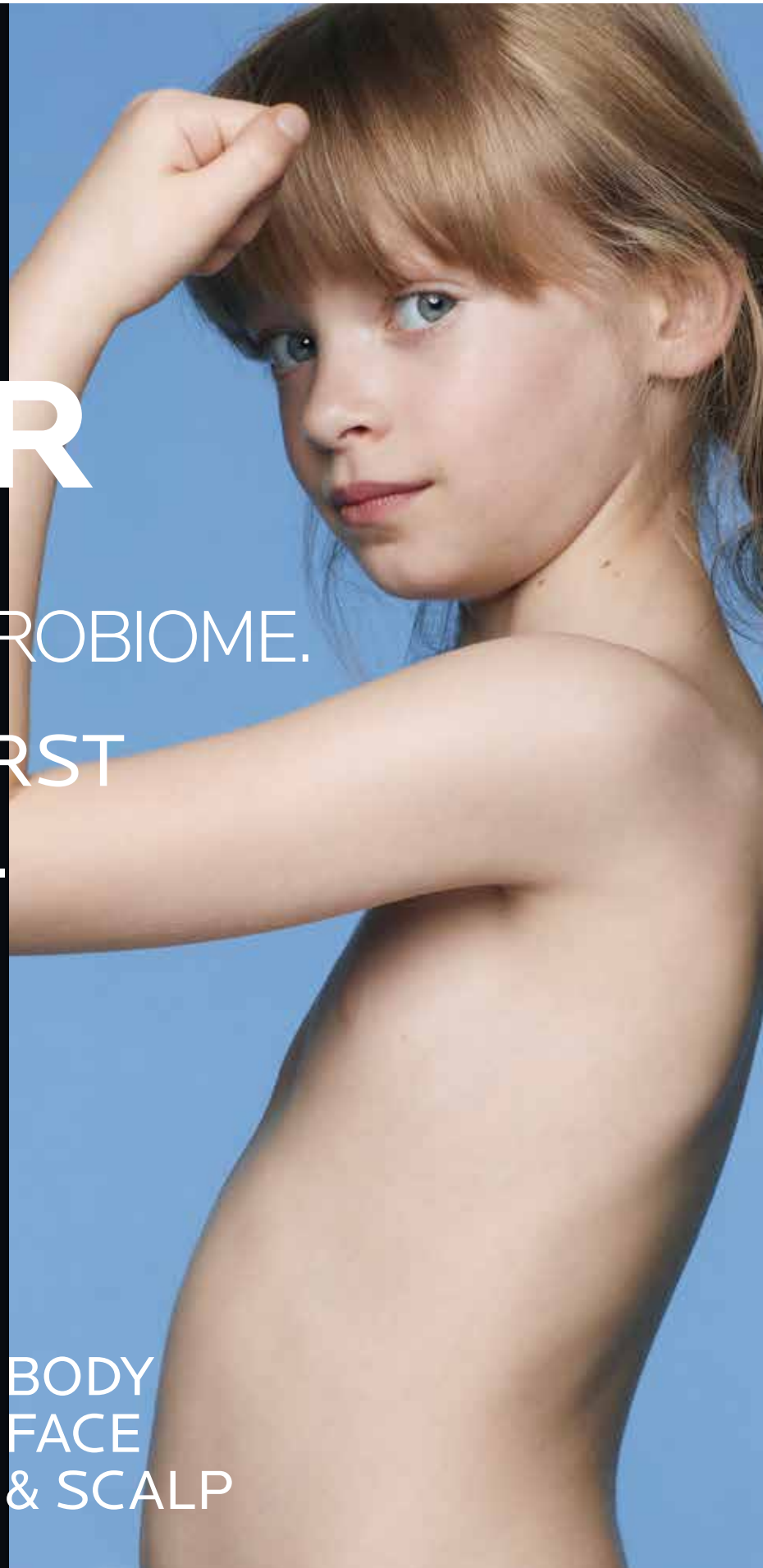
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Endometriosis and Infertility

Problems of a Modern Woman

Endometriosis is one of the urgent problems of modern medicine, remaining among the most mysterious and difficult to explain diseases. The incidence of endometriosis, according to various researchers, varies from 12 to 50% in women of reproductive age. According to the latest data, about 176 million women of predominantly reproductive age suffer from endometriosis worldwide - one in ten. In the world's structure of gynecological pathology, endometriosis takes third place (after inflammatory diseases and uterine leiomyoma).

