Negative birth experience and midwifery counselling intervention:

A vision for maternity care

Valgerður Lísa Sigurðardóttir

Thesis for the degree of Philosophiae Doctor

Supervisor:
Helga Gottfreðsdóttir

Supervisory teacher:
Herdís Sveinsdóttir

Doctoral committee:
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Neikvæð upplifun fæðingar og ljósmóðurmeðferð:
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Childbirth is an experience in a woman´s life that holds the power to transform her forever. Passing through these powerful gates – in her own way – remembering all the generations of women who walk with her…. She is never alone.

Suzanne Arms

Ágrip

Markmið: Aðalmarkmið rannsóknarinnar var að þróa ljósmóðurmeðferð fyrir konur sem hafa þörf fyrir að fara yfir fæðingarupplifun sína. Markmið fyrsta hluta doktorsverkefnisins voru að lýsa fæðingarupplifun kvenna fyrstu tvö árin eftir fæðingu og skoða áhrif stuðnings á upplifun fæðingar. Markmið annars hluta var að skoða væntingar og reynslu kvenna af að fara yfir upplifun fæðingar með ljósmóður í Ljáðu mér eyra (LME), sérhæfðri þjónustu ljósmæðra á Landspítala. Markmið þriðja hluta var að lýsa uppbyggingu og forprófa meðferð sem fól í sér að konur í áhættumeðgöngu skrifuðu um fæðingarupplifun sína og komu í viðtal eftir fæðingu við ljósmóður sem sinnti þeim í meðgönguvernd.

Bakgrunnur: Það er vel þekkt að upplifun fæðingar getur haft áhrif á heilsu og líðan kvenna, tengsl þeirra við barnið og samskipti við fjölskylduna. Talsverð þekking er til um áhrifaþætti neikvæðrar upplifunar fæðingar en minna um áhrif stuðnings og hvort upplifun af fæðingu breytist með tímanum. Takmarkað er vitað um íhlutanir sem miða að úrvinnslu neikvæðrar fæðingarupplifunar en þó finnst konum gagnlegt að fá tækifæri til að ræða um hana. Áhættuþættir á meðgöngu hafa forspárgildi fyrir neikvæðri upplifun fæðingar en lítið er vitað um gagnsemi og fýsileika þess að bjóða konum í áhættumeðgöngu að skrifa um upplifun fæðingar og fá síðan viðtal við ljósmóður sem þær þekkja.

Aðferð: Notuð var blönduð aðferð. Rannsókn I var langtíma þversniðsrannsókn, framkvæmd á 26 heilsugæslustöðum á Íslandi. Gögnum var safnað með þremur spurningalistum í gegnum þægindaúrtak; við 11–16 vikna meðgöngu (T1, *n* = 1111), 5-6 mánuðum eftir fæðingu (T2, *n* = 765) og 18–24 mánuðum eftir fæðingu (T3, *n* = 657). Upplýsinga var aflað um bakgrunnsþætti, fæðingasögu, útkomu fæðingar, félagslegan stuðning, stuðning frá ljósmóður, þunglyndiseinkenni og upplifun fæðingar. Tvær tvíkosta aðhvarfsgreiningar voru notaðar til að skoða forspárgildi stuðnings ljósmæðra í upplifun fæðingar. Rannsókn II var eigindleg innihaldsgreining á svörum við hálfstöðluðum spurningum frá konum sem höfðu leitað í LME þjónustuna. Spurningalisti var sendur til allra kvenna sem komu í viðtal á árunum 2006-2011 (*n* = 301), 131 kona svaraði listanum, þar af skrifuðu 125 konur svör við opnu spurningunum. Upplýsinga var aflað um bakgrunn, fæðingasögu, ástæður fyrir komu þeirra í LME, uppfyllingu væntinga og hvað þeim fannst vera gagnlegt í viðtalinu. Í lokin voru opnar spurningar og voru

svör kvennanna við þeim notuð í innihaldsgreininguna. Gögn um bakgrunn, ástæður komu í LME þjónustu, uppfyllingu væntinga og gagnlega þætti viðtalsins voru greind með megindlegri lýsandi greiningu. Í rannsókn III var notuð blönduð aðferð til að gera fýsileikarannsókn á 30 konum sem höfðu verið í meðgönguvernd á Landspítala vegna áhættuþátta á meðgöngu. Þeim var boðið að skrifa um upplifun af fæðingu og koma í viðtal 4-6 vikum eftir fæðingu til ljósmóður sem hafði annast meðgönguverndina. Átta ljósmæður sem starfa í áhættumeðgönguverndinni veittu meðferðina. Upplýsinga var aflað fyrir og eftir meðferðina frá konunum um bakgrunn, útkomu fæðingar, upplifun fæðingar, áfallastreitueinkenni og mat þeirra á meðferðinni. Ljósmæður sem veittu meðferðina héldu dagbók og tóku þátt í rýnihópaviðtali til að fá mat þeirra á íhlutuninni. Notuð var lýsandi greining og innihaldsgreining.

Niðurstöður: Í rannsókn I kom í ljós að 5% kvenna upplifðu fæðingu sína neikvætt á T2 en 5,7% á T3. Konur sem voru ekki ánægðar með stuðning ljósmóður á meðgöngu eða í fæðingu, voru líklegri til að hafa neikvæða upplifun af fæðingu heldur en þær sem voru ánægðar með hann. Inngrip í fæðingarferlið, langdregin fæðing og að vera nemandi hafði einnig forspárgildi fyrir neikvæðri upplifun fæðingar á T2 og T3. Í rannsókn II kom fram að helstu ástæður þess að konur leituðu til LME þjónustunnar voru fyrri neikvæð upplifun af fæðingu, kvíði fyrir fæðingu og tilfinning um að hafa ekki haft stjórn í fyrri fæðingu. Innihaldsgreiningin leiddi í ljós tvö meginþemu og þrjú undirþemu. Aðalþemað var *‚á mínum forsendum‘* og undirþemun voru *‚frumkvæði fagfólks‘*, *‚að hlusta er lykilatriði‘* og *‚að fylla í eyður‘*. Síðasta þemað var *‚að horfa fram á við‘*. Í rannsókn III töldu bæði konur og ljósmæður viðtalsmeðferðina vera gagnlegan og fýsilegan kost. Konum fannst gagnlegt að fara yfir fæðinguna og mátu upplifun sína af henni marktækt jákvæðar eftir meðferðina. Flestar konur telja 4-6 vikur eftir fæðingu vera heppilegan tíma til að fara yfir fæðinguna og að ljósmóðir sem þær þekkja veiti meðferðina. Tæplega helmingur kvenna skrifaði um upplifun sína af fæðingu.

Ályktun: Niðurstöður rannsóknanna benda til að hlutfall kvenna sem uppifir fæðingu neikvætt sé lægra hér á landi en annars staðar en upplifunin breytist lítið með tímanum. Stuðningur ljósmæðra á meðgöngu og í fæðingu hefur áhrif á fæðingarupplifun kvenna. Konur vilja að fagfólk hafi frumkvæði að samtali um upplifun fæðingar og bjóði þeim að fara yfir hana á þeirra eigin forsendum. Ef væntingar kvenna eru uppfylltar virðast þær geta náð stjórn og styrk til að horfa fram á við. Samtal um upplifun fæðingar ætti að vera hluti af barneignarþjónustu. Konur í áhættumeðgöngu eru viðkvæmur hópur sem þarf að huga sérstaklega að. Þeim fannst gagnlegt að fara yfir fæðinguna

með ljósmóður sem þær þekkja. Bæði konur og ljósmæður telja slíka meðferð vera fýsilegan og ákjósanlegan kost innan barneignarþjónustunnar.

Lykilorð:

Upplifun fæðingar, stuðningur ljósmóður, ljósmóðurmeðferð, áhættu-meðganga, blönduð aðferð

Abstract

Aims: The overall aim of the study was to develop a midwifery intervention for women who want to review their birth experience. The aims of study I were to describe women's birth experience up to two years after birth and explore the predictive role of support in the birth experience. The aim of study II was to explore women's experience and preferences of reviewing their birth experience at a special midwifery counselling clinic *Lend me an ear* (LME). The aim of study III was to describe the construction of and explore the feasibility of a postpartum midwifery counselling intervention for women following high-risk pregnancies.

Background: Birth experiences may affect women´s wellbeing and their relationships with the newborn and family. Several risk factors for negative birth experience have been identified, but less is known of how support affects it and if the perception of birth changes over time. Evidence about helpful interventions to assist women in processing negative birth experiences is limited. However, they value the opportunity to review their birth experiences. Risk factors during pregnancy and birth are known predictors of negative birth experience but limited knowledge exists about the feasibility of offering women the opportunity to write about their birth experience and provide counselling from a midwife for women following high-risk pregnancies.

Method: Mixed methods were used. Study I was a longitudinal cohort study, conducted with a convenience sample of pregnant women from 26 primary health care centres in Iceland. Data were gathered via three questionnaires; at 11–16 weeks of pregnancy (T1, *n* = 1111), at 5-6 months postpartum (T2, *n* = 765), and at 18–24 months postpartum (T3, *n* = 657). Information was collected about sociodemographic factors, reproductive history, birth outcomes, social and midwifery support, depressive symptoms, and birth experience. Two binary logistic regression analyses were performed to examine the predictive role of midwifery support in the birth experience. Study II was a qualitative content analysis of women's written text responses to semi-structured questions. A questionnaire was sent to all women attending the LME midwifery counselling clinic from 2006–2011 (*n* = 301), 131 women responded, whereof 125 of them provided text to the semi-structured questions. Data were collected of socio-demographic and

reproductive characteristics, reasons for attending the clinic, if expectations were fulfilled, helpful components of the interview and semi-structured questions about women´s views of the process. The responses to the semi-structured questions were analysed with content analysis while data on characteristics, reasons for attending the clinic, whether the interview fulfilled expectations, and helpful components were analysed using descriptive data. Study III was a mixed-method pilot feasibility study. Thirty women were invited to write about and review their birth experience following a high-risk pregnancy by a known midwife 4-6 weeks postpartum. Eight midwives, working in the high-risk antenatal clinic, provided the intervention. Data of birth outcomes, appraisal of birth, post-traumatic stress symptoms and experience of the intervention, were collected from women before and after the intervention. Midwives providing the intervention hold diaries and participated in a focus group interview to explore their experiences. Descriptive and content analysis was used.

Results: In study I, the prevalence of women perceiving their birth as negative was 5% at T2 and 5.7% at T3. Women who were not satisfied with support from midwife during pregnancy or birth were more likely to experience their birth as negative at T2 than the women who were satisfied with it. Operative birth, perception of prolonged birth and being a student also predicted negative birth experience at both T2 and T3. In study II, the main reasons for attending the clinic were a previous negative birth experience, anxiety about the upcoming birth, and loss of control during a prior birth. The content analysis revealed two themes and three subthemes. The overarching theme was '*on my terms*' with three subthemes of *'being recognised', 'listening is paramount'* and *'mapping the unknown'.* The final theme was *'moving on'.* Study III revealed that women and midwives perceived the counselling intervention as helpful and feasible. Women had significantly more positive appraisals of birth after the intervention. Most women preferred to review their birth experience with a midwife they knew, 4-6 weeks postpartum. Almost half also wrote about the birth.

Conclusion: The studies´ findings reveal that women´s experience of birth is relatively consistent over time. Support from midwives during pregnancy and birth has a significant impact on women's perception of birth experience. Women prefer to be recognised and invited to review their birth experience in a tailored counselling, provided on their terms. When their expectations of reviewing their birth experience are fulfilled, they may regain control and strength to move on. Offering a discussion of the birth experience should be a routine part of maternity services. Women experiencing high-risk

pregnancies are a vulnerable group and require further attention. They value a follow up by a midwife they know and both women and midwives perceive the counselling intervention as a feasible option in maternity care.

Keywords:

Childbirth experience, midwifery support, midwife-led counselling, high-risk pregnancy, mixed methods

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I have reached the end of this doctoral study at the University of Iceland. Starting such a project is like departing on a long journey. You need to choose carefully who will travel with you, because they are the people who will be on your side, guiding you, providing support, encouraging at appropriate moments and celebrating the milestones throughout the process. I was accompanied with excellent fellow travellers whom I would like to extend my sincere thanks and appreciation to.

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Contents

List of abbreviations

BESCL	Quality of Birth Experience
BSS	Birth Satisfaction Scale
CEQ	Childbirth Experience Questionnaire
CI	Confidence interval
CPQ	The Childbirth Perception Questionnaire
DSM-III, IV & V	Diagnostic and Statistical Manual of Mental Disorders III, IV & V
DSS	Delivery Satisfaction Scale
EMDR	Eye Movement Desensitisation Reprocessing
EPDS	Edinburgh Postnatal Depression Scale
ICD-10	International Statistical Classification of Diseases and Related Health Problems 10th Revision
ICM	International Confederation of Midwives
KUB	Kvinnors upplevelse av barnafödande (Women´s experience of childbirth)
LAS	Labour Agentry Scale
LEC-5	Life Event Checklist for DSM-V
LME	Ljáðu mér eyra (Lend me an ear)
LNUH	Landspitali – National University Hospital
MCSRS	The Mackey Childbirth Satisfaction Rating Scale
MFS	Meðganga, fæðing, sængurlega (midwifery led continuity of care group)
NICE	National Institute of Health and Clinical Excellence
NICU	Neonatal Intensive Care Unit
NJF	Nordic Jordmor Forening (Nordic Midwifery Association)
NVIVO	Qualitative Data Analysis Computer Software Package

OR	Odds Ratio
PCCB	Women´s perception of control during birth
PCL-5	Posttraumatic Stress Disorder Checklist for DSM-V
PTSD	Posttraumatic Stress Disorder
QMNC	Quality Maternal and Newborn Care
SCIB	Support and Control in Birth
SPSS 24	Software Package for the Social Sciences
W-DEQ A	Wijma Delivery Expectancy/Experience Questionnaire A
W-DEQ B	Wijma Delivery Expectancy/Experience Questionnaire B
WOMBLSQ	Women´s views of Birth and Satisfaction Questionnaire

List of figures

List of tables

List of original papers

This thesis is based on the following original publications, which are referred to in the text by their Roman numerals (I-III):

I. Sigurdardottir VL, Gamble J, Gudmundsdottir B, Kristjansdottir H, Sveinsdottir H, & Gottfredsdottir H. The predictive role of support in the birth experience: A longitudinal cohort study. *Women and Birth* 2017; **30**(6):450-9.

   DOI: 10.1016/j.wombi.2017.04.003

II. Sigurdardottir VL, Gamble J, Gudmundsdottir B, Sveinsdottir H, & Gottfredsdottir H. Processing birth experiences: A content analysis of women´ s preferences. *Midwifery* 2019; **69**: 29-38.

