Minna Sillantaka

Managing breastfeeding difficulties in a multidisciplinary way involving lactation consultants and osteo-paths

Metropolia University of Applied Sciences

Master of Health Care

Master's Degree Programme in Osteopathy

Master's Thesis

May 2024

Author	Minna Sillantaka
Title	Managing breastfeeding difficulties in a multidisciplinary way involving lactation consultants and osteopaths
Number of Pages	71 pages + 5 appendices
Date	29 April 2024
Degree	Master of Health Care
Degree Programme	Master's degree programme in Osteopathy
Instructors	Senior Lecturer Heini Maisala-McDonnell

Osteopathy is increasingly used to manage breastfeeding when lactation consultation alone does not bring resolution. These difficulties may have neuromusculoskeletal background. The aim of this master's thesis was to explore collaboration between lactation consultants and osteopaths to manage breastfeeding difficulties in a multidisciplinary way. The purpose was to examine the potential of osteopathic care as part of multidisciplinary collaboration.

Qualitative research method was used to explore professionals' perspectives and experiences and envisions for the future. Data was collected through two separate focus group discussions including lactation consultants and osteopaths. Participants were private health care providers, who have worked in the field with multiple years of clinical experience. Four lactation consultants and four osteopaths were included. Each focus group consisted of two professionals from each profession. Focus group discussions offered professionals possibility for multidisciplinary elaboration and provided comprehensive data. Inductive content analysis was used as data analysing method.

Four main themes emerged from the data with additional categories. Main themes were supporting breastfeeding through lactation consultation, evaluation and treatment of baby's physical challenges, aspects and development of multidisciplinary approach, and professionals' reflection of current challenges in the field and envisions for the future. Prevention, knowledge and early interventions were considered the most influential elements of care for breastfeeding difficulties. Lactation consultation was seen as primary care for infant feeding from early pregnancy. Especially in multidimensional difficulties, evaluation and treatment of baby's physical challenges were emphasised to be influential part of care practices. Effectiveness of supporting self-efficacy and breastfeeding confidence with family-centred approaches in biopsychosocial context emerged. Multidisciplinary approach was highly emphasised, and osteopathy was seen an influential part of treatment entity. Medical care was seen an important part of treatment of breastfeeding difficulties, especially when anatomical restrictions like tight lingual frenulum occur. Envisions concluded osteopathy as part of care in maternity hospitals and child health clinics in the future.

The results of this master's thesis bring forth professionals' current perceptions and clinical experiences of management and challenges of breastfeeding difficulties in Finland, where lactation consultation is primarily allocated to public child health clinics. According to the results, private sector services for breastfeeding difficulties are needed, and osteopathic care can enhance the resolution of breastfeeding difficulties together with lactation consultation in multidisciplinary way.

Keywords	breastfeeding difficulties, osteopathy, paediatric osteopathy, lactation consultation, multidisciplinary

Thesis author confirms that the origin of this thesis has been checked out with Turnitin Originality Check-programme.

Tekijä	Minna Sillantaka
Otsikko	Moniammatillinen lähestyminen imetysongelmien hoitamiseen- Yhteistyö imetysohjaajan ja osteopaatin välillä
Sivumäärä	71 sivua + 5 liitettä
Aika	29.04.2024
Tutkinto	Sosiaali- ja terveysalan ylempi ammattikorkeakoulututkinto
Tutkinto-ohjelma	Osteopatian tutkinto-ohjelma
Ohjaajat	Lehtori Heini Maisala-McDonnell

Osteopatiaa käytetään enenevissä määrin imetysongelmien hoitamiseen erityisesti tilanteissa, joissa imetysohjaus yksin ei tuo ratkaisua. Taustalta voi tällöin löytyä tuki- ja liikuntaelimistöön liittyviä syitä. Opinnäytetyön tavoitteena oli tutkia moniammatillista yhteistyötä imetysohjaajien ja osteopaattien välillä imetysongelmien hoitamisessa. Tarkoituksena oli tutkia osteopaattisen hoidon potentiaalia osana moniammatillista yhteistyötä.

Opinnäytetyö toteutettiin laadullisella tutkimusmenetelmällä, jolla tutkittiin ammattilaisten näkökulmia ja kokemuksia imetysongelmien hoidosta sekä tulevaisuuden visioita. Aineisto kerättiin kahdessa eri ryhmäkeskustelutilaisuudessa, joihin osallistui imetysohjaajia ja osteopaatteja. Osallistujat olivat terveydenhuollon yksityisiä palveluntuottajia, joilla oli useamman vuoden kliininen kokemus alalta. Neljä imetysohjaajaa ja neljä osteopaattia osallistuivat aineiston tuottamiseen. Molemmat ryhmäkeskustelut koostuivat kahdesta ammattilaisesta kustakin ammatista. Ryhmäkeskustelut tuottivat kattavan aineiston ja tarjosivat ammattilaisille mahdollisuuden monialaiseen kehittelyyn. Aineisto analysointiin induktiivisella sisällönanalyysillä.

Aineistosta nousi esiin neljä pääteemaa lisäkategorioineen. Pääteemoja olivat imetyksen tukeminen imetysohjauksen avulla, vauvan fyysisten haasteiden arviointi ja hoito, moniammatillisuuden näkökulmat ja kehittäminen sekä ammattilaisten reflektointi alan ajankohtaisista haasteista ja tulevaisuuden visiointi. Ennaltaehkäisyä, tietoa ja varhaista puuttumista pidettiin vaikuttavimpina tekijöinä imetysongelmien hoidossa. Imetysohjaus nähtiin imeväisen ruokinnan ensisijaisena hoitona alkuraskaudesta lähtien. Erityisesti moniulotteisissa imetysongelmissa vauvan kehon fyysisten haasteiden arviointi ja hoito korostuivat vaikuttavaksi osaksi hoitokäytäntöjä. Imetysluottamuksen ja pystyvyyden tukeminen perhekeskeisillä lähestymistavoilla biopsykososiaalisessa viitekehyksessä nousi esiin. Moniammatillisuutta korostettiin voimakkaasti ja osteopatia nähtiin vaikuttavana osana hoitokokonaisuutta. Lääketieteellinen hoito osana imetysongelmien hoitoa nähtiin tärkeänä, erityisesti anatomisten rajoituksien kuten kireä kielijänteen esiintyessä. Ammattilaisten visioissa osteopatia nähtiin tulevaisuudessa osana synnytyssairaaloiden ja lastenneuvoloiden tarjoamaa hoitoa.

Opinnäytetyön tulokset tuovat esiin ammattilaisten tämänhetkisiä näkökulmia ja kliinisiä kokemuksia imetysongelmien hoitokäytänteistä ja haasteista Suomessa, jossa imetysohjausta tarjotaan ensisijaisesti osana neuvolapalveluja. Tulosten mukaan imetysongelmien hoitoon tarvitaan terveydenhuollon yksityisten palveluntuottajien tarjoamia palveluja. Osteopaattisella hoidolla voidaan tehostaa imetysongelmien hoitoa moniammatillisessa yhteistyössä imetysohjauksen kanssa.

Avainsanat	Imetysongelmat, osteopatia, lastenosteopatia, imetysohjaus, moniammatillinen

Tämän opinnäytetyön alkuperä on tarkastettu Turnitin Originality Check -ohjelmalla.

Contents

1 Introduction 6

2 Theoretical background 7

2.1 Breastfeeding 8
2.1.1 Suckling 10
2.1.2 Breastfeeding difficulties 12
2.1.3 Lactation consultation 13
2.2 Osteopathic manual medicine and paediatrics 15
2.2.1 Concepts of osteopathic care 15
2.2.2 Paediatric osteopathy 18
2.2.3 Osteopathic approach to breastfeeding difficulties 21

3 Purpose, aim and research questions 22

4 Methodology 23

4.1 Sampling 25
4.2 Data collection through focus group discussions 26
4.3 Data analysis 28

5 Results 29

5.1 Supporting breastfeeding through lactation consultation 30
5.2 Evaluation and treatment of baby's physical challenges 35
5.3 Aspects and development of multidisciplinary approach 40
5.4 Professionals' reflections of current challenges in the field and envisions for the future 45

6 Discussion 51

6.1 Interpretation of the results 52
6.2 Reflection of methodology 58
6.3 Ethical considerations 60
6.4 Validity and reliability 61

7 Conclusion 63

References 65

Appendices

Appendix 1. Thematic topic guide and guiding questions for focus groups

Appendix 2. Participant Consent Form (Finnish)
Appendix 3. Participant Information Sheet (Finnish)
Appendix 4. Participant Consent Form (English)
Appendix 5. Participant Information Sheet (English)

1 Introduction

Lactation consultation is an effective method to support breastfeeding. Breastfeeding parents need individual guidance, evidence-based information and support to establish and continue breastfeeding. Human milk is bioactive nutrition for an infant, and it has long-term health benefits for both breastfeeding parent and child. (Hakulinen, Otronen & Kuronen 2017: 34-35, 92.) The awareness of positive effects of paediatric osteopathic care has risen among lactation consultants and breastfeeding parents due to experience. Families seek help for feeding problems increasingly. Paediatric osteopathy could provide positive outcome to breastfeeding difficulties, which have neuromusculoskeletal background, that interfere with optimal feeding. (Watts & Lagouros 2020; Lavigne 2016; Kaiser, Degenhardt, Menke & Snider 2020.)

The World Health Organization (2023) recommends breastfeeding exclusively for the first six months. Finnish Institute for Health and Welfare, known as THL, recommends exclusive breastfeeding for four to six months. Majority of birth parents in Finland initiate breastfeeding but stop exclusive breastfeeding during the first months due to uncertainty of milk supply, lack of support and cultural or social issues. (World Health Organization 2023; National Nutrition Council 2019: 63-64; Hakulinen, Otronen & Kuronen 2017: 26.) Latest Infant Feeding Survey conducted in Finland showed that 57% of infants were exclusively breastfed and 94% received human milk exclusively or partially during the first month of life. At four months of age the rate for exclusive breastfeeding was 50% and 15% were not breastfed at all. The rates of breastfeeding, both exclusive and partial, have been increased compared to previous study conducted in 2010. (Ikonen et al. 2020.) Supporting the early stage of breastfeeding and continuation of exclusive breastfeeding until minimum of four months are major challenges in Finland (National Nutrition Council 2019: 64).

Systematic work has been done in Finland to promote breastfeeding and educate its benefits. In 2018 the second national breastfeeding program was initiated by Finnish Institute for Health and Welfare, which purpose was to advance breastfeeding in Finland and standardise lactation counselling in health care services, maternity hospitals and child health clinics. Education of breastfeeding has been increased among health care professionals. (Hakulinen, Otronen & Kuronen 2017.) Baby Friendly Hospital Initiative has been accredited in six maturity hospitals in Finland. Baby Friendly Hospital

Initiative is launched by the World Health Organization and the United Nations International Children's Fund (2018) to promote practices that encourage breastfeeding support for parents and babies. Short hospitalisation after birth reduces possibilities for counselling and support in the early stage of breastfeeding. (World Health Organization and United Nations Children's Fund 2018; Finnish institute for health and welfare 2023b.) Usually breastfeeding difficulties emerge after hospital discharge (Mäkelä, Axelin, Kolari & Niela-Vilén 2023; Hakulinen, Otronen & Kuronen 2017).

Osteopathic evaluation and manual treatment can offer support and encouragement to continue breastfeeding and help to overcome issues including poor latch, suckling difficulties and other symptoms like gas, vomiting, fussiness and infant postural asymmetry (Sergueef 2007; Moeckel & Mitra 2008). Osteopathic research on the subject is limited but shows benefits for supporting breastfeeding (Fraval 1998; Cornall 2011; Herzhaft-Le Roy, Xhingnesse & Gaboury 2017; Greenwood, Engel & Grace 2022). In private practices paediatric osteopaths treat common complaints of infancy and breastfeeding difficulties (Schwerla, Daake, Moeckel & Resch 2021; Kaiser, Degenhardt, Menke & Snider 2020).

Aim of this master's thesis is to explore about collaboration between lactation consultants and osteopaths to manage breastfeeding difficulties in a multidisciplinary way. The purpose is to examine the potential of osteopathic care as part of multidisciplinary collaboration. The outcome is description of professional's experiences. In this master's thesis breastfeeding is examined around neurotypical infant and majority of postpartum dyads, who have inherent capabilities to initiate and continue successful breastfeeding. The consideration is mainly around infant's ability to maintain latch and breastfeeding parent's capacity to provide positional stability.

2 Theoretical background

Traditional term breastfeeding is used in this master's theses with acknowledgement of delicacy to terminology of lactation among parents. Terms parent, breastfeeding parent and lactating parent are used to describe breastfeeding with inclusive approach. Term human milk is used for milk of a lactating parent. Postpartum dyad is used to describe dyadic relationship of an infant and a birth parent.

2.1 Breastfeeding

Successful breastfeeding is unique, individual and multidimensional experience of the lactating parent and the baby and can be considered as one of the first achievements of the neonate (Wolf & Glass 2023: 153; Douglas & Keogh 2017; Colson, Meek & Hawdon 2008). Birth and hospital practices, initiation of breastfeeding, lactation support systems, and variety of psycho-social factors influence on the success of this unique process (Hakulinen, Otronen & Kuronen 2017: 61-68; Mäkelä, Axelin, Kolari & Niela-Vilén 2023; Cohen et al. 2018).

Breastfeeding initiation rate in Finland is high and majority of birth parents plan to breastfeed. This is not enough to ensure unproblematic and effective breastfeeding for many postpartum dyads over time. (Mäkelä, Axelin, Kolari & Niela-Vilén 2023; Ikonen et al. 2020: 28; Douglas & Keogh 2017.) Prevalence of breastfeeding difficulties is eminent. Approximately 30% to 70% of postpartum dyads have breastfeeding difficulties and need support to continue breastfeeding and overcome these issues. Majority of difficulties occur during baby's first moths. (Gianni et al. 2019; Mäkelä, Axelin, Kolari & Niela-Vilén 2023.) Parent's breastfeeding behaviour is influenced by multifactorial and multilevel elements involving psycho-social, social, cultural, medical, physical and emotional aspects. Major influence on maintenance of breastfeeding is support from partner, family and social surroundings. Non-problematic breastfeeding, parent's positive attitude towards breastfeeding and higher self-efficacy predicts longer duration of breastfeeding. (Mäkelä, Axelin, Kolari & Niela-Vilén 2023; Hakulinen, Otronen & Kuronen 2017: 61–64; Pérez-Escamilla et al. 2023.) Main reason for early cessation of breastfeeding is insufficient milk supply, also conceptualised as self-reported insufficient milk (SRIM), and infant's failure to thrive with exclusive human milk. Self-reported insufficient milk (SRIM) implies to a breastfeeding parent's perception of their inadequate supply of human milk which cannot satisfy their infant's hunger and ensure adequate weight gain. (Pérez-Escamilla et al. 2023; Gianni et al. 2019.)

Breastfeeding is brain-based behaviour of the infant, that is regulated by the limbic system and supported and facilitated by the presence of the birth parent. Sucking is one part of this delicate behaviour neonate establishes in postnatal hours. This neurobehaviour of an infant is influenced by the autonomic nervous system, the hormonal system and the somatic system, and it matures along the weeks and infant learns new skills rapidly. Transition to extrauterine life after birth is a major event, which requires

critical adaptation. Infant manages through normal innate behaviour, also called behavioural sequence, to locate breast, self-attach and initiate feeding. Neonatal reflexes guide these behaviours and enable sequence of these events to occur. (Bergman 2023: 49-52; Genna & Rabin 2023: 1-3.) Lactating parent initiates the second phase of lactogenesis after delivery and colostrum is released by the mammary glands. Neonatal behaviour establishes maternal instincts, which are biologically significant for infant's survival. Skin-to skin contact provide safety, communication, touch, stability, and warmth for the neonate and help to regulate different systems. (Pollard 2012: 29; Bergman 2023: 53-54.)

According to Baby Friendly Hospital Initiative recommendations by World Health Organization and the United Nations International Children's Emergency Fund (2018), best practices for successful initiation of breastfeeding are undisrupted skin-to-skin contact immediately after birth, first breastfeeding within the first hour after birth, exclusive breastfeeding at the hospital, rooming-in care, breastfeeding at the pace of the child and dummy-free practices (Wold Health Organization 2018; Hakulinen, Otronen & Kuronen 2017: 85). The breastfeeding family is discharged from the hospital with knowledge of safe signs of adequate breastfeeding which are 8-12 times a day frequency of feedings, proper suckle and swallowing of the milk, adequate quantity of wet nappies and stools daily, and minimum of 20g daily weight gain (Hakulinen, Otronen & Kuronen 2017: 87, Pollard 50, 53-55).

Physiology of lactation starts with hormone driven sequences of lactogenesis I and II and evolves to autocrine controlled lactogenesis III. Lactogenesis I starts during pregnancy when lactocytes produce colostrum, the high bioactive fluid. This phase is controlled by endocrine response and production is inhibited by progesterone, estrogen, human placental lactogen, HPL, and prolactin- inhibiting factor, PIF. Lactogenesis II occurs after delivery and milk production starts after a drop in the levels of inhibiting hormones listed above and increase of prolactin. Postdelivery skin-to- skin contact stimulates the production of prolactin and oxytocin, which establish and maintain milk production and stimulate let-down reflex. Many other hormones assist this finely tuned sequence, but prolactin is the main hormone to regulate milk production of the lactating parent. Lactogenesis III is based on regulation of supply and demand. From early on, frequent milk removal from the breast is recommendable to increase and sustain milk production. The infant should be nursed regularly to enhance the lactation process, otherwise the mammary gland will return to its pre-pregnancy state. Infant's incorrect

attachment and incomplete removal of milk from the breast will build up feedback inhibitor of lactation, FIL, which will lead to a decrease in milk production. Skin to skin- contact, frequent feedings, sufficient suckling and relaxed environment are recommended actions to support lactation. Medical conditions of the breastfeeding parent, like diabetes or obesity and other factors like high maternal stress, can disturb the process of lactation. (Pollard 2012: 29-33, 110.)

There are multiple valuable benefits of human milk, which underline the importance of supporting breastfeeding. Human milk is bioactive and adaptable nutrition. Its properties meet the individual needs of an infant. Human milk consists of water, fat, carbohydrates, protein, electrolytes, minerals, vitamins, and immunoglobulins. It contains multiple factors, which influence gene-expression, microbiome and immune responses. Human milk has personalised immunological benefits to an infant and a growing child and has multiple health benefits to both child and breastfeeding parent later in life. (Victora et al. 2016; Pérez-Escamilla et al. 2023; Pollard 2012: 35-38.)

First weeks and months are most important for lactation support for parent and baby to establish and maintain breastfeeding. Many breastfeeding parents wean during that timeframe due to insufficient social or practical support, difficulties or uncertainties even if they have a wish to breastfeed longer. Sufficient and timely support is essential. (Gianni et al. 2019; Pollard 2012: 174-179 Hakulinen, Otronen & Kuronen 2017: 79, 88-89.) Along with professional support in hospital and child health clinics, breastfeeding parent regards peer support for breastfeeding beneficial. In Finland, Imetyksen tuki ry is the organisation, which offers peer support groups, online chat and networks and support from volunteer peer supporter, who has breastfeeding experience and light education, to breastfeeding parents and families. (Imetyksen tuki ry 2024; Pollard 2012: 178-179.)

2.1.1 Suckling

Infant feeding is a complex activity, which requires coordination and dynamics of sucking, swallowing and breathing, while maintaining proper cardiovascular stability. An infant is unable to breath and swallow simultaneously. Breastfeeding infant removes milk from the breast primarily through intra-oral vacuum. Downward movement of mandible with anterior tongue is creating negative pressure, which enables milk to flow from the

breast to mouth. Positive pressure follows, when the tongue lifts up again to hard palate, nipple is compressed, and flow of the milk is directed to soft palate and pharynx for swallowing. (Geddes & Sakalidis 2015; Wolf & Glass 2023: 153-155.) Nutritive sucking occurs during breastfeeding and non-nutritive sucking is used by the infant during bottle feeding and dummies having different quality, speed and pattern compared to nutritive sucking. (Geddes & Sakalidis 2015.)

Anatomy and function of the infant's mouth is optimal for sucking. The hard palate, soft palate, grooved tongue, flexible lips and cheeks seal the nipple into the mouth. Subtle movements of oral feeding are orchestrated by mandible, hyoid bone, tongue, palate, pharynx, and larynx. Mandible is leading the movement of the anterior and mid-tongue in the beginning of a suck cycle. Intraoral breast tissue and tongue, which is moulding under the breast tissue, fill up the oral cavity and provide stability for the coupling movement of the mandible and tongue. Buccal fat pads, located bilaterally in the cheeks, provide lateral support to oral cavity and stabilise moulding tongue to stay in midline during jaw movement. Activation of suprahyoid muscles and relaxation of masseter and medial pterygoid muscles induce downward movement of the mandible increasing the intraoral space and negative pressure. Symmetrical movement of mandible is achieved by bilateral activation and relaxation of masseter and medial pterygoid muscles. (Geddes & Sakalidis 2015; Genna & Rabin 2023: 2-5; Douglas & Geddes 2018.) Initial nipple feeding requires multiple muscles innervated by cranial nerves. The trigeminal nerve, CN V, and the facial nerve, CN VII, innervate mainly the muscles which seal the mouth around the nipple. Tongue movements are enabled by the hypoglossal nerve, CN XII. The vagus nerve, CN X, and the glossopharyngeal nerve, CN IX, have many motor and sensory influences in feeding activities. (Genna &Rabin 2023: 4-7, 11; Watts & Lagouros 2020.)