The frequency of detection of endometriosis during laparoscopy, including those carried out to clarify the cause of infertility, is 20-55%. More than 30% of patients who come to the special centres of assisted reproductive technologies for IVF have external genital endometriosis.

Endometriosis pathogenesis

According to the generally accepted definition, endometriosis is a pathological process that forms against the background of disturbed hormonal and immune homeostasis and is characterized by the growth and development of tissue identical in structure and

function with the endometrium, outside the boundaries of the normal localization of the mucous membrane of the uterine body. Endometriosis is capable of infiltrative growth into surrounding tissues and organs with their subsequent destruction. Endometriosis is also able to spread through the blood vessels, so, it can metastasize.

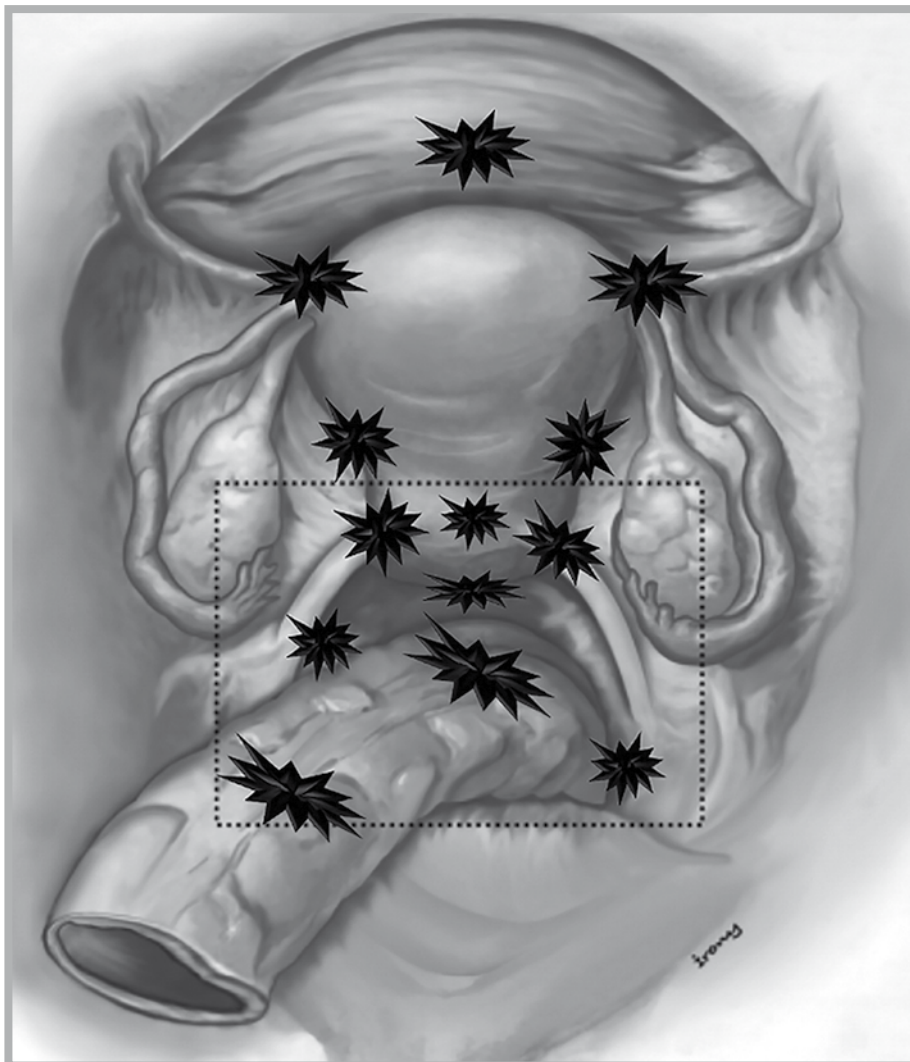
There are many theories of the pathogenesis of endometriosis. Among them six main groups can be distinguished: transport (implantation, transplantation, immigration, lymphogenous, hematogenous, and iatrogenic dissemination); metaplastic; embryonic; hormonal; immunological; genetic. However, none of the concepts of the origin of endometriosis is able to explain the key moment in the development of the disease - implantation and transformation of the endometrial cell into an endometrioid focus.