   DOI: 10.1016/j.midw.2018.10.016

III. Sigurdardottir VL, Gamble J, Gudmundsdottir B, Sveinsdottir H, & Gottfredsdottir H. Reviewing birth experience following a high-risk pregnancy: A process evaluation**.** Submitted for publication.

Other relevant publications:

Sigurðardóttir VL, Ólafsdóttir ÓÁ, Steingrimsdóttir Þ, & Gottfreðsdóttir, H. Hvað einkennir þann hóp kvenna sem leitar til Ljáðu mér eyra – sérhæfðrar viðtalsmeðferðar á kvennadeild Landspítala? [Characteristics of women attending Lend me an ear: interview intervention at the Women´s department at Landspitali - University Hospital?]. *Ljósmæðrablaðið [Journal of the Icelandic Midwives Association]* 2017; 95(2): 30-36.

Declaration of contribution

The doctoral candidate, Valgerður Lísa Sigurðardóttir (VLS) wrote this doctoral thesis under the guidance of Helga Gottfreðsdóttir (HG), supervisor, Herdís Sveinsdóttir (HS), supervisory teacher and the doctoral committee, Berglind Guðmundsdóttir (BG) and Jenny Gamble (JG). Grants were applied for by VLS with guidance from HG and HS.

***Study I*:** Background literature search analysis and synthesis were performed by VLS and supervised and revised by HG, HS, BG and JG. Licencing for the use of the Childbirth and Health Study data for study I was obtained by VLS, with guidance from HG and HS. Statistical analysis was conducted by VLS in collaboration with HG, HS, BS and Guðný Bergþóra Tryggvadóttir. Data interpretation was performed by all parties. The manuscript was drafted by VLS and revised by HG, HS, BG, JG and Hildur Kristjánsdóttir.

***Study II*:** Background literature search analysis and synthesis were performed by VLS and supervised and revised by HG, HS, BG and JG. VLS and HG applied for the appropriate approvals from ethical and research authorities. Data collection was obtained by VLS and the interpretation was executed by VLS and HG. The manuscript was drafted by VLS and revised by HG, HS, BG and JG.

***Study III*:** Background literature search analysis and synthesis were performed by VLS and supervised and revised by HG, HS, BG and JG. VLS and HG applied for the appropriate approvals from ethical and research authorities. VLS constructed the intervention for the study and trained midwives to provide the counselling interview. Data collection was obtained by VLS and the interpretation was executed by VLS and HG. The manuscript was drafted by VLS and revised by HG, HS, BG and JG.

1 Introduction

Giving birth is a unique and personal experience, a life transition where a baby and a mother are born. Attention on childbirth experience has probably been integrated in midwifery practice from time immemorial although known publications involving the emotional aspect of childbirth did not appear until in the in the 1930s when Grantly Dick-Read published his book *Natural Childbirth,* followed by *Childbirth Without Fear* in the 1940s.[1] Subsequently, a method aimed at helping women prepare for birth and enhance their wellbeing during childbirth was introduced by Lamaze in the 1950s.[2] Research interests on birth experience started to emerge in the 1960s with Sheila Kitzinger´s book *The experience of childbirth.*[3] Throughout the 1970s and 1980s, childbirth became increasingly medicalised and research focused on risk-oriented outcomes. Kitzinger was keen to propose a woman-centred view of childbirth, highlighting women´s needs and their experience of birth. She campaigned for women´s choices in the medicalised childbirth context. This approach was also championed by Penny Simkin in the 1990s.[4] She emphasised the unique experience of birth in each woman´s life, affecting her physical, psychological and emotional wellbeing. Concurrently, the *Changing Childbirth* report in the United Kingdom (UK) emerged, introducing different ways for professionals to approach maternity care.[5] Following the report, a movement towards a more woman-centred care, with a focus on women's satisfaction with their experience of maternity care and their transition to motherhood, was initiated.[6]

My choice of topic in this doctoral thesis can be traced back to my early midwifery studies in 1996; right after the Changing Childbirth report was published. As part of my clinical training I conducted two initial antenatal assessments with multipara women on my own and this involved a discussion about their prior birth experience. It shocked me when they burst into tears when reviewing their births, the memories were so intense many years later and their emotions emerged with so much force, when they realised that another birth was imminent. Since then, my interests have been focused on women´s experiences and the way physiology of labour and birth adds to their memories of this lifetime event.

Birth experience is a multifaceted concept, involving complex emotional human responses to this unique event. Women´s emotions related to negative or traumatic experiences of birth have been explored in qualitative

studies, revealing various perspectives. In a recent study from Sweden, women reporting negative birth experience described how they perceived they had no place in the birth room, their bodies had betrayed them with an incomplete birth and despite physical presence they felt a lack of support from the midwife. This experience increased women's feelings of fear, loneliness, and reduced women's confidence in their ability to give birth and trust in maternity care.[7] Similar results emerged from an international study involving a sample of women from New Zealand, the United States of America (USA), Australia and the UK. Women referred to lack of communication and care from health care providers as the essence of traumatic experience of birth, resulting in feeling of powerlessness and betrayal.[8] The traumatic experience has been presented in metaphors like a ´thief in the night´ and a ´bottomless abyss of emotions´.[9] Another multi-country study of women with traumatic birth experience, described how women perceived that caregivers prioritised their own agendas over the needs of the woman, resulting in ignorance of the women's own embodied knowledge about their birth progress and foetal wellbeing.[10] Moreover, a study from the UK suggests that women are more likely to experience birth as traumatic if they perceived panic, anger, thoughts of death, mental defeat and dissociation during birth.[11] Such memories are related to lack of control.[12] On the opposite, being cared for by a midwife who is present and provides a health advancing perspective, promotes women´s coping strategies and a positive birth experience.[13]

From the clinical perspective, Caroline Flint published her book *Sensitive Midwifery* in 1986 describing how midwives can, in collaboration with women, develop a more sensitive way of providing childbirth care to create a confidence-enhancing experience. She highlighted that being a ´midwife´ means being with the woman and that a reciprocal relationship between a woman and midwife can positively affect a woman´s experience of the childbirth process and her self-confidence.[14] Since then, experiences of care during pregnancy, birth and postnatally, has received worldwide attention by researchers,[15,16] highlighting the uniqueness of each woman who enters her childbirth with various life experience, expectations and preconceptions.

Giving birth in the Nordic countries is viewed as safe due to a highly developed health care system and adverse outcomes, like perinatal mortality rates, being among the lowest in the world.[17] But safety is more than mortality and physical morbidity, although these outcomes have been dominant in research for decades.[18] As 26 years have passed since the publication of the *Changing Childbirth* report, it is of concern that the campaign is still ongoing

and recent publications are indicative of the fact that we still have a lot of work ahead of us to reach the goal of woman-centred care.[19,20]

1.1 The concept of birth experience

Various terms have been used in the endeavour to conceptualise and measure birth experience, although little consensus exists on its conceptual definition.[21] As a multifaceted concept, birth experience is defined as an individual and complex life event, characterised by a unique process, lasting from the beginning of labour into the transition to motherhood.[21] Other common elements, related to birth experience are caregiver´s support,[22] relationships with caregivers[21,22] and pain,[21,22] although pain, pain relief and intrapartum interventions seem to be less significant than the caregivers´ attitude and behaviour.[22] A quality relationship between a woman and her midwife is considered to create mutuality and trust,[23,24] and is known to contribute to a positive birth experience.[25] Control in childbirth is strongly related to women´s birth experience,[21,26] recognising the attributes of control as decision making, access to information, personal security and physical functioning.[26] Satisfaction with care during birth is among the factors related to women´s perceptions of birth, although it does not necessarily produce a good experience.[27]

1.1.1 Prevalence of adverse birth experience

Studies show that between 7-16% of women report their birth experience as negative[28-33] and between 7-45% of women experience their births as traumatic[34-37] in high income countries like the Nordic countries. The range in the prevalence can be explained by various measurements and different time passage from the birth to the time of measurement. There is evidence suggesting that a perception of birth experience is consistent over time, suggesting that the passage of time alone does not have a healing effect.[38]

1.2 Measurements of birth experience

Numerous methods have been developed and tested to measure the birth experience, although they vary greatly in terms of the aspects of the birth they endeavour to capture. The most common measures refer to the birth experience as positive or negative, traumatic and women´s satisfaction with the birth. Other terms used to capture the birth experience involve perceived control during birth, distressing birth or other psychological wellbeing. Following is a brief overview of various tools aimed for measuring women´s birth experience.

1.2.1 Negative or positive experience of birth

The dialogue in numerous studies has referred to the perception of birth as negative – positive with some of them involving the global perception of the birth while others are capturing more detailed aspects of the experience.

One of the most common validated tools used recently to measure the birth experience from a positive or negative perspective is the Childbirth Experience Questionnaire (CEQ), developed in Sweden.[39] It involves 22 statements assessing women's childbirth experience in four main domains; ´own capacity´, ´professional support´, ´perceived safety´ and ´participation´. The questionnaire has been translated to multiple languages.[39-47] The Wijma Delivery Experience Questionnaire (W-DEQ) was developed in Sweden 1998 and has been used widely to measure fear of birth (version A) and experience of birth (version B). It involves 33 items to measure the woman´s cognitive appraisal of expectations and experiences of the birth with statements concerning intensities of emotions and magnitude of cognitions.[48,49] Versions A and B involve similar statements, but the B version is in retrospect. Both versions have been translated to multiple languages.[50-58] Salmon´s Item List (SIL) is a 20-item tool,[59] containing four dimensions of emotional distress and physical discomfort during birth, postnatal fulfilment, and postnatal negative emotional experience. It has been translated to multiple languages.[31,60-64]

Numerous studies did not use any specially developed screening tools but proposed questions where women were directly asked about how the total experience of birth was (very positive – positive – both positive/negative – negative – very negative)[30,38,65-67] while other used questions about how happy or unhappy the women were about the way things went during the birth, but their responses were interpreted as positive or negative recall of memories from the birth.[29]

1.2.2 Traumatic experience of birth

Numerous studies have used traumatic symptoms as outcome measures in the attempt to capture women´s psychological responses to birth by measuring symptoms of post-traumatic stress disorder (PTSD).[11,12,34-37,68-99] Mostly, the tools are derived from the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) with minor variations according to revisions of the DSM (DSM-III, IV and V) and can be used to screen for PTSD symptoms as well as PTSD. According to the newest version of DSM-V, PTSD is defined as a condition where an individual develops characteristic symptoms

following an exposure to one or more traumatic events. Many of the tools measuring PTSD were developed and tested for veterans, soldiers, and ambulance drivers – groups that are highly exposed to traumatic events.[100]

According to DSM-V, the symptoms for PTSD are categorised in criterions A-E. Criterion A refers to the stressor or event that the person was exposed to, criterion B involves intrusion symptoms, while criterion C is about avoidance. To be diagnosed with PTSD, the individual needs to fulfil a criterion of at least one symptom of each criteria A-C. Criterion D detects negative alterations in cognitions and mood, where the individual must have at least two symptoms. Finally, in criterion E, alterations in arousal and reactivity take place. The symptoms may not be due to medication, substance abuse or other illness, their duration must have been at least for one month and they create distress or functional impairment for the individual. The clinical appearance of PTSD can vary, where some individuals present with reexperiencing, emotional, or behavioural symptoms, while distress mood states and negative cognitions may be more prominent in others. Furthermore, arousal symptoms can be the most predominating symptoms for some individuals, while dissociative symptoms are the most prevailing for others. Commonly, a combination of these symptoms appears. A sum score can be calculated (range 0-80) where a score of ≥ 33 indicates a need for further psychological assessment.[100]

Changes occurred in diagnostic criteria and classification of PTSD with the revised DSM-V, now included in trauma- and stressor related disorders instead of anxiety disorder. In the revised DSM-V, attention is paid to behavioural symptoms following exposure to a traumatic event and the diagnostic clusters increased to four instead of three, described as re-experiencing, avoidance, negative cognitions and mood, and arousal.[100] Outlined by the newest version of DSM-V, the self-report 20 item Posttraumatic Stress Disorder Checklist 5 (PCL-5) has been developed[100,101] and used in studies to evaluate psychological responses following birth.[102-106]

1.2.3 Satisfaction with birth experience

The dimension of satisfaction with birth experience started to emerge in the 1990s[4,107-110] and in some cases in relation to long term memories of birth[4,38]. Various scales have been developed to measure women´s satisfaction with birth experience. The Mackey Childbirth Satisfaction Rating Scale (MCSRS) was developed in the USA[109] and involves six subscales of self, partner, baby, nurse, physician and global overall labour and delivery evaluation.[111-113] In the Women´s views of Birth and Satisfaction Questionnaire (WOMBLSQ),

professional support, expectations, home assessment, holding baby, partner support, pain in or after labour, continuity, environment, control and satisfaction are assessed.[114,115] The Childbirth Perception Questionnaire (CPQ), developed in the USA, measures satisfaction with birth experience.[116,117] Furthermore, the Delivery Satisfaction Scale (DSS) was developed in Finland[118] and measures satisfaction with childbirth, involving positive or painful experience, sufficient pain relief, support from partner and caregivers, feeling safe and being able to influence the treatment without being patronised by caregivers. Finally, the Birth Satisfaction Scale (BSS) was developed in England[119,120] and measures quality of care provision, personal attributes and stress experienced during labour.

1.2.4 Other measures of birth experience

Other measures involve a variety of terms related to birth experience. The Labour Agentry Scale (LAS) measures expectancies and experiences of personal control during childbirth[121] and has been translated to multiple languages.[121-125] Measurement of the quality of birth experience (BESCL) involves women's physical and emotional wellbeing during the birth.[126] while pain and enjoyment became the focus in the Pain Index and Enjoyment Index where the overall birth experience involving perceptions of pleasure of giving birth was measured.[127] Furthermore, some outcome measures have used the terms distressing,[128,129] frightening,[130] depression[96,131] or anxiety[131] symptoms as an evaluation of women´s perceptions of birth. Women´s perception of control during birth (PCCB) has been the focus in some studies [132,133] and measurement of maternal perceptions of support and control (SCIB).[133]

1.3 Risk factors for negative experience of birth

Risk factors of adverse birth experience are multifaceted and can be associated with events before, during or after birth, communication with caregivers and women´s intrinsic factors.

1.3.1 Prior to birth

History of mental health problems before or during pregnancy is associated with traumatic birth experience.[34-36,68-76,94,98,134-136] That involves women´s personality factors like adult attachment representations,[137] patterns of blame, trait anxiety,[69] low sense of coherence or coping skills,[88,95] impaired limits of schema,[72] low levels of self-efficacy, low internal locus of control, higher trait anxiety, and low coping levels,[76] fewer strategies that focused on the present,[11] dysfunctional attitudes and self-efficacy.[87] Furthermore, a

sense of coherence seems to play a role in attitudes towards birth as women with a strong sense of coherence seem to have more positive and relaxed attitude towards birth with more focus on the unborn child than women reporting a weak sense of coherence.[138] Women who perceive themselves with high irritation are more likely to have negative experience of birth.[51]

Women´s poor self-rated health has been found to predict negative experience of birth.[32]

Experience of sexual abuse is related to negative birth experience or traumatic symptoms after birth,[35,76,93,139] as well as prior experience of other traumatic life events.[37,73,140] Previous traumatic birth and fear of birth is also predictive of negative[140-143] or traumatic symptoms[37,68,70,129] after birth.