Majority of infants have inherent neurobiological properties for breastfeeding when they are born. Primitive neonatal reflexes are observed at birth in neurotypical healthy neonates, and they influence neonate's capability to root, grasp the breast and begin to suckle. Rooting, sucking and swallowing reflexes have been considered to be feeding stimulants, but hands-to-mouth, stepping and crawling reflexes have been observed in term infants during their first hours of life, when held in skin-to-skin contact. Term infant is born between 37 and 42 gestational weeks. (Colson, Meek & Hawdon 2008; Genna & Rabin 2023: 1-3; Smillie 2023: 91-92.) According to Colson, Meek & Hawdon (2008),

activation of maternal and infant instincts has positive influence in initiation of breastfeeding. Semi-reclined maternal postures and maternal comfort interacting with neonatal positioning activates primitive neonate reflexes stimulating breastfeeding and enables the infant to become an active agent controlling the feeding. A concept of biological nursing is based on these inherent capabilities of early suckling skills. (Colson, Meek & Hawdon 2008.) Positional stability facilitates latch and breastfeeding comfort for the baby and the parent. Optimal breast tissue volume is an important part of adequate and pain-free latch, where nipple is near hard palate- soft palate junction at feeding. Understanding the biomechanics of sucking can evolve effectiveness of breastfeeding support and practices. (Douglas & Keogs 2017; Douglas & Geddes 2018.)

2.1.2 Breastfeeding difficulties

Many postpartum dyads are experiencing breastfeeding difficulties, which may influence on early weaning or use of formula. Problems may be related to the breastfeeding parent or the infant or both. Maternal breastfeeding pain, infant's poor latch and abnormal feeding patterns, like long duration or high frequency at the breast are common complaints when having breastfeeding difficulties. These problems may suggest suboptimal attachment and positional instability of an infant. Possible reasons for abnormal infant behaviour should be evaluated to outline medical conditions. (Pollard 2012: 99; Genna & Rabin 2023: 16-17; Gianni et al. 2019; Mäkelä, Axelin, Kolari & Niela-Vilén 2023; Douglas & Geddes 2018.)

Signs of an infant with difficulties at the breast are incorrect latch, back-arching, fussing, refusal to suckle, fatigue, infant's failure to thrive, or difficulties to cope with substantial milk flow. Most common breastfeeding symptoms of the parent include sore, inverted or cracked nipples, pain during feeding, breast engorgement, mastitis and blocked milk ducts. (Mäkelä, Axelin, Kolari & Niela-Vilén 2023; Gianni et al. 2019; Pollard 2012: 82-98). Most frequently breastfeeding parents suspect insufficient milk volume and are concerned over the supply. The baby-friendly hospital initiative did not decrease prevalence of breastfeeding problems and estimation of 30% to 40% of postpartum dyads had breastfeeding problems in two weeks, one month, four months and six months postpartum. The prevalence of breastfeeding problems highlights the need for appropriate breastfeeding support. (Mäkelä, Axelin, Kolari & Niela-Vilén 2023.) Insufficient lactogenesis may occur due to inability to produce milk or due to poor management of breastfeeding problems or sucking technique (Pollard 2021: 85).

Oral-fascial anomalies, structural abnormalities, functional or movement disturbances or maternal factors can interfere the success of latch and adequate milk flow will not follow. Congenital torticollis and ankyloglossia are two common diagnoses related to the baby. Congenital torticollis is unilateral hypertonicity of sternocleidomastoid muscle, which influences on the orientation of the infant's head by positioning it in rotation contralaterally and lateral flexion ipsilaterally. Ankyloglossia, meaning tight tongue- tie, is an anomality, which restricts tongue mobility and function effecting on infant's ability to latch. Surgical operation called frenotomy is used for releasing ankyloglossia, when it is considered to affect infant's feeding abilities. (Wolf & Glass 2023: 165; Genna 2023: 272-274; Genna & Fram 2023: 304-305, 323.) Ankyloglossia is associated with symptoms of suboptimal feeding pattern, low maternal breastfeeding self-efficacy, moderately intense nipple pain and infant gastroesophageal reflux. In symptomatic dyads positive outcomes of frenotomy conclude reduction of maternal pain and improvement of breastfeeding self-efficacy and infant latch. (Cordray et al. 2022; Cordray et al. 2024)

2.1.3 Lactation consultation

In this master's thesis term lactation consultant is used to mean health care professional, who is qualified in lactation consultation. Terminology for lactation consultation and lactation counselling is diverse internationally. Levels of lactation professionals in Finland are lactation counsellor, lactation educator and International Board Certified Lactation Consultant, IBCLC. International Board Certified Lactation Consultant is the highest examination in the field of lactation consultation, which requires renewal every five years. (Finnish Institute and Health and Welfare 2023.)

Professional lactation consultation is an effective method to advance breastfeeding and support parent, who wish to breastfeed. Breastfeeding parents expect evidence-based knowledge, practical and consistent advice, encouragement and emotional support from professionals. Efficacy of lactation consultation is increased by commencement during pregnancy, inclusion of the whole family and appropriate amount of support in postnatal period according to the needs of the family. Lactation consultation targeted to partners increase the probability of longer breastfeeding. Lactation consultant offers support and help to the family to overcome lactation related challenges and continue breastfeeding. Support consists of parental support, education, guidance for positioning, advice and help to process emotional and psycho-social elements involved with breastfeeding. (Pollard 2012: 172-174; Hakulinen, Otronen & Kuronen 2017: 62, 78-

79.) It is important to offer appropriate amount of lactation consultation in child health clinics, especially when family wishes to continue breastfeeding despite persistent problems (Hakulinen, Otronen & Kuronen 2017: 90).

In Finland breastfeeding is at first addressed with pregnant parent and the family at the maternity clinic. Lactation consultation is offered during pregnancy, during and after delivery at the maternity hospital and postnatal ward. Short hospitalisation after delivery adds pressure for hospital staff to help and guide new families in the beginning of their breastfeeding journey. After discharge, breastfeeding support continues in child health clinic where health and growth of the child is being followed individually. It is important that lactation consultation and guidance is consistent in different facilities and the attitude towards breastfeeding and supporting it is positive. In Finland, Child health clinic is the main provider of lactation consultation during postpartum period. In some cities in Finland there are breastfeeding outpatient clinics which offer specified care for breastfeeding difficulties. Education of health care professionals of breastfeeding has been increased in Finland and most nurses in child health clinics have education of lactation counsellor which consist of 20 hours of education of lactation. (Hakulinen, Otronen & Kuronen 2017: 80-91.) Breastfeeding parent has normally uncertainty of adequate milk volume, lack of information about advances of breastfeeding and social pressures to overcome. The role of a lactation consultant is to provide information, support parent's self-efficacy and produce a care plan. (Pollard 2012 :99; Hakulinen, Otronen & Kuronen 2017: 90.)

If breastfeeding challenges persist despite lactation consultation, it has been suggested that there might be a need for wider perspective for care. The probability of neuromusculoskeletal issues of the infant and inability to latch effectively may affect breastfeeding outcome. (Lavigne 2016; Vallone 2023: 347-348.) Lavigne (2016) conducted a cross-sectional survey to investigate lactation consultants' perceptions of musculoskeletal disorders affecting breastfeeding and found out that most (73,9%) of them made referral of infants for musculoskeletal treatment. Neck tension and congenital torticollis were the most identified problems by the lactation consultants. The common issues behind referrals were poor latch due to tongue-tie (27%), painful latch (24%), neck problems (18%) and non-latching (9%). Also, non- specified musculoskeletal issues were referred to musculoskeletal professional because of inefficiency to resolve breastfeeding issue. Majority of lactation consultants (91%) had observed improvement in breast-

feeding after intervention by manual therapy professional. (Lavigne 2016.) Manual therapy professionals, like osteopaths, could be consulted to help solve neuromusculoskeletal complaints, which might affect breastfeeding and infant's ability to latch (Vallone 2023: 348-352; Watts & Lagouros 2020).

2.2 Osteopathic manual medicine and paediatrics

Osteopathy is a form of manual therapy applied by a trained osteopath. In Finland osteopaths are private health care providers registered by Valvira, National Supervisory Authority for Welfare and Health. Basic professional education takes four years to complete with recommendation for constant professional development in postgraduate level. (Finnish Association for Osteopaths 2023.) Osteopathic philosophy emphasises the interrelationship between structure and function of a living organism. Principles of osteopathy underline that a person is a unit of body, mind and spirit and emphasise that the body has self- regulatory, self- healing and health maintenance capabilities. Rational treatment is based upon on the understanding of these osteopathic principles. (Seffinger 2011: 20; Kuchera & Kuchera 1994: 4-7; Carreiro 2009b: 1-3.)

2.2.1 Concepts of osteopathic care

Whole- person approach in osteopathy is considering health within multiple aspects, including physical, mental, emotional and spiritual, although musculoskeletal system is the entering point for osteopathic manual care. Hands-on palpatory diagnosis is used to address somatic signs of altered structural, mechanical and physiologic states within the body's framework and osteopathic manual treatment is applied to body structures, joints, ligaments, muscles, fascia, to improve body mechanics and enhance the health of a whole person. (Seffinger 2011:19-21; Carreiro 2009b: 1-3.) Osteopathic concept expands the view in structural approach to wider consideration of impaired function. Somatic dysfunction, term used by osteopaths, is described as "impaired or altered function of related components of the somatic (body framework) system; skeletal, arthrodial and myofascial structures; and related vascular, lymphatic, and neural elements" in the World Health Organization's Benchmarks for Training in Osteopathy. Qualities of somatic dysfunction comprise tissue texture change, asymmetry, restriction of motion and tenderness. (Kuchera & Kuchera 1994: 16,19; World Health Organization 2010.) Relevance of somatic dysfunction in osteopathy is revised, but this concept is used by osteopaths in clinical surroundings as tissue-touch based communication

tool of palpatory findings and it is integrated to evaluation of the patient (Arcuri & Consorti & Tramontano & Petracca & Esteves & Lunghi 2022; Fryer 2016).

Overall basis of osteopathic care is to restore dynamic homeostasis of the structure and function across a range of systems: musculoskeletal, neurological, vascular, lymphatics, cardiorespiratory with acknowledgement and consideration of biopsychosocial elements. Five osteopathic models summarise this concept on clinical interpretation and formulation of treatment plan. First model is biomechanical model, which views the patient from somatic perspective including body's structure, postural mechanism, motion and balance. Connective tissue, musculoskeletal system, joints and their networks are seen as dynamic entity and somatic alterations can lead to imbalance of this mechanism influencing proprioception, neural, vascular, metabolic or behaviour functions. (Seffinger 2011: 5,14, Carreiro 2009b: 2.)

Tissue stress interfering with lymphatic, arterial and venous drainage can affect tissue health. The second model is respiratory-circulatory model, which views effectiveness of respiration and circulation of intracellular and extracellular environments through supply of oxygen, nutrients and removal of waste products. Congestion and oedema are clinical signs of insufficient fluid drainage in the tissues. Clinical interventions within this model address dysfunction in respiratory mechanics, circulation, and the flow of body fluids as well as pulmonary and cardiovascular functions. (Seffinger 2011: 5-6, 14, Carreiro 2009b: 2.) Effectiveness of autonomic balance, sensory processing, neural integration and control and central and peripheral nervous function are viewed in the third model, which is neurological model. Impairment of neural functions can cause variety of responses in the body's framework and processes including in the neuroendocrine immune network. Interrelatedness between the musculoskeletal and visceral systems through autonomic nervous system is emphasised. Clinically, the aim of the treatment is to reduce mechanical stresses, balance and restore neural input and decrease nociceptive drive. (Seffinger 2011: 6,14; Carreiro 2009b: 2.)

The fourth model, metabolic-energy model, views metabolic processes of energy production, distribution and expenditure and endocrine and immune regulation within the body. Immune responses like repair of injuries and response to infections are vital processes of the body to maintain health. This model emphasises, that adaptation to various external and internal stressors and maintenance of balance and health within the body require energy through proper nutrition. Improving body's metabolic processes,

with any influencing component like posture, motion, fluid drainage or emotions, enhance health in the whole system and alleviate inflammation and infection, repair functions and endocrine control and influence homeostatic adaptive response. (Seffinger 2011: 6-7, 14; Carreiro 2009b: 2.)

The fifth model is behavioural psychosocial model, which emphasises psycho-social, social, cultural, behavioural, mental, emotional, and spiritual aspects of human being and the whole person. Activity, lifestyle choices, social support systems and environment of the person are under the scope in this fifth model. Traumatic events, stressors, social barriers, inactivity and belief systems can influence persons health status in multiple ways and somatic framework, the musculoskeletal system, can accumulate reactions to these biopsychosocial factors. The behavioural psychosocial model recognises that assessment of patient's overall state is important in osteopathic clinical practice. Neuromusculoskeletal manifestations of these multiple factors can guide osteopathic assessment and treatment into more global understanding of the source and influences of the problems in this individual. (Seffinger 2011: 7, 14; Carreiro 2009b:2.)

Osteopaths apply diverse osteopathic manual techniques to patient's body to improve physiological function. In clinical practice, principles of osteopathy are applied, osteopathic treatment is individually tailored, and structures of osteopathic findings are treated during the session. According to principles of osteopathy, the location of affecting dysfunction can be away from the complaint area so the structure and function of the whole body should be addressed to identify influential restrictions and support body's inherent capabilities to self-regulation and homeostasis. (Seffinger 2011: 18-21.)

During the treatment session, variety of concerns of the patient are discussed and wider perspective to emotional and social domains might be addressed, including for example habits, beliefs, motivations and fears. General health education, exercise advice or referral to other healthcare professional are part of the practice, when needed. Osteopathic clinical practice consists of multiple aspects, which are relevant to patient-centred care and they are applied according to situation. (Seffinger 2011: 19-20.) Soothing therapeutic touch in osteopathic clinical practice is proposed to have a significant role in efficacy of manual interventions. Touch is proposed to advance interaction and communication between an osteopath and a patient which further establishes therapeutic alliance, develops agency and enhances reassurance. Touch has physiological

influences in allostatic and homeostatic regulation which enhances well-being and adaptation beyond the musculoskeletal framework. (Gessa, Greaves & Draper-Rodi 2024; McParlin, Cerritelli, Friston & Esteves 2022; McGlone, Cerritelli, Walker & Esteves 2017.)

2.2.2 Paediatric osteopathy

Paediatric osteopathy is a field of general osteopathy which focuses on treating infants and children with osteopathic manual treatment. Paediatric osteopathy is characterised by gentle manoeuvres, understanding of development and growth of a child and presence and communication with a child and parents. Aim of the treatment is to restore balance and wellbeing in the body. (Sergueef 2007; 138-139; Moeckel & Mitra 2008: 5-6.) Common health concerns of paediatric patients are idiopathic infant asymmetry, plagiocephaly, excessive crying and feeding and sleep disorders (Schwerla, Daake, Moeckel & Resch 2021; Kaiser, Degenhardt, Menke & Snider 2020). Indication of favourable effects of osteopathic manual treatment for paediatric conditions is increasing but more research is needed (Franke, Franke & Fryer 2022).

The involvement and impact of osteopathic concept of somatic dysfunctions in symptoms characteristic for infants has been under discussion in osteopathic medicine. Viola Fryman, one of the pioneers in paediatric osteopathy, published research in 1966 where she explored the possibility of a relation between symptomatology in newborn infants and anatomic-physiologic disturbances of the craniosacral mechanism. Among 1250 examined infants, asymmetry and disturbance in craniosacral mechanism was found in 1097 of them with varied symptoms. (Frymann 2000: 15.) Strains in sphenobasilar synchondrosis, occipital condylar compression, restriction of motion of temporal bone and somatic dysfunctions in cervical, thoracic, lumbar or sacral area in infants are common findings in osteopathic assessment (Pizzolorusso et al. 2013; Waddington, Snider, Lockwood & Pazdernik 2015; Tobey & Kozar 2018).

One single-blinded randomised controlled trial by Herzhaft- Le Roy, Xhingnesse & Gaboury (2017) has been conducted of efficacy of an osteopathic treatment coupled with lactation consultation for infants' biomechanical sucking difficulties with promising results. In the research, one osteopathic assessment and treatment or sham treatment with light touch was given to participants coupled with two lactation consultation for parental support and positioning. The latch, audible swallowing, type of nipple, comfort,

hold, LATCH, score was used for biomechanical assessment of breastfeeding and visual analogue scale, VAS, for pain. In the treatment group the post-intervention LATCH score improved compared to control group suggesting that single osteopathic treatment coupled with usual care as lactation consultation is more effective than usual care only to improve latch and sucking capabilities of infants with biomechanical sucking difficulties. Nipple pain did not differ, but breastfeeding parents reported statistically significant difference on infants' ability to open the mouth, nipple biting and slipping a nipple in the intervention group. (Herzhaft- Le Roy, Xhingnesse & Gaboury 2017.) A limitation of the research was that only one osteopathic treatment was provided to the participants in the intervention group. Clinical practice and literature suggest more than one intervention of osteopathic treatment for solving breastfeeding problems. (Herzhaft- Le Roy, Xhingnesse & Gaboury 2017; Cornall 2015; Greenwood, Engel & Grace 2022.)

A retrospective case series by Greenwood, Engel & Grace (2022) has been conducted to evaluate effectiveness of osteopathic intervention of postpartum dyads with breastfeeding difficulties. Eighteen postpartum dyads were included who had breastfeeding difficulties as primary reason for seeking osteopathic care. Nine out of them had frenotomy background with persistent breastfeeding difficulties. Pre- and post- intervention visual analogue scale, VAS, and breastfeeding self-efficacy scale, BSES-SF, scores were interpreted, and major improvements were found. Results indicate that osteopathy has potential to improve both breastfeeding functions and breastfeeding parent's confidence to breastfeed, especially in postpartum dyads at risk of early ceasing. Improvement in infant's ability to latch and maintain latch, maternal pain at the breast and decrease of noise, like clicking sound, during feeding were found. Average of five osteopathic treatments were applied for infants under 10 weeks of age. All participants were breastfeeding post-intervention with confidence and ability to continue breastfeeding. Secondary outcome of the research was to record musculoskeletal dysfunctions. Signs of tissue tension and potential discomfort were show at the cervical and occipital, facial and cranial regions in all those infants. Dysfunction in the hyoid, palatine, temporal, mandibular and/or pelvic regions were shown in eleven of the infants. Osteopathic intervention had no adverse events reported, which indicate safety of the treatment. The research was conducted in only one clinic in Australia and the interventions were performed by one osteopath, which influence the generalisation of the results. (Greenwood, Engel & Grace 2022.) Musculoskeletal findings of the research are consistent with osteopathic research by Pizzolorusso et al. (2013), Waddington, Snider, Lockwood & Pazdernik (2015) and Tobey & Kozar (2018).

A double-blinded randomised controlled trial conducted in neonatal hospital in France by Jouhier et al. (2021) suggest that osteopathic manipulative treatment does not improve exclusive breastfeeding at one month. Inclusion criteria were suboptimal breastfeeding behaviour, maternal cracked nipples or maternal pain. 128 postpartum dyads, who wished to exclusively breastfeed, were randomised and divided into two groups. Two early osteopathic treatments were performed to neonates eligible to the study, for control group treatments were performed to a doll. The first intervention was done at discharge from the hospital and the other 7 days later at the age between 9 to 11 days. Interventions were performed behind a screen and the parents were blinded. Osteopathic manipulative treatment was performed to an undressed infant on muscles, bones or viscera without details of individuality of the treatment based on findings nor used techniques. There was no statistical difference of exclusive breastfeeding between the groups. No adverse events were found. The intervention group had more risk factors of predisposing factors, like use of nipple shields, milk supplements during the hospitalisation, birth through caesarean section and non-optimal breastfeeding behaviour. (Jouhier et al. 2021.)

Osteopathic clinical intervention is a cycle of therapeutic entity. There are multiple factors influencing the breastfeeding postpartum dyad and influential treatment requires adequate amount of time, support and repetition of manual treatment. Osteopathic intervention might influence on parent's breastfeeding confidence and ability to breastfeed and infant's ability to latch and maintain latch. (Cornall 2015; Greenwood, Engel & Grace 2022.) Cornall (2015) developed a theory of "Promoting optimal breastfeeding through the osteopathic therapeutic cycle" in her doctoral dissertation. The core problem was a struggle with breastfeeding satisfactory among breastfeeding parents with contributing factors of facing uncertainty and distress. In the clinical surrounding, the paediatric osteopath is described to take a dynamic multi-dimensional integrative approach to breastfeeding dyad by underpinning individual care and building good practitioner- patient relationship. In addition to osteopathic manual treatment applied to the baby, osteopath is building parental confidence and self-efficacy towards breastfeeding by implementing different strategies and discussion. Osteopathic therapeutic cycle by Cornall (2015) consists of four categories, which are connecting, assimilating, rebalancing and empowering. These categories are enacted individually in clinical practice. Importance of therapeutic alliance and touch rises also in these categories. Touch-based practices in paediatric care are suggested to have broad influence in neurobio-

logical and social bonding, which can influence positive feedback loops also in postpartum dyad and family-centred care. (Cornall 2015; McParlin, Cerritelli, Friston & Esteves 2022; McGlone, Cerritelli, Walker & Esteves 2017.)

2.2.3 Osteopathic approach to breastfeeding difficulties

Osteopathic assessment and treatment of breastfeeding difficulties are described in osteopathic literature with anecdotal and clinical experience-based evidence (Watts & Lagouros 2020; Cornall 2011; Carreiro 2009b 74-76). In this master's thesis, osteopathic approach to breastfeeding difficulties is considered from infant's perspective with the recognition of influence of parent- related issues enhancing optimal and effective breastfeeding for postpartum dyad (Conaway & O'Donnell 2021; Carreiro 2009b:76).