Endometriosis and infertility

The leading clinical manifestations of endometriosis are pain and infertility. Pain syndrome includes: dysmenorrhea, dyspareunia, dyschezia, chronic pelvic pain. The severity of pain in endometriosis depends on the localization of endometrioid heterotopies, the degree or stage of the spread of the process and endometriosis lesions of adjacent organs, as well as on the duration of the disease and the individual characteristics of the patients.

The opinions of specialists about endometriosis as the cause of infertility are rather contradictory, and if severe forms are indeed the cause of infertility, then many scientists do not consider the initial manifestations of the disease as a factor of infertility.

Pathophysiological and biochemical investigations have shown that women with endometriosis exhibit an increased amount of peritoneal fluid, which is associated with high concentrations of prostaglandins, proteases and cytokines. These cytokines include inflammatory molecules, such as interleukin 1 (IL1), IL-6 and tumour necrosis factor (TNF), and angiogenic species like IL-8 and vascular endothelial growth factor (VEGF). These alterations in the pelvic floor may exert toxic effects on oocytes, sperm and embryos and may also impair tubal motility, notwithstanding the stage induced by endometriosis. In the most advanced cases, in



addition to the latter effect, distortion of the pelvic organs, caused by adhesions, can impair oocyte release, reduce tubal transportation by displacement or ultimate blockage and affect sperm migration.

Treatment of infertility associated with endometriosis

Spontaneous pregnancy rates in women with endometriosis-related infertility have been reported at around 10%. While medical treatment can be effective in the management of endometriosis, surgery has been demonstrated to be a valid therapeutic tool. Surgical resection of the lesions can double the chances of women's natural conception.

Surgical treatment for infertility associated with endometriosis.

14 RCTs were carried out, in which it was demonstrated that the cumulative frequency of pregnancy during laparoscopic treatment and removal of endometriosis sites from 6 to 18 months, in 50% of cases, pregnancy occurs. In women with minimal and mild endometriosis (ASRM), laparoscopic surgery is an effective method of increasing pregnancy/live birth rates compared to diagnostic laparoscopy.

In women with infertility due to endometriosis who undergo laparoscopic surgery prior to ART, clinicians may consider complete surgical removal of endometriotic lesions to improve the rate of live births.

Feasibility of surgical treatment before IVF

It was proven, that removal of endometriomas prior to IVF does not improve fertility rates.

Moreover, based on IVF/ICSI results in women operated for bilateral endometriomas the number of antral follicles and pregnancy rates after laparoscopic excision of endometrioid ovarian cysts are **significantly reduced**.

But surgery should be still recommended for following cases:

- for the treatment of concomitant pain symptoms;
- if it is impossible to exclude a malignant process;
- for large ovarian cysts.

There are two different approaches exist for the cysts > 3-4 cm:

- if it is possible to collect all growing follicles without violating the integrity of the endometrioma, there is no need for surgical intervention;

- for smaller cysts that hide growing follicles (especially with a fixed ovary), surgery may be required.

For women suffering from infertility due to endometriosis, clinicians should not prescribe hormone therapy **prior** to surgery to suppress ovarian function to improve fertility. ESHRE recommendations (level A)

For women with infertility due to endometriosis, clinicians should not prescribe concomitant hormonal therapy **after** surgery to improve spontaneous pregnancy rates. ESHRE recommendations (level A)

According to ESHRE (2013), although adjuvant hormonal therapy should not be prescribed to women with endometriosis-related infertility before or after surgery while waiting for ART in the presence of pain, clinicians should not refrain from using such therapy. All hormonal drugs block ovulation during the entire time of their use, so it seems inappropriate to use them in women planning pregnancy. However, hormone therapy is widely used to control pain and prevent the progression and recurrence of endometriosis, which allows a woman to maintain fertility and, after its cancellation, successfully become pregnant, provided that the timing of therapy and the desired drug are chosen correctly ("bridge therapy").