Primiparity can predict a traumatic[71,75] and negative[43] experience of birth. Furthermore, unwanted pregnancy,[30,32] older age,[32] inconvenient time of pregnancy, attitude of the child's father toward the pregnancy and marital status can affect the woman´s experience of the birth.[81]

Maternal complications such as pre-eclampsia[89,91,95] or hospitalisation during pregnancy has been associated with traumatic,[68,78,80,89-92] negative[43,51] or less satisfaction with[107] birth experience. Furthermore, if pre-eclampsia results in preterm birth, it is related to more traumatic symptoms when compared to women who give premature birth without preeclampsia and these consequences were seen on average seven years postpartum.[91] However, it is important to bear in mind that parenting infants in Neonatal Intensive Care Unit (NICU) is known to be stressful and could add to psychological responses after a premature birth due to pre-eclampsia.[144]

1.3.2 During birth

Complications during birth have been linked with traumatic,[12,34,36,73,74,76,82,135,136] negative[30,33,67,140] or less satisfaction with,[107,145] birth experience involving operative births (caesarean or instrumental),[32,67,146] prolonged birth,[43,50,66,67] brief first stage,[147] and difficulties in the third stage of birth.[78,83,147]

Negative communication or lack of caregiving during birth is associated with traumatic,[11,12,76,80,82-84,88,135,148] negative[29,30,38,50,140,149] or less satisfaction with[107,145] birth experience. Furthermore, lack of control or feeling powerless during birth is related to negative,[30,140,149] traumatic[11,34,69,76,78,84,148,150] and less satisfaction with[107-109] childbirth experience. Perceived strong pain or not being satisfied with pain relief during birth is likewise predictive of

traumatic[11,12,68,76,83,94] or negative[29,30,38,51,65,140] birth experience. Women who are not satisfied with support from caregivers during birth are more likely to perceive birth as traumatic,[34,71,86,136] or negative,[30,67,140,151] or be less satisfied with birth.[107] This involves characteristics of the midwife, such as lack of empathy, friendliness, tenderness, calmness and support.[81,152] If women´s expectations to the birth are met[152,153] or they feel adequately prepared for birth[139,154,155] they are more likely to experience their births as positive.

1.3.3 Postpartum

Fear for infant´s health and parenting infants in NICU is predictive of traumatic,[36,71,88,95,135,147,156] negative[29,32,38,43,50] or less satisfaction[107] with birth experience.

Low levels of support from family or partner is related to traumatic,[35,71,76,136] negative[30,62] or less satisfaction with[107] birth experience. Women who had physical problems after birth are more likely to experience the birth as traumatic[85] or less satisfactory[107] than women without such problems. Long-term fatigue[81] or depression after birth[85] has also been found to attribute to women´s perceptions of their births.

1.3.4 Summary

Overall, it can be concluded that various outcome measures of birth experience share similar risk factors or predictors of adverse birth experiences. The terms *positive-negative* experience and *satisfaction* with birth seem to be more prominent in the Nordic countries while the *traumatic* assessment seems to be more common in the English-speaking context. We have decided to use the term *positive-negative* as a denominator of various terms, used to describe birth experience as a simple way to capture women´s appraisals of birth. Therefore, the term *positive-negative* will be used in all discussions about birth experience in this thesis.

1.4 Consequences of negative birth experience

Birth experience is unique and known to have profound long-term effects on a woman´s psychological wellbeing,[38,146,157-160] her family relationships,[161] future family planning[162] and parent-infant bonding[157] or maternal caregiving behaviour.[163] Negative birth experience can increase psychotic-like symptoms[164] and psychological trauma, with the development of post-traumatic stress disorder (PTSD) in 1-7% of women,[35-37,68-71,74,76,78,148,165] risk of subsequent fear of childbirth and increased requests for elective caesarean section.[166,167]

Women´s well-being during pregnancy and after birth affects their ability to bond with their unborn or new-born child. Impaired parent-infant bonding has attracted research attention for the last decades and shows detrimental effects on the infant´s neurological development and the long-term mother-infant relationship.[168] Women have described trauma in a metaphor as having ´suffocating layers´ which prevented them from bonding with their infants and they needed to peel them away.[9] However, it is important to be aware that bonding is a complex issue and therefore it is difficult to make any causality assumptions. Antenatal stress during second trimester,[169] depression or traumatic symptoms after birth[170] and infant's negative emotionality[171] are related to impaired bonding scores. As a result of increased knowledge of detrimental consequences of mental distress around childbirth, a growing tendency has been to focus on promotion of psychological well-being during this unique time of life.[172]

1.5 Interventions to help women to review their birth experience

1.5.1 Type of interventions and outcome measures

Various interventions, to help women overcome adverse birth experience, have been tested. The types of interventions have been defined as counselling,[96,173-175] debriefing[131,176-180] or writing about birth experience,[160,181] although the active components of the debriefing and counselling interventions involved a mixture of reviewing events from birth, active listening, counselling and education. Furthermore, a method using ´Eye Movement Desensitisation Reprocessing´ (EMDR) was explored in two small studies with promising results for reducing traumatic symptoms.[182,183]

Psychological measures to evaluate the effects of the intervention varied, but involved measures of traumatic symptoms,[96,160,173,176,178,180] measurements of birth experience,[96,174,177,178] depression,[96,131,160,173,175,176,178-180] or anxiety[131,175,178] symptoms, or other psychological distress.[174,178]

1.5.2 Timing of the intervention

The time from the birth until the intervention was provided in the above studies, ranged from within the first three days after birth,[160,173,176,178] within a week,[175,179] or month postpartum,[131,174,177] 4-6 weeks postpartum[173,180] up to seven years after birth.[180] Most commonly, one face-to-face session was provided,[131,176,178,179] but in some studies either two[96,173,177] or more[174] sessions took place and the quantity depended on individual needs.[175]

1.5.3 Target groups and providers of the intervention

In most of the above studies, women´s need for reviewing their birth experience was based on the evaluation of health professionals rather than on the women´s initiative. In some of the studies, the offer was limited to women who experienced an operative birth,[96,174,177,179] or unexpected events during pregnancy or birth (*n* = 516).[175] These were not effective in improving women's depression symptoms (*n* = 124 and n = 917),[96,179] traumatic symptoms (*n* = 124),[96] psychological health, or fear of future birth (*n* = 124 and *n* = 195)[96,177] apart from one (*n* = 103), where serious traumatic reactions and general mental distress were lower in the intervention group.[174] In two of the studies, primiparas were a target group.[131,177] One was focusing on primiparas following an operative birth (*n* = 195) but findings were not significant in lowering scores on the W-DEQ B measure of birth experience.[177] The other intervention was provided following a birth of a normal, healthy baby (*n* = 114) where the intervention resulted in lower anxiety and depression scores in the intervention group.[131] In both these studies, midwives provided a debriefing interview. In two studies, the inclusion criteria were that women who met criterion A for PTSD after birth, were either offered counselling (*n* = 103)[173] or invited only if they requested a debriefing (*n* = 80).[180] In an Australian study (*n* = 875) women were invited to have a debriefing after birth of a healthy, term baby and compared to a control group but with no significant findings.[176]

Various professionals delivered the interventions in the above studies, although most commonly midwives,[131,173,176-180] showing improvement in psychological measures in four studies.[131,173,174,180] An obstetrician qualified in psychotherapy provided a counselling interview in one study, with a positive effect on women's psychological health,[174] a research nurse in another with no significant effect[175] and finally, a group counselling provided by a midwife and a psychologist with no effect.[96]

1.5.4 Summary

It is hard to conclude about the effectiveness of interventions to help women reconcile their birth experiences as the above studies show inconsistent results. Five of them show significant improvement on psychological measures while six of them fail to demonstrate any effects. Still, the evidence highlights that women value reviewing their birth experience with a maternity care provider and perceive it as helpful.[184,185] In our context, midwives are the main caregivers during the whole process of pregnancy, birth and after birth. Therefore, they are in a unique position to assess women´s emotional and

psychological wellbeing around childbirth, involving an assessment of women´s birth experience.

1.6 Childbirth in the Icelandic setting

Iceland has approximately 350 000 residents, with about 70 percent living in the capital area and 30 percent in the rural areas.[186] The average annual birth rate has been between 4000-4900 births for the last decade, with approximately 74 percent taking place at Landspitali National University Hospital (LNUH) in Reykjavík for the last years.[187] A trend of centralisation of childbirth has occurred in Iceland in the last decades, as in other Nordic countries,[188-190] with consequent closures of childbirth services in remote areas.

The country has low perinatal mortality rates with the average of 3.9 per 1000 births per year for the last decade. The caesarean rate has been steady at 15-17 percent and operative vaginal births 8.1 percent, nationwide. At the LNUH the induction rate was 30.4 percent in 2017 and the epidural rate for planned vaginal births was 43.4 percent.[187] From the 1990s to 2018 the homebirth rates increased from 0.1 to 2 percent.[191] The remaining births in Iceland take place at one birth center in Reykjavík and seven birth centres or alongside birth units in the rural area of the country.

1.6.1 Childbirth care in Iceland

The childbirth care in Iceland is provided mostly free of charge, like in other Nordic countries´ health care models.[192] All births are attended by midwives, including operative births, and they provide nearly all routine and postnatal care in the country.

From a historical perspective, a lot of changes have occurred in midwifery practice for the last decades. A midwifery led continuity of care group (MFS) was initiated at LNUH in 1994 where healthy women in normal pregnancies could have childbirth care provided by a known midwife during pregnancy, birth and postpartum. Most of the care during birth was provided at a midwifery led unit called *Hreiður* (e. Nest) at LNUH but the care after birth was provided at home. Unfortunately, the MFS unit was shut down in 2006, justified by economical and utilization arguments.[193] After the closure of the MFS unit, healthy women had the choice to give birth at the Nest which was still midwifery led. Limited data exists about childbirth care at the MFS unit and the Nest, but according to an audit from 2007 both units seemed to be comparable with other midwifery led units in an international context,

regarding birth outcomes and transfer rates to the labour ward.[194] Furthermore, midwives who had worked at either of the midwifery led units, perceived themselves and women to have more autonomy during birth, compared with the labour ward.[195] However, in 2014 the Nest was merged together with the labour ward at LNUH,[193] leaving women living in the capital area with less choices of birth places in the capital area than had been for more than 20 years.

An independent midwifery led birth center *Björkin* was established in 2017 in Reykjavík with approximately 50 births annually. In Björkin, midwives provide continuity of care from 34 weeks of pregnancy, during birth and the first week postpartum. (E.M. Swift 2020, personal communication 15th December 2019).

1.6.2 Lend me an ear clinic

From 1999 a special midwifery counselling clinic, *Ljáðu mér eyra* (e. Lend me an ear (LME)), at the Women´s Clinic at LNUH, has provided care for women who want to review their birth experience or if they fear the upcoming birth. The clinic was originally developed by three midwives and an obstetrician and based on the Swedish Aurora team listening service.[7,196] Today, the care is provided by a group of experienced midwives trained in communication and counselling skills[67] and women are invited to tell their narratives, have a conversation about their birth experience and to review records from the birth. The midwives use active listening as a way to listen and reflect on the women´s narratives and emotions to facilitate more understanding.[197] Furthermore, some cognitive behavioural approaches are incorporated into the conversation to enhance awareness of connections between events, thoughts and emotions.[198]

Most of the women are self-referred, but occasionally they are referred by professionals. The LME midwives have regular peer-guidance meetings for professional development and to enhance integrity of the intervention performance. Before the appointment, the midwife reviews the woman´s birth records to be prepared for providing information about the events during birth, as requested. Combining the woman´s narrative and information from the records, the midwife provides an overall picture of the birth. The conversation involves a mixture of debriefing, counselling, support and education. During the conversation session, the midwife endeavours to acknowledge the woman´s perceptions of events and offers help to develop a birth plan, if appropriate. The appointments are face-to-face, last approximately one hour and women are encouraged to be accompanied by

their partner or another support person. The majority of women have one appointment but occasionally, they are referred to an obstetrician or psychologist following the interview. Annually, around 60-80 women attended the LME special midwifery counselling clinic annually in 2014-2018 while in 2019 the number of women attending the clinic increased to a total of 175.[199]

1.7 Theoretical, philosophical and ideological perspectives of midwifery

Although midwives have helped and supported women to give birth through the ages, midwifery is a rather young academic discipline compared to other health professions.[23,189] For the last decades, an effort has been made to identify theoretical underpinning of midwifery[189] and define or describe models of midwifery care.[188,200-203]

The theoretical background for midwifery is rooted in the social model of health which views pregnancy and childbirth as a normal physiological and social event in women´s lives, while the medical model portrays a more pathological and risk-oriented view of childbirth.[204] To simplify, the medical model views pregnancy and birth only as normal in retrospect while the social model views pregnancy, childbirth and motherhood as a natural and healthy part of life. Furthermore, the social model acknowledges childbirth´s multidimensional and complex aspects, where the woman is encouraged to use her own resources for understanding, managing and feeling meaningful of the process. The International Confederation of Midwives (ICM) builds on the social model perspective where the ideology of midwifery, pregnancy and childbearing is viewed as not only a ´*…normal and physiological processes…*´ but also ´*a profound experience, which carries significant meaning to the woman, her family and the community*´. In this, the holistic philosophy of the emotional and psychological experience of birth is embraced as a matter of course during childbirth care. This is extended further by the ICM´s philosophy that ´*Midwifery care is holistic and continuous in nature, grounded in an understanding of the social, emotional, cultural, spiritual, psychological and physical experiences of women…. and builds women´s self confidence in their ability to cope with childbirth´.*[205]

In the context of the roots of midwifery, it is unavoidable to mention the meaning of the professional title *midwife* which means ´with woman´ and is corresponding to the philosophical background of midwifery. It refers to the midwives´ empathy and their awareness of women's´ feelings and experiences.[206] In Icelandic, the word *ljósmóðir* (e. midwife) means mother of

light and is believed to be rooted in the Roman Goddess *Lûcîna* who helped women during birth and brought the baby into the light of the world.[207] Centuries ago, the words *yfirsetukona* or *nærkona* were used in Icelandic for women who were sitting over or staying with and helping women during birth. By understanding the words used about midwives in the historical context, it becomes apparent how the philosophy of the woman-centred approach is rooted from time immemorial.