From osteopathic perspective, infant's inability to maintain latch or generate sufficient intra-oral pressure may result from deficits of neuromusculoskeletal system in areas relating to feeding. Latch problems arise from infant's insufficiency to open the mouth wide and failure to create a seal around the nipple. Infant's posture, restrictions of movement and positional difficulties at the breast may influence proper attachment and sucking abilities. (Watts & Lagouros 2020; Carreiro 2009b: 74-76; Cornall 2011.) In osteopathic literature, predisposing factors of insufficient sucking pattern are intrauterine constrains or uncomfortable positioning and trauma during delivery, which may lead to musculoskeletal strain and torsions. These strains presumably cause compensatory patterns and elements to other structures in the body and may compromise normal postnatal functions. (Frymann 2000: 3-5,193; Moeckel & Mitra 2008: 27; Cornall 2011; Watts & Lagouros 2020; Sergueef: 94-97; Carreiro 2009a: 137.)

Multiple myofascial structures are involved in normal and effective sucking pattern, and their functions are coordinated by the nervous system. Different characteristics of dysfunctional sucking pattern are evaluated in osteopathic approach. Osteopathic consideration involves addressing impairment in muscles stabilising the tongue, mandible and hyoid bone and the possibility of entrapment of the cranial nerves innervating them. Multiple cranial nerves have an influence on sucking and swallowing functions as they coordinate oral functions and sensory input as well as muscles in face, anterior neck and pharynx. (Watts & Lagouros 2020; Carreiro 2009b: 74-76; Moeckel & Mitra 2008: 27; Sergueef 2007: 273-275.)

Overall tone of the autonomic nervous system is part of osteopathic consideration as is the evaluation of infant's ability to coordinate breathing while feeding. Tension and functional asymmetry in muscles relating to breathing are assessed and treated. Cranial base strain patterns, dysfunction at the cranio-cervical junction or torsion of cranial bones may irritate cranial nerve function and symptoms like weak sucking, asymmetry, coordination difficulties or poor muscle tone may occur. Treatment comprises of cranial base, cranio-cervical junction, cervical spine, upper torso, thoracic outlet and shoulder as well as pelvic area and hips. (Watts & Lagouros 2020; Carreiro 2009a: 98-99; Carreiro 2009b: 74-76; Frymann 2000:3-16; Sergueef 2007: 277-278.)

According to osteopathic principles, treatment is applied according to individual findings. While osteopathic manual treatment is based on complaint of the patient, anamnesis, consideration of aetiology, differential diagnosis, passive and active movements and palpatory findings, there is no treatment protocol for breastfeeding difficulties. Osteopathic evaluation is guided by motion testing and palpation to find compromised areas in the somatic framework. Myofascial tone and texture of tissue are assessed as well as the state of the autonomic nervous system. Motion and ability to move in normal range is one of the key components of osteopathic consideration, manual evaluation and treatment. Asymmetry or restriction of motion are addressed, and an osteopath will attempt to determine, which of the findings are primary or secondary problems. Treatment has to be applied within the complexity of the problem. (Seffinger 2011: 4-7, 19-21; Carreiro 2009b: 2-3.) Osteopathic approach emphasises cooperation with lactation specialist and osteopathic evaluation and treatment, when infant's ability to latch is compromised and problems persist despite lactation consultation (Herzhaft-Le Roy, Xhingnesse & Gaboury 2017; Carreiro 2009b: 76; Watts & Lagouros 2020; Cornall 2011).

3 Purpose, aim and research questions

Aim of this master's thesis is to explore collaboration between lactation consultants and osteopaths to manage breastfeeding difficulties in a multidisciplinary way. The purpose is to examine the potential of osteopathic care as part of multidisciplinary collaboration.

There are two research questions

1. What are experiences and perceptions of lactation consultants and osteopaths in managing breastfeeding difficulties in a multidisciplinary way?

2. What kind of collaboration could be envisioned?

4 Methodology

The master's thesis was conducted with qualitative research method. In qualitative method, the purpose is to seek in-depth meaning and understanding of the topic with interpretation and experience of the participants. The aim of qualitative study is not generalisable results but development of deeper understanding and extension of perspective of chosen phenomenon. Qualitative data is generally comprised of non-numeric elements in textual, visual or audio form, which allows emergence of themes and patterns during analysis. (Moser & Korstjens 2017; Korstjens & Moser 2017; Creswell 2014: 4, 17.) The findings of qualitative study may help to identify hidden problems, generate working hypothesis and can further bring forth essential research needs from the field (Doyle et al. 2020; Neergard, Olesen, Andersen & Sondergaard 2009).

Qualitative research method was chosen for this master's thesis. Qualitative research method is suitable for studying health care-related phenomena, relevant clinical issues and professionals' perceptions and experiences of the topic under exploration. Qualitative method with pragmatic and naturalistic perspective was adapted. Hence, the phenomenon was studied in a natural setting with a selection of methods which best answered the research question and had practical orientation to the research problem. (Bradshaw, Atkinson & Doody 2017; Doyle, McCabe, Keogh, Brady & McCann 2020; Creswell 2014: 10-11.) Applied qualitative method was used to focus on improvement of quality and contributing change for all practical purposes rather than building theoretical or conceptual understanding. The findings of this master's thesis are presented as description of the experiences expressed in uncomplicated language. (Doyle et al. 2020.)

Qualitative method is described to be emergent and flexible, because of its responsive nature. It is common in qualitative method to identify research interest from existing knowledge and clinical experiences, and seek interpretation of participants' experiences. The researcher is seen to have a participatory position in the process. (Merriam & Tisdell 2015: 15-18; Kim, Sefcik & Bradway 2017.) Philosophical underpinnings of

qualitative method include inductive process, subjectivity, designed to develop understanding and describe phenomenon, active role of researcher, an emic stance and natural setting. The main indication for the generic qualitative method is development of understanding and description of phenomenon, not formulation of theory. Data collection in natural setting involves participants, who possess experience of the studied phenomenon. Inductive process is applied to describe the phenomenon under investigation, add knowledge or it can be used to build a framework. In qualitative method data is generally inductively analysed with content analysis method. Researcher is recognised to be a part of the process with active role, as the researcher interacts with participants directly during data collection. Subjectivity indicates understanding that every participant, including the researcher, has their own valuable and subjective perspective in the process. The emic stance is the insider's perspective, which means the participants' perspectives, culture and words are utilised as a starting point. Influences of the researcher are taken into consideration, because subjectivity and interpretation may occur during data analysis. Analytical process and presentation of findings aim at remaining close to the data and staying true to the participants. Methodological selection contains data collection through focus groups or interviews with open-ended questions. Purposeful sampling strategy is generally used to achieve richness of insights. (Merriam & Tisdell 2015: 14-21; Bradshaw, Atkinson & Doody 2017.)

Review of literature was used to construct theoretical background and context of the topic. It offers critical, objective and encompassing analysis of the current state of knowledge and practices. Literature review helps identify patterns and define gaps in the current research and offers insight for development of extensive research questions. (Baker 2016; Creswell 2014: 28-29.) Broad and open research question regarding experiences and perceptions of participants was formed to study the topic according to the nature of qualitative research method. Qualitative research questions are formed with what, how or why to enable exploration of the topic. (Korstjens & Moser 2017; Doyle et al. 2020; Neergard et al. 2009.) Focus group discussion was chosen as data collection method as it allowed the participants from two disciplines to discuss the observations, practices, possibilities and possible advantages of collaboration. The discussions provided data with extensive insights, deep knowledge and clinical experience from the field from multidisciplinary perspective. Data was analysed with inductive content analysis. (Hennink & Leave 2014: 1-4; Neergard et al. 2009.)

The aim of this master's thesis was to explore the topic through the participants' clinical observations and experiences of managing breastfeeding issues in a multidisciplinary way. Expectation was to broaden the view of the topic and discover perspectives and experiences from the participants' point of view. By choosing qualitative research method the author was able to induce professionals' experiences and meet the requirements of the aim and purpose of this master's thesis.

4.1 Sampling

Information providers in this master's thesis were lactation consultants and osteopaths from private sector. Selection of participants was done discretionarily with purposeful sampling to gain profound and representative data of the topic. Purposeful sampling is essential, when the topic is narrow, and studied in a field of limited number of professionals. Selection of participants was guided by the author's judgement of potential and knowledgeable professionals, who could be representatives of their fields. (Moser & Korstjens 2018; Leavy 2017: 79-80.) The inclusion criteria were broad professional knowledge, specialisation and extensive clinical experience on the subject of lactation consultation or paediatric osteopathy, or both, and interest in developing practices and working in a multidisciplinary way. At least four years of clinical experience was required. Location was not part of the criteria, but rather participants were recruited throughout Finland.

The search of eligible participants was done based on author's knowledge and searching online. Snowball sampling was another sampling method planned for recruiting, if needed. Snowball sampling means that existing participants refer new participants to the study, based on their connections and knowledge (Holloway-Wheeler 2010: 141). According to the sample plan, four lactation consultants and four osteopaths, who met the inclusion criteria, were recruited. The sample size of eight participants was considered to allow saturation of the data to emerge based on data collection method. Saturation is a point in the qualitative data collection process, after which collection of new data does not generate new insights of the topic (Creswell 2014: 189; Moser & Korstjens 2018).

Informants were contacted directly by email with invitation to participate, general information on the study, and a participant information sheet (Appendix 3). All informants participated as private health care providers, which enabled participants to decide their

involvement in the study with group discussion setting. Written consent (Appendix 2) was signed by all participants before data collection, which confirmed acceptance for participation. Due to high interest of invited participants, snowball sampling method was not needed. The final two groups were assembled based on convenience of time for online group discussion. The author proposed different time frames for participants by email and discussions were arranged according to suitable collective time among the accumulated groups. Educational background of lactation consultants comprised midwife or nurse with additional education for lactation consultation in level of International Board Certified Lactation Consultant, IBCLC, lactation educator, and lactation counsellor. All participated lactation consultants had some level of knowledge of bodywork, such as reflexology and baby massage. All participated osteopaths had additional education for lactation consultation in level of lactation educator or lactation counsellor.

4.2 Data collection through focus group discussions

Data collection was conducted through focus group discussions facilitated by the author with the assistance of thematic topic guide (Appendix 1). Focus group is a qualitative interview method, where selected participants are interviewed together in a group setting. Focus group discussion was selected because of its effectiveness in exploring less-researched topics, and because the intention was to gather a wide diversity of data and extensive variety of perspectives and experiences. (Hennink & Leave 2014: 1-4, 16; Creswell 2014: 190-191.)

Strength of this method is possibility to collect a considerable amount of data in limited time. Flowing interaction, information sharing and reflection between the participants allowed the topic to be reviewed and scrutinised pervasively. Limitations of the method include ineffective and fledgling facilitation, which can lead to unfocused and superficial discussion, issues with group dynamics, preparation of the groups and finding suitable time for all the participants in a convenient manner. (Hennink & Leave 2014: 30-33.) Success and dynamics of the focus group discussion can be influenced with good facilitation. Good facilitation can deepen the conversation and gain depth from responses and dialogue. Discussion guide is normally designed to assist facilitation. (Hennink & Leave 2014: 69-70, 48.) All these characteristics were thoroughly evaluated before the discussions, and plans for avoiding them were designed. The author prepared for the group discussions by learning about facilitation techniques in advance. The thematic

topic guide (Appendix 1) was designed with broad variety of open-ended questions to assist facilitation of the discussion and encourage its fluency.

In the focus group discussions, the intention was not to find consensus of the topic but rather create space for comprehensive discussion around it. Focus group discussion as data collection method provided unique space and platform for discussion between the participants who had shared experiences in the field. In a multidisciplinary setting this method offered a diversity of experiences and perspectives, and also allowed new inspiration and comprehension to emerge. (Hennink & Leave 2014: 1-4.) The collected data was clinical, experience-based information which was elaborated with professionals through their experiences of practices, challenges and necessities in the field of the breastfeeding support.

All data was collected by the author. In the group discussion, the author had a role as a facilitator. The facilitator used neutral communication within the group with minimal responses and non-reflective listening. (Fern 2001: 81-82.) It is important for the facilitator and author to recognise and be self-aware of possible influence on the data (Elo, Kääriäinen, Kanste, Pölkki, Utriainen & Kyngäs 2014). The facilitator intervened the discussions at two points: in the beginning, to start the conversation, and in the middle, to stimulate the discussion and push the topic beyond what was already being discussed (Hennink & Leave 2014: 71). The facilitator did not have to uphold equal dialogue between participants or ensure that everybody had a say, as the group dynamic in both groups allowed space for all participants to be involved in the interaction. Dialogue was responsive and the participants were interested in following the others' speaking turns. Normal reaction was mutual understanding and confirming responses, which indicated congruent thoughts of the participants.

Both group discussions were executed in Zoom-meetings. Zoom-meetings offered easy access to the participants and enabled recruitment around Finland. This may have helped recruitment and saved participants' time and effort to participate and gave them comfortable space to be involved. Meetings were recorded by Zoom. The cameras of participants and facilitator were on, because of the aim to mimic dynamic and reflective real-life discussion between professionals. It enhanced fellowship among the group and eased following and facilitation of the discussion. Both discussions were held in Finnish, as all participants and the author were Finnish. Only spoken words were analysed.

The participants were divided into two groups of two lactation consultants and two osteopaths. Equal quantity of professionals in both groups provided versatile communication between participants and both professions. The group size of four allowed everyone to have enough time and space for communication. Both online group discussions continued for approximately 60 minutes and included active and vivid dialogue. Both discussions were held in May 2023 in separate dates.

4.3 Data analysis

The data was analysed by using inductive content analysis. The research questions guided the analysis and allowed themes to emerge from the data. Inductive content analysis is a systematic, exploratory and flexible approach to reduce the data. The aim is to describe meaning of the collected data by classifying the material. General concepts, most relevant themes and categories are derived from the data. (Schreier 2012: 5-9; Thomas 2006.) The inductive approach for analysis consists of three main processes: preparation, organisation and reporting of results. The result of inductive content analysis is description of most important themes and categories. (Elo et al.2014; Thomas 2006.) In inductive content analysis, coding themes and categories are created from actual phrases and meanings in the data. Phrases are used to collect specific themes and segments of the text, which are then categorised and reduced for overlapping. After completion of analysis there should be approximately three to eight main themes or categories. (Thomas 2006; Schreir 2012: 107.)

Data recorded by Zoom was transcribed attentively, which allowed appropriate familiarisation of the material. The language of the discussions was Finnish, and the verbal transcription was done accordingly. The data analysis was conducted in Finnish to control linguistic variables and ease the analysis. The results and quotations were translated to English by the author for the final report. The analysis of the transcripts started with multiple readings of the material to become familiar with the raw data. Data reduction process started by using research questions to identify topics to be investigated. Prior expectations and interpretation of the author was avoided by using participants expressions when conducting the analysis. After completion of analysis, four main themes were identified with associated categories.

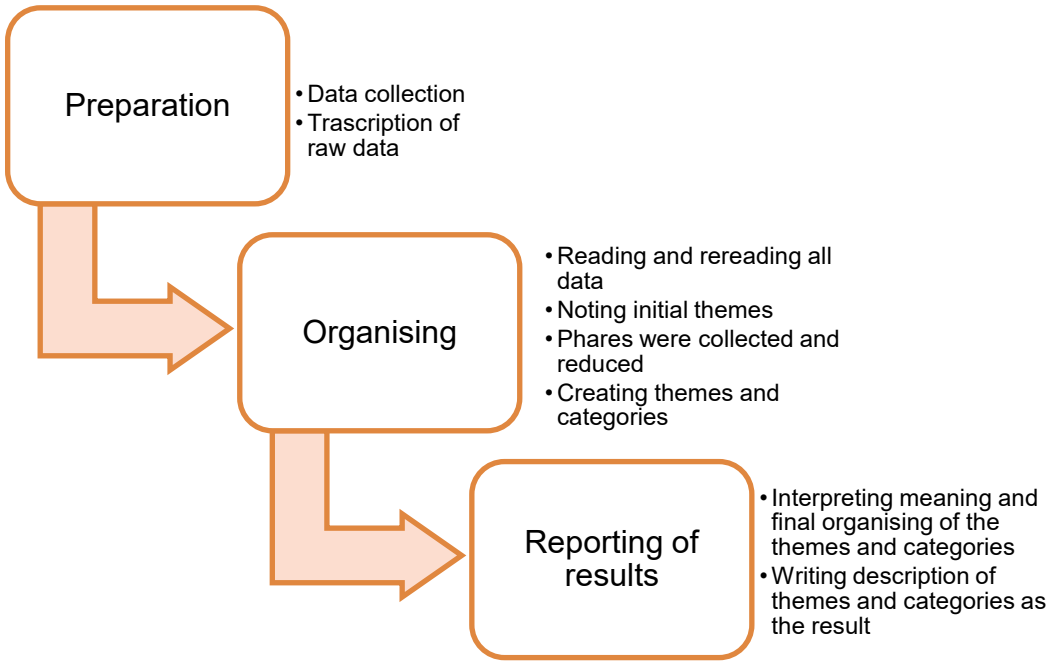

Illustration1. Description of inductive content analysis process

The author created results by identifying themes and categories, which rose from the data. Sorting and naming of the themes and categories were done by the author alone which may have influenced the result. Trustworthiness of the content analysis was pursued by describing the process sufficiently so that reader can follow the analysis and valuate its strengths and limitations. (Elo et al 2014; Elo & Kyngäs 2008.)

5 Results

The data collected from two focus group discussion were analysed with inductive content analysis. Four main themes came to prominence from the data. The themes were supporting breastfeeding through lactation consultation, evaluation and treatment of baby's physical challenges, aspects and development of multidisciplinary approach and professionals' reflections of current challenges in the field and envisions for the future.

5.1 Supporting breastfeeding through lactation consultation

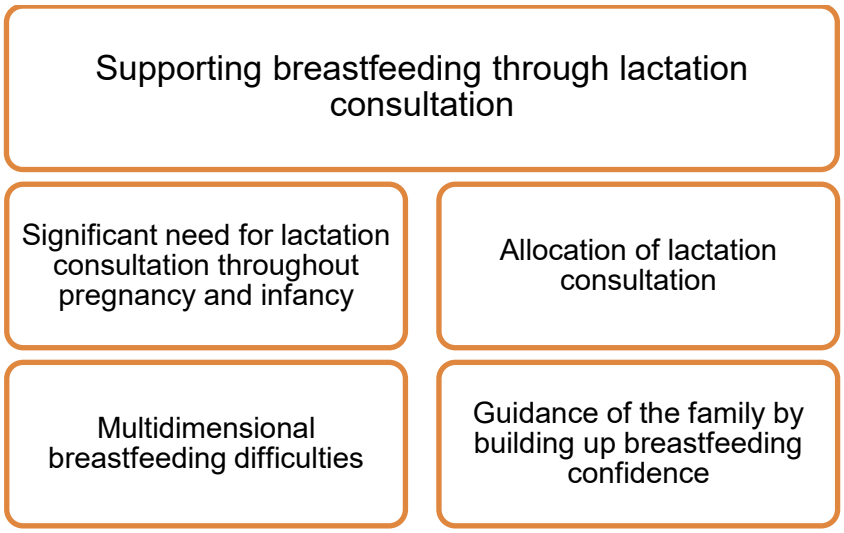

Illustration 2. Categories of theme supporting breastfeeding through lactation consultation.

Lactation consultation was seen as an essential part of health services for breastfeeding families. According to the data, lactation consultation is needed throughout pregnancy, during first days of breastfeeding in maternity hospital, and throughout infancy. The results showed a necessity of comprehensive lactation consultation which should address each family's individual challenges. Families' needs for personal, targeted support for their breastfeeding path and difficulties were considered significant. It was emphasised that lactation consultation is important for the whole family.

In-depth lactation consultation during pregnancy came to prominence in the discussions, especially with families expecting their first-born. It was seen that knowledge increases families' and breastfeeding parents' ability to succeed in breastfeeding.

> Lactation consultation should definitely be included in great depth in preparation and coaching during pregnancy, especially because the perspective of pregnant first-time parents reaches no further than childbirth. Beyond that, there is nothing. I do not know how much it can be affected, but at least we should try to offer broad and in-depth breastfeeding guidance during pregnancy.

> Lactation consultation is needed by everyone even before they are involved with the baby, already in pregnancy.

It was seen that early discussion on breastfeeding with the family during pregnancy is substantial. In the experience of participants, families and pregnant parents generally are interested in initiation of breastfeeding, but the lack of discussions with professionals may lead to unpreparedness.

> Many may be interested but they do not really…, or they are, or not…, like the most important thing is, the baby is born, and everyone is healthy, and here we are now. Definitely breastfeeding guidance during pregnancy, I agree.

> It is very common, too, that one will breastfeed if it only works out. They have the idea, but then they do not give any more thought to it, so indeed, early enough and at an early state of pregnancy we should start to talk about these things and awaken families to this subject.

Alternatively, family's expectations can be contradictory.

> It is very common to hope that both will be able to participate in feeding the baby.

Prenatal lactation consultation that emphasises specifically the first days of a neonate, and possible challenges during those days, rose as a special focus target. During pregnancy, the amount of interest in preparing for breastfeeding may be limited, which is why this scope on the first days could help families prepare for the initiation of breastfeeding, and possible challenges related to that period.

> I think that it is important to talk about those very first days of breastfeeding if we, like, during pregnancy we talk about those first days after childbirth, and what challenges there are concerning breastfeeding.

Lactation consultation in maternity hospital has a significant role after birth to help families initiate breastfeeding and overcome first possible obstacles. It was seen as a significant moment to support breastfeeding family to get on the right track from the beginning and prevent problems.

> When the babies are born, also there in the maternity hospital, they should have time to focus on the matter, so as to get such a start, that it begins to proceed the right way.

Allocation of lactation consultation rose from the discussion and was considered from the aspects of poor attachment and latch, symptoms of ineffective breastfeeding, family

and sick baby. Professionals articulated that they are guided by the breastfeeding wish of the family. That is always the framework of consultation.

There is a need for lactation consultation related to poor attachment and latch. In these situations, a baby's ability to hold latch and attach might be related to function or anatomy of the mouth. In some situations, it might be the professional who detects the problems in breastfeeding. In others, the family may have an impression of breastfeeding not going expectedly, which should then be evaluated by professionals.