Ovarian stimulation with intrauterine insemination can only be used in patients with a good prognosis with





mild to moderate endometriosis as the only diagnosed factor in decreasing fertility.

ESHRE recommendations (2013) for women with endometriosis and infertility:

- Hormone therapy (COCs, progestogens, GnRH-a or danazol) to suppress ovarian function should not be prescribed to improve fertility in patients with endometriosis and infertility (evidence level A).
- In women with AFS/ASRM stage I/II endometriosis and infertility, not only diagnostic, but also therapeutic laparoscopy (excision or ablation of endometriotic lesions), including adhesion separation, should be performed in order to increase pregnancy rates (evidence level of recommendations A).
- In the case of surgical treatment of endometrioma in infertile patients, removal of the cyst capsule, rather than drainage or electrocoagulation of the cyst wall, should be performed in order to increase the overall rate of spontaneous pregnancy (level of evidence recommendation A).
- In women with AFS/ASRM stage III/IV endometriosis and infertility, surgical laparoscopy should be considered rather than expectant management (level of evidence recommendation B).
- In women with AFS/ASRM stage I/II endometriosis, controlled ovarian stimulation with intrauterine insemination may be considered instead of expectant management to increase pregnancy rates.
- In women with stage I/II endometriosis according to the AFS/ASRM classification, controlled ovarian stimulation with intrauterine insemination within 6 months after surgery can be considered, while the clinical pregnancy rate is similar to that of infertility of unknown origin (level of evidence of recommendations: C).
- The use of a GnRH-a for 3-6 months before the ART procedure increases the likelihood of clinical pregnancy by 4 times (level of evidence recommendation B).

Endometriosis Fertility Index (EFI)

The Endometriosis Fertility Index (EFI) was developed to predict the spontaneous pregnancy rate in women 3 years after surgery for endometriosis. This multifactorial score includes criteria based on the patient's characteristics (age, duration of infertility, pregnancy history), intra-operative lesion description (American Society for Reproductive Medicine (ASRM), American Fertility Society (AFS) Endometriosis Score) and a functional post-operative score (Least Function (LF) Score). The EFI is the sum of the surgical and historical factors and ranges from 0 to 10. The rate of spontaneous pregnancies is greater in women with higher EFI scores; cumulative non-ART pregnancy at 36 months was found to be 10% (95%CI: 3, 16; $P < 0.001$) for women with an EFI of 0–2, and 69% (95%CI: 58, 79;

$P < 0.001$) for women with an EFI of 9–10. The EFI was described by the World Endometriosis Society (WES) in 2017 as being a robust and clinically valid score to predict fertility after surgery in patients with endometriosis.

Conclusion

The laparoscopic surgical management of endometriosis-associated infertility is an effective and relatively safe procedure in infertile women. It is an efficient means to detect and manage other anatomical structural abnormalities often observed in the uterus, as well as the fallopian tubes and the lower pelvis, in a single surgical session. Therefore, many experts recommend this procedure as an ideal tool for a fertility work-up, unexplained infertility and endometriosis-related infertility.

Although the EFI is a valid tool to predict spontaneous pregnancy rates after surgery for endometriosis, using the EFI in routine clinical practice to triage patients remains a challenge. Many studies suggest that the optimal time frame to manage postoperative infertility varies according to the EFI: patients with a favorable EFI (≥ 5) may be allowed to have 24 months of spontaneous attempts to conceive whereas patients with an unfavorable EFI (≤ 4) should be more rapidly referred for ART.