In the ICM Code of Ethics, it is addressed that midwives ´…*respond to the psychological, physical, emotional and spiritual needs of women seeking health care, whatever their circumstances* and … *develop a partnership with individual women in which they share relevant information that leads to informed decision-making, consent to an evolving plan of care, and acceptance of responsibility for the outcomes of their choices´.*[208] Here the philosophy of a holistic and woman-centred care is apparent, underpinning the development of midwifery models of care.

1.7.1 Salutogenesis and pathogenesis

Woman-centred models, based on the salutogenic theory, have been prominent in midwifery studies for the last decade. Salutogenesis means creation of wellbeing, focusing on ways to cope with life and provides an counterbalance to the dominant pathogenic focus, which refers to the childbirth process as a health problem rather than a natural life event.[18,209] In relation to childbirth, a salutogenic birth can generate positive wellbeing.[210] The linking of salutogenesis to childbirth care was argued by Downe and McCourt[211] presenting four aspects of current authoritative knowledge in childbirth in an epistemological context. They claim that despite its epistemological origin, the current societal view is of a scientific community where the acknowledged approach is characterised by certainty, simplicity, linear and pathological thinking.[211] Certainty is then viewed as a given dominant paradigm of knowledge and overrides alternative views of the world.

The salutogenic perspective is interesting when we consider it in the context of evidence-based practice which is identified to be the best practice. Evidence-based practice is based on a combination of good quality data with practitioners´ skills and experience, and the client´s concerns, expectations and values.[212] Evidence based midwifery has been defined as a combination of women´s involvement in decision-making about their care and research findings. It provides careful interpretation of research, and acknowledges individual variation and partnership between the practitioner and the client for

final clinical decision making.[213] Such practice is in line with the nonlinear, complex, uncertain thinking and believed to be more in congruity with the complex natural process that a childbirth is.[211] However, the current use of evidence-based practice agenda is more rooted in certainty, with less emphasis on clinical experience or the client's preferences.[211] The social model of care links to the salutogenesis theory, by viewing pregnancy, childbirth and motherhood as a natural or healthy part of life and the woman is supported to use her own resources to understand, manage and feel meaningfulness.

1.7.2 Models of care

Midwifery care has been described as *´…a way to look after the health and well-being of women and babies during pregnancy, birth and afterwards´*.[203] A partnership model of midwifery care emerged in New Zealand with emphasis on women's choice, based on individual care.[201,202] That involves a formation of a relationship between the woman and midwife, built on trust, reciprocity and respect to provide individualised and humanised care. Respectful maternity care involves confidentiality, provision of information, effective communication, respect of women´s choices and continuity of care.[214] A theoretical midwifery model of woman-centred care has been developed in the Nordic context, named MiMo model.[188] The MiMo model shares some similarities with prior models regarding the central concepts of midwifery such as relationships, presence, reciprocity and empowerment but adds two new themes; *´balancing act´* and *´birthing atmosphere´*.[188] Woman-centred and partnership models of maternity care can be referred to as social model of care, as they share the philosophical base, affected by the philosophy that pregnancy and childbirth are physiological processes.[205,215]

The difference between medical model of care versus midwifery or social models of care is evident when looking at these two approaches in childbirth. The midwifery models of care have in common that the woman is the main focus or in other words they are woman-centred. They involve the ICM´s philosophy, highlighting a holistic and continuous care that builds up women´s confidence and their ability to cope with birth.[205] An evidence informed framework for ´Quality Maternal and Newborn Care´ (QMNC) has been provided to map the scope of midwifery and describe the characteristics of care that women, newborns and families need.[200] In the framework, essential components are presented in a structural way and involve effective practices, the organisation of care, the philosophy and values of the care providers working in the health system, and the characteristics of care

providers. These components are interlinked and aim for care based on women and newborn´s needs and preferences.[200]

Despite the evidence demonstrating that woman-centred models of care, involving continuity of care, results in optimal outcomes,[200] our maternity care system is mostly based on fragmented care, where midwives work in demarcated clinics with limited opportunities to provide continuity of care. As such, the organization of care might oversee optimal outcomes and the emotional aspect of women´s needs. Furthermore, it does not provide opportunity for a trusting relationship which is the premise for equality and partnership. In a newly published study, from various parts of the world, women described how care provider actions and interactions were related to traumatic birth experiences.[10] They described how the care provider´s agenda was sometimes prioritised over the woman´s needs where their views of the birth were ignored, and threats were used to coerce them to agree to interventions. This appeared to result in a lack of control, which is frequently related to negative experiences of birth.

1.8 Summary and rationale for the study

The evidence suggests that a substantial number of women perceives their births as negative. Furthermore, a considerable knowledge of predictors and consequences of negative birth experience exists but less is known about the role of support in the birth experience, and how women prefer to process and reconcile negative birth experience. The effectiveness of interventions to help women to overcome adverse birth experiences remains inconsistent as half of the studies showed an improvement in psychological measures, [131,160,173,174,180,181] while half of them did not.[96,175-179] The timing, structure, content, and quantity of the interviews varied. Each study´s design and outcome measures varied significantly, therefore it was difficult to determine which components of the interventions, women considered most effective. Despite the failure in many of the studies to show significant changes in psychological measures, women report that they find it helpful to review their birth experiences.[184,185] However, the effectiveness of a midwifery counselling intervention for women, exposed to negative birth experience, remains unclear and the effects of particular components of such an intervention have not been identified.

Acknowledging the fragmented maternity care in our context, a customised conversation about birth experience with a midwife the woman knows, implies a respectful and woman-centred care.[200,205] Such a

counselling intervention is in the scope of midwifery practice as stated by the ICM.[216] The theoretical background in this doctoral study is originated from a woman-centred approach[200,205] and the criteria for defining the birth experience were gained by questioning women directly about their perception of birth. In our everyday discussion the term *difficult* is common when referring to an adverse experience of birth, despite it not being found as an outcome measure in the literature. Therefore, we will use the terms *positive-negative* as a denominator of women´s birth experience.

The theoretical background for this doctoral study is guided by the social model of health with a woman-centred approach, involving the uniqueness, strengths and coping strategies of each woman,[211] and promotion on well-being.[172] Special focus will be on the group who is most vulnerable to adverse experience of birth, namely women experiencing high-risk pregnancies.

The doctoral study aims to add to midwifery knowledge as stated in the International Code of Ethics for Midwives: *´Midwives actively seek personal, intellectual and professional growth throughout their midwifery career, integrating this growth into their practice. Midwives develop and share midwifery knowledge through a variety of processes, such as peer review and research´.*[208] Knowledge can either be developed via research or learned from practice experience with the women.[217] In this study, women´s voices will be translated into knowledge and inductive approach[206] will be used for practice theory development and enhancement of quality in childbirth care.

2 Aims

The thesis consists of three individual studies that are interrelated. The overall aim of the thesis was to develop and test an intervention for women who need to review their birth experience. The first two studies underpinned the third intervention study where women could review their birth experience with midwives they knew from antenatal care.

2.1 Aim of study I

The aim of the first study was to explore women's perceptions of birth experience five to six months and two years after birth. Furthermore, to detect the predictive role of satisfaction with social and midwifery support in the birth experience. The purpose of the study was to gain understanding of women´s birth experience in Iceland and map the prevalence and predictors of negative birth experience. The knowledge gained from the study underpinned the development of study III.

2.2 Aim of study II

The aim of the second study was to explore how women, using the midwifery counselling clinic LME, perceive the process of reviewing their birth experience. The purpose was to gain insight into how various components of the intervention could help women to reconcile their experience and what women expect from the process. The knowledge gained from the study underpinned the development of study III.

2.3 Aim of study III

The aim of the third study was to describe the construction of a specific midwifery postpartum counselling intervention for women who gave birth following high-risk pregnancies. The counselling intervention consists of two components; women writing about the birth experience and reviewing their experience with a midwife, known to the woman from antenatal care. The purpose of the study was to explore the feasibility of implementing a routine offer of reviewing birth experience with a midwife, known from antenatal care, for women following high risk pregnancies.

3 Materials and methods

The thesis consists of three independent studies and three papers that together describe the prevalence and predictors of negative birth experience, how women process their experiences and the feasibility of an intervention consisting of writing and reviewing birth experience with a known midwife.

Study I was a longitudinal cohort study on the prevalence and predictors of negative birth experience. Study II was a qualitative content analysis of women's perceptions of reviewing their birth experience. Study III was a mixed method pilot experimental before-and-after study exploring the feasibility of a counselling intervention for women following high-risk pregnancies to review their birth experience with a midwife, they know form antenatal care. An overview of the three studies is outlined in Table 1. The studies´ design, data sources, and analyses are described further in the following chapters.

Table 1. An overview of aims, designs, variables, data sources and analysis in studies I-III.

	Study 1	Study 2	Study 3
Aim	To explore perceptions of the birth experience five to six months and 18–24 months after birth and to detect the predictive role of satisfaction with social and midwifery support in the birth experience.	To explore women´s experiences and preferences of reviewing their birth experiences at a special midwifery clinic at LNUH.	To develop an intervention for women who had their antenatal care provided at a high-risk antenatal clinic involving writing and reviewing birth experiences with a known midwife. To explore the feasibility and acceptability of writing and reviewing birth experiences with a known midwife, for women following a high-risk pregnancy.
Design	A longitudinal cohort study	A qualitative content analysis study	A mixed methods study
Variables	Independent: Birth experience. Dependent: Satisfaction with social and midwifery support, birth outcomes, depression symptoms and reproductive history.	Not applicable.	Appraisal of birth. Perception of writing about and reviewing the birth experience with a known midwife. Traumatic symptoms Feasibility and acceptability of the intervention.
Data sources	Questionnaire data from the Icelandic Childbirth and Health Study (n = 657).	Written text from semi-structured questions involved in a questionnaire (n = 125).	Questionnaire data and responses from an open-ended question from women who had their antenatal care at a high-risk antenatal clinic (n = 30) Focus group interviews and diaries from midwives (n = 8).
Analysis	Descriptive statistics. Chi-squared tests. One-way ANOVA. Yates´ p-value. Odds ratio (binary logistic regression).	Descriptive data. Content analysis.	Descriptive statistics. McNemar test. Wilcoxon signed ranked test. Content analysis.

3.1 Study I. The predictive role of support in the birth experience: A longitudinal cohort study

Study I is a national prospective cohort study, exploring the prevalence and predictors of negative birth experience in Iceland. The data was collected as part of the Childbirth and Health Study in Iceland, conducted in 2009-2011, which has been described in greater detail elsewhere.[218,219]

3.1.1 Sample and data collection

Data was collected from 26 primary health care centres from different sites in the country, at three time-points. Midwives introduced the study to women when they attended their first antenatal visit, with written and verbal information. The inclusion criteria were that participants were ≥ 18 years, fluent speakers of Icelandic and considered themselves to be at low risk when they entered pregnancy. The women who chose to participate answered the first questionnaire around week 16 of pregnancy (T1, *n = 1111*), the second one at five to six months after birth (T2, *n* = 765) and then finally the third one at 18-24 months after birth (T3, *n = 657*).

3.1.2 Study measures

The three questionnaires used in the study are based on the Swedish *Kvinnors upplevelse av barnafödande* (KUB) study[220] and were translated, pretested and adapted for use in Iceland by the Childbirth and Health Study Group.[219]

The outcome variable was the experience of birth measured at T2 and T3 after birth with the question: *´How did you experience your birth?'* The responses were on a five-point Likert scale ranging from 1 (very positive) to 5 (very negative). The independent variables consisted of sociodemographic information, depression symptoms with the *Edinburg Postnatal Depression Scale* (EPDS), prior thoughts about the impending birth, self-reported birth outcomes, perceived length of birth, overall perception of birth, satisfaction with social support and satisfaction with support from midwives during pregnancy and birth. Categorical variables were dichotomised for the purpose of statistical analysis.

3.1.3 Study analysis

Two hierarchical binary logistic regression analyses were conducted in three steps to explore the predictive role of support in the birth experience at T2 and T3. The models included 11 variables, where the support variables showing significant difference in the perceived birth experience were adjusted for differences in demographics (i.e., age, education and occupation), onset

of labour, birth mode, perception of prolonged birth, depression symptoms, parity, and prior thoughts about the impending birth. The odds ratio (OR) was calculated with a 95 percent confidence interval (CI). A *p*-level of 0.05 was considered as significant. IBM SPSS 24 was used for data analysis.[221]

3.2 Study II. Processing birth experiences: A content analysis of women´s preferences

Study II is a part of a larger retrospective study, conducted in 2011 where data were collected with questionnaire including semi-structured questions for free text responses. A qualitative content analysis was used to analyse the written material as it is known to be a convenient method to analyse written data[222] to find themes and patterns.[223]

3.2.1 Sample, recruitment and data collection

A survey was sent via post to all women who attended the LME midwifery counselling clinic from 2006 to 2011 (n=301). The quantitative data has been reported elsewhere.[224]

A total of 131 (44%) women returned the survey, and of those, 125 (42%) women responded to the semi-structured questions, resulting in approximately 9000 words of written text. The survey included data about participants' demographic and reproductive characteristics, the motive for attending the clinic, helpful elements of the interview intervention, whether their expectations were accomplished, and women´s perceptions of the process.

3.2.2 Study analysis

A qualitative content analysis was performed to analyse the written text based on three phases; preparation, organisation and reporting.[222] In the preparation phase, the text from each individual woman was selected as the unit of analysis, then read repeatedly to make sense of the data and identify the prominent themes and patterns. During the organising phase, the data were fragmented into smaller units and then coded. Relationships between the themes were explored by moving back and forth between the whole and parts of the text attempting to identify both the manifest and latent content with an inductive approach.[222,225] Finally, in the reporting phase, themes were created by bundling the codes together and representing them in a model. Some of the written text contained women´s expressions about their birth experience and was therefore dismissed because it was not of relevance to the study.

To manage written data, the analysis was supported by NVivo 11 software.[226] Finally, a peer-debriefing session was undertaken with an expert panel of three midwives to enhance the authenticity of the analysis.[227] Each of the participating midwives hold over 15 years' experience and some knowledge in qualitative research. During the session, researchers presented a summary of the data, emerging themes and their interpretations. IBM SPSS 24 was used for data analysis of descriptive data.[221]

3.3 Study III. Reviewing birth experience following a high-risk pregnancy: A feasibility study

Study III is a feasibility study, conducted in 2018-2019, using a mixed-method convergent design.[228] It consists of a pilot experimental before-and-after study[229] of a postpartum midwifery intervention for women in high-risk pregnancies, a focus group interview with the midwives who provided the intervention and text from the midwives´ diaries.

3.3.1 Procedure of intervention

The postpartum counselling intervention consists of two components; women writing about their birth experience and an interview intervention with a midwife known from antenatal care (Figure 1). In the writing session, women were encouraged to write for 15-20 minutes about thoughts, expectations and deep emotions related to birth, involving experience of communication with caregivers, significant others and how they feel about the infant. The frame for the writing session was adapted from the work of Di Blasio et.al.[160] It was then optional for the women to show the midwife the written text when they attended the interview.