> Lactation consultation, in my opinion, is needed at the point when the parents think there is a problem, or I notice there is a problem, even if there is no pain and weight is gained, but I notice there might be a challenge, for instance in the position of the mouth, or latch, or something like that.

> Lactation consultation is needed as soon as there is a challenge with it. Whether it is pain, or posture challenge, or whatever, lactation consultation should be gotten right away in order to get the best possible start and so that it would also remain good.

> A professional's eye spots things that the family may not even consider a problem.

Lactation consultation related to symptoms of ineffective breastfeeding comprises situations where breastfeeding parent has breastfeeding pain, baby is unsatisfied, breastfeeding is laborious, baby has insufficient weight-gain, baby has pain or there is something pathological in the background.

> Basically, people who come to my clinic are looking for lactation consultation. But if I, looking at raw data, had to pick out those who need lactation consultation, they are the ones for whom breastfeeding is painful, laborious, or the baby is really dissatisfied, or not gaining weight. Then I would pick them from there for the lactation consultation.

Family related need for lactation consultation was described as support for any feeling, concern or insecurity related to child, breastfeeding, feeding or family.

> I think that lactation consultation is needed whenever there is any uncertainty or concern, so then support is needed for that.

> If you see that this matter may jeopardise the family's desire to breastfeed in the future, then it must be addressed.

Lactation consultation related to sick baby was mentioned in the discussions as one aspect to support the family on breastfeeding. It was brought up that lactation consultation is suitable and needed when there is something pathological in the background.

Multidimensional breastfeeding difficulties rose from the data. There was a consensus among professionals that difficulties related to breastfeeding are usually more complex than positioning the baby correctly at the breast. Because the baby latches with his/hers whole body, more thorough analysis and wider perspective are needed. This is why normal lactation consultation alone was seen insufficient for any major difficulties in breastfeeding.

> Extremely rarely, lactation consultation alone is enough, because the baby eats with her whole body.

> So, if the postpartum dyad has big problems or any kind of problems in general, there is a problem with the baby, other than being positioned a bit poorly or tilted at the breast. So, these things are long gone, but of course, these things would have to be handled immediately after birth.

Lactation consultants working in the private sector are usually specialised in these multifactorial and complex breastfeeding difficulties. This is one reason why families seek help from them increasingly. These families have a desire to overcome breastfeeding difficulties to continue breastfeeding. In severe breastfeeding difficulties families have normally searched for help from multiple sources. Often, private lactation consultation was described as the last chance for the family to get help and solution.

> Similarly, to what LC- said, at the time they come to my clinic, they have already been to so many different places, and in those situations, I am like the last chance.

Biomechanical malfunctions were seen as a significant reason behind multidimensional breastfeeding difficulties. The main malfunctions were anatomical restrictions like shorth and tight lingual frenulum, considerable tension in the baby's physical body, and restriction of movement or dysfunction of the mouth and tongue. Without addressing these strains and restrictions, lactation consultation may remain insufficient.

> It may be that it's not lactation consultation-kind-of-thing, but, like, physical, as OST- said, if there is something physical, anatomical, that needs to be treated. If it is not treated, lactation consultation will not help.

> And if we are talking only about lactation consultation without body care, we need, or rather, lactation consultation is not enough if there are oral motor challenges, or those tight oral ties or bodily tensions, and then there is a need to treat other things alongside lactation consultation.

Building up breastfeeding confidence was described extensively. Listening, reinforcing parenthood and strengthening parents' capability rose from the discussions as a major category. The role of communication between the professional and the breastfeeding parent and family was seen valuable. Professionals emphasised that families confronting breastfeeding difficulties are lacking perspective of their own situation. It was metaphorically described as "the family keeps wading through a swamp", when difficulties continue. Professionals' support can build up parents' confidence and help the parents to regain their own agency and capability. The professionals' assistance consists of discussions with the parents and interpretation of the situation as a whole. Professionals are able to bring up things the family succeeds in, which helps the breastfeeding parent and the whole family better cope with their situation and gain trust in their own ability to survive.

> They have waded, like, in absurd failures before. So, if you try to emphasise all that is well, and emphasise what the breastfeeding parent can do, the faith in her own survival grows.

> There are a lot of experiences of helplessness, especially if there are challenges and the baby is dissatisfied and crying, so it's like a lot of conversation about what it is like to be with the baby.

Professionals described that it is common to face knowledge deficiencies of basics of breastfeeding, latch and positioning among breastfeeding family. Lack of tangible guidance is common. Concrete illustrations of proper breastfeeding position of the baby may remain in the background and guidance is left superficial. Although family has been given lactation consultation, information may be forgotten or passed without recollection. Basics should be always revised and abstained the presumptions of knowledge base of the breastfeeding family.

> Very good point LC- to bring up, that they do not necessarily have any basic idea of what's going on in sucking or in positioning, or any of the basics.

> They may have been told some basics about breastfeeding, but they cannot take it in easily at that point, so, like, basic guidance is often left out elsewhere, like showing them concretely where the baby should be at the

> breast to be in a good position, and what should happen in the baby's mouth in order to able to eat, basically.

Professionals described that effective way to further difficulties is to enhance parents' understanding towards baby's signals and behaviour. Narrative approach to baby's signals and behaviour can be effective way to enhance understanding and build up bonding between the baby and the parent. Parents' understanding can advance the situation and be a starting point for resolution. Baby's signals can be confusing, and the breastfeeding parent might interpret signals incorrectly, even blame themselves. Baby's behaviour at the breast was seen to have meaning which should be analysed and spoken up with the parents.

> If the baby, say, struggles at the breast, and keeps pulling and turning his/hers head away, so, like, to the breastfeeding parent, it is a strong message that the baby does not want to, like, the baby does not want her, but actually the baby does it for a completely different purpose. So, when you explain why the baby has to do this, the understanding, that the baby does not struggle and pull because it does not want to be there, but because it must, in order to get through eating.

> I feel like if you manage to do that, it, kind of really creates that parent-baby bonding, when they just do not understand the little one. If you can shed any light to it, to add to the understanding, it already helps a lot to move those situations forward.

5.2 Evaluation and treatment of baby's physical challenges

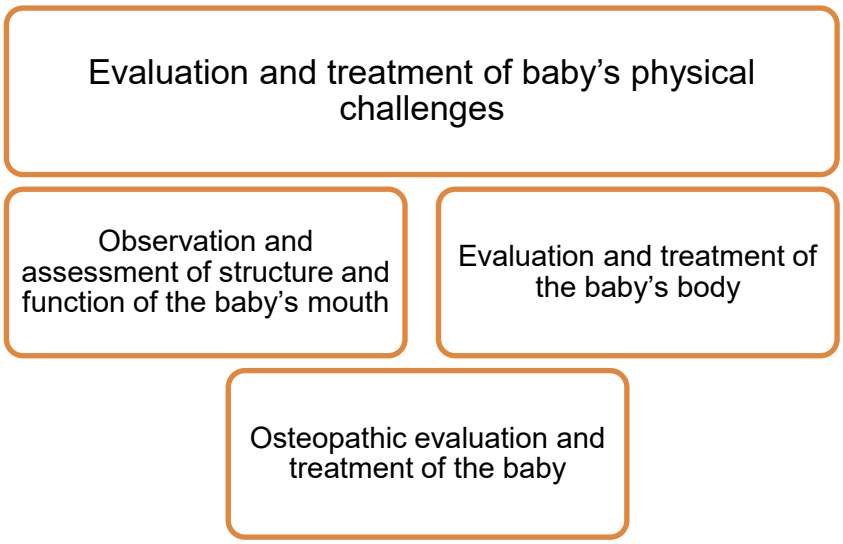

Illustration 3. Categories of theme evaluation and treatment of baby's physical challenges

Observation and assessment of the structure and function of the baby's mouth was described necessary by the professionals. Wide assessment of biomechanics of sucking and feeding both in lactation consultation and osteopathic consultation became apparent. Understanding and evaluating the biomechanics and function of the mouth is significant part in solving these difficulties. Observation of breastfeeding, bottle feeding, or both, can reveal important information about oral motor skills and abilities of the baby and address challenges of the particular case.

> I examine the mouth. and examine, like, the sucking mechanics, how the mouth works, whether the baby is basically able to suck with the mouth that he or she has, and of course observe the sucking itself whether it is at the breast or bottle, depending on which way the baby currently eats. If it eats both ways, we observe both ways of eating.

> to try to observe, so that you can really see how the mouth works and how he sucks. So, you interview and also observe the situation.

Breastfeeding difficulties related to anatomical restrictions was mainly considered relating to tongue restrictions due to short and tight lingual frenulum. Restriction of the tongue due to ankyloglossia is resolved by referral to a medical doctor, normally otolaryngologist, who is specialised in the assessment and surgical operations of a tongue-tie. Lactation consultation and treatment of the physical body was considered an important part of postoperative care.

> Lactation consultation is not enough if there is a need for treatment in the body, which is almost 100% needed, and if there are those tight tongue- or lip ties, you are not able to do anything about that yourself and you refer, but there is still a need for both guidance and treatment.

Breastfeeding difficulties related to physiology addresses situations where breastfeeding difficulties occur without evident anatomical restrictions. Baby may have insufficient coordination of sucking, challenge in positioning and opening of the mouth. Nervous system related challenges may also be behind these difficulties. Breastfeeding difficulties related to physiology have the possibility to resolve in a few osteopathic manual treatments.

> And the mouth does not open, it can be the temporomandibular joint, there may be tensions.

> Breastfeeding can become successful, and it can take just one or two treatments to change dramatically, for instance the tongue is just hypertonic. We release the tongue, and the nervous system is able to work, so it can be at the same moment when the baby is at the breast.

Breastfeeding difficulties related to motor coordination deficiency of the baby's mouth occur as baby's insufficiency to control milk-flow of the parent while adequate breathing, swallowing and sucking sequence are present.

> For example, the problem of overabundant milk supply and flow. It is like an epidemic, it is not a problem, but rather an oral motor challenge for the baby when he or she cannot control the flow of the milk.

Evaluation and treatment of baby's physical body in breastfeeding difficulties rose from the discussions with mutual understanding between the professions. It is usual that lactation consultants in the private sector have additional skills for myofascial bodywork like reflexology and baby massage. Both professions can be the first to address breastfeeding difficulties or identify anatomical restrictions. In severe breastfeeding difficulties, it is common that a family meets a lactation consultant first. Breastfeeding difficulties are not necessarily the primary reason for an osteopathic consultation rather these reasons are diverse. They vary from excessive crying, various intestinal symptoms and positional tensions to feeding issues. All these symptoms can be considered interactional.

Difficulties related to the structure and functions of the baby's body were discussed. Imbalance, restrictions and strains in different structures of the baby's body can cause lack of function and irritation. The mutual understanding is that positional difficulties and baby's uncomfortable behavior at the breast can be due to these restrictions and strains.

> For example, after birth, there are conditions in the collarbone area, base of the skull, and neck, that prevent turning the head, for example, to one side, or towards the chest, or upwards to flexion- extension directions, in all directions of movement, anything can be limited or a combination of them. In such cases breastfeeding just doesn't work out, because the baby has a hard time being there.

> When I get my hands on to the baby, so to speak, I examine the body thoroughly, I do not treat at this point, unless something major comes up, so I stop for a moment to treat it.

Breastfeeding difficulties may occur due to symptoms related to neural regulation and nervous system. Motor coordination, sensory processing and regulation challenges may affect the skills and behaviour of an infant. Autonomic nervous system regulation and baby's ability to calm down might be compromised which can uphold difficulties.

> Whether it is the nervous system, when the baby keeps crying and crying and crying, maybe the tonus of the nervous system is high due to the birth, so the baby is unable to calm down.

> Sensory hypersensitivity or hyposensitivity problems are examples of this. These can be seen so that the baby does not perceive that there is a nipple in his/her mouth, or the nipple feels disgusting in that baby's mouth.

The influences the birth has on the baby's symptoms and well-being were considered significant. Labour and birth practices can have an effect on the baby, which is why anamnesis should be taken thoroughly from the family. According to the professionals' experiences, understanding of these influences can help develop a deeper analysis of the situation.

> Then I start to collect the anamnesis, which includes going through the pregnancy and the birth. It is really important for me to go through it because it gives a lot of information about what has happened during the birth, whether there has been a quick birth, a difficult birth, what has happened there. It is also usually found in the baby's body.

> Like the scalp electrodes on those babies' heads, the marks stay there for, like, months and then again, it's kind of routine, that does not necessarily get mentioned. And then again, this often shows up in the baby as noticeable soreness on his or her head.

Osteopathic evaluation and treatment of the baby rose from the data. Biomechanical restriction and tension in the physical body and lack of normal function is the base of osteopathic evaluation and manual treatment. Osteopathy was described as treatment philosophy with strong knowledge base on anatomy and physiology with specific and sensitive palpation skills. Osteopaths are educated in evaluation and treatment of the body framework addressing different layers of the structure and function. Osteopathic evaluation and treatment of the baby was seen salutary and effective to enhance well-being of the baby and helping breastfeeding difficulties. Lactation consultants have noticed remarkable benefits of osteopathy to enhance results of lactation consultation.

> If there is any problem with breastfeeding, in my opinion osteopathy can be very useful every time.

> Sometimes it is just that families of course decide for themselves, who can go to an osteopath with their baby and so, the experiences are insanely good for those families, and it specifically supports the success of breastfeeding in certain situations.

It was discussed how babies may have multifactorial musculoskeletal compensatory patterns due to for example birth, tongue-tie and suboptimal latch. Osteopaths help families from their perspective and their area of expertise by releasing compensations and tensional patterns based on an individual evaluation.

> I am doing this part which helps to get forward or I also have a lot of those tongue-tie babies, who have compensated so much with those masticatory muscles and fascial muscles, so that we get them well evaluated and treated, that is also very important part of success of breastfeeding.

> Osteopathic treatment, we get to begin the treatment of these things right after examination, so we get to work right away.

Osteopathic treatment was considered the best for breastfeeding difficulties as babies eat with whole of their body.

> That examination and treatment with osteopathy, it is the best thing for breastfeeding problems because that sucking of the baby starts and that digestion starts with the lips and ends there in the butt hole and everything that happens in between affects the baby and because they are so holistic and bodily.

Osteopathic approach was considered gentle and soothing form of treatment for the irritated baby with increased sympathetic tonus while osteopaths can approach the situation based on neurological model.

> The stage of the baby's nervous system, we can also approach through the nervous system, the baby can be very nervous, and it can be sensed from the body and the body can be in such a state of sympathetic tonus for which we have very good techniques, or we are skilled at manually treat these little people to promote their well-being and the success of breastfeeding.

Sometimes tensions are not evident but breastfeeding difficulties occur and the baby might be tired or have a lack of vitality. In these situations, osteopathic treatment was seen as a unique way to support tired baby, which can increase baby's endurance at the breast.

> In challenges where the baby is tired. It is one practical example of that, sometimes there are, like, immediate changes in just one treatment session, such amazing changes, but then it is not about any major tightness in the body, or any challenges in tongue tie or lip tie or anything like that, but there is something else in the background.

Bio-psycho-social approach and observing postpartum dyad as a dynamic entity was a theme that rose from discussions. Sensitive and delicate approaches were seen important as they have influence on the wholeness of the postpartum dyad. The discussion addressed that breastfeeding parents would benefit from the treatment as well because breastfeeding is dyadic and dynamic event.

> Then such a delicate interaction with customers as to how we achieve the best possible result in that moment.

> If we want to help, postpartum dyad in big trouble, as breastfeeding is always a two-way street, breastfeeding challenges are never just the baby's problems, but rather, problems of the entity of that pair. If we want good results, then absolutely we have to treat the parent and the baby. But the minimum criterion is that at least that baby is being treated.

> In a way, the breastfeeding parent is also affected when the parent notices that it is easier for the baby to be, and that breastfeeding starts to get better, and she will gain confidence from that, and it kind of affects the parent on some level as well.

5.3 Aspects and development of multidisciplinary approach

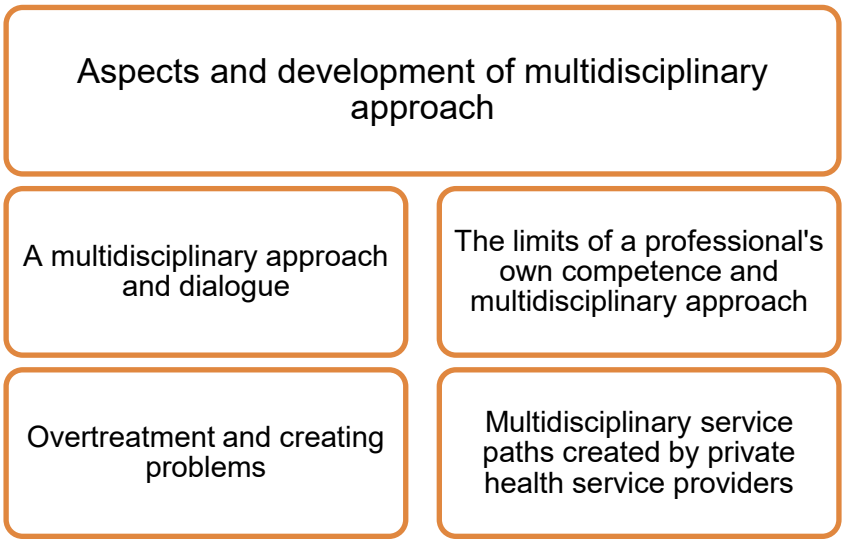

Illustration 4. Categories of theme aspects and development of multidisciplinary approach

A multidisciplinary approach and dialogue were considered beneficial and essential when working with breastfeeding families. Information exchange from multi- professional perspective was seen to broaden perspective reciprocally. Osteopathy was considered to offer new perspective and add value to this discussion and improve the results of lactation consultation and success of breastfeeding when baby has physical restrictions or strains. Then lactation consultants can offer insights of the situation from their perspective. Especially lactation consultants with midwifery background, are able to offer insights to osteopaths which deepen the understanding of influences of pregnancy and birth to the situation.

> As a midwife- lactation consultant, I bring in the midwife's view, which is quite profound about such things during pregnancy and birth that an osteopath may not have such a deep view of, so I bring out them and my thoughts on how they might influence.

One aspect, that rose was bodywork as part of lactation consultation and breastfeeding guidance as part of osteopathic consultation respectively. All participated lactation consultants had some degree of education in bodywork, and they do bodywork during or beside lactation consultation. In private services this is a common phenomenon. Vice versa, all participated osteopaths had education in lactation consultation as either lactation counselor or lactation educator. These components add understanding from both aspects but also scatter focus during consultation.

> However, I too have to touch and handle that baby a bit myself, and baby's body care is also a part of my lactation consultation.

> There is that lactation consultation part, but in practice the bigger part during osteopathic consultation is the treatment from an osteopathic point of view, it is what is found in the body, so that.

Focusing on one discipline during consultation was mentioned to be beneficial while it clarifies consultation by offering time and space for their main focus.

> I can focus on osteopathy, as I know they are going to see a lactation consultant very soon. So, it is not that urgent to have it here, even though it offers good information but sometimes it can be so that you want to use the whole time of the appointment for osteopathy.

> It is also very useful in such situation, for example, when I am fully booked, then I can refer to somewhere else to continue body care, when I have these complicated cases which take longer time but then I refer to

> someone who has more time and can offer body care more regularly than I happen to have possibility.

The limits of a professional's own competence and multidisciplinary approach present possibility to operate around family's needs efficiently. Professionals' proficiency in recognising possible underlying factors of the symptoms was considered remarkable while help for breastfeeding difficulties should come without delays. Especially, possible tongue-tie restrictions and low weight gain were mentioned important for early referral.

> For instance, with these tongue- and lip tie issues, or some other medical issues, it is kind of so important that you know and understand your own; these are my scopes of practice; I work with these, and this thing exceeds my competence.

> I refer, yes. I try to, so, I try to recognise the limits of my own competence in these breastfeeding issues, because it is the kind of thing for which help needs to come right away, you cannot keep waiting.

> And then, a lactation consultant or an osteopath, or any other professional, should have a clue and understanding of how to recognise what is going on.

Advantage for multidisciplinary approach is that the professionals can use their spectrum of expertise and refer to another professional with different or deeper level of expertise, when needed, to meet the expectations of the breastfeeding family and deliver appropriate care. Operating with the knowledge of the limits of one's own competence was considered also relieving, while it offers possibility to refer with the best intentions. Especially when the situation is multifactorial.

> Even though I do a lot of bodywork for babies, I cannot and I can admit it, I do not know how to treat base of the skull, palate, nerve impingement of the skull, so I happily refer to an osteopath and tell them it is out of scope of my competence, so visit an osteopath and let us see what is needed afterwards, if lactation consultation is still needed. It can be physical kind of thing, not breastfeeding guidance kind of thing.

> Like for me, even though I have gone through lactation counsellor training, I still feel I have really basic knowledge and skills like, we can look at breastfeeding positions, talk about breastfeeding in general but as soon as there are some big weight gain challenges or some other critical issues, I refer immediately.

Overtreatment and creating problems rose as a theme that professionals discussed. It was considered important for professional to have sensitivity to avoid creating, maintaining and prolonging problems when working with families. Features of medicalising normal neonatal developmental factors can be observed in present time. Professionals' discussions brought up a subtle distinction between babies who do not need any intervention, and babies who really need consultation and osteopathic care. The problems should be resolved with minimum intervention to the family.

> Not pathologicalising things, when it is normal that the baby can be a bit stiff after birth.

> Everyone who needs treatment really needs treatment, but medicalising it, medicalising normal babies, is an unpleasant feature of this time as well.