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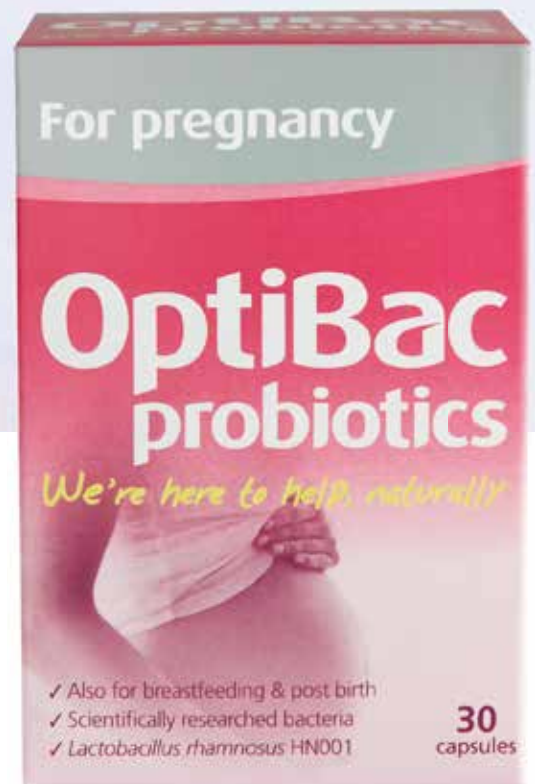
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M. Sc. Dissertation Abstracts

Parental Sexual Orientation: Children's Psychological Well-Being and Development

Children living with same-sex parents are becoming more conspicuous in modern society. New family forms are emerging because of this phenomenon. The yearning for parenthood is a fundamental aspect of any human being. Those in same-sex relationships have the same aspirations as heterosexual couples, including that of becoming parents. A number of studies and arguments maintain that there are instances when the contention of having children at all costs might in turn weaken a child's place in society. Many studies carried out in this area dealt with the perspective of the parents; such findings could be biased as the true feelings of the children are not analysed.

The aim of this thesis is to review studies on the relation

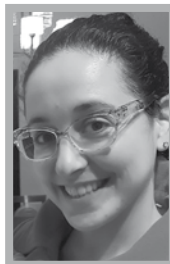
between the well-being of children and their parents' sexual orientation. Arguments have been put forward by a number of social scientists that emphasize a "no difference" outlook and have sustained that one finds "no difference" concerning the children's development in families headed by same-sex parents compared to heterosexual parentage. Other researchers, however, maintain otherwise. They argue that children are affected by their parents' sexual orientation, especially in instances where they suffer from homophobic acts from their peers. This thesis will show that while there is no universal agreement, there is scope for more extensive studies on issues that so far, might not have been given sufficient attention.

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An Ethical Response to Medical Errors

Medical errors form a significant part of public health concerns because they pose a serious threat on the safety of the patient which furthermore have consequences on the healthcare system in general. Although the healthcare system is led by humans and humans are fallible it is also their responsibility to come up with solutions and find ways to improve the system and to prevent further medical errors. The healthcare system must first recognise the factors that are contributing the errors then the incidents should be criticized to find a solution to reduce them. Healthcare professionals and management have the obligation to work together to reduce errors, towards a culture of safety. Disclosure of medical error is a crucial aspect that carries with it obligations, ethical and moral dilemmas. It gives the victim the opportunity to make autonomous decisions about their care besides helping the victim regain trust in the healthcare system. It is also an ethical duty of the healthcare professional but legal liability,



lack of training in how to disclose an error and loss of reputation all have been cited as reasons why healthcare professionals fail to disclose errors to their patients. However, these reasons do not justify non-disclosure of errors to patients. The wellbeing of the second victim, the healthcare professional, also plays an important role in the safety of the patient. Thus the healthcare worker needs psychologically support and legal protection to deal better with the error and to be able to give a better disclosure. Knowledge is also an important tool in achieving patient safety and aims in keeping the care worker efficient in his line of work. The moral and ethical issues behind medical errors that the healthcare system, the professional, the victim and their family have to have to respect are categorized around the four ethical principles of autonomy and the right for information; nonmaleficence, beneficence and justice.

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Working in an Obstetric-Led Unit: Exploring the Influence of the Birth Environment on the Provision of Midwifery Care