Before providing the intervention, the midwives completed a 12-hour training program and audiotaped one test interview which was reviewed by the doctoral candidate. During the study period, they had online access to the educational material. Two group consultation sessions were provided, and an online group discussion was conducted during the study period to enhance fidelity of the method and support. The midwives contacted 41 women they had cared for during pregnancy, around four weeks after birth, informed them briefly about the study and explored their interest for getting more information. Then the doctoral candidate provided those who were interested with further information and invited them to book a 45-60 minutes´ face-to-face appointment with the midwife who provided antenatal care. Following, the women received an e-mail with written information, a form for the writing part of the study and the first online questionnaire. Four to six weeks after the postpartum interview the women received the second online questionnaire.

Figure 1. The process of the midwifery counselling intervention

The interview framework was developed from Gamble et.al.[173,230] and adapted from the doctoral candidate´s prior work with the aims of the study (Figure 2). The midwives provided the counselling interview by initiating with an open question about the birth experience and offered the women to review written birth notes. During the interview, they encouraged women to express emotions and thoughts related to the birth and the postpartum period while providing support, education, reflection and validation of the women´s feelings as promoted in the counselling interview framework.

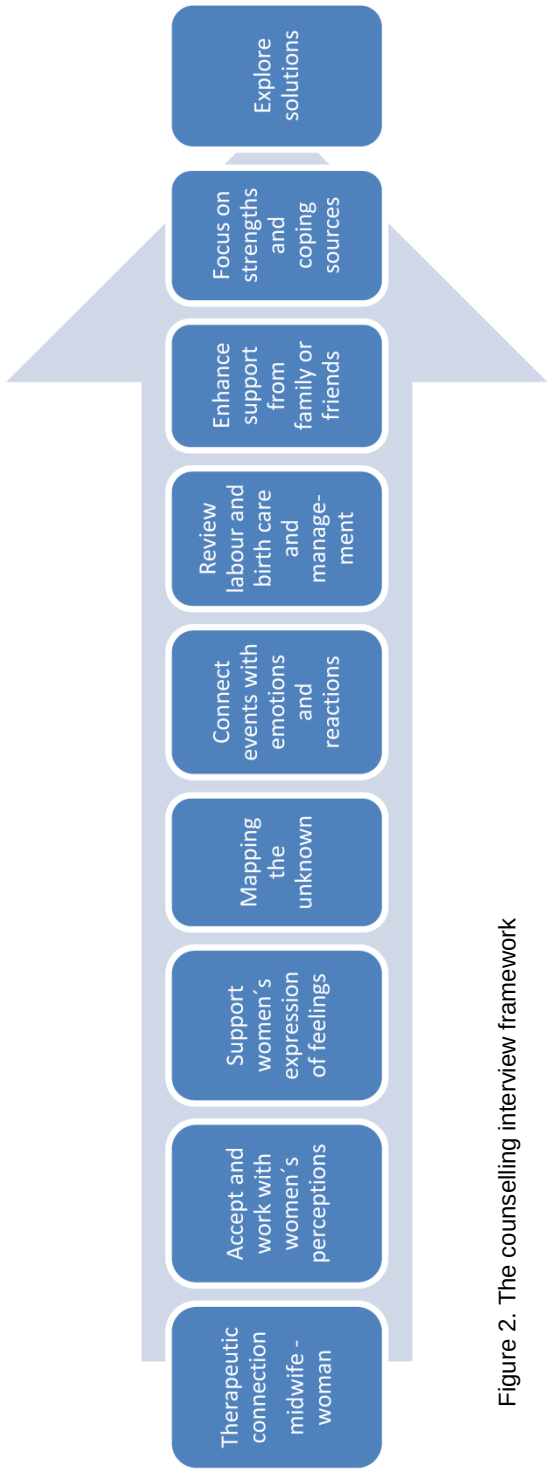

Figure 2. The counselling interview framework

3.3.2 Sample and recruitment

The sample consisted of 30 women ≥ 18 years old, reading Icelandic, having their antenatal care provided at the antenatal high-risk clinic at least from 28 weeks of pregnancy and aimed for a vaginal birth. Data were collected from November 2018 to September 2019.

The eight participating midwives provided a total of three to six interviews each.

3.3.3 Data collection and measures

For the quantitative part of the study, two questionnaires were used to collect data from women before the intervention and about six weeks later (Figure 3).

Data of sociodemographic information, reproductive history, prior traumatic life events (LEC-5), health and birth outcomes were collected within a week before the intervention (T1). Women´s appraisals of the birth and traumatic symptoms (PCL-5) were collected at both time points, while the perception and feasibility of the after-birth intervention were evaluated about six weeks after the interview (T2). Birth experience was measured at T1 and T2: *'How did you experience your birth?'* with response options on a five-point Likert scale, ranging from 1 (*very positive*) to 5 (*very negative*) and *´How was your* overall *perception of the birth´* with the response options from 1 (*very difficult*) to 5 (*very easy*).

Emotional appraisals of birth were addressed at T1 and T2 by 11 statements from the 33 items *Wijma Delivery Experience Questionnaire B* (W-DEQ B),[48] addressing the woman´s cognitive appraisal of the birth (feeling safe, pain, confident about giving birth, in control, focused, strong and powerful, calm and balanced, sad, happy, trusting the body). The response options are on a five-point Likert scale 1 (*very much agree*) to 5 (*very much disagree*).

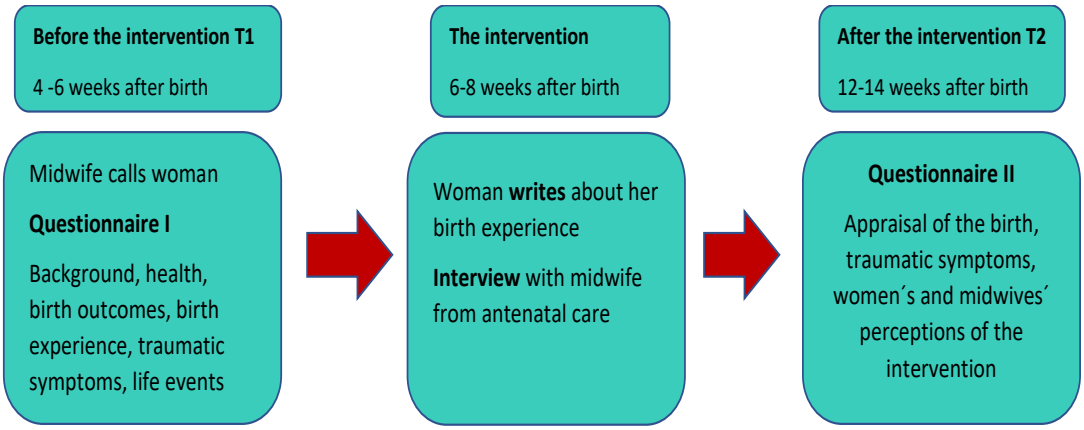

Figure 3. Overview of the process of study III

The qualitative data consisted of focus group interviews with midwives, midwives´ diaries and women´s text from one open ended question at the end of the second questionnaire.

3.3.4 Study analysis

The analysis was based on two sets of data; women's responses (quantitative and qualitative) and midwives' evaluation of the postpartum counselling intervention (qualitative). For statistical analysis McNemar test was used to assess associations between categorical variables and Wilcoxon signed ranked test to explore significance between means. Some categorical variables were collapsed for statistical analysis, resulting in responses for the indefinites like neither/nor or mixed feelings to be categorised either with the positive or negative ones.

The audiotaped focus group interview was transcribed verbatim and explored for the use of words, context, meaning, internal consistency, specificity and frequency of comments.[231,232] Content analysis was used to explore emerging discussions in three main phases: preparation, organising and reporting.[222] The quantitative and qualitative data were brought together at the integration stage. IBM SPSS 24 was used for data analysis of descriptive data.[221]

3.4 Ethical considerations

Ethical approval for study I was obtained from the National Bioethics

Committee (VSNb2008010023/03-1) and was reported to the Icelandic Data Protection Authority (S3695/2008 LSL). Ethical approval for study II was obtained from the Scientific Committee of the National University Hospital of Iceland (61/2010) and was reported to the Icelandic Data Protection Authority (S5038/2010). Ethical approval for study III was obtained from the Scientific Committee of the National University Hospital of Iceland (23/2018) and was reported to the Icelandic Data Protection Authority and ClinicalTrials.gov (NCT03883529). In all the studies, participants received an information letter and their responses to the questionnaires were valued as presumed consent.

4 Results

The overall results of the three studies are presented in Figure 4. Women who are not satisfied with midwifery support during pregnancy or birth are more exposed to experience their births as negative. Furthermore, complications related to pregnancy or childbirth, depressive symptoms or being a student predicted negative birth experience. Reviewing and reconciling birth experience on women's own terms was helpful to move on. Women and midwives perceive that offering postpartum counselling with the midwife from antenatal care is a feasible and acceptable choice following birth after high-risk pregnancy.

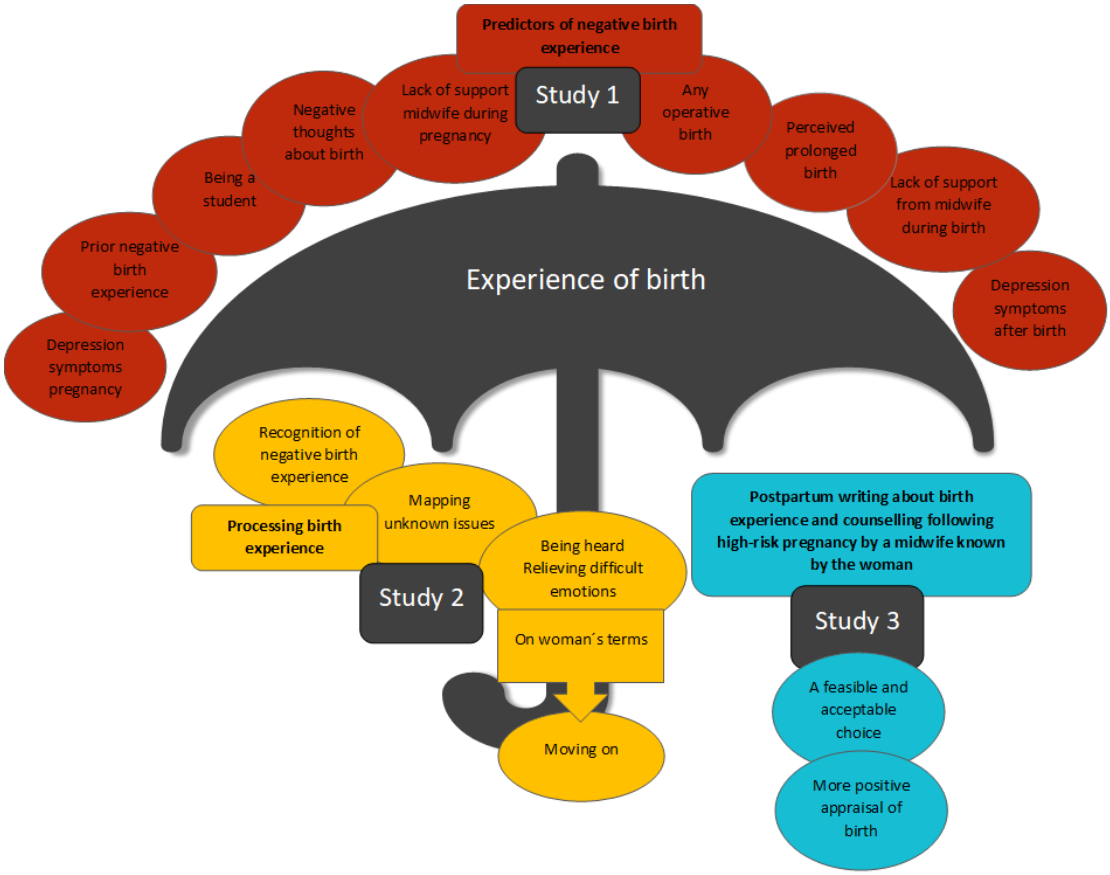

Figure 4. Overview of results from studies I, II and III

Further presentation of the findings from the three individual studies are in the corresponding papers (I-III) and in the following summary.

4.1 Study I

The sample in study I represented the Icelandic childbearing population in terms of sociodemographic characteristics. Approximately 14 percent of the women were students when they entered the pregnancy. The prevalence of negative birth experience was five percent at T2 and 5.7 percent at T3, suggesting that women´s perceptions persisted over time. Over a quarter (26.3-28.4%) found their birth as both positive and negative, and over a third (37.1-37.7%) of women appraised their birth as difficult.

Negative birth experience was significantly more likely to occur among women who were students, had negative thoughts about the impending birth while they were pregnant, had depressive symptoms or prior negative

experience of birth, if their labour was induced, prolonged or completed with an operative birth. Furthermore, women who were not satisfied with midwifery support during pregnancy or birth were more likely to perceive the birth as negative than women who were satisfied with the support from their midwife.

To explore the predictive role of midwifery support in women´s birth experience, two binary logistic regression analyses were performed in three steps, while controlling for sociodemographic characteristics and some known risk factors. The models were performed on both T2 and T3 and the results are shown in Table 2. Women who were students, had negative thoughts about the impending birth, experienced operative births or prolonged births, were not satisfied with midwifery support during pregnancy or birth, and had depressive symptoms at T2 had significantly higher odds ratios for perceiving their birth as negative at T2. In a repeated logistic regression model for T3, women who were students, experienced an operative or prolonged birth had significantly higher odds ratios for negative birth experience.

Table 2. Binary hierarchical logistic regression models, predictors of negative birth experience

	Model II 5-6 m after birth, (n=706)					Model III 18-24 m after birth, (n=535)				
	B	OR	95% CI		p-value	B	OR	95% CI		p-value
I Characteristics before birth			Lower	Higher				Lower	Higher	
Age	0.049	1.050	0.959	1.150	0.293	-0.009	0.991	0.905	1.087	0.855
University education	0.078	1.081	0.437	2.672	0.866	-0.068	0.935	0.374	2.335	0.885
Student	1.754	5.779	2.222	15.024	**0.000**	1.529	4.615	1.715	12.417	**0.002**
Primipara	0.020	1.020	0.405	2.570	0.967	0.049	1.050	0.411	2.684	0.919
Negative thoughts of impending birth	2.336	10.341	3.594	29.756	**0.000**	1.044	2.840	0.814	9.913	0.102
II Events during birth										
Induction of labour	0.067	1.070	0.431	2.656	0.885	0.707	2.027	0.839	4.898	0.117
Any operative birth	0.949	2.582	1.076	6.198	**0.034**	1.762	5.821	2.378	14.249	**0.000**
Perception of prolonged birth	2.463	11.737	4.565	30.176	**0.000**	1.254	3.504	1.502	8.172	**0.004**
III Support from midwives and depressive symptoms										
Unsatisfied with support from midwife during pregnancy	1.402	4.063	1.025	16.102	**0.046**	1.153	3.169	0.748	13.424	0.117
Unsatisfied with support from midwife during birth	1.757	5.796	1.093	30.731	**0.039**	1.111	3.039	0.659	14.016	0.154
Depression symptoms 5-6 months after birth	0.099	1.104	1.020	1.195	**0.014**	0.069	1.071	0.989	1.160	0.092

Defined variables; university education (university or comparable = 1/other = 0), student (student =1/working or no occupation = 0), primipara (first time mother = 1/mutilpara = 0), prior negative thoughts of impending birth (negative or very negative = 1/other = 0), induction of labour (induction = 1/spontanious onset or elective CS = 0), any operative birth (instrumental or planned/acute CS = 1 spontanious vaginal = 0), perception of prolonged birth (prolonged = 1/moderate or short = 0), support from midwife in antenatal care/during birth (unsatisfied or very unsatisfied = 1/other = 0).