Multidisciplinary service paths created by private health service providers, which focus on breastfeeding difficulties and care in infancy, have become general in the field in Finland. Families use more private health service providers alongside of the child health clinic in order to receive care when breastfeeding or other difficulties occur. It was described as opportunity for the breastfeeding family to receive help at last. Usually there has been prior attempts to receive care from the public services without resolution.

Multidisciplinary community and cooperation created by private health service providers were described influential both from families and professionals' point of view. Networks and local contacts for referral are a functional way to broaden services for the breastfeeding family with family-centred attitude. According to the professionals, ideal situation would be as working in same facilities, where the community and environment provide possibility for also informal communication between professionals.

> When you have a bigger work community with professionals from different fields, it is a great benefit when you can, like in the coffee room, ponder cases, ask your colleague's opinion and ask what they would do in such a situation, taking privacy policies into account, of course.

> I am in such a wonderful team, in a way, as a private entrepreneuer where multiprofessional cooperation is realised.

> The network just like OST said, it is really important, even if it is not under the same roof necessarily, so that you have those contacts there within your region.

Regional disparity in multidisciplinary service paths created by private health service providers was evident according to discussions and this influence care for families. Lack of networks in different regions nationally and in municipalities was seen problematic and influence the possibilities for families to receive multidisciplinary care and leaves some professionals without represented advantages of community.

> We do not have that kind of a wider, or even a small network, so that is a really lousy situation.

Cooperation with doctors is a significant part of care path if needed. All the participants mentioned the referral for medical care of different specialties as a significant part of the multidisciplinary approach. That consisted of medical care for symptoms of both the breastfeeding parent and the baby, when needed.

> We do a lot of cooperation with these doctors, who diagnose and treat tongue- and lip tie issues, and we quite easily, if we think there may be a problem with these, refer to them.

> Multiprofessionalism in that, we may need a medical doctor to treat thrust from the mouth, or we need a medical doctor to treat that vasospasm from parent's breast with nifedipine, so for that we really need medical knowledge and care, we need prescription drugs.

> Contacts with doctors are very important because sometimes you really need them either to do allergy tests or procedures or something else like that.

5.4 Professionals' reflections of current challenges in the field and envisions for the future

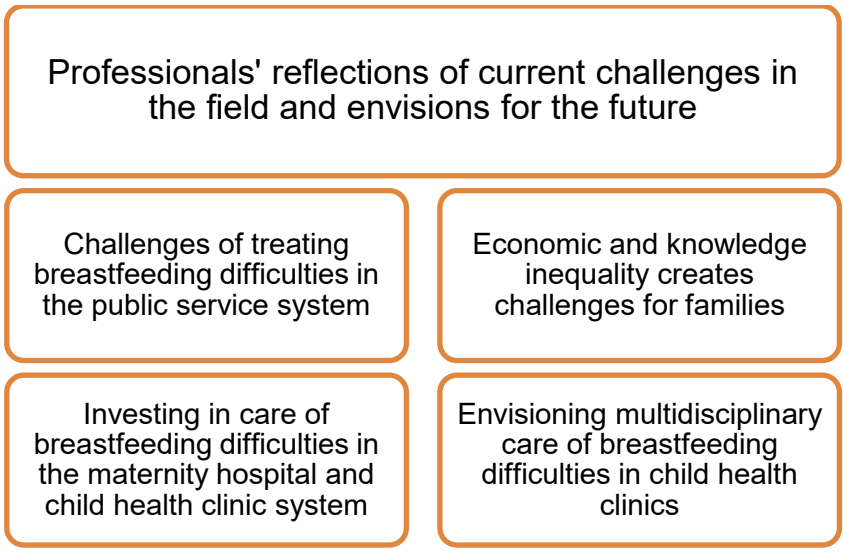

Illustration 5. Categories of theme professionals' reflections of current challenges in the field and envisions for the future

Challenges of treating breastfeeding difficulties in the public service system were described from different perspectives. According to the professionals, awareness of latch problems has been increased, and care practices were seen to be under transition in the public service system currently. The challenge is, the progression of care in the system is varying because of lack of competence, or unclear direction of referral inside the public system.

> The public sector is in a kind of weird transition at the moment, like, nurses, midwifes and child health clinic nurses are aware of these problems, and may even be able to assess the challenge or tightness of the tongue- tie or oral dysfunction, but they have no place for referral.

> There you have quite a puzzle, even if you yourself recognise and know, so that it will go further, there is another stress to it that things go forward. It can flop in the next step so that knowledge and cooperation would be so important.

There are varying practices of care, and the quality is not consistent in the public system, which is problematic. Families are not in an equal position, when it comes to dealing with breastfeeding difficulties. Lactation consultation in child health clinic or even in lactation outpatient clinics can be shallow and practical guidance remains unfulfilled.

Different care practices confuse professionals in the private sector and leave the family in uncertainty.

> In the child health clinic field, let us say there are certain tools to work with, and families are definitely not in an equal position, which is sometimes absolutely horrible.

> They have not really had the practical guidance of basics, even if they have visited a lactation outpatient clinic or a lactation consultant at the child health clinic. And it has been like, somebody asks, and the child health clinic nurse has looked, and said it looks good and that is the guidance they have received. And it does not really take you anywhere.

Quality of care was described to be dependent on the competence of the professionals the family happens to meet within the public health care system, and sometimes even on luck. Care practices vary even inside a local municipality or a city. This was seen to increase inequality among breastfeeding parents and families. Especially, quality of care in special conditions with breastfeeding difficulties was seen tenuous.

> There are also differences in quality depending on the locality, and also within municipalities, there are huge differences in what each family gets, depending on where they live and who they meet on their own journey, and that should not be the case in any circumstances.

> At times the help provided by the public sector for special situations is unreasonably bad, and then it is difficult at times, as it is.

Due to these elements, child health clinics' cooperation with the private sector is possibly increasing in some ways, even though it is recommended to avoid referring from public system to private system. It is quite common for families to be advised to seek help from private sector for proper care for breastfeeding difficulties. While policies differ, the recommendations are usually subtle suggestions of possibilities by the public health professional.

> At least around here, from child health clinics many are directed to private sector, they have directly guided to private health care as this cannot be cared for in the public sector which is, in my opinion, absurd, that our public child health clinic tells people go to private sector, this is not taken care of otherwise.

> You can only refer from the public to the public, but when you know there is no help or any services available for that, then it is like - if I were you, I would look at these websites and I would do these things.

Economic and knowledge inequality creates varying challenges for families to receive help for breastfeeding difficulties, and this may lead to early weaning. Possibilities to search help from the private health care providers is dependent of family's financial opportunities. Private health services are self-paid, or possibly covered by private health insurance, and this leaves many families outside of private care. It was seen a major challenge in managing breastfeeding difficulties on a national level. Those who are able to seek help from the private sector were considered metaphorically as 'the tip of the iceberg'.

> It is a big problem when many families are left out of the help they would need and deserve, and also, as was already stated, not everyone has the money to pay for the private service.

> In my opinion, the group that does not get help, cannot find help and cannot afford help, is the biggest group that falls out, and would need that help the most, and this is something which I would like to influence.

> There are those who have the resources to really seek help through the private sector services, and those who cannot, they either stop breastfeeding or they come up with something else.

It was discussed that cutting down prenatal classes during pregnancy has created problems and knowledge deficiency among families. Families are unequally prepared for birth and breastfeeding. Understanding of the characteristics of life with an infant may be vague, especially among families expecting their first-born. Public birth and family coaching have diminished during the last 20 years, and present implementations are more often offered to families online, which may influence the outcome of preparation.

> Prenatal classes have fallen short, as well as preparation during pregnancy for birth and being with that little newborn. Families do not even understand they have the need, and they should prepare for the birth.

> During the coronavirus pandemic, all those went online and turned into these 90 minutes sets where nothing could be asked, and apparently it remains so, and I hear there is no intention to return to those present prenatal classes and family coaching, sounds completely absurd to me again.

> Especially first-time parents say they have no clue, and they tell, yes there was like this kind of thing, but it was online, and it was short and they only touched some topics here and there, so this certainly is influencing the situation.

Private healthcare service providers offer birth and family coaching, but services differ, which requires an active role of the family to find out possibilities and have financial resources. Information of possibilities of private health services is fragmented, and there are major nationwide differences. A part of working with families is to inform them about possibilities and suggest practical options.

> There is a lot of support available on the private side, prenatal classes, family coaching and others, but in a way, the information about them does not spread, so people do not even know they exist, even if they would want to participate, outside the public service system.

> That is a good point, there is no information about prenatal classes, and in general about all the services you could get for breastfeeding challenges.

Investing in care of breastfeeding difficulties in the maternity hospital and child health clinic system was seen as the most essential and effective way to prevent and address breastfeeding difficulties, and, subsequently, to save health care resources. Early intervention and timely guidance would offer breastfeeding family a better start for their breastfeeding path. The first days and weeks of breastfeeding were seen as the most important for support. This period offers possibilities to intervene and manage the situation before escalation. According to the professionals, an in-depth analysis of breastfeeding, and an individual care plan would be relevant in effective treatment of the postpartum dyad having breastfeeding difficulties. Delay in support and treatment are reasons for early weaning, which burdens families who would have desire for breastfeeding longer.

> The care should be available already in the hospital, because it would save a lot of society's resources later on. So that it would start going in the right direction from the start. And not on the sidetrack where it often gets, and where the vicious circle begins, where the amount of additional milk is increased and nobody analyses how the baby eats, and whether the milk is transferred from the lactating to the baby, and whether the baby cannot get to the breast for one reason or another, or how to get the milk production started without that baby.

> We would be able to intervene in these situations much earlier than we can now.

> When they come with babies, it may be that they come to an osteopath at the age of 3-4 months, when everything has already happened, and they are in such a difficult place with those challenges.

Systematically managed transition from the maternity hospital to the child health clinic is a key factor in this phase. Often, transfer of information is unsuccessful, and support remains unfulfilled for families that need it the most.

> And for the transition from the hospital to the child health clinic to really be properly managed for those families. And again, we have good criteria for that on the THL website, how the transition should be carried out so that it's safe and so that those who need support would be handled.

According to the professionals, a key factor in improving the quality of care would be strengthening the education of health care professionals regarding breastfeeding, latch and ankyloglossia. This applies especially to professionals who are working with parents during pregnancy and birth, in maternity hospital and in child health clinics. Identifying the issues behind the challenges with a care plan and a referral would be the best way for allocation of specialised care.

> So, for the people who are there with those babies in their first moments, the midwives in the delivery room, in the maternity ward, the doctor, would it be possible to incorporate in their training how to recognise tight tongue-tie, lip tie, poor latch, so that they would not just say, yes looks pretty good when it really does not look or feel good to anyone.

Appreciation of breastfeeding and the attitude of healthcare professionals towards breastfeeding were considered important factors for successful management of breastfeeding difficulties. Attitudes and knowledge of breastfeeding were seen remarkably relevant also to the doctors working in child health clinics. Professionals emphasised the importance of avoiding conflicting information and disparaging claims about breastfeeding.

> It may be that the child health clinic doctor has said that well, you have been breastfeeding for two months now, so it is okay, the baby does not need it anymore. That is kind of outrageous, like, disinformation and lies.

As the effects of the baby's physical challenges on breastfeed gains awareness among nurses and doctors in child health system, referral to osteopathy or other bodywork has started to increase.

> What I have noticed here is that in child health clinics, they are clearly starting to become more aware of these tensions in the baby's body, they guide families more to physical treatments, right from the child health clinic. Like, it looks like this baby has tensions. Of course, they also get

> referrals to the physiotherapist on the public sector as well, but also recommendations to body care which is super great that they are waking up slowly for that.
>
> And even from the maternity hospital the midwives might recommend that.
>
> And then doctors make referrals to osteopathy, many come with a referral.

Professionals described baby's body care as an important part of the entirety of practices. It would be best to address physical challenges of the baby early after birth to reduce problems later. In envisions of the future, this could be a part of practices in maternity hospitals and child health clinics, with the whole family-centred approach.

> In my opinion, the bodies of the babies should be treated already in the hospital, every single baby should be treated in the hospital before discharge, if we were in this kind of utopia where things would happen as we want to, it should already be there in the hospital, because it would save a lot of society's resources later on.
>
> I think it is highly important, treating the body, the care and, again, taking care of the family, all members, the wholeness.

Consideration of birth parents' well-being in care practices should also be promoted. It was emphasised that well-being of the birth parent before, during and after birth should be in the scope of practices as well. Especially hospital practices and support for the parent after birth would be influential for success of breastfeeding.

> There cannot be a baby-friendly hospital if there has not been a birth parent-friendly hospital first, where you think about the practices of childbirth from the point of view of what we do to the birth parent and the fetus. It affects how the baby can eat later, for example, and what prerequisites for success in breastfeeding the parent has.
>
> Where we are stupid and naïve, I think, is that there are baby-friendly hospitals, but we do not think at all about how the women, torn apart during childbirth, can succeed in breastfeeding with the baby.
>
> It would be appealing if we could get to treat women already when they are pregnant, so that we could release some trauma from their bodies, so a bit less of that intergenerational burden would be transferred to the babies.

Envision of multidisciplinary care of breastfeeding in the child health clinics rose from the discussions. Osteopaths and lactation consultants could be an effective couple in that surrounding to focus on breastfeeding difficulties with families in need. Osteopathic care was considered suitable part of child health care.

> We work like crazy for it all the time, but that is where the challenge is. It is not up to us, it is not up to the child health clinic staff, it is not up to us in the private sector, but rather, it is about bureaucracy. And that prevents this kind of multidisciplinary cooperation, which should be smoother, and should be available in the early interaction.

> I too have had this child health clinic focus. I am so fully in with maternity clinics and others, child health clinics too, have been also with me. I already kind of defined, that I want to promote lactation consultation, and also well-being of the families, through osteopathy in the world of child healthcare.

6 Discussion

Breastfeeding is a delicate subject. Families need timely support and appropriate guidance, when difficulties occur. (Hakulinen, Otronen & Kuronen 2017.) Private sector health service providers and multidisciplinary services for breastfeeding difficulties have emerged in the field of health care. In addition to private lactation consultation, osteopathy is one of the services, from which families seek help for breastfeeding difficulties. The aim of this master's thesis was to explore collaboration between lactation consultants and osteopaths in managing breastfeeding difficulties in a multidisciplinary way. Two research questions were composed in order to explore experiences and perceptions of lactation consultants and osteopaths working in private sector, and their envisions of collaboration in the future. The purpose was to examine the potential of osteopathic care as part of multidisciplinary collaboration.

Through comprehensive data, broad perspective of professionals' experiences and perceptions from the field was induced. The results reflect the professionals' perceptions of breastfeeding care practices and collaboration currently in Finland, where public health services in child health clinics are provided for pregnant parents, families and children after birth until school age. Finnish child health clinic system is a unique implementation that enables following the growth of a child and offers health care services and support for the family during childhood. Lactation consultation and guidance of the

family are included in the responsibilities of child health clinics. (Ministry of Social Affairs and Health 2024.) Osteopaths are not included in the public health care system in Finland; therefore all osteopaths work as private health care providers in private sector (National Supervisory Authority for Welfare and Health 2024). According to the results of this master's thesis, it seems that child health clinics are not able to respond to the need for care of breastfeeding difficulties effectively, especially when multidimensional breastfeeding difficulties occur. Therefore, multidisciplinary private sector services are needed. The results suggest that collaboration between lactation consultants and osteopaths could have positive effects on success of breastfeeding.

6.1 Interpretation of the results

Four main themes emerged: supporting breastfeeding through lactation consultation, evaluation and treatment of baby's physical challenges, aspects and development of multidisciplinary approach and professionals' reflections of current challenges in the field and envisions for the future. The first two themes brought up importance and benefits of both professions for breastfeeding support and evaluation of postpartum dyad and family and continued to reflect on multidisciplinary care in the field in general. Envision for the future gathered professional perspective and vision on advancement of multidisciplinary care. All participated professionals were working on breastfeeding difficulties in their private practices and had multiple years of experience. Comparisons and reflections on public health care system emerged naturally in the discussions, because of its role as the primary care provider for babies and families in Finland (Ministry of Social Affairs and Health 2024).

The theme 'supporting breastfeeding through lactation consultation' drew a picture of importance and necessity of lactation consultation in a broad variety of aspects. Professionals emphasised knowledge as the key feature increasing the success of breastfeeding. Knowledge was seen essential for families, and also for health care professionals from different disciplines. In-depth lactation consultation should be offered from early pregnancy, and it should have a special focus on the first days of the neonate, positioning, basics of breastfeeding, and possible challenges. Emotional support and evaluation of families internal and external resources were highly emphasised by both professions in the discussions. Self-efficacy, emotional and social support, and breastfeeding confidence were extensively discussed, and the professionals placed the breastfeeding parent and the family in the centre of all aspects of care. These elements

of lactation consultation are also emphasised in the latest national breastfeeding guidelines in Finland (Hakulinen, Otronen & Kuronen 2017). Prevention and early intervention were considered the most influential elements of care for breastfeeding difficulties.

Lactation consultation was seen as an important part of care practices after birth. Maternity hospital has a major role in the initiation of breastfeeding. Appropriate support in the beginning increases possibility of success later on. The timeframe of hospitalisation after birth is usually short and resources of nurses are limited, which can lead to incomplete support and guidance. Practices and possible challenges after birth might be influential in breastfeeding in the long-term, and it is observable that difficulties usually come evident after the discharge from the hospital. Problems in the initiation of breastfeeding and in-hospital supplementation may indicate more challenges later. (Hakulinen, Otronen & Kuronen 2017; Mäkelä, Axelin, Kolari & Niela-Vilén 2023; Ikonen & Kaukonen & Hakulinen 2023.) Timely guidance after discharge was considered important, and according to the results, the family's situation needs to be viewed from multiple aspects. Lactation consultation based on individual needs and rising difficulties should be provided. Professionals pointed out that lactation consultation and all support for breastfeeding is always guided by the breastfeeding wish of the family.

Discussion of the parents' understanding of the baby's behaviour brought up an interesting notion. According to the professionals' experiences, understanding of babies signals and behaviour influences significantly the dynamics of the postpartum dyad and the whole family. Uncertainty, anxiety, fear of the situation as well as incomprehension of influential factors in the background of suboptimal breastfeeding add stress to the family. Lactation consultation and osteopathic care can address these aspects and increase the family's understanding of the wholeness of the situation. Listening, reinforcement of parenthood and strengthening parents' capability were described essential and influential by both professionals. Psychosocial, emotional and family aspects were largely evident in the results, and the professionals appreciated the influence of these factors highly. Cornall's (2015) dissertation 'Promoting optimal breastfeeding through the osteopathic therapeutic cycle' indicated the importance of maternal support and listening as part of the therapeutic cycle during osteopathic consultation.

Findings of this master's thesis suggest that possible biomechanical malfunctions behind breastfeeding difficulties should be treated if positional stability, emotional support,

guidance and reassurance of capabilities do not bring solutions. Significance of multifactorial scope and wide assessment of the difficulties will help the situations further, according to the professionals. Evaluation and treatment of baby's physical challenges were suggested to be an important starting point, when persistent breastfeeding difficulties emerge. Baby's physical restrictions, physiological and anatomical reasons for suboptimal breastfeeding were considered probable, when normal lactation consultation had been inconclusive. These experiences were aligned with the reasoning behind osteopathic clinical practice and previous perceptions of lactation professionals. (Watts & Lagouros 2020; Greenwood, Engel & Grace 2022; Lavigne 2016). Multidimensionality of breastfeeding difficulties was emphasised repeatedly, and multidisciplinary approach was found influential and beneficial in praxis by professionals.

Baby's physical strains and restrictions may affect substantially to success of breastfeeding according to professionals' experiences and perception. Therefore, observation and assessment of structure and function of the baby's mouth and body should be performed thoroughly. The professionals described consistently that breastfeeding difficulties may be related to tight frenulum or lip-tie. These anatomical structures may cause insufficient latch. Referral to medical care and frenotomy might be required. Awareness of possible tight tongue- or lip tie was high among the professionals and experiences of the topic were eminent. The results imply that this phenomenon behind breastfeeding difficulties is important to acknowledge, and sufficient evaluation and treatment of breastfeeding difficulties requires addressing anatomical structures of the mouth. The importance of knowledge on the topic among all professional caring for breastfeeding families was highlighted in the results. Identification and referral of anatomical deficiencies, especially ankyloglossia, were considered essential. Releasing tight lingual frenulum can have positive effects on maternal pain, infant's feeding and parent's self-efficacy. Manual intervention after operation might be an influential part of rehabilitation, when combined with surgery. (Cordray 2024; Gonzáles Carrido et al. 2022). Currently in Finland University of Oulu has research project called LINNE, which focuses on evaluation and treatment of lingual frenulum after birth with a follow-up in six months of age. The research is ongoing until 2028. (University of Oulu 2024.)

Breastfeeding difficulties emerge even when anatomical deficits are not evident. Restriction and strain in the body of the baby despite normal structure may cause functional deficits and lead to suboptimal breastfeeding. (Lavigne 2016.) Osteopathic evaluation and treatment were described positively by the professionals and osteopathy was

seen to be the best treatment approach for babies, because of the sensitivity of the approach, gentle palpatory skills and comprehensive knowledge of anatomy and physiology based on four-year education and advanced training.

With touch-based intervention like osteopathy, it is possible to approach postpartum dyad and family as a dynamic entity, as suggested by the professionals, and build mutual trust and bonding, self-efficacy and coping. Empathic, affective and soothing therapeutic touch in a calm therapeutic surrounding has been suggested to be influential features of osteopathic practice (Cornall 2015; McParlin, Cerritelli, Friston & Esteves 2022; McGlone, Cerritelli, Walker & Esteves 2017). Touch is a key regulator of physiology and has beneficial neurodevelopmental affects. Touch-based practice can affect the neuro-endocrine- immunological response and behaviour, which further increase bonding and relation between the parent and the baby. Therapeutic touch in paediatric osteopathic care could be a factor in modulating autonomic response, decreasing distress and increasing sense of trust and coping. (McGlone, Cerritelli, Walker & Esteves 2017; McParlin, Cerritelli, Friston & Esteves 2022.)