This qualitative study explores the influence of the obstetric-led birth environment on midwifery practice. Being aware of the components making up the birth environment as well as powerful medical discourse sheds light on how space and place may influence midwifery practice. Throughout the years, the concept of childbirth transitioned from a normal physiological process to a potentially pathological process requiring constant monitoring and surveillance. This ideology intensified through the hospitalization of childbirth and the ever-increasing reliance on technology, deeming midwives' role to support



physiological childbirth, within a hospital controlled by obstetricians, as challenging. The physical environment is shown to leave an impact not solely on mothers but also on midwives' practice. A qualitative research method was used to gather data from eight participants using in-depth semi-structured interviews with the incorporation of visual elicitations. Midwives presented their own experiences of working at the main local hospital. Similarities were evident, especially on how they feel caught up in a paradoxical role wanting to support physiological childbirth yet surrounded by birth paraphernalia



and being constantly watched by obstetricians, who are mostly able to see childbirth as normal in retrospect. The power of the obstetricians and their involvement, even in the care of low-risk pregnancies, restricts midwives whilst coerces mothers to submit to the idea that childbirth is safest within hospital. The medicalization of childbirth led to what midwives describe as a 'baby factory', where timeframes and excessive interventions rule the process of childbirth. Some midwives express how the concept of medicalization

of childbirth may have carried them away, leading to an escalation of unnecessary interventions. The hospital-looking birth rooms heavily surrounded by technology and the constant ward rounds by obstetricians were identified by midwives as having the most influence on their practice. Midwives expressed how working in a calmer ambience, mimicking the home environment, without unnecessary interventions would be optimal.

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Our Worst Nightmare: The Couples' Lived Experiences of Miscarriage

Miscarriage is recognised as one of the most common complications of pregnancy and is associated with stigma, isolation, loss of dreams, hopes and identity of parenthood, for the couple. However, there is a dearth of literature, both local and international, on the lived experiences of the couple who have undergone a miscarriage.

Objectives: The aim of this study was to explore the primigravida couples' lived experiences of early miscarriage. The objectives of this study were to gain insight on the impact of miscarriage on the couples; to identify their support systems, needs and concerns; and to explore the coping strategies adopted.

Design: A qualitative phenomenological study using the principles of Interpretative Phenomenological Analysis.

Setting: The study took place in the local general state hospital.

Participants: Five primigravida heterosexual adult couples who had experienced a first and early stage miscarriage. The females were at an advanced maternal age.

Methods: Purposive sampling was used to recruit participants for this study using semi-structured interviews which were audio recorded. The data was transcribed verbatim and analysed using Interpretative



Phenomenological Analysis.

Results: Three super-ordinate themes emerged that highlight the couples' lived experiences of miscarriage. These were: *A Worst Nightmare*; *The Aftermath of the Storm*; *Striving to Ride the Waves*.

Conclusion: The lived experience of miscarriage had a profound physical and emotional impact on the couples describing it as their 'worst nightmare' while also commenting on struggling with an identity as parents, which has now been lost. Couples also commented on how the miscarriage setting, hospital environment and the management of care provided by healthcare professionals shaped their experience when dealing with loss. They also expressed the support or lack thereof that they received after their loss from significant others, family, friends, colleagues, health care professionals, online support groups and society. Couples further recalled utilising different coping strategies in an effort to acknowledge their loss and initiate the healing process. Furthermore, they felt insecure about the possibility of future pregnancies and the difficulties that they might encounter to achieve a successful pregnancy. All participants, especially females, highlighted that their desire of parenthood was a race against time due to their advancing maternal age and the implications on their biological clock.

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Normalising Breastfeeding: A Phenomenological Study to Identify Maltese Mothers' Perspectives to Improve Breastfeeding Outcomes

Aim: To build on Maltese mothers' insights to improve breastfeeding practices. **Methodology:** A phenomenological qualitative approach was used. Participants were recruited from the Breastfeeding Clinic at Malta's general hospital. Face-to-face or online interviews via Zoom were used as a means of data collection. Data was collected until theoretical saturation was achieved. A total of 13 interviews were carried out. Thematic analysis was used to analyse the data. **Results:** Four major themes were identified (1) Positive Aspects that Encourage Mothers to Breastfeed (2) External Influences that May Affect



Breastfeeding Outcomes (3) Negative Aspects that May Act as Deterrents of Breastfeeding (4) The Demand for Appropriate Support and Empowerment. Similar factors have been identified in other studies. The Theory of Planned Behaviour was used as a framework to bring together the four themes and show their complementary influence on breastfeeding. **Conclusion:** Recommendations were presented to improve future policies and practices. The study provided more insights into mothers' perspectives to help improve overall breastfeeding rates in Malta.