R^2=.97 (Hosmer and Lemeshow) .132 (Cox & Snell) .399 (Nagelkerke). The model is significant => Goodness of fit = <.001 (Omnibus). Model x^2 = 100.149

Table 2. Binary hierarchical logistic regression models I and II, predictors of negative birth experience

4.2 Study II

The most common reasons for attending the specific midwifery counselling clinic, reported by women in study II, were negative birth experiences, fear of upcoming birth and/or not feeling in control during prior birth. Ninety-four women (73%) perceived the counselling interview fulfilled their expectations.

A content analysis of free text responses to open ended questions from 125 women revealed two themes and three sub-themes where *´on my terms´* was the overarching theme with the sub-themes of *´being recognised´, ´listening is paramount´* and *´mapping the unknown´* (Figure 5). If the women were able to reconcile their birth experience on their own terms, they could reach the final theme of *´moving on´.* They emphasised the importance that maternity care providers initiated a conversation about the birth and encouraged them to review and reconcile their experiences, if needed. However, it was important to provide such counselling on their terms, as they had different needs regarding who provided the counselling, where it was provided, the timing and content of such counselling. Almost half of the women would like to have such a counselling interview provided by a midwife from birth, while others would like a midwife from the special counselling clinic, antenatal or postnatal care.

The women highlighted the importance of being really listened to with their views acknowledged without any judgement. Then they felt safe enough to express their feelings and deal with their emotions. But on the opposite, if they perceived their experience was not acknowledged or if the provider somehow attempted to defend the care provided or decisions made during birth, they were not able to move on with the process of healing from negative birth experience.

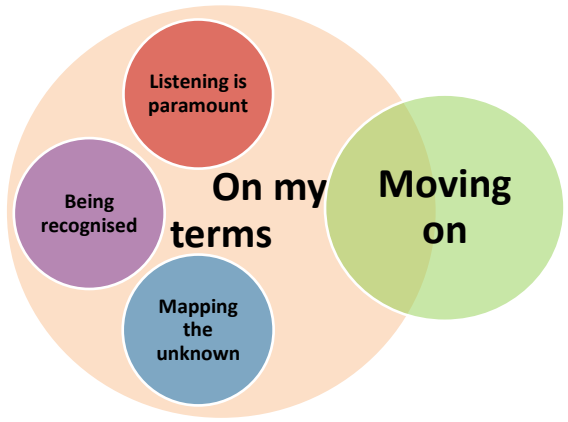

Figure 5. Themes - women´s processing and reconciling of negative birth experience during the *Ljáðu mér eyra* special midwifery counselling interview

4.3 Study III

In study III, 30 women participated in a counselling intervention, consisting of writing about emotions related to birth and reviewing their birth experience with a midwife they knew from antenatal care. Eight midwives provided the counselling, with a total of three to six counselling interviews each.

Twenty-one (70%) of the participating women reported some physical or mental health conditions before they became pregnant. Eight (26.7%) women were diagnosed with gestational diabetes during pregnancy while six (20%) had either gestational hypertension or pre-eclampsia, and seven (23.3%) reported worries about the unborn child´s health. Over half of the women or 16 (53.3%) had lifetime history of unwanted sexual experience and 11 had experienced sexual assault (36.7%). Furthermore, 10 women (33.3%) had a history of physical assault during their lifetime.

The women perceived the intervention as both useful and fulfilling their expectations. They appraised their birth in a more positive way after the intervention than before. Most of them preferred to review their birth experience with a midwife they know and thought that 4-6 weeks postpartum would be an ideal time. Almost half of the women (46.7%) wrote about their birth-related thoughts, of whom six reported that the midwife read their text. Three women did not want to share their written reflections with the midwife.

From the midwives´ perspective, the pre-training program, interview framework and supporting guidance was perceived as useful for preparation for their counselling. They believed the intervention was useful for the women and most of them thought that it was important to invite all women who had given birth after a high-risk pregnancy to such a counselling intervention. However, they had some concerns about practical issues like staffing levels to enable such a postpartum follow up, appropriate facilities and difficulties in contacting the women via phone. But most importantly, they perceived that a supportive head midwife manager was the key factor in implementing such a follow-up intervention, as was in this case.

Both women and midwives perceived the counselling intervention as an acceptable and feasible choice in maternity care, providing an opportunity to a *´closure´* of the whole process of childbirth and a reciprocal *´win-win´* achievement (Figure 6).

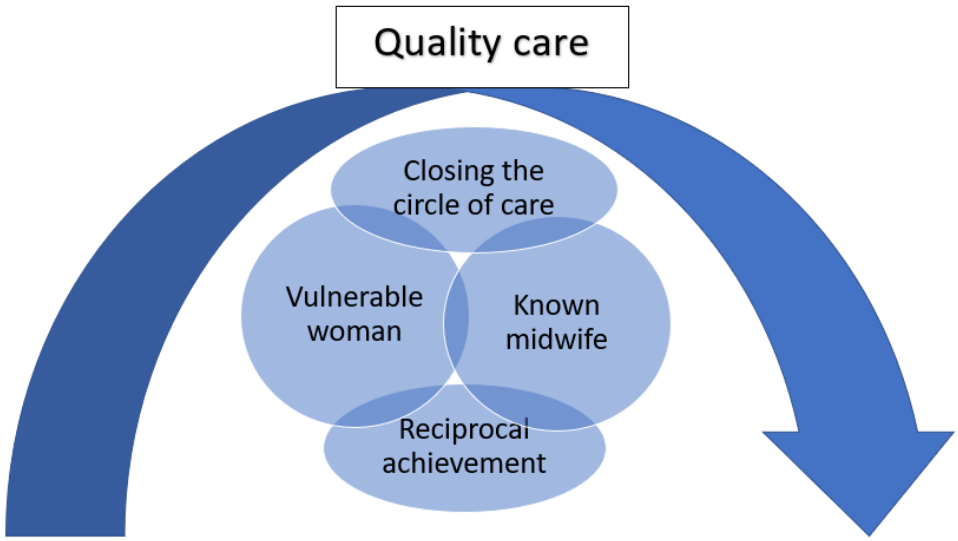

Figure 6. Quality of care – postpartum counselling midwifery intervention

5 Discussion

The overall aim of this doctoral project was to develop an intervention for women who might need to review their birth experiences. The three studies are presented in a chronological order where studies I and II underpin study III. Together the three studies shed light on women´s birth experiences in Iceland from various perspectives and contribute to the existing knowledge about; the prevalence and predictors of negative birth experience over time (I), how women prefer to reconcile such negative appraisals of birth (II), and evaluation of a midwifery postpartum counselling intervention as a helpful and feasible choice for a vulnerable group of women experiencing high-risk pregnancies (III). The findings indicate that the birth experience is consistent over time and midwives´ support during pregnancy and birth plays a significant role in women´s perceptions of birth (I). Women emphasise that their needs for reviewing birth experience are recognised and responded to in a customised way (II). Women experiencing high-risk pregnancies represent a vulnerable group that needs special attention following birth. Offering them a counselling intervention with a midwife they know from antenatal care is a feasible and acceptable choice in maternity care (III).

One of the significant benefits of the studies in the Icelandic context is to provide maternity care providers with a language to discuss women´s birth experience and a tool to provide care on women´s terms, especially for vulnerable groups.

5.1 Predictors and prevalence of negative birth experience – study I

Women´s evaluation of their birth experience appears to be consistent over time, suggesting that time alone has not a healing effect. This is congruent with at least one prior study[38] while other studies show a tendency of negative aspects of the birth experience to become more intensive over the years.[4,233-235] This has been explained by the *halo effect*, which involves that the glory and relief right after the baby is born, is overshadowing any negative perceptions. With the passage of time, the halo fades and more realistic dimensions take place. This provokes concerns in relation to later pregnancy when women could become more aware of the negative

dimensions of birth – when they are really exposed to thoughts about prior experience.

The results of this study are in harmony with prior studies according to the main predictors of negative birth experience, such as complications during labour or birth,[29,30,236] prolonged birth,[43,66] fear of birth,[143,236] depression symptoms[72,75,161] and prolonged labour.[43,66] However, the prevalence of negative perception of birth seems to be lower in Iceland than in Sweden (7%, *n* = 2541)[30] and the Netherlands (16%, *n* = 1309)[29] which provokes speculations about the context and how the experience was measured. Iceland deviates from many other countries in terms of some outcomes that might affect women´s experience of birth. The country has one of the lowest caesarean rates worldwide,[187] midwives attend all births and provide antenatal and postnatal care to almost all women. Approximately 80 percent of women return to their homes within 72 hours postpartum and receive care from a midwife who visits them at home for the first ten days postpartum. Therefore, it can be concluded that women have easy access to midwives for support and counselling during pregnancy, birth and postpartum.

The study provides a body of language for clinicians to communicate with women about birth experience. The term ´difficult´ is commonly used in clinical practice when discussing birth experience with women in the Icelandic context. Nevertheless, the term ´difficult´ was not found in any databases as a denominator of birth experiences. The term 'negative' could be an indicator of ´traumatic´ experience as the prevalence of negative birth experience in our findings is consistent with the findings in recent meta-analysis about PTSD,[237] suggesting that the term ´negative´ can be viewed as analogous to ´traumatic´.

The role of midwifery support in the birth experience, was demonstrated in the study as women who were not satisfied with midwifery support during pregnancy or birth were more likely to appraise their births as negative than women who were satisfied. Prior studies have suggested that lack of communication or information from caregivers during birth,[30] play a role in women´s negative birth experiences but the effect of midwifery support during pregnancy has, to our knowledge, not been reported before. However, prior studies have revealed evidence of associations between insufficient time for questions during antenatal appointments and negative birth experience.[30] Recent evidence showed that 41 percent of Icelandic women felt that time for information about birth, during antenatal care, was not sufficient and women who perceived their birth as difficult were more likely to

have this perception than those who experienced their birth as easy.[238] The role of support from partner in the birth experience was not confirmed in our study but prior studies are not in agreement about its role either,[30,34,62,66,71,72] suggesting that more research is needed.

The role of negative thoughts about the impending birth during pregnancy, in the birth experience is of interest. This is supported by a study, showing that women with low levels of fear rarely have negative birth experience, regardless of mode of birth[141] and highlights the importance of discussing birth during pregnancy and recognise women who might need support and information to prepare themselves for the birth. Prior studies indicate that if women feel adequately prepared for birth, they are more likely to have positive birth experience.[139,154,155]

A finding that needs further exploration is that being a student was predictive of negative birth experience in this study. This cannot be explained by the women´s age as there was no significant relationship between age and birth experience. It was an unexpected finding and has only been explored to a limited extent in previous studies. However, studies indicate that being a student increased perinatal distress[239] and psychological distress[240] suggesting that students could be a vulnerable group that needs special attention and more emotional support during the childbirth period. One can also speculate if this finding could partly be related to financial worries - as poverty has been found to relate to negative birth experience.[141] It is rather common for women in Iceland to have children while still in their studies and as students represented 14% of the study sample, the topic needs further research.

5.2 Processing birth experiences – study II

Women who have attended the LME midwifery counselling clinic, provide insight into their preferences of reviewing and reconciling their birth experiences. They emphasised that recognition of women´s needs to review their birth experience is pivotal and the maternity care system should routinely initiate such a discussion. Among the most valued components of such a counselling interview were careful listening, acknowledging women´s experience and thorough information about the birth process. Furthermore, and most importantly, each woman´s preferences must be met in a customised way. They perceived that when their expectations were met on their own terms, they could reconcile their emotions and were enabled to move on with their lives.

Customised care requires that women are met on their terms, where active listening[197] is of paramount importance to recognise the woman´s expectations and needs. Such customised care is supported in a previous study following a distressing birth, where women highlighted the urgency of flexibility in regard to provider and type of postpartum support. Most of the women wanted a midwife to provide the counselling but the appropriate timing of it varied. Furthermore, the women preferred to be allocated to a caseload midwifery in the subsequent pregnancy or be targeted to antenatal sessions to discuss the upcoming birth.[241]

Giving birth brings up various emotional work for the woman.[242] Therefore, processing birth experience is assumed to be complex. The woman´s views and emotions must be asserted carefully, she must perceive that her experience is acknowledged, otherwise she may withdraw her expressions to avoid conflict with the caregiver or system.[243]

Ascertainment of the whole picture about events and decision-making during the birth plays a major role in women´s processing negative birth experience in this study and its importance is supported in other studies as well.[131,230,244,245] Providing information is indeed one of the core components of midwifery care as stated by the ICM.[216]

The final stage in women´s journey of processing their birth experiences is gaining confidence and empowerment to move on with their lives. Other researchers have described how the sense of increased control, confidence and reclaiming of women´s bodies after a negative birth experience was empowering[246] and helpful in moving from a ´state of disgrace to a state of grace´.[247]

Interestingly, only one to two percent of women who give birth in Iceland have attended the LME midwifery counselling clinic to process negative birth experience for the last decades,[224] while five to six percent of the population perceive their birth experience as negative.[67] One has to bear in mind that this service is located in the capital area but 75 percent of all births in the country take place at one clinic in Reykjavík. Still, this provokes the question of how we approach women who may need to review their birth experiences. One of our concerns relates to the fact that the educational level in the sample was higher than in the population of women at childbearing age in Iceland,[224] although educational level was not found to affect women´s birth experience (study I). This discrepancy might be due to either that women seek help elsewhere, educated women are more likely to seek help, or they could be more likely to participate in research. Nevertheless, it suggests that

we are not reaching all women who might need to review their experiences of birth. This highlights the importance that maternity caregivers initiate discussion about the topic where such an initiation could in a way compensate for perceived lack of support,[30,67] or communication[248] from caregivers during birth.

However, it is of notice that in 2019 the number of women who attended LME more than doubled from the previous years or from one to two percent up to approximately four percent.[199] We can only speculate about the reason for this sudden expansion. It might be a coincidence or due to increased awareness among women and maternity care providers about childbirth experience or better access to information about LME. In addition, some components of the findings from this doctoral study have been presented among maternity caregivers at national conferences which might encourage them to raise the topic.