Characteristics of bio-psycho-social approach emerged strongly in the findings. The findings underlined, that lactation consultation and paediatric osteopathic interventions not only influence positional and biomechanical challenges, but also offer support for the whole family. Health care professionals' attitude, presence and possibility to address underlying factors were found to help family forward in their current situation. Breastfeeding as a complex multidimensional phenomenon cannot be examined and explained from narrow biomechanical aspect alone, but rather by involving also a dyadic perspective. (Jouhier et al. 2021; Cornall 2015; McParlin, Cerritelli, Friston & Esteves 2022). Multidisciplinary approach with a lactation consultant and an osteopath could offer a way to combine all these aspects and elements for efficient support, guidance and care with influential results (Herzhaft- Le Roy, Xhingnesse & Gaboury 2017).

As the professionals described the multidisciplinary way, it was found mandatory to involve multiple disciplines from medical doctors, midwifes and nurses to osteopaths. Also practices like reflexology, baby massage, occupational therapy, physiotherapy and speech therapy were mentioned. Effective communication was seen as a key element of successful multidisciplinary collaboration. Communication was described important as it improves mutual understanding, trust and care, and helps in allocation of different interventions. Communication and diverse competence in networks enhance

care as it increases possibility to advance understanding and development of practices. Different aspects of multidisciplinary understanding can comprise new perspectives and lead to meaningful difference in the breastfeeding path of the family and postpartum dyad. Professionals' broad knowledge of breastfeeding and understanding of possible biomechanical background of difficulties are important factors for all disciplines involved. Referral was seen as a liberating factor, as it offers utilisation of knowledge from multiple disciplines, from their scope of practice. Efficient and well-allocated care can lead to significantly better results for the family.

According to the results, organising multidisciplinary approach for breastfeeding difficulties was seen to be the responsibility of private health care providers. Especially families with multidimensional breastfeeding difficulties, who wish to continue breastfeeding, are forced to seek help from private sector. Private health care providers, who are specialised in breastfeeding difficulties, have established care paths and facilities, where diverse services are offered. They may be available in one location, or through regional collaboration. Local networks and collaboration are compounded by interest, expertise and entrepreneurs' own activity. Availability of multidisciplinary services varies nationally, as private health care providers may not be regionally available. The situation influences not only private health care providers, but also families who are unable to receive such services nearby, and are forced to travel further for care.

High interest in solving breastfeeding difficulties and offering various services for infants may lead to controversial results. An interesting underpinning in the findings was the professionals' concern about overtreatment and prolonging of problems due to over-diagnosis, or medicalicing normal variability in growth and development during infancy. Appropriate interventions to the family should relieve parental anxiety and worries, not the opposite. Due to these elements, high level of education, family-centred approach and understanding was strongly emphasised by the professionals.

Societal, social and economic perspectives emerged in the findings of professionals' views on treatment of breastfeeding difficulties. It was emphasised that economic inequality challenges families and limits the number of families who have the possibility to seek help from private sector for breastfeeding difficulties, when public services are not enough. Professionals have noticed that national and regional differences in provided care are normal, and the lack of consistency effects in treatment and care of breast-

feeding difficulties. Versatile services influence the quality of care, and leave also private professionals and families confused, when referrals do not progress uniformly within the public system. Even though the child health clinic services are statutory for families in Finland, wellbeing service counties and economic resources have influenced care practices and actualised care. In the recent years, pandemic and reforms have influenced health services also in child health service clinics. After the health and social services reform in Finland, finalised in 2023, responsibility of child health clinic services transitioned from municipalities to wellbeing service counties. After the transition, Finnish Institute for Health and Welfare continues to promote breastfeeding practices and publish national guidelines, but advancement of national conformability for breastfeeding guidance and practices will continue to be a challenge. The second and latest national breastfeeding program was for years 2018-2022, and the updated version has not been published. (Nieminen, Hietanen-Peltola, Mahkonen & Pyrhönen 2024; Hakulinen, Hietanen-Peltola, Jahnukainen & Vaara 2021; Hakulinen, Otronen & Kuronen 2017.)

Appreciation of breastfeeding in society and health professionals' knowledge of breastfeeding should be further increased. Strengthening the training for those who work with babies was seen as the most significant according to professionals. Education on breastfeeding has increased among child health clinic nurses during the last decade. Currently, breastfeeding education at the level of lactation counsellor is a mandatory part of the degree programs of health nurse and midwife. (Hakulinen, Otronen & Kuronen 2017:108.) Investments in resources and time in family coaching and prenatal classes were seen important, and the professionals called for better parental education and preparation for birth, breastfeeding, and life with a neonate. Public birth and family coaching have diminished during the last 20 years, and current implementations are more often offered to families online which may influence the outcome of preparation. It has been suggested that fear of childbirth among women may have increased due to lack of prenatal education. Appropriate preparation for various possible breastfeeding difficulties may help families manage the occurring situation. (Cohen et al. 2018; Alizadeh-Dibazari, Abdolalipour & Mirghafourvand 2023; Hakulinen, Otronen & Kuronen 2017; Mäkelä, Axelin, Kolari & Niela-Vilén 2023.)

Maternal care was one aspect of current challenges emphasised by the professionals. Maternal care practices before and after birth should be revisited. The effects of different normalised medical procedures and practices on maternal health and experiences

should be considered. Difficult pregnancy and birth can have a significant effect on early interaction, maternal confidence and overall well-being of the postpartum dyad and the family. Difficult birth, Caesarean section and medical interventions may have an influence in initiation and continuation of breastfeeding. (Cohen et al 2018.) Discussion brought up that baby-friendly hospitals should initially be birth parent-friendly hospitals, as maternal health and well-being after birth has a considerable impact on the success of breastfeeding. The baby-friendly hospitals have not decreased the prevalence of breastfeeding problems, which may eventually need a multidisciplinary point of view (Cordray et al. 2024; Mäkelä, Axelin, Kolari & Niela-Vilén 2023; Herzhaft- Le Roy, Xhingnesse & Gaboury 2017). The results emphasise that help should be provided for the families for breastfeeding difficulties when requested.

Osteopathy's professional status is complex in Finland. Osteopathy is offered only as private health service, even though the profession is a registered health care profession in Finland. Osteopaths are private health service providers currently (Finnish Association for Osteopaths 2023.) Health care providers in the private sector treating breastfeeding difficulties have clinical experience of benefits of baby's physical evaluation and treatment. According to the professionals' perception, it was evident that the awareness of the effects of the baby's physical challenges on breastfeeding are starting to increase in the child health system and among doctors, which has positively affected referral of families to osteopathy. When envisioning the future, it was seen that osteopaths could be a part of the care after birth at maternity hospital, and in child health clinics. Osteopaths could work beside health nurses and lactation consultants in managing breastfeeding difficulties. Practical applications are yet to emerge.

Promoting breastfeeding skills and managing breastfeeding difficulties through multidisciplinary cooperation between lactation consultants and osteopaths were seen influential. Osteopaths' deep knowledge of anatomical and physiological encounters could provide new aspects for multidisciplinary care practices. Regarding the purpose of this master's thesis, it can be concluded that osteopathy was noticed to reinforce care practices and add value in managing breastfeeding difficulties in a multidisciplinary way.

6.2 Reflection of methodology

Qualitative research method is increasingly applied in social and health sciences to bring forth new perspectives and increase understanding from the field of health care-

related phenomena, and research interest is aimed at professionals' experiences (Neergard et al. 2009). Implementation of this master's thesis with qualitative research method can be considered justified, as the topic under exploration had no previous research, and considered a health care-related phenomenon. Pragmatic paradigm allowed this master's thesis to describe the phenomenon according to the participants' perceptions and experiences, rather than interpreting or constructing a specific framework. Focus of the work was on practical application of the results to advance knowledge and current practices in the field. (Neergard et al. 2009). The purpose was not to build a theory or a concept, but rather to examine the potential of osteopathic care as part of multidisciplinary collaboration based on the participants' perception and experiences. This further validated the use of qualitative research method (Doyle et al. 2020). Inductive content analysis allowed themes and categories rise from the data, and minimal interpretation by the author was pursued during the process. Inductive approach was considered well-suited to communicate with the data, while allowing themes to derive.

As the purpose of this master's thesis was to seek community-level and multidisciplinary information, data collection through focus group discussions was a well-grounded option (Hennink & Leave 2014: 28). Focus group discussions abled diversified data to emerge, as it offered the professionals a unique and undisturbed platform for dialogue. Reflecting on the chosen method, the discussions were seen as a compelling way to approach the subject from two disciplinaries. The dialogue between the professionals progressed by exchanging ideas, reflecting and discussing different aspects of the topic. Facilitation was minimal as the groups worked well independently, and all participants had time and space for participation.

Participants wanted to contribute to the advancement of breastfeeding care in a multidisciplinary way. Purposeful sampling was used to recruit participants and attain representativeness (Moser & Korstjens 2018). Selection of participants was considered to be representative, although variability of participants may not have been attained. Since the selection of the participants was discretionary and consisted only of private sector operators, distinct perspectives and experiences may have been absent. Mutual understanding and lack of dissent during discussions may refer to homogenity of participants. The flow of the discussions and willingness of participation suggested significance of the subject and professionals' desire to advance the care practices in the field of breastfeeding difficulties.

6.3 Ethical considerations

This master's thesis followed the guidelines of responsible conduct of research, and it was conducted in a robust manner (TENK 2023). It was critical to consider ethical issues that may rise in focus group discussion setting and inform participants of these issues accordingly. In this master's thesis, all aspects of code of research ethics were considered, which included informed consent, self-determination, minimisation of harm, anonymity, and confidentiality after Declaration of Helsinki World Medical Association 2022. (Hennink & Leave 2014: 46.)

Anonymity and confidentiality concerns were thoroughly considered to protect the participants. While anonymity is impossible to achieve in a group discussion situation, confidentiality was highly emphasised to participants in the participant consent form and in the opening speech of both group discussions. There was a possibility that discussions flow outside the group, but participants were encouraged not to unveil the discussion nor their participation. (Hennink & Leave 2014: 46-47.) Privacy was maintained between the two groups. All communication towards participants was done through individual contacts only.

All participants were adults, private business owners and professionals, who were able to make their own decision of participation. Participants did not represent any organisation, and neither personal, nor patient data, or delicate information was used. Therefore, neither a research permit, nor an ethical approval was needed. (TENK 2023.) Participation was voluntary and participants had the right to withdraw from the study at any time before or during the group discussion. They were informed that suspension was not possible after the group discussion was completed. Participants received description of aim, implementation and settings of the study, which allowed them to make advised decision of the participation. Contacting the participants was done individually by personal email. Participant information sheet (Appendix 3) was sent along an email invitation. Participants were informed of group setting confidentiality, voice and video- recording of the situation and data protection procedures. Participants signed and returned a written participant consent form (Appendix 2) to the author before attending the group discussion. Participant information sheet and participant consent form were sent to participants in Finnish to avoid language barriers. Appendix 4 and appendix 5 are translations of these forms according to language of the master's thesis.

Recordings and transcriptions were stored in a Metropolia's secure drive only the author had access to. The online platform used for online discussions was Zoom, according to Metropolia University's approval of Zoom as the available online data collection platform due to European Union General Data Protection Regulation (GDPR 679/2016). Recordings of the data were accessed and analysed only by the author. The data transcription was done by the author herself. Only the voice document was used without identification. Participants' identities were coded in the transcription phase. The quotations in the results in the final report were expressed without coding to protect the identity of the participants. The video recording contained visual and audible personal data of the participants, which increased caution of the retention of the data. All information was confidential and there was no secondary use of the material. All data was destroyed after the final report was approved.

6.4 Validity and reliability

Validity and reliability are concerns of qualitative research projects, which need attention when interpreting the findings and used methods (Merriam & Tisdell 2015: 238). Validity is measuring accuracy and quality of the collected data, used instruments and analysis procedures. Different types of validity are used to determine the relation between indicators of the study design and implementation. Main types are face, content, construct and criterion validity. (Schreib 2012: 185; Guest, MacQueen & Namey 2012.) According to Schreib (2012) when qualitative content analysis is used to describe material, face and content validity are the ones in concern. Content validity means that the used instrument covers the complexity of the concept, and face validity means that the instrument is measuring what is supposed to measure (Schreib 2012: 185, Guest, MacQueen & Namey 2012). Focus group discussion as a data collection method enabled scrutinising the topic in a multidisciplinary way during the data collection phase, which allowed natural elaboration to emerge. Complexity of the topic was addressed and the contribution of the professionals to data collection was interactive, which opened space for reality of the professionals to emerge. Data collection was guided by a thematic topic guide (Appendix 1) during focus group discussions, which allowed the reader to validate used instruments. Transparency of the process enhanced validity, which is in this master's thesis sought to gain with comprehensive reporting (Merriam & Tisdell 2015: 239). The generalisability of focus group findings is ambiguous, which should be considered through representativeness of sample, and observed in relation to previous research findings from the field (Fern 2001: 124-125). As this kind of setting

has not been previously used to study professionals' experiences of the topic, generalisability is considered to be preliminary. Literature confirms professional's insights, which implies some degree of accuracy of the findings.

Limitations of the study include small sample size and limited variability of participants. These limitations may have increased bias and affected results. Mutual understanding and confirming responses, which indicate congruent thoughts of participants, were observed. This may indicate homogeneous nature of participants, or consistency to the subject in the field. Composition of the groups may have affected the flow and direction of the discussion. It was observed by the author that participants felt relaxed during discussions, and shared their views and concerns, or explored their alternative opinions freely. The author had limited experience of the role as a facilitator, which may have influenced the flow of discussions. Influence of facilitation helped enhance discussions further according to aim of the study, but interventions were minimal due to flow and natural development of the discussions. Interactions in the groups had a positive effect in the data collection. Although sample size was small, richness of the data indicates that saturation was reached. This could have been verified with an additional focus group discussion.

The data collection was done in Finnish, since all participants were Finnish-speaking. This eased the discussion during data collection between participants. Translation of results after data analysis was done by the author. Mother tongue of the author is Finnish. Despite the author's good level of knowledge in English, a possibility to mistranslation exists. The main concern was that translation changes the core of the content. The use of common phrases, vocabulary familiar from literature of both topics, and thorough translation were key components of reducing these concerns. The data analysis was done by following the steps of inductive content analysis. The process was not particularly familiar to the author, which may have affected the analysis and results.

Bias and subjectivity were reflected widely during the thesis process, as the author is familiar with the topic, and working in the field of paediatric osteopathy as an osteopath. Subjectivity was enhanced with self-reflection and content analyses based on data and language used by participants. Literature was explored widely in order to gain comprehensive view of the current knowledge. Data collection was directed by the thematic topic guide, and all phases of the thesis process were planned for advance objectivity.

In this study triangulation was used to determine whether the informants endorse the findings. As the study was conducted by one person, the risk for bias was higher and it was essential to objectively evaluate it in every step of the study. Triangulation was used to reduce bias and enhance validity and creditability of the study (Patton 1999). The results were sent to the participants for evaluation with request for comments to increase the trustworthiness and creditability of the study. The participants had the opportunity to comment the result and participate in further discussion. All eight participants received the results by email. Two of them replied without conflicting comments.

7 Conclusion

Breastfeeding difficulties influence a high proportion of families, and life with a neonate can be stressful. Breastfeeding difficulties require appropriate intervention at an early phase of occurrence, based on individual needs of the family. Best practices are well-known in Finland where guidelines and recommendations at the national level are regulated by Finnish Institute for Health and Welfare. (Mäkelä, Axelin, Kolari & Niela-Vilén 2023; Hakulinen, Otronen & Kuronen 2017.) Persistent breastfeeding difficulties may still remain unresolved in public health care system, and families seek help from private health care providers for breastfeeding difficulties. Lactation consultants and osteopaths in private sector are commonly used services in Finland for breastfeeding difficulties, which directed the author to study the phenomenon. The aim of this master's thesis was to explore collaboration between lactation consultants and osteopaths to manage breastfeeding difficulties in a multidisciplinary way. The purpose was to examine the potential of osteopathic care as part of multidisciplinary collaboration.

Selected methodology of qualitative research was well-suited for the purpose of this master's thesis, as the aim was to seek deep and broad community-level experiences and perspective. Applying qualitative inductive methods offered possibility to dive into the experiences of professionals and seek meaning and understanding behind practices. Focus group discussion between two disciplines offered insights of the professionals' perceptions and experiences, which illustrated a multifactorial and complex phenomenon. The participants' interest implied that the topic was important and meaningful among professionals working with breastfeeding families and multidisciplinary perspective was appreciated in the field.

Families deserve appropriate and timely care from health care professionals for breastfeeding difficulties. The results of this master's thesis drew a comprehensive picture of professionals' clinical experiences and perceptions of managing breastfeeding difficulties in a multidisciplinary way. According to the findings, breastfeeding difficulties cannot be looked at from one perspective or discipline, but rather as a multifactorial phenomenon, where multidisciplinary, psycho-emotional and family-centred approaches are key elements for valuable, functional, efficient understanding, guidance and care. Advantage of multidisciplinary approach was highly emphasised among lactation consultants and osteopaths. Collaboration of the disciplines was described influential and beneficial, and paediatric osteopathy was valued highly based on clinical experiences of the professionals. Paediatric osteopathy was seen as a potential and valuable part of clinical practices in managing breastfeeding difficulties in a multidisciplinary way, especially when lactation consultation alone does not bring resolution. Osteopathy was seen to further advance results of lactation consultation and bring new perspective and approach to the entity of care. Restrictions, strains and anatomical features of infant's physical body were addressed by both disciplines with recommendation for evaluation and proper treatment of them when breastfeeding difficulties occur. Emphasis was given to prevention and early intervention for breastfeeding related difficulties with neonate, because the timeframe for resolving difficulties and supporting initiation and continuation of breastfeeding is narrow. Lactation consultation and the start of osteopathic care were ideally placed in the first days and months of a neonate. The professionals envisioned osteopathic care as a part of the care in maternity hospital after birth and placed osteopaths in child health clinics as a part of a multidisciplinary team.

Further research is needed with quantifiable results and qualitative aspects of multidisciplinary approach of breastfeeding difficulties. High quality research on effects of osteopathic care in breastfeeding difficulties is needed with emphasis on biopsychosocial aspects. Piloting multidisciplinary care between lactation consultant and osteopath during the first months of infancy is proposed. Simultaneously, it would be valuable to collect perceptions of families receiving multidisciplinary care to further increase understanding of different aspects of interventions.

References

Alizadeh-Dibazari, Z. & Abdolalipour, S. & Mirghafourvand,M. 2023. The effect of prenatal education on fear of childbirth, pain intensity during labour and childbirth experience: a scoping review using systematic approach and meta-analysis. BMC Pregnancy and Childbirth. 23:541https://doi.org/10.1186/s12884-023-05867-0.

Arcuri, L. & Consorti, G. & Tramontano, M. & Petracca, M. & Esteves, J. & Lunghi, C. 2022. “What you feel under your hands”: exploring professionals’ perspective of somatic dysfunction in osteopathic clinical practice – a qualitative study. Chiropractic & Manual Therapies. 30:32. https://doi.org/10.1186/s12998-022-00444-2.

Baker, J. 2016. The Purpose, Process, and Methods of Writing a Literature Review. AORN Journal. Vol 103, No 3. http://dx.doi.org/10.1016/j.aorn.2016.01.016.

Bergman, N. 2023. Breastfeeding and Nurturescience. In C. Genna (Eds.). Supporting Sucking Skills of Breastfeeding Infant. Burlington, MA: Jones & Barret Learning. 49–64.

Bradshaw, C. & Atkinson, S. & Doody, O. 2017. Employing a Qualitative Descriptive Approach in Health Care Research. Global Qualitative Nursing Research. 4. 1–8. https://doi.org/10.1177/2333393617742282.

Carreiro, J. 2009a. An Osteopathic Approach to Children. Second edition. Churchill Livingstone. Elsevier Limited.

Carreiro, J. 2009b. Pediatric Manual Medicine an Osteopathic Approach. Churchill Livingstone. Elsevier Limited.

Cohen, S. & Alexander, D. & Krebs, N. & Young, B. & Cabana, M. & Erdmann, P. & Hays, N. & Bezold, C. & Levin-Sparenberg, E. & Turini, M. & Saavedra, J. 2018. Factors Associated with Breastfeeding Initiation and Continuation: A Meta-Analysis. The Journal of Pediatrics. 203. 190-196e21. https://doi.org/10.1016/j.jpeds.2018.08.008.

Colson, S & Meek, J. & Hawdon, J. 2008. Optimal positioning for the release of primitive neonatal reflexes stimulating breastfeeding. Early Human Development. 84. 441–449.

Conaway, E. & O’Donnell, A. 2021. Osteopathic consideration for breastfeeding mother. Journal of Osteopathic Medicine. 121 (10). 805–811.

Cordray, H. & Mahendran, G. & Tey, C. S. & Nemeth, J. & Sutcliffe, A. & Ingram, J. & Raol, N. 2022. Severity and prevalence of ankyloglossia-associated breastfeeding symptoms: A systematic review and meta-analysis. Acta Paediatrica. 112. 347–357. DOI: 10.1111/apa.16609.

Cordray, H. & Raol, N. & Mahendran, G. & Tey, C. S. & Nemeth, J. & Sutcliffe, A. & Ingram, J. & Sharp, W. 2024. Quantitative Impact of Frenotomy on Breastfeeding: A Systematic Review and Meta- analysis. Pediatric Research. 95. 34–42. https://doi.org/10.1038/s41390-023-02784-y.

Cornall, D. 2011. A review of the breastfeeding literature relevant to osteopathic practice. International Journal of Osteopathic Medicine. 14 (2). 61–66.