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Normalising Breastfeeding: A Phenomenological Study to Identify Maltese Mothers' Perspectives to Improve Breastfeeding Outcomes

Introduction

- Global BF rates = 41% (UNICEF & WHO, 2019)
- In Malta:
 - 2003 = 53% BF → 2017 = 55% BF at discharge from hospital (NOIS, 2017)
 - 2018 = 9.6% continued to BF up to 6 months (GIFA, 2019)
- Urgent need to improve rates, by identifying women's needs
- Local information remains unavailable on the subject
- Literature identified several facilitators and barriers which enable, or not allow mothers to continue to BF.

Aim:

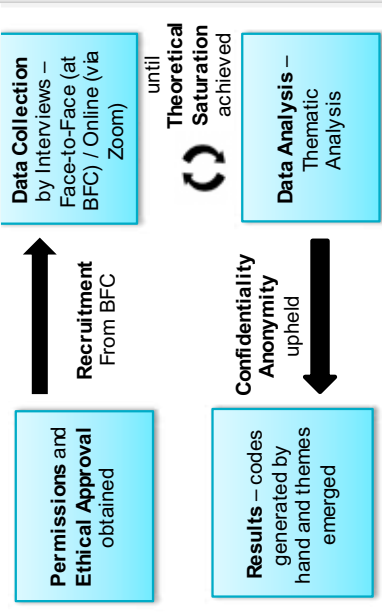
To Build on Maltese Mothers' Perspectives to Improve BF Outcomes

Objectives:

1. to determine the lived experiences, meanings and structures around BF in Malta;
2. to identify how Maltese mothers perceive BF;
3. to understand reasons for continuing or discontinuing BF;
4. to ascertain what Maltese mothers know about different infant feeding practices, and
5. to make recommendations around the best practice to increase uptake of EBF.

Method

- Qualitative Research Design - Phenomenological Approach



Results:

- 13 interviews; Participants' age = 18 – 37 years
 - 3 were mix feeding and 10 were EBF
 - 4 Major Themes:
- 1. **Positive Aspects that Encourage Mothers to BF**
- **Maternal Determination:** which allowed participants to persevere. *Well in my case I'm determined at all costs to continue. (P9)*
- **Beneficial Attributes of Breastmilk:** which motivated participants to BF – nutritional benefits, positive attachment qualities, comfort features and the free availability of breastmilk.

2. External Influences that May Affect BF Outcomes

- **Influences from Family, Friends and the Public:** Lack of support was prevalent, especially from participants' mother and partner. *Husbands pass comments, for example, it's better to mix feed because she is only going to bond with you - it's the first thing my husband told me. (P 3)*
- **Influences by Healthcare Professionals (HCPs):** positive and negative experiences – the midwife was the most influential HCP.

3. Negative Aspects that May Act as Deterrents of BF

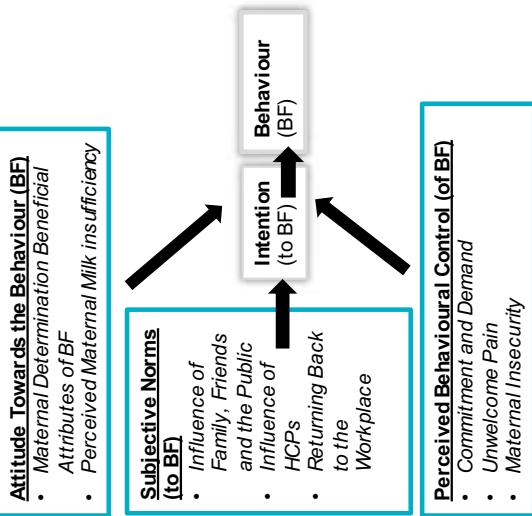
- **Commitment of BF:** participants did not expect BF to be so time-consuming and demanding; a reason why mothers turn to formula.
- **Nipple and Breast Pain:** prevalent reason amongst participants, including sore and cracked nipples, thrush and engorgement. *From experience, as much as there is bonding, breastfeeding creates some stress. Mamma Mia, the nipple, it's so painful, it's a big reality (P2)*
- **Maternal Insecurity:** Being unaware of certain BF issues (maternal milk supply, pattern of baby feeding) in stilled in security amongst participants.

4. Demand for Appropriate Support/Empowerment

- **Returning Back to Work:** participants emphasised the need for improved workplace facilities to support BF and longer maternity leave.
- **Appropriate Support from HCPs:** tailored antenatal classes to focus more on BF and adequate support from, mainly, midwives.
- **Community Postnatal Care:** participants expressed that having a community service, focusing on BF, would be supportive to mothers, including continuity of care.
- **Overcome barriers to BF in Public:** participants suggested the need for more awareness and designated areas to BF in public.

Discussion

Theory of Planned Behaviour was used as a framework to bring these together to show their complementary influence on BF:



Attitude Towards the Behaviour (BF)

- Maternal Determination Beneficial Attributes of BF
- Perceived Maternal Milk Insufficiency

Subjective Norms (to BF)

- Influence of Family, Friends and the Public
- Influence of HCPs
- Returning Back to the Workplace

Perceived Behavioural Control (of BF)

- Commitment and Demand
- Unwelcome Pain
- Maternal Insecurity

Recommendations

- CPD educational courses related to BF for HCPs
- Pre-natal breastfeeding support programmes
- Community postnatal breastfeeding support initiative
- Research about Maltese fathers' perspectives
- Research about different cultural backgrounds due to the growing multi-cultural society of Malta.

Limitations

- COVID-19 restrictions
- The researcher's profession (a midwife) - positionality and reflective approach documented

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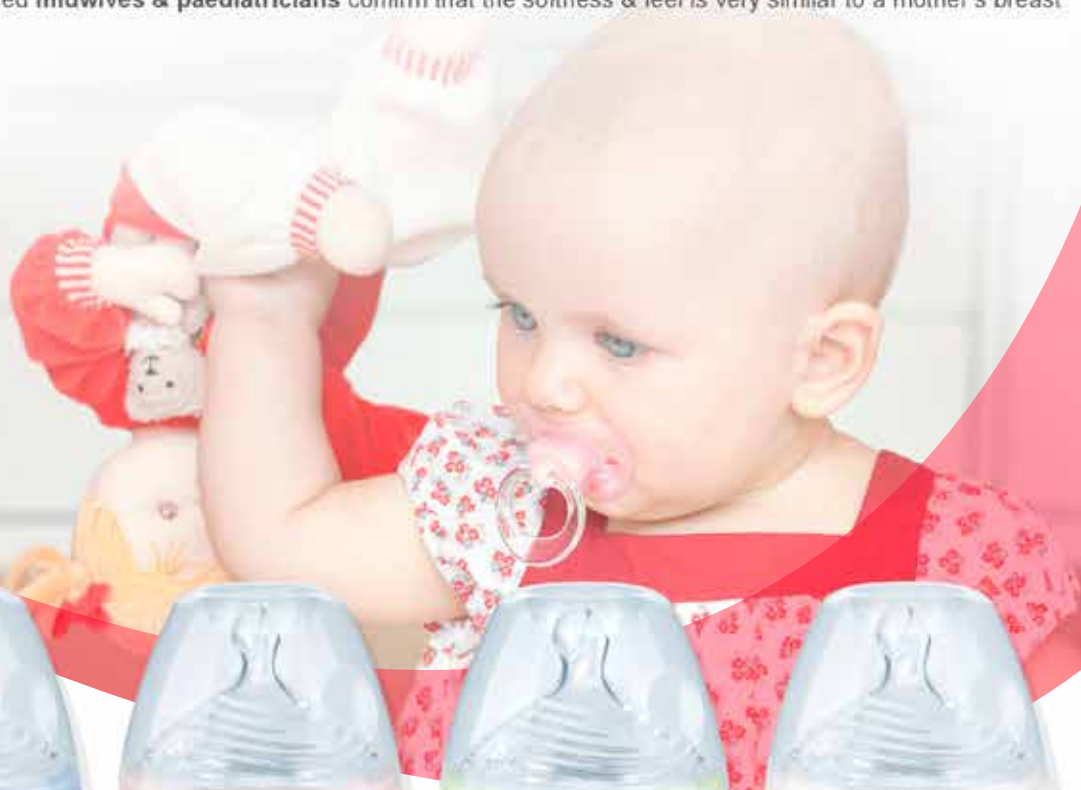
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