5.3 Reviewing birth experience following a high-risk pregnancy III

The women who participated in study III represent a group of childbearing women with health concerns and all of them gave birth following high-risk pregnancies. They are a vulnerable group due to their health conditions and high rates of history of difficult events during their lifetime, compared with the national poplation.[249] Prior adverse life experiences like sexual or physical violence are known to affect women´s health,[250] expectations to birth[251] and childbirth outcomes.[252-254] Furthermore, higher rates of complications during pregnancy and birth were detected in the study group than in the national birth registry.[187] All the above characteristics are known risk factors of negative birth experience,[75,161 30,67,75,91] and as such not surprising that they had higher prevalence of negative birth experience (13.3%) than women in the national sample (5-6% in study I). According to the literature, women are more likely to perceive their births as negative if they have complicated pregnancies,[89,91,95] give premature birth,[91,144] or have a history of mental health problems.[34-36,68-76,94,98,134] Furthermore, women experiencing complicated pregnancies are more likely to have a history of adverse lifetime experiences.[252-254]

Birth was appraised in a more positive way after the counselling intervention than before, which suggests that the women moved some way forward in reconciling their experiences as was found in study II, possibly by reframing feelings and promoting new understandings.[255] Some previous

studies support the benefits of a counselling intervention[131,173,174,180] and writing about the birth experience[160] while others have shown inconsistent results about the effectiveness of such interventions.[96,175-179] Despite inconsistent findings in previous studies, women consistently report that reviewing the birth experience is helpful[184,185] as was confirmed, both in this study and in study II. Therefore, a recommendation of maternity caregivers offering women to review their birth experiences postpartum is supported. Moreover, such an offer is advised by the National Institute for Health Care Excellence (NICE) for women who express a need for a discussion about their birth experiences.[256]

Almost half of the women wrote narratives about their birth experience which they perceived as useful. Writing about thoughts and emotions related to birth, has been found to be helpful[160] in reframing feelings, promoting new understandings and facilitating individuals to make sense of their experience.[255] The midwives who read the women´s text, reported it as being useful because it provided them with deeper understanding of the women´s thoughts. To our knowledge, the benefits of the counselling provider´s reading the written narratives has not been explored before.

Both women and midwives perceived the postpartum midwifery counselling as a useful and feasible choice in the care of women following high-risk pregnancies. Furthermore, both groups agreed on the follow-up as an important closure of their relationship following a complex pregnancy and valued the opportunity to review their experiences by a midwife they know from antenatal care. That women prefer care from a caregiver they have established a relationship with is of interest in our fragmented maternity care in Iceland. There is evidence that trusting and reciprocal relationships can substantially contribute towards more positive outcomes, experiences and satisfaction of care.[188] A postpartum counselling, provided by a midwife from antenatal care, can be one step towards building continuity in maternity care, as recently recommended in the Confederation of the Nordic Midwives Association's (NJF) statement.[257]

Despite the agreement on the benefits of the midwifery counselling, the women emphasised that flexibility was important in terms of the provider, as was timing and components of the counselling intervention. Both women and midwives in this study reported that in some cases, the experience of birth was not necessarily found to be the most urgent issue during the counselling interview but rather to discuss and get support related to breastfeeding and

postpartum issues. Such an importance of flexibility has been established in a previous study[241] and in study II.

The midwives perceived the pre-training program and supportive counselling during the study period to be useful, not only for that specific counselling, but also for potential improvement in the quality of their maternity care. Such a transfer of pre-training, aimed for a specific purpose, to other aspects of maternity care was found in a study in Australia.[258]

5.4 Discussing birth experience in maternity care

The findings from studies I, II and III indicate clearly that some groups of women are more exposed to negative birth experience. This should be acknowledged by health professionals in maternity care. A summary of risk factors of negative birth experience is provided in Table 3.

Table 3. Characteristics of women exposed to negative birth experience

Characteristics of women exposed to negative birth experience	Study nr
Not satisfied with support from midwife during pregnancy or birth Operative birth Perception of prolonged birth Being a student Prior negative thoughts of upcoming birth Depressive symptoms	I
Previous negative birth experience Anxiety about upcoming birth Perceiving lack of control during birth	II
Health conditions before pregnancy Health concerns or complications related to pregnancy Difficult events during lifetime	III

Furthermore, studies II and III report on women´s preferences of how their needs of follow-up postpartum might be met. Most of the women want such counselling to be provided by a midwife they know, around six weeks postpartum. Hence, they highlight the recognition of individual preferences and having their care customised to their needs. Thomson et.al.[259] suggest that a primary, secondary and tertiary prevention and intervention should be

provided for women who are exposed to negative birth experience. That involves educating and training midwives to screen for negative birth experiences both during pregnancy and after birth. Moreover, such an offer is advised by NICE for women who express a need for discussing their birth experiences.[256] However, limited knowledge exists about how to prevent negative birth experience,[260] but it might involve easier access to information during antenatal care or interventions prior to birth for women who might be exposed to negative experience of birth. In addition, it is important that maternity caregivers are aware of women´s expectations before birth, help them to develop their expectations[153] and provide them with support when their expectations could not be achieved.[152] Such a preparation prior to birth might influence women´s expectations and experience of birth. In an Australian study an antenatal childbirth programme intervention resulted in higher rates of positive birth experience among the women who attended, five years later, than women in the comparison group.[235] Similar results were revealed in a study from Israel where a birth preparation program indicated increased satisfaction with birth experience.[61]

Following is a discussion about how to address birth experience in the context of maternity care.

5.4.1 Capturing birth experience from different theoretical perspectives

Models of care around childbirth are based on pathological or salutogenic perspectives, although in clinical practice we expect some mixture of both.[204] The philosophical background of the dominant models of childbirth care can be reflected in published studies by the various terms used to describe women´s birth experience. The most common terms detected were *positive-negative*, *traumatic* and *satisfaction* with the birth experience.

Scrutinising the terms used in different measuring tools in the light of theoretical perspectives in childbirth care, they can be linked to either pathogenic or salutogenic perspectives. Terms referring to a more positive complexion as women´s confidence,[49,261] feeling strong[39,49] or in control,[39,59,261] involvement in decision making or choices,[39,261] perceived trust in caregivers,[49] and surrendering control to own body[49] seem to be more of a salutogenic character although many of such descriptions have a spectrum with a negative item on the other end of the scales. On the other hand, tools using traumatic symptoms to evaluate women´s psychological well-being after birth refer to detecting psychological responses such as symptoms of intrusive thoughts or avoidance, negative alterations in cognitions or mood,

and arousal or reactivity.[101] These terms are more related to a pathological or risk-oriented philosophy and are based on pathological diagnosis established by DSM[100] and the *International Statistical Classification of Diseases and Related Health Problems 10th Revision* (ICD-10).[262] Originally, the tools were developed to detect psychological distress after disasters such as war or accidents. In the spirit of the salutogenic model of childbirth care where birth is viewed as a natural lifetime event, it provokes thoughts about whether such measures are of relevant use, at least as a routine, unless we suspect women to have post-traumatic symptoms.

Dichotomising women´s childbirth experience to negative or positive might be an oversimplification, acknowledging the multidimensionality of childbirth as "*a profound experience, which carries significant meaning to the woman, her family and the community*" affecting women´s psychological, physical and emotional well-being.[205] However, such a dichotomous approach can act as a screening tool to detect the women who are in need of reviewing their experience while a more comprehensive tool might be used as a base for a deeper conversation, for further assessment.

The use of terms to describe the birth experience are of both scholarly and existential interest. When matching measurements of birth experience with ideology and models of care around childbirth, a minority of studies use positive terms to capture women´s experience. That said, it is important to keep in mind the existence of cultural differences in the discourse of birth experience. Therefore, the terms must reflect normal and traditional language in the context and capture expressions that are natural in the national language. For example the term *positive-negative* was used equivalent to *satisfied-dissatisfied* in a Swedish study as the latter was thought to be more relevant in the Swedish language.[107] In Icelandic, the terms used for birth experience are of interest, as more than a third of women perceive their birth as *difficult* and only five to six percent as *negative* (study I). Despite the association between difficult and negative experience, approximately a third of the women perceived their birth as both a difficult and a positive experience while virtually none of them reported the birth as an easy or average experience and negative at the same time. Therefore, the term *easy-difficult* might be suggested to be relevant for the initial opening of the topic as this is commonly used in everyday conversation in the Icelandic context. Most importantly, the dialogue needs to be in accordance with the common and dominant use of terms in each context.

To summarise, it is concluded that measurements of birth experience that are in harmony with models of care, involving partnership, trusted relationship, continuity of care, and salutogenic and holistic approach, are more aimed for woman-centred care. Such measurements are also congruent to Renfrew et. al. framework for quality midwifery care[200] and emphasise individual uniqueness, strengths, well-being[172] and coping strategies of each woman.[211] The benefits of a face-to-face conversation about birth experience, as provided in studies II and III, should be considered rather than routine use of standardised screening tools as women have reported that some issues are not captured in the post-traumatic stress measuring tools.[241] These involve mistrust of professionals, health complications, negative self-internalisations of guilt and failure, and concerns over future conceptions.[241] This supports that a conversation with a midwife who has comprehensive childbirth knowledge and communication skills may be more relevant than screening tools only.

5.4.2 Birth experience and models of care

Working in modern maternity care is complex due to the majority of midwives practicing in conflicting ideology and model of care[263] where a distinction between the midwifery model and the medical model is vague due to a common negotiation of both. Risk-oriented thinking has become part of our system. Therefore, we must consider the consequences of such focus on women´s experiences. That involves how it affects women´s autonomy, sense of control and feeling of security. Conflicts might arise where guidelines are contradictory to women´s choices, resulting in that women´s choices might be restricted. As such it creates a paradox of women´s autonomy and decision making in our context of conflicting models of care.[263,264]

The women in study III are defined as high-risk due to health concerns and presumably their care is more risk oriented. This provokes doubts whether their specific needs, as a vulnerable group, are respected in the current fragmented system. They are prone to encounter a whirlpool that affects their decision-making, perhaps with limited control and autonomy, where their views and rights might be undermined by protocols and mechanisation of childbirth care.[265] Partly, women´s fears, feelings of inability, loneliness or abandonment could be rooted in a system[265] that does not promote enough respectful care - a system that supports discrimination based on power difference with authorical inequality between the woman and the health care providers.

It is a challenge to meet those women´s needs. However, it could start with a focus on prevention of both physical and emotional trauma in relation to childbirth by respectful and woman-centred maternity care.[266] The effect of supportive care on the birth experience has perhaps been underestimated but recent knowledge has highlighted maternal mental well-being and the consequences of distress on both maternal and child´s well-being.[157,161] Studies indicate that adequate preparation for birth can enhance birth experience.[139,155] Similarly, having care during birth provided by a midwife, already known to the woman, might enhance women´s perception of control and participation in the decision making, resulting in a more positive birth experience.[267] Research in the Nordic context has focused on the atmosphere around childbirth in the MiMo model.[188] The model highlights how the cultural context and balancing act surround reciprocity in the woman-midwife relationship, the birthing atmosphere and grounded knowledge. The role of quality in interpersonal relationship in midwifery care[25] has gained some focus where relational continuity, represented experiences of presence and emotional support in the relationship and feeling of personal growth for the women.[13,25] The answer to how vulnerable women´s needs could be met might consist in better access to continuity of care involving a trusted relationship with caregiver, based on reciprocity, respect and humanity.[13,268] By being present and providing information and emotional support, midwives can promote women´s feelings of being in control and enhancing their birth experience.[149,269]

5.5 Strengths and limitations

5.5.1 Strengths and limitations in study I

The main strengths of the study involve the sample size, repeated follow-up measures, stratification of the sample in regard to residency, good response rate, and representativeness of the Icelandic population of childbearing women. Parts of the questionnaire had been used prior to this study, in the Nordic countries.[28]

It should be noted that the findings refer to the birth experience of women giving birth in only one country and some sociocultural factors which might play a role in their experience, are not explored in this study. Therefore, the findings should be interpreted with caution to other subsets of women in different cultural contexts.

It would have been of interest to have information about women´s birth experience earlier than six months postpartum to explore any changes in the

perceived birth experience from birth until later, but such measurements were not performed, which can be considered a limitation. Data on midwifery support after birth would have been of interest in this context but it was not collected. Furthermore, no information was available about the women who dropped out from T1 to T3. It may also be considered a limitation that some of the women that responded at T3 did not respond at T2. Finally, all information was self-reported, therefore a recall bias cannot be ruled out.

5.5.2 Strengths and limitations in study II

All women attending the special counselling clinic for a five-year period (2006-2011) had the opportunity to participate and provided a range of responses. This can be considered a strength of the study. Secondly, the women had an opportunity to express themselves in their own words, which provided rich data about their experience of the interview and how the clinic could be improved, rather than a fixed response survey. They could express themselves anonymously by using written text and this enabled them to have uninhibited communication without considerations of the researcher´s views or reaction.

The doctoral candidate´s participation in the special counselling group may have affected her perspective and exposed the study to some bias but it can also be considered as a strength to have such an insight in clinical practice in this field.

It can be considered a limitation that the sample is a self-selected group and does necessarily neither reflect the population of women who have negative birth experiences nor all women who attended the clinic. Furthermore, the high educational level of participants limits the generalisability of the findings to the wider population. Researchers were not able to ask additional questions to clarify or deepen understanding, which can be considered a limitation. Finally, we had no information about whether women were pregnant when they attended the interview, but this could have provided greater insight into their preferences in relation to an upcoming birth.

5.5.3 Strengths and limitations in study III

Study III provides perceptions of both caregivers and the women receiving the care, which can be considered a strength. Furthermore, there were few dropouts, as both groups seemed to be committed to participate throughout the study process.

Hence, as the sample is self-selected and small, it does neither necessarily reflect all women who attend the high-risk antenatal clinic nor all midwives who work there. Therefore, we are unable to generalise the findings to other settings. Due to systematically missing data from the PCL-5 questionnaire we were unable to compare total scores of trauma symptoms to other groups. The effect of this error is though minimal, as such comparison was not a purpose of the study. Finally, a recall bias cannot be ruled out as all information was self-reported.

Finally, we cannot rule out that women´s appraisals of birth could have improved without the intervention as there was no comparison group.

5.6 Implications for practice and future research

Involving a conversation about birth experience with a midwife, already known to the woman, implies a respectful and flexible woman centred care,[200,205] and is in the scope of midwifery practice according to the ICM ´…*the midwife has an important task in health counselling and education, not only for the woman, but also within the family. This work should involve antenatal education and preparation for parenthood and may extend to women's health, sexual or reproductive health and child care´.*[216] Midwives are in a unique position to undertake such a conversation as the primary caregivers during pregnancy, birth and postnatally.[200,205] Furthermore, it represents a respectful and flexible care based on the woman´s needs as stated in the philosophy and models of midwifery care.[200,205,257] Initiation of a conversation about birth experience should be included in postpartum care to recognise the women who might be in need to process and reconcile their experience. Following, a more customised counselling could be provided for vulnerable groups. Therefore, we recommend that women are invited to have a conversation about their birth experiences postpartum as supported by NICE.[256]

In this thesis, we have considered birth experience in a rather dichotomised dimension (as negative or positive). Such a dichotomisation might be an oversimplification, acknowledging the multidimensionality of childbirth as "*a profound experience, which carries significant meaning to the woman, her family and the community*"[205] affecting women´s psychological, physical and emotional well-being. However, it can be practical for the purpose of detecting women who might need to review their experience while a more comprehensive tool might be used as a base for a deeper conversation. Simply, asking a woman how she feels about her birth could

initiate a conversation about the topic and is especially important as the perception of birth tends to remain stable over the time passage. The three studies provide helpful terms which can be a base for midwives to initiate a dialogue of women´s perceptions of birth.

The knowledge of predictors of negative birth experience is of great value in clinical practice and provide caregivers with a simple source of which women might need a more comprehensive support. Special focus must be placed on women experiencing high-risk pregnancies as they represent a vulnerable group. They are more likely to have adverse life experiences, health concerns, and complications and interventions during birth, resulting in more risk of negative birth experience. Therefore, they might be in more need of reviewing their births and getting support about postpartum issues like breastfeeding.

The 12-hour pre-training program and the supportive guidance for midwives during the study period appeared to be useful and appropriate. Further distribution of such training should be considered, both in midwifery training and for midwives in clinical practice.

In the future, emphasis should be on exploring different domains of the childbirth experience and whether there are some discriminations between them. The measurements of women´s appraisals of birth need to be explored as they vary regarding involvement of the complex domains of the birth experience. Future studies are needed to explore the effectiveness of postpartum midwifery counselling with a midwife the woman already knows. Furthermore, we need to investigate the effects of writing about birth experience compared with attending a counselling interview or doing both. In future research, it would be interesting to explore the partners´ or supporters´ perspectives.

6 Conclusions

Women´s experience of birth has caught attention in the past and will probably be of considerable significance in the future, both in practice and research. From the thesis, we draw the conclusion that birth experience is consistent over time and some groups of women may be more vulnerable than others when it comes to experience of birth. Such information provides a substantial contribution to maternity caregivers´ knowledge and skills to detect women who need special attention regarding their birth experience. However, we must be aware that women might prefer such a conversation without any known vulnerability factors.

The studies provoke thoughts about how we can work towards preventing negative experience of birth. The supporting role of midwives, as the primary care providers in maternity care, cannot be overlooked. Concurrently, such thoughts involve challenges and opportunities for improvement in our maternity care. Knowledge about how women´s lifetime experience and their health conditions affect their birth experiences can facilitate a more individualised care during pregnancy, birth and postpartum time. Moreover, it is important to use the results from the studies to enhance caregivers´ understanding of the topic and reinforce their communication skills in all maternity care.

The red thread in the thesis is that women want to be approached on their own terms. They call out for our attention and recognition of their various needs. The also prefer to meet a caregiver they know and have an established relationship with, to review their birth experiences. They want reciprocal trust, acknowledgement, active listening and information about their births which in turn reinforces their coping resources with enhanced strength and control, and their ability to move on. Midwives play a central role in promoting such a conversation as the primary maternity care providers in our context.

All the above can be conjoined and framed in the context of models of care. The prominent evidence about how models of care affect women´s birth experience and outcomes of birth, is of notice. Woman-centered models of care place focus on partnership and continuity of care tailored to individual woman´s needs. As continuity of care can rarely be found in our context, we can view it as a unique opportunity of improvement in maternity care.

My thoughts wander to the two women with negative experience of birth, whom I met more than two decades ago, during my midwifery studies. Since then, more knowledge on the topic has emerged and hopefully we have moved forward in helping these women.

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Paper I

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Original Research - Quantitative

The predictive role of support in the birth experience: A longitudinal cohort study

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ABSTRACT

Background: Several risk factors for negative birth experience have been identified, but little is known regarding the influence of social and midwifery support on the birth experience over time.
Objective: The aim of this study was to describe women's birth experience up to two years after birth and to detect the predictive role of satisfaction with social and midwifery support in the birth experience.
Method: A longitudinal cohort study was conducted with a convenience sample of pregnant women from 26 community health care centres. Data was gathered using questionnaires at 11–16 weeks of pregnancy (T1, $n = 1111$), at five to six months (T2, $n = 765$), and at 18–24 months after birth (T3, $n = 657$). Data about sociodemographic factors, reproductive history, birth outcomes, social and midwifery support, depressive symptoms, and birth experience were collected. The predictive role of midwifery support in the birth experience was examined using binary logistic regression.
Results: The prevalence of negative birth experience was 5% at T2 and 5.7% at T3. Women who were not satisfied with midwifery support during pregnancy and birth were more likely to have negative birth experience at T2 than women who were satisfied with midwifery support. Operative birth, perception of prolonged birth and being a student predicted negative birth experience at both T2 and T3.
Conclusions: Perception of negative birth experience was relatively consistent during the study period and the role of support from midwives during pregnancy and birth had a significant impact on women's perception of birth experience.

Statement of significance

Problem or issue

Evidence of the effects of social and midwifery support on the birth experience is inconsistent. Little is known about how negative birth experience develops over time.

What is already known

Negative birth experience affects the well-being of women and newborns. Prevalence, several risk factors, and consequences of negative birth experience have been identified.

What this paper adds

The perception of negative birth experience is relatively consistent from six months to two years after birth. Support from midwives during pregnancy and birth has an impact on women's birth experience.

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1. Introduction

Negative birth experience has been one of the major issues in childbirth research for the last decades in developed countries. Between 7–35% of women perceive their birth as a negative experience.[1–3] The wide range in prevalence has been explained by the timing of the postpartum assessment[3] and by the variance in the definitions and measures used, in which the terms 'negative birth' and 'traumatic birth' are applied interchangeably as these have similar risk factors[3,4] despite different ways of measurements.

The consequences of a negative birth experience have been identified as affecting women's psychological wellbeing, parent–infant bonding,[5] the relationship between mother, baby and partner[6] and future family planning.[7] Former studies indicate an increase in psychological trauma in women reporting a negative birth experience, with 1–6% of these women developing posttraumatic stress disorder (PTSD) related to childbirth.[8,9] Previous studies also indicate a higher risk of developing fear of childbirth and an increased preference for elective caesarean section in these women.[10,11] Risk factors for a negative birth experience are multifaceted and associations have been found between negative birth experience and instrumental or caesarean births,[1,3,12] intrapartum complications,[1] maternal complications or hospitalisation in pregnancy[13] and prolonged labour.[13,14] Furthermore, fear of childbirth,[2,12] prior negative birth experience,[12] feelings of not being in control, and powerlessness during birth[1] have been associated with negative birth experiences as well as history of mental health problems.[4,6,15]

The role of support in the birth experience has been explored to some extent with inconsistent results. The sources of support can be from within the individual's support network or from the professional community, with the latter being provided by healthcare professionals or by the healthcare or community systems.[16] Social support has been defined as the exchange of resources between at least two individuals, the provider and the recipient with four main domains—emotional, instrumental, appraisal and informational support[17] and can be characterized by kinship, friendship, reciprocity and congruent expectations.[16] Some studies have shown a correlation between negative birth experience and low levels of social support during pregnancy,[1] birth[18,19] and of the postpartum period[20] but this has yet to be confirmed in other studies.[14,15,21] Conversely, higher levels of support from family or friends may reduce a woman's negative experience of birth (e.g., in terms of the fear she experiences around the event), although this correlation has yet to be explored further.[22] Different quantitative measurements of social support have been used and the components of social support are defined in only half of the above studies.[15,19–21]

Professional support is more formal and is based on role expectations in which, unlike in social support, reciprocity is not required.[16] As the main providers in maternity care and as stated in the International Confederation of Midwives' (ICM) definition of the midwife, midwives are required to provide professional support in pregnancy, during birth, and in the postnatal period.[23] Although the effects of perceived professional support during birth have been given some research attention in the past decades, the results are inconsistent with some studies showing a lack of support from midwives or caregivers during birth to be associated with negative birth experience[1] but others are not confirming this relationship.[14] In addition to lack of support, lack of communication or care from caregivers seems to affect women's birth experience.[1,3,24] No studies were found that explored the relationship between midwifery support during pregnancy and the birth experience; however, an association between insufficient time for questions during antenatal appointments and negative birth experience was found.[1]

In summary, while considerable knowledge of the prevalence, predictors and consequences of negative birth experience in developed countries exists, less is known about whether the perception of the birth experience changes over longer periods of time and whether social or midwifery support plays a predictive role in the experience of birth. The study aim, therefore, is to explore perceptions of the birth experience five to six months and 18–24 months after birth and to detect the predictive role of satisfaction with social and midwifery support in the birth experience.

2. Methods

2.1. Setting and design

This study is a part of the national prospective cohort Childbirth and Health Study in Iceland, which has been described in greater detail elsewhere[25,26] and we refer to previous work regarding the data in this paper. Midwives introduced the study to women in their first antenatal visit with both written and oral information about the purpose of the study and of their right to withdraw their participation at any time. Those who agreed to participate answered three self-reported questionnaires, the first around week 16 of pregnancy (T1), the second at five to six months after birth (T2), and the third at 18–24 months (T3) after birth. One reminder was sent to all participants. The data were collected from February 2009 to October 2011.

Iceland has approximately 325,000 residents, 70% of whom live in the capital area; the remaining 30% live in rural areas. The country's average annual birth rate is between 4200–4500 per year and a low perinatal mortality rates of 2.0–4.5 per 1000 births in the years 2010–2014. The caesarean rate has been steady at around 15–17% in the period 2006–2016.[27] The Icelandic health care system, like the health care system of other Nordic countries, provides childbirth care mostly free of charge. Traditionally, nearly all routine antenatal and postnatal care is provided by midwives, and all births are attended by midwives. Approximately 70% of the births take place at university hospital in the capital of Reykjavik, around 2% are home births but the remaining births take place at nine birth centres in the rural areas of Iceland.[27] A trend of centralising childbirth services has occurred in Iceland with consequent closures of maternity wards in remote places.

Family relations can be assumed to be quite close as a result of the small size of the island, especially in comparison to many other Western countries where large geographical distances can affect support access from relatives.

2.2. Sample

The data were obtained from pregnant women aged 18 or older who considered themselves to be of low risk and who attended antenatal care at 26 primary health care centres. The response rate at T1 was 63% ($n = 1.111$), at T2 69% ($n = 765$), and at T3 59% ($n = 657$). The mean age at T1 was 29.4 years (± 5.1) and the majority of the women were married or cohabiting and had a college or university degree education. Approximately 98% of the women had Icelandic as a native language and around two thirds lived in the capital area. The sample represented the characteristics of the population in terms of age, marital status, residency, parity, and birth outcomes during the study period.[25]

2.3. Measures

The three questionnaires used in the study are based on the Swedish KUB study.[28] Translation, pretesting and adaptation for use in Iceland by the Childbirth and Health Study Group have been described elsewhere.[26]

The first questionnaire (T1) included questions about socio-demographic background, prior birth experience and thoughts about the impending birth. At T2 and T3 women were asked about their birth experience. Furthermore, questions about birth outcomes and

midwifery support were included at T2. All the three questionnaires included questions about social support and depressive symptoms.

2.3.1. Birth experience

The outcome variable was experience of birth, measured at T2 and T3 after birth with the question: '*How did you experience your birth?*'. The response options were on a five-point Likert scale ranging from 1 (*very positive*) to 5 (*very negative*) and were recoded to three categories for statistical analysis, still with the ability to consider the ambivalent group (Table 1).

2.3.2. Socio-demographic variables, depressive symptoms and birth outcomes

In the first questionnaire, data of sociodemographic information was collected with an absolute response of age. Education was measured with four categories (primary school, secondary school, college and university education), which were subsequently collapsed to three categories (Table 2). The women's occupation was measured with eight predefined categories (employee, employer/contractor, working at home, in maternity leave, temporarily unable to work due to health problems, student, unemployed, and invalid), which were collapsed to three categories (Table 2). Data on residence was collected with postal codes and recoded in two categories (Table 2).

The ten-item, self-report Edinburgh Postnatal Depression Scale (EPDS) developed by Cox et al.[29] was used to measure depressive symptoms. The cut-off scores to categorise depressive symptoms typically range from 9 to 13 points,[29] but in this study a cut-off score of $\geq$13 was used for depressive symptoms as this score has generally been accepted in the context of childbirth for detecting mild or major depressive symptoms during pregnancy and after birth.[30] The Icelandic version of the EPDS' reliability in this study was confirmed with Cronbach's alpha 0.84 at T1 and 0.8 3 at T2.

Prior thoughts about the impending birth were measured by a five-point Likert scale that ranged from 1 (*very positive*) to 5 (*very negative*) and that was collapsed into two categories (Table 2).

Information on birth outcomes (Table 3) included questions about the onset of labour, birth mode, experience of length of birth, and overall birth experience. The responses of onset of labour were spontaneous, elective caesarean, or induction and were collapsed for further analysis (Table 3). The birth mode was measured by five items (spontaneous vaginal birth, spontaneous vaginal water birth, vacuum extraction, forceps, elective caesarean, and emergency caesarean), which were collapsed into three categories (Table 3) and dichotomised for the logistic regression model (Tables 4 and 5). The question of perceived length of birth had three responses (short, moderate or prolonged) and was coded into two categories. The overall perception of the birth was estimated by a five-point Likert scale that ranged from 1 (*very difficult*) to 5 (*very easy*) and that was subsequently dichotomised into two categories (Table 3).

2.3.3. Support variables

Social and midwifery support was measured at T1 and T2 with questions on partner support, support from significant others, and midwife support such as '*how did you feel about support from partner/significant others/midwife during pregnancy/during birth/after birth?*'. Response options for support from partners and midwives during pregnancy (Table 2) and birth (Table 3) were on a five-point Likert scale ranging from 1 (*very satisfied*) to 5 (*very unsatisfied*); the scale was then collapsed into two categories. Questions about social support from partners and significant others after birth at T2 had response options on a five-point Likert scale ranging from 1 (*very good*) to 5 (*very bad*); the options were subsequently dichotomised (Table 3).

Table 1
Descriptive findings for birth experience of women in the Childbirth and Health Study in Iceland 2009–2011, 5–6 months (T2) and 18–24 months (T3) after birth.

Birth experience	T2 (n = 765) n (%)	T3 (n = 657) n (%)
Very positive/positive	507 (66,6)	444 (68)
Both positive and negative	216 (28,4)	172 (26,3)
Negative/very negative	38 (5.0)	37 (5,7)

2.4. Data analysis

Descriptive data for categorical