Cornall, D. 2015. Promoting Optimal Breastfeeding Through the Osteopathic Therapeutic Cycle. PhD thesis. Victoria. Victoria University. https://vuir.vu.edu.au/26290/3/CORNALL%20Denise-thesis_nosignature.pdf.

Creswell, J. 2014. Research Design: Qualitative, Quantitative, and Mixed Method Approaches. 4th edition. California: SAGE Publications.

Douglas, P. & Geddes, D. 2018. Practice-based interpretation of ultrasound studies leads the way to more effective clinical support and less pharmaceutical and surgical intervention for breastfeeding infants. Midwifery. 58. 145–155.

Douglas, P. & Keogh, R. 2017. Gestalt Breastfeeding: Helping mothers and infants optimize positional stability and intraoral breast tissue volume for effective, pain-free milk transfer. Journal of Human Lactation. 33 (3). 509–518.

Doyle, L. & McCabe, C. & Keogh, B. & Brady, A. & McCann, M. 2020. An overview of the qualitative descriptive design within nursing science. Journal of Research in Nursing. 25 (5). 443–445.

Elo,S. & Kyngäs,H. 2008. The qualitative content analysis process. Journal of Advanced Nursing. 62 (1). 107–115.

Elo, S. & Kääriäinen, M. & Kanste, O. & Pölkki, T. & Utriainen, K. & Kyngäs, H. 2014. Qualitative Content Analysis. A Focus on Trustworthiness. SAGE Open. https://doi.org/10.1177/2158244014522633.

Fern, E. 2001. Advanged focus group research. California: Sage Publications.

Finnish Association for Osteopaths. Suomen Osteopaattiliitto Ry. 2023. https://osteopaattiliitto.fi/. Accessed 2 February 2024.

Finnish institute for health and welfare. 2023. Imetysohjaajakoulutus. <https://thl.fi/fi/web/lapset-nuoret-ja-perheet/kehittyvat-kaytannot/vauvamyonteisyys/imetysohjaajakoulutus>. Accessed 20 February 2024.

Finnish institute for health and welfare 2023b. Vauvamyönteisyysohjelma synnytyssairaaloille. <https://thl.fi/fi/web/lapset-nuoret-ja-perheet/kehittyvat-kaytannot/vauvamyonteisyys/vauvamyonteisyysohjelma-synnytyssairaaloille>. Accessed 20 March 2024.

Fraval, M. 1998. A Pilot study: Osteopathic treatment of infant with a sucking dysfunction. Journal of the American Academy of Osteopathy. 8(2). 25–33.

Franke, H. & Franke, J-D. & Fryer, G. 2022. Effectiveness of osteopathic manual treatment for pediatric conditions: A systematic review. Journal of body and movement therapies. 31. 113–133. https://doi.org/10.1016/j.jbmt.2022.03.013.

Fryer, G. 2016. Somatic dysfunction: An osteopathic conundrum. International Journal of Osteopathic Medicine. 22. 52–63. http://dx.doi.org/10.1016/j.ijosm.2016.02.002.

Frymann, V. 2000. The collected Papers of Viola Frymann, DO. Legacy of Osteopathy to Children. (Toim. Hollis Heaton King, DO, PhD.) Michigan: American Academy of Osteopathy.

GDRP. 2016/679. Data Protection Act 2018, c. 12. Available at: https://www.legislation.gov.uk/ukpga/2018/12/contents/enacted. Accessed 28 April 2024.

Geddes, D. & Sakalidis, V. 2015. Breastfeeding: How do they do it? Infant sucking, swallowing and breathing. Infant. 11(5). 146–150.

Genna, C. 2023. The Influence of Anatomic and Structural Issues on Sucking Skills. In C. Genna (Eds.). Supporting Sucking Skills of Breastfeeding Infants. Burlington, MA: Jones & Barret Learning. 219–302.

Genna, C. & Fram, J. 2023. The Changing Perspective on Tongue-Tie. In C. Genna (Eds.). Supporting Sucking Skills of Breastfeeding Infants. Burlington, MA: Jones & Barret Learning. 303–345.

Genna, C. & Rabin, J. 2023. Breastfeeding: Normal sucking and Swallowing. In C. Genna (Eds.). Supporting Sucking Skills in Breastfeeding Infant. Burlington, MA: Jones & Barret Learning.1-48.

Gessa, A. & Greaves, I. & Draper-Rodi, J. 2024. The Role of touch in osteopathic clinical Encounters- A scoping review. International Journal of Osteopathic Medicine. 51. 100704. https://doi.org/10.1016/j.ijosm.2023.100704.

Gianni, M. & Bettinelli, M. & Manfra, P. & Sorrentino G. & Bezze, E. & Plevani, L. & Cavallaro, G. & Raffaeli, G. & Crippa, B. & Colombo, L. & Morniroli, D. & Liotto, N. & Roggero, P. & Villamor, E. & Marchisio, P. & Mosca, F. 2019. Breastfeeding Difficulties and Risk for Early Breastfeeding Cessation. Nutrients. 11. 2099. https://doi:10.3390/nu11102266.

González Garrido, M.d.P. & Garcia-Munoz, C. & Rodríguez- Huguet, M. & Martin-Vega, F.J. & Gonzalez-Medina, G. & Vinolo-Gil, M.J. 2022. Effectiveness of Myofunctional Therapy in Ankyloglossia: A Systematic Review. International Journal of Environmental Research and Public Health. 19. 12347. https://doi.org/10.3390/ ijerph191912347.

Greenwood, K. & Engel, R. & Grace, S. 2022. Osteopathic intervention for infants with breastfeeding difficulty: A retrospective case series, International Journal of Osteopathic Medicine. doi: https://doi.org/10.1016/j.ijosm.2022.11.005.

Guest, G. & MacQueen, K. & Namey, E. 2012. Applied Thematic Analysis. California: SAGE Publications.

Hakulinen, T. & Otronen, K. & Kuronen, M. 2017. Kansallinen imetyksen edistämisen toimintaohjelma vuosille 2018-2022. Ohjaus 24. Terveyden ja hyvinvoinninlaitos/ Finnish institute for health and welfare (THL).

Hakulinen, T. & Hietanen-Peltola, M. & Jahnukainen, J. & Vaara, S. 2021. Palveluja maskin takaa: Neuvoloiden sekä koulu- ja opiskeluterveydenhuollon palvelut koronakeväänä 2021. Document 15/2021. Terveyden ja hyvinvoinninlaitos/ Finnish institute for health and welfare (THL). http://urn.fi/URN:ISBN:978-952-343-681-7.

Hennink, M. & Leave, P. 2014. Focus Group Discussions - Understanding Qualitative Research. New York: Oxford University PressIncorporated. ProQuest Ebook Central. https://ebookcentral.proquest.com/lib/metropolia-ebooks/detail.action?docID=1630622.

Herzhaft-Le Roy, J. & Xhignesse, M. & Gaboury, I. 2017. Efficacy of an Osteopathic Treatment Coupled with Lactation Consultations for Infants' Biomechanical Sucking Difficulties: A Randomized Controlled Trial. Journal of Human Lactation. 33(1). 165–172.

Holloway, I. & Wheeler, H. 2010. Qualitative Research in Nursing and Healthcare. United Kingdom: John Wiley &Sons Ltd.

Ikonen, R. & Hakulinen, T. & Lyytikäinen, A. & Mikkola, K. & Niinistö, S. & Sarlio, S. & Virtanen, S. 2020. Imeväisikäisten ruokinta Suomessa vuonna 2019. Report: 11. Terveyden ja hyvinvoinnin laitos (THL)/ Finnish institute for health and welfare.

Ikonen, R. & Kaunonen, M. & Hakulinen, T.2023. In-hospital supplementation and subsequent breastfeeding practices in Finland: A cross-sectional population-level study. Birth. 50. 171–181. DOI: 10.1111/birt.12696.

Imetyksen tuki ry. 2024. Breastfeeding peer support in English. https://imetys.fi/in-english/. Accessed 4 March 2024.

Jouhier, M. & Boscher, C. & Roze, J-C. & Cailleau, N. & Chaligne, F. & Legrand, A & Flamant, C. & Muller J-B. 2021. Osteopathic manipulative treatment to improve exclusive breast feeding at 1 month. Archives of Disease in Childhood - Fetal and Neonatal Edition.106. 591–595.

Kaiser, G. & Degenhardt, B. & Menke, M. & Snider, K. 2020. Characteristics and Treatment of Pediatric Patients in an Osteopathic Manipulative Medicine Clinic. The Journal of the American Osteopathic Association. 120 (3). 153–163.

Kim, H. & Sefcik, J. & Bradway, C. 2017. Characteristics of Qualitative Descriptive Studies: A Systematic Review. Research in Nursing & Health. 40 (1). 23–42. https://doi.org/10.1002/nur.21768

Korstjens, I. & Moser, A. 2017. Series: Practical guidance to qualitative research. Part 2: Context, research questions and designs. European Journal of General Practice. 23(1). 274–279. https://doi.org/10.1080/13814788.2017.1375090.

Kuchera, W. & Kuchera, M. 1994. Osteopathic Principles in Practice. Revised Second Edition. Columbus, Ohio: Greyden Press.

Lavigne, V. 2016. Lactation Consultants' Perceptions of Musculoskeletal Disorders Affecting Breastfeeding: A Cross-Sectional Survey. Clinical Lactation. 7 (1). 30–36.

Leavy, P. 2017. Research Design: Quantitative, Qualitative, Mixed Methods, Arts-Based, and Community-Based Participatory Research Approaches. New York: The Guilford Press.

McGlone, F. & Cerritelli, F. & Walker, S. & Esteves, J. 2017. The role of gentle touch in perinatal osteopathic manual therapy. Neuroscience and Biobehavioral Reviews. 72. 1-9. https://doi: 10.1016/j.neubiorev.2016.11.009.

McParlin, Z. & Cerritelli, F. & Friston, K. & Esteves, J. 2022. Therapeutic Alliance as Active Inference: The role of Therapeutic Touch and Synchrony. Frontiers in Psychology. 13:783694. https://doi.org/10.3389/fpsyg.2022.783694.

Ministry of Social Affairs and Health 2024. Maternity and child health clinics. Updated 17 January 2024. https://stm.fi/en/maternity-and-child-health-clinics. Accessed 6 March 2024.

Merriam, S. & Tisdell, E. 2015. Qualitative Research: A Guide to Design and Implementation. John Wiley & Sons, Incorporated. ProQuest Ebook Central. https://ebookcentral.proquest.com/lib/metropolia-ebooks/detail.action?docID=2089475.

Moeckel, E. & Mitha, N. 2008. Textbook of Pediatric Osteopathy. Edinburgh: Elsevier Limited.

Moser, A. & Korstjens, I. 2017. Series: Practical guide to qualitative research. Part 1: Introduction. Europan Journal of General Practice. 23(1). 271–273. https://doi.org/10.1080/13814788.2017.1375093.

Moser, A. & Korstjens, I. 2018. Series: Practical guide to qualitative research. Part 3: Samplind, data collection and analysis. European Journal of General Practice. 24(1). 9–18. https://doi.org/10.1080/13814788.2017.1375091.

Mäkelä, H. & Axelin, A. & Kolari, T. & Niela-Vilén, H. 2023.Exclusive breastfeeding, breastfeeding problems, and maternal breastfeeding attitudes before and after the baby-friendly hospital initiative: A quasi-experimental study. Sexual & Reproductive Healthcare. 35. 100806. https://doi.org/10.1016/j.srhc.2022.100806.

National Nutrition Council. 2019. Syödään yhdessä – ruokasuositukset lapsiperheille. Kide 26. 2.edition. Terveyden ja hyvinvoinnin laitos. https://urn.fi/URN:ISBN:978-952-343-254-3.

Neergaard, M. & Olesen, F. & Andersen, R. & Sondergaard, J. 2009. Qualitative description – the poor cousin of health research?. BMC Medical Research Methodology 9. 52. https://doi.org/10.1186/1471-2288-9-52.

Nieminen, S. & Hietanen-Peltola, M. & Mahkonen, R. & Pyrhönen, K. 2024. Terveystarkastukset ja muut käynnit äitiys- ja lastenneuvolassa vuonna 2022 sekä kouluterveydenhuollossa lukuvuonna 2022–2023. Report 9/2024. Terveyden ja hyvinvoinninlaitos/ Finnish institute for health and welfare (THL). https://urn.fi/URN:NBN:fi-fe202402218087.

Patton, M. 1999. Enhancing the Quality and Credibility of Qualitative Analysis. Health Service Research. 34 (5 Pt2). 1189–1208.

Pollard, M. 2012. Evidence-based care for breastfeeding mothers: A Source for midwifes and allied healthcare professionals. Abingdon, Oxfordshire: Routledge.

Pérez-Escamilla, R. & Tomori, C. & Hernández-Cordero, S. & Baker, P. & Barros, A. & Bégin, F. & Chapman, D. & Grummer-Strawn, L. & McCoy, D. & Menon, P. & Neves, P. & Piwoz, E. & Rollins, N. & Victora, C. & Richter, L. 2023. Lancet Breastfeeding Series. Breastfeeding: crucially important, but increasingly challenged in a market-driven world. Lancet. 401. 472–85.

Pizzolorusso, G. & Cerritelli, F. & D'Orazio, M. & Cozzolino, V. & Turi, P. & Renzetti, C. & Barlafante, G. & D'Incecco, C. 2013. Osteopathic Evaluation of Somatic Dysfunction and Craniosacral Strain Pattern Among Preterm and Term Newborns. The Journal of American Osteopathic Association. Article. 462– 467. http://jaoa.org/data/journals/jaoa/932176/462.pdf.

Schreir, M. 2012. Qualitative Content Analysis in Practice. London: SAGE Publications.

Schwerla, F. & Daake, B. & Moeckel, E. & Resch, K. 2021. Most common health concerns in osteopathic practices in Germany. A Survey. Journal on Bodywork and Movement Therapies. 28. 114–120.

Seffinger, M. 2011. Overview of the Osteopathic Medical Profession in Foundations of Osteopathic Medicine. Executive editor Antony Chila. 3rd Ed. Baltimore: Lippincott Williams & Wilkins.

Sergueef, N. 2007. Cranial Osteopathy for infants, children and adolescents. A practical book. Edinburg, UK: Churchill Livingstone.

Smillie, C. 2023. How Infants Learn to Feed: A Neurobehavioral Model. In C. Genna (Eds.). Supporting Sucking Skills of Breastfeeding Infants. Burlington, MA: Jones & Barret Learning. 89–111.

TENK - The Finnish National Board on Research Integrity. 2023. Responsible Conduct of Research. https://tenk.fi/en/research-misconduct/responsible-conduct-research-rcr. Accessed 27 March 2024.

Thomas, D. 2006. A General Inductive Approach for Analyzing Qualitative Evaluation Data. American Journal of Evaluation. 27 (2). 237–246.

Tobey, H. & Kozar, A. 2018. Frequency of Somatic Dysfunction in Infants with Tongue-Tie: A Retrospective Chart Review. The AAO Journal. 28 (4). 10–14.

University of Oulu. 2024. LINNE- Tutkimus. https://www.oulu.fi/fi/projektit/linne-tutkimus. Accessed 27 March 2024.

Victora, C. & Bahl, R. & Barros, A. & França, G. & Horton, S. & Krasevec, J. & Murch, S. & Sankar, M. & Walker, N. & Rollins, N. 2016. Breastfeeding in the 21st century: epidemiology, mechanisms and lifelong effect. Lancet. 387. 475–90.

Vallone, S. 2023. Hands in Support of Breastfeeding: Manual Therapy. In C. Genna (Eds.). Supporting Sucking Skills of Breastfeeding Infants. Burlington, MA: Jones & Barret Learning. 347–379.

Waddington, E. & Snider, K. & Lockwood, M & Pazdernik, V. 2015. Incidence of Somatic Dysfunction in Healthy Newborns. The Journal of American Osteopathic Association. Article. 11. <http://jaoa.org/data/journals/jaoa/934618/654.pdf>.

Watts, K. & Lagouros, M. 2020. Osteopathic Manipulative Treatment and Breastfeeding. Clinical Lactation. 11 (1). 28–34.

Wolf, L. & Glass, R. 2023. The Goldilocks Problem: Milk Flow That Is Not Too Fast, Not Too Slow, but Just Right or, Why Milk Flow Matters and What to Do About It. In C. Genna (Eds.). Supporting Sucking Skills of Breastfeeding Infants. Burlington, MA: Jones & Barret Learning. 153–172.

World Health Organization. 2010. Benchmarks for training in traditional / complementary and alternative medicine: benchmarks for training in osteopathy. World Health Organization. https://apps.who.int/iris/handle/10665/44356.

World Health Organization (WHO) and United Nations Children's Fund (UNICEF). 2018. Implementation guidance: protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services. The revised Baby-friendly Hospital Initiative. Geneva. Licence: CC BY-NC-SA 3.0 IGO.

World Health Organization. 2023. Infant and young child feeding. Online document June 9 2021. <https://www.who.int/news-room/fact-sheets/detail/infant-and-young-child-feeding>. Accessed 18 March 2024.

Thematic topic guide and guiding questions for focus groups

1. What is your typical consideration with patients presenting breastfeeding issues?
2. Why is lactation consultation needed?
3. Why lactation consultation may lack efficacy?
4. What are your thoughts of the current practices to solve breastfeeding issues?
5. How osteopathic approach effect in breastfeeding issues from your point of view? Why?
6. What kind of thoughts you have of osteopathic approach in breastfeeding issues?
7. What kind of collaboration is useful or needed from your point of view?
8. What kind of referrals do you use and prefer? Why?
9. If you could be the one in charge of developing a support strategy for breastfeeding issues, what would you do and what kind of process of services would you develop?

Metropolia

Tutkittavan suostumus

Tutkimuksen nimi: Moniammatillinen lähestyminen imetysongelmien hoitamiseen – Yhteistyö imetysohjaajan ja osteopaatin välillä. Metropolia ammattikorkeakoulun maisterityö osteopatian tutkinto-ohjelmassa.

Tutkimuksen toteuttaja: Metropolia Ammattikorkeakoulu. Maisterityön tekijä Minna Sillantaka, [redacted]. Maisterityön ohjaaja Heini Maisala-McDonnell, [redacted].

Minua _____ on pyydetty osallistumaan yllämainittuun tutkimukseen, jonka tarkoituksena on tutkia moniammatillisesta näkökulmasta yhteistyötä imetysohjaajan ja osteopaatin välillä imetysongelmien hoitamisessa.

Olen saanut tiedotteen tutkimuksesta ja ymmärtänyt sen. Tiedotteesta olen saanut riittävän selvityksen tutkimuksesta, sen tarkoituksesta ja toteutuksesta, oikeuksistani sekä tutkimuksen mahdollisesti liittyvistä hyödyistä ja riskeistä. Minulla on ollut mahdollisuus esittää kysymyksiä ja olen saanut riittävän vastauksen kaikkiin tutkimusta koskeviin kysymyksiini.

Olen saanut tiedot tutkimukseen mahdollisesti liittyvästä henkilötietojen keräämisestä, käsittelystä ja luovuttamisesta ja minun on ollut mahdollista tutustua tutkimuksen tietosuojaselosteeseen.

Osallistun tutkimukseen vapaaehtoisesti. Minua ei ole painostettu eikä houkuteltu osallistumaan tutkimukseen.

Minulla on ollut riittävästi aikaa harkita osallistumistani tutkimukseen.

Ymmärrän, että osallistumiseni on vapaaehtoista ja että voin peruuttaa tämän suostumukseni koska tahansa syytä ilmoittamatta. Olen tietoinen siitä, että mikäli keskeytän tutkimuksen tai peruutan suostumuksen, minusta keskeyttämiseen ja suostumuksen peruuttamiseen mennessä kerättyjä tietoja ja näytteitä voidaan käyttää osana tutkimusaineistoa.

Allekirjoituksellani vahvistan osallistumiseni tähän tutkimukseen.

Jos tutkimukseen liittyvien henkilötietojen käsittelyperusteena on suostumus, vahvistan allekirjoituksellani suostumukseni myös henkilötietojeni käsittelyyn. Minulla on oikeus peruuttaa suostumukseni tietosuojaselosteessa kuvatulla tavalla.

_____, ____ - ____ - _____

Allekirjoitus: _____

Nimenselvennys: _____

Alkuperäinen allekirjoitettu tutkittavan suostumus sekä kopio tutkimustiedotteesta liitteineen jäävät tutkijan arkistoon. Tutkimustiedote liitteineen ja kopio allekirjoitetusta suostumuksesta annetaan tutkittavalle.

Metropolia Ammattikorkeakoulu | PL 4000 00079 Metropolia | Myllypurontie 1 00920 Helsinki | Puhelin 09 7424 5000 | www.metropolia.fi Y-tunnus: 2094551-1

Metropolia

Tutkittavan informointilomake

TIEDOTE TUTKIMUKSESTA

Moniammatillinen lähestyminen imetysongelmien hoitamiseen – Yhteistyö imetysohjaajan ja osteopaatin välillä

Pyyntö osallistua tutkimukseen

Teitä pyydetään mukaan maisteritason opinnäytetyöhöni, jossa tutkitaan osteopaattisen hoidon potentiaalia osana moniammatillista yhteistyötä imetysohjaajan kanssa imetysongelmien hoitamisessa. Olen arvioinut, että sovellutte tutkimukseen sekä asiantuntijuutenne vuoksi että jatkuvasta työstänne oman alanne kehittäjänä imetysongelmien hoitamisessa. Työhön otetaan mukaan kahdeksan ammattilaista, neljä osteopaattia ja neljä imetysohjaajaa.

Tämä tiedote kuvaa tutkimusta ja teidän osuuttanne siinä. Perehdyttyänne tähän tiedotteeseen teille järjestetään mahdollisuus esittää kysymyksiä tutkimuksesta, jonka jälkeen teiltä pyydetään suostumus tutkimukseen osallistumisesta.

Vapaaehtoisuus

Tutkimukseen osallistuminen on täysin vapaaehtoista. Voitte myös keskeyttää tutkimuksen koska tahansa syytä ilmoittamatta. Mikäli keskeytätte tutkimuksen tai peruutatte suostumuksen, voidaan teiltä keskeyttämiseen ja suostumuksen peruuttamiseen mennessä kerättyjä tietoja käyttää osana tutkimusaineistoa.

Tutkimuksen tarkoitus

Tämän tutkimuksen tarkoituksena on tutkia moniammatillisesta näkökulmasta yhteistyötä imetysohjaajan ja osteopaatin välillä imetysongelmien hoitamisessa. Työssä tutkitaan osteopaaattisen hoidon potentiaalia osana moniammatillista yhteistyötä.

Tutkimuksen toteuttajat

Tämä opinnäytetyö toteutetaan osana osteopatian ylemmän ammattikorkeakoulun tutkintoa. Vastaava organisaatio on Metropolia ammattikorkeakoulu. Opinnäytetyön tekijä on Minna Sillantaka. Työhön ei sisälly rahoitusta.

Tutkimusmenetelmät ja toimenpiteet

Teitä pyydetään ottamaan osaa yhteen ryhmäkeskusteluun, joka kestää korkeintaan yhden tunnin. Ryhmäkeskustelu järjestetään etäyhteydellä Zoom- palvelussa. Keskusteluryhmä koostuu kahdesta osteopaatista ja kahdesta imetysohjaajasta. Ryhmäkeskustelussa haastateltavalta pyydetään aktiivista osallistumista keskusteluun imetysongelmien hoitokäytänteistä, hoitamisesta ja moniammatillisesta yhteistyöstä nyt ja tulevaisuudessa. Ryhmäkeskustelu tarjoaa mahdollisuuden monipuoliselle keskustelulle.

Osallistuja ottaa osaa ryhmäkeskusteluun sovittuna aikana. Linkki Zoom- tapaamiseen lähetetään etukäteen. Kamera on auki keskustelun aikana, jotta voidaan parhaiten luoda ryhmäkeskustelulle antoisa ilmapiiri. Vain keskustelusta saatava puhe litteroidaan ja analysoidaan laadullisen analyysimenetelmää käyttäen. Tuloksena on kuvaus moniammatillisesta yhteistyöstä. Osallistujille annetaan mahdollisuus kommentoida tuloksia.

Metropolia

Tutkittavan informointilomake

Tutkimuksen mahdolliset hyödyt

Saatte mahdollisuuden osallistua fasilitoituun moniammatilliseen keskusteluun. Keskustelun aikana on mahdollista kehittyä uusia näkökulmia käsiteltävästä aiheesta.

Tutkimuksesta mahdollisesti seuraavat haitat ja epämukavuudet

Anonymiteetti ei toteudu ryhmäkeskustelussa. Olet tunnistettavissa ryhmäsi jäsenten keskuudessa. Anonymiteetti toisen työhön osallistuvan ryhmän välillä säilyy. Osallistuja on salassapitovelvollinen eikä keskustelusta tai osallistumisesta saa kertoa ryhmäkeskustelun ulkopuolisille.

Kustannukset ja niiden korvaaminen

Tutkimukseen osallistuminen ei maksa teille mitään. Osallistumisesta ei myöskään makseta erillistä korvausta.

Tutkimustuloksista tiedottaminen

Opinnäytetyö julkaistaan avoimesti verkossa Theseus-tietokannassa. Arvioitu työn julkaisuaika on syksyllä 2023. Osallistujille tiedotetaan, kun opinnäytetyö on julkaistu. Osallistujia ei voi tunnistaa tuloksista.

Lisätiedot

Pyydämme teitä tarvittaessa esittämään tutkimukseen liittyviä kysymyksiä tutkimuksesta vastaavalle henkilölle.

Tutkijoiden yhteystiedot

Opinnäytetyötekijä
Nimi: Minna Sillantaka
Puh. [redacted]
Sähköposti: [redacted]

Opinnäytetyön ohjaaja
Titteli: Lehtori
Nimi: Heini Maisala-McDonnell
Metropolia ammattikorkeakoulu
Puh. [redacted]
Sähköposti: [redacted]

Metropolia

Tutkittavan informointilomake

Tutkimuksen tietosuojaseloste: Henkilötietojen käsittely tutkimuksessa

Tässä tutkimuksessa käsitellään teitä koskevia henkilötietoja voimassa olevan tietosuojalainsäädännön (EU:n yleinen tietosuoja-astus, 679/2016, ja voimassa oleva kansallinen lainsäädäntö) mukaisesti. Seuraavassa kuvataan henkilötietojen käsittelyyn liittyvät asiat.

Tutkimuksen rekisterinpitäjä
Rekisterinpitäjällä tarkoitetaan tahoa, joka yksin tai yhdessä toisten kanssa määrittelee henkilötietojen käsittelyn tarkoitukset ja keinot. Rekisterinpitäjä voi olla korkeakoulu, toimeksiantaja, muu yhteistyötaho, opinnäytetyöntekijä tai jotkut edellä mainituista yhdessä (esim. korkeakoulu ja opinnäytetyöntekijä yhdessä).

Tässä tutkimuksessa henkilötietojen rekisterinpitäjä on Minna Sillantaka, joka on vastuussa tietojen käsittelystä koko opinnäytetyöprosessin ajan. Tietoa kerätään vain kyseessä olevaa tutkimusta varten eikä sitä käytetä muuhun tarkoitukseen. Käytettävät alustat kommunikaatioon ja tietojen säilytykseen valitaan Metropolia Ammattikorkeakoulun ohjeiden perusteella.

Voitte kysyä lisätietoja henkilötietojenne käsittelystä rekisteripitäjän yhteyshenkilöltä

Rekisterinpitäjän yhteyshenkilön nimi: Minna Sillantaka
[redacted]
Sähköposti: [redacted]

Tutkimuksessa teistä kerätään seuraavia henkilötietoja
Henkilötietojen käsittely on oikeutettua ainoastaan silloin, kun se on tutkimukselle välttämätöntä. Kerättävät henkilötiedot on minimoitava, niitä ei saa kerätä tarpeettomasti tai varmuuden vuoksi.

Henkilötietoa, joita tässä opinnäytetyössä kerätään, on anonyymi puhemateriaali ryhmäkeskustelusta. Äänite hävitetään opinnäytetyön valmistuttua. Teillä ei ole sopimukseen tai lakisääteiseen tehtävään perustuvaa velvollisuutta toimittaa henkilötietojanne vaan osallistuminen on täysin vapaaehtoista.

Tutkimuksessa kerätään henkilötietojanne myös seuraavista lähteistä

Tutkimuksessa ei kerätä henkilötietojanne muista lähteistä.

Henkilötietojenne suojausperiaatteet
Opinnäytetyöntekijä ottaa yhteyttä osallistujaan Metropolia ammattikorkeakoulun sähköpostilla. Ryhmäkeskustelut pidetään Zoom-palvelussa, joka on Metropolia ammattikorkeakoulun hyväksymä verkkoalusta. Kaikki materiaali tallennetaan opinnäytetyöntekijän salasanalla suojatulle tietokoneelle salasanalla suojattuun tiedostoon. Vain opinnäytetyön tekijällä on pääsy tietokoneeseen. Kerätty tieto on luottamuksellista. Kaikki tieto ja nauhoitteet, kun lopullinen opinnäytetyö on hyväksytty. Arvioitu aikataulu on syksy 2023.

Metropolia

Tutkittavan informointilomake

Henkilötietojenne käsittelyn tarkoitus
Henkilötietojenne käsittelyn tarkoitus on tutkimuskysymykseen vastaaminen ryhmäkeskusteluista kerätyn aineiston analyysin perusteella. Tämän tutkimuksen tarkoituksena on tutkia moniammatillisesta näkökulmasta yhteistyötä imetysohjaajan ja osteopaatin välillä imetysongelmien hoitamisessa

Henkilötietojenne käsittelyperuste
Henkilötietojenne käsittelyn oikeusperuste on suostumus.

Voit vetäytyä tutkimuksesta halutessasi, kuten on kuvattu tässä informointilomakkeessa.

Tutkimuksen kestoaika (henkilötietojenne käsittelyaika)
Tutkimus on kertaluontoinen. Henkilötietoja käsitellään opinnäytetyön valmistumiseen asti. Työn arvioitu valmistumisajankohta on syksy 2023. Jos valmistuminen myöhästyy opinnäytetyön tekijästä johtuvista syistä, työn arvioidaan valmistuvan viimeistään vuoden 2023 lopussa.

Mitä henkilötiedoillenne tapahtuu tutkimuksen päätyttyä?
Kaikki tutkimuksen aikana kerätty materiaali hävitetään kuukauden kuluessa opinnäytetyön hyväksymisestä.

Tietojen luovuttaminen tutkimusrekiseristä
On mahdollista, että litterointiin käytetään ulkopuolista palvelua. Materiaalista toimitetaan tällöin vain äänitiedosto, josta osallistuja ei ole tunnistettavissa. Tiedon siirtämiseen käytetään TLS salattua sähköpostia. Kaikki tieto käsitellään anonyymisti.

Henkilötietojenne mahdollinen siirto EU:n tai ETA-alueen ulkopuolelle
Tietojanne ei siirretä/siirretään EU:n tai ETA-alueen ulkopuolelle.

Rekisteröitynä teillä on oikeus
Koska henkilötietojanne käsitellään tässä tutkimuksessa, niin olette rekisteröity tutkimuksen aikana muodostuvassa henkilörekisterissä. Rekisteröitynä teillä on oikeus:

- saada informaatiota henkilötietojen käsittelystä
- tarkastaa itseänne koskevat tiedot
- oikaista tietojanne
- poistaa tietonne (esim. jos peruutatte antamanne suostumuksen)
- peruuttaa antamanne henkilötietojen käsittelyä koskeva suostumus
- rajoittaa tietojenne käsittelyä
- rekisterinpitäjän ilmoitusvelvollisuus henkilötietojen oikaisusta, poistosta tai käsittelyn rajoittamisesta
- siirtää tietonne järjestelmästä toiseen
- sallia automaattinen päätöksenteko nimenomaisella suostumuksellanne
- tehdä valitus tietosuojavaltuutetun toimistoon, jos katsotte, että henkilötietojanne on käsitelty tietosuojalainsäädännön vastaisesti

Jos henkilötietojen käsittely tutkimuksessa ei edellytä rekisteröidyn tunnistamista ilman lisätietoja eikä rekisterinpitäjä pysty tunnistamaan rekisteröityä, niin oikeutta tietojen tarkastamiseen, oikaisuun, poistoon, käsittelyn rajoittamiseen, ilmoitusvelvollisuuteen ja siirtämiseen ei sovelleta.

Metropolia

Tutkittavan informointilomake

Voitte käyttää oikeuksianne ottamalla yhteyttä rekisterinpitäjään.

Tutkimuksessa kerättyjä henkilötietoja ei käytetä profilointiin tai automaattiseen päätöksentekoon.

Henkilötietojen käsittely aineistoa analysoitaessa ja tutkimuksen tuloksia raportoitaessa

Teistä kerättyä tietoa ja tutkimusaineistoa käsitellään luottamuksellisesti lainsäädännön edellyttämällä tavalla. Yksittäinen henkilö ei ole tunnistettavissa. Aineisto analysoidaan tutkimuskysymyksen mukaisesti. Yksittäiselle tutkittavalle annetaan tunnuskoodi (esim. osteopaatti1, osteopaatti2, imetysohjaaja1, imetysohjaaja2) ja häntä koskevat tiedot säilytetään koodattuina tutkimusaineistossa. Aineisto analysoidaan koodattuna ja tulokset raportoidaan ryhmätasolla, jolloin yksittäinen henkilö ei ole tunnistettavissa.

Opinnäytetyössä ei käytetä koodiavainta, jonka avulla yksittäisen tutkittavan tiedot ja tulokset voidaan tunnistaa eikä tietoja anneta tutkimuksen ulkopuolisille henkilöille. On mahdollista, että litteroinnissa käytetään ulkopuolista ammattimaista litterointipalvelua, joka on sitoutunut luottamukselliseen toimintaan. Tutkimusaineisto hävitetään yhden kuukauden kuluessa opinnäytetyön hyväksymisestä. Tämän jälkeen tutkimusaineisto tuhotaan käytettävän tietokoneen käyttöjärjestelmän tarjoamilla menetelmillä. Tutkimuksessa kerättyä aineistoa käytetään vain tähän kyseiseen opinnäytetyöhön.

Metropolia

Participant Consent Form

PARTICIPANT CONSENT FORM

Title of the study: Managing breastfeeding difficulties in a multidisciplinary way involving lactation consultants and osteopaths. Master's thesis of Osteopathy in Metropolia University of applied sciences.

Location of the study: Metropolia University of Applied Sciences. The author of this Master of Osteopathy Thesis is Minna Sillantaka, [redacted]. Supervisor of this Master's Thesis is Heini Maisala-McDonnell, [redacted]

I _____have been invited to participate in the above research study. Aim of this master's thesis is to explore collaboration between lactation consultants and osteopaths to manage breastfeeding difficulties in a multidisciplinary way. The purpose is to examine the potential of osteopathic care as part of the multidisciplinary collaboration.

I have read and understood the written participant information sheet. The information sheet has provided me sufficient information about above study, the purpose and execution of the study, about my rights as well as about the benefits and risks involved in it. I have had the opportunity to ask questions about the study and have had these answered satisfactorily.

I have had sufficient information of the collection, processing and transfer/disclosure of my personal data during the study and the Privacy Notice has been available.

I have not been pressurized or persuaded into participation.

I have had enough time to consider my participation in the study.

I understand that my participation is entirely voluntary and that I am free to withdraw my consent at any time, without giving any reason. I am aware that if I withdraw from the study or withdraw my consent, any data collected from me before my withdrawal can be included as part of the research data.

By signing this form I confirm that I voluntarily consent to participate in this study.

If the legal basis of processing personal data within this study is a consent granted by the data subject, by signing I grant the consent for process my personal data. I have right to withdraw the consent regarding processing of personal data as described in the Privacy Notice.

Date

_____

Signature of Participant

The original consent signed by the participant and a copy of the participant information sheet will be kept in the records of the researcher. Participant information sheet, privacy notice and a copy of the signed consent will be given to the participant.

Metropolia

PARTICIPANT INFORMATION SHEET

Managing breastfeeding issues in a multidisciplinary way involving lactation consultants and osteopaths

Invitation to participate in a research study

I would like to invite You to take part in my master's thesis study, where I examine the potential of osteopathic treatment as part of the multidisciplinary cooperation with lactation consultation to help to manage breastfeeding problems effectively. You are invited to participate, because of your expertise and constant work in the field to improve knowledge and manners of care practices of breastfeeding issues. I will include eight professionals to my study, four osteopaths and four professionals of lactation.

This information sheet describes the study and Your role in it. Before you decide, it is important that You understand why the research is being done and what it would involve for You. Please take time to read this information. If there is anything that is not clear, or if You would like more information, please ask me. After that I will ask You to sign a consent form to participate in the study.

Voluntary nature of participation

The participation in this study is entirely voluntary. You can withdraw from the study at any time without giving any reason and without there being any negative consequences. If You withdraw from the study or withdraw Your consent, any data collected from You before the withdrawal can be included as part of the research data.

Purpose of the study

Aim of this master's thesis is to is to explore collaboration between lactation consultants and osteopaths to manage breastfeeding difficulties in a multidisciplinary way. The purpose is to examine the potential of osteopathic care as part of the multidisciplinary collaboration.

Who is organising and funding the research?

This research is part of my thesis of master's degree program in Metropolia University of applied sciences. Responsible organization of the research is Metropolia University of applied sciences. Thesis author is Minna Sillantaka. There is no funding for the thesis.

What will the participation involve?

The participant is obliged to take part in one focus group discussion, which has duration of maximum one hour and is arranged online as Zoom-meeting. The focus group is comprised of two osteopaths and two professionals of lactation. In the focus group discussion participant is asked to get actively involved in discussion about breastfeeding practices, management and collaboration. We will also discuss vision for the future. The setting is created to make rich conversation among professionals possible.

The participant involves in group discussion at appointed time. Link to zoom-meeting will be sent beforehand. Cameras will be on during the discussion to mimic group setting better. Only conversational material will be transcribed and analyzed quantitatively. The outcome is description of integrative approach of care practices. Participant has possibility to comment results.

Metropolia Participant Information Sheet

Possible benefits of taking part

You will have possibility to get involved in a discussion among professional in the field. New insights or knowledge may emerge during the group discussion.

Possible disadvantages and risks of taking part

The group setting will influence anonymity. You will be identified among the members of the group you are allocated. You will be anonymous with the other group. Confidentiality is demanded and it is obliged not to discuss anything about the participation or the discussion outside the focus group situations.

Financial information

Participation in this study will involve no cost to You. You will receive no payment for Your participation.

Informing about the research results

The master's thesis will be available online in Theseus. It will be published after completion, premeditated during fall 2023. All participants will be informed, when the thesis is published. Participants will not be identified from the results.

Further information

Further information related to the study can be requested from undersigned, who is alone conducting the study.

Contact details of the researchers

Researcher / Student
Name: Minna Sillantaka
Tel. number: [redacted]
Email: [redacted]

Person in charge of the study / Supervisor
Name: Heini Maisala-McDonnell, Senior lecturer
Helsinki Metropolia University of Applied Sciences
Tel. number: + [redacted]
Email: [redacted]

Appendix to the Participant Information Sheet: A Privacy Notice for Scientific Research

Within this study, Your personal data will be processed according to the European Union General Data Protection Regulation (679/2016) and current national regulation. The processing of personal data will be described in the following items.

Data controller of the study

Data controller is the natural or legal person, public authority, agency or other body which, alone or jointly with others, determines the purposes and means of the processing of personal data.

Data controller is Minna Sillantaka who is responsible of data during the whole research period. The data is collected to conduct this particular study and used for that purpose only. The used

Metropolia Participant Information Sheet

instruments for online communication and data storage are chosen according to guidelines of Metropolia University of Applied Sciences.

Contact person for matters related to the processing of personal data
Minna Sillantaka
[redacted]

Types of personal data that will be collected
The personal data that will be collected in this master's is anonymous voice material of the group interviews. There is no statutory or contractual requirement to provide Your personal data, participation is entirely voluntary. Once the data is collected and documented the voice data recording will be erased.

Personal data will be collected also from other sources
The personal data won't be collected from other sources.

Personal data protection principles
The researcher will contact you via private email by Metropolia information systems. The focus group discussion will be held in Zoom video communication system, which is recommended by Metropolia. All data will be saved in private computer protected by password, in a file protected by password. Only the researcher has access to the computer. All information will be confidential. All information and recordings will be destroyed when the final report is approved. Planned time frame is fall 2023.

For what purpose will personal data be processed?
The purpose of the data is to transcribe and analyse the collected data from the group discussions to answer the research questions. The purpose of the study is to explore an integrative approach of lactation consultant and osteopath to manage breastfeeding issues in a multidisciplinary way.

Legal basis of processing personal data
The legal basis of processing personal data is consent granted by the participant.

If the legal basis is a consent granted by the data subject, You have the right to withdraw the consent at any time as described in this Privacy Notice.

Nature and duration of the research (how long will the personal data be processed):

☒ One-time research ☐ Follow-up research

Personal data will be processed until one month after the thesis is being approved. The planned time frame is fall 2023. If it is postponed due to researcher-based reasons, the estimate is at latest at the end of 2023.

What happens to the personal data after the research has ended?

Metropolia Participant Information Sheet

Any research materials containing personal data will be destroyed at latest one month after the thesis is being approved.

Data transfer outside of research registry:
There is possibility that the researcher uses professional services for data transcription. Only the voice document is used without any identification. The data transfer is done safely by TLS secured email. All data is handled anonymously.

Possible transfer of personal data outside the EU or the EEA:
Your data will not be / will be transferred outside of the EU or the EEA.

Your rights as a data subject
Because Your personal data will be used in this study, You will be registered to study registry. Your rights as a data subject are the following

- Right to obtain information on the processing of personal data
- Right of access
- Right to rectification
- Right to erasure (right to be forgotten)
- Right to withdraw the consent regarding processing of personal data
- Right to restriction of processing
- Notification obligation regarding rectification or erasure of personal data or restriction of processing
- Right to data portability
- The data subject can allow automated decision-making (including profiling) with his or her specific consent
- Right to notify the Data Protection Ombudsman if you suspect that an organization or individual is processing personal data in violation of data protection regulations.

If the purposes for which a controller processes personal data do not or do no longer require the identification of a data subject by the controller, the controller shall not be obliged to maintain, acquire or process additional information in order to identify the data subject for the sole purpose of complying with this Regulation. If the controller cannot identify the data subject the rights of access, rectification, erasure, notification obligation and data portability shall not apply except if the data subject provides additional information enabling his or her identification.

You can exercise your rights by contacting the data controller of the study.

Personal data collected in this study will not be used for automated decision-making
In scientific research, the processing of personal data is never used in any decisions concerning the participants of the research.

Pseudonymisation and anonymisation

Metropolia

Participant Information Sheet

All information collected from you will be handled confidentially and according to the legislation. Individual participants can't be identified. The transcribed material will be analysed according to research questions. Individual participant is given code (e.g. osteopath1, osteopath2, lactationconsultant1, lactationconsultant2) and all information about the participant will be maintained coded in the research material. Data will be analysed in coded form and the final result will be reported at the group level, when individual participant is unidentifiable.

Coding key is not used. Information is not provided outside of the study. There is a possibility that transcription is done by outside professional. In that case, only the voice document is transferred to transcription professional, who is committed to confidentiality. All research material will be stored within a month after the thesis is approved. After which data will be destroyed with tools offered by the operating system of the private computer used. The data is used for this one master's thesis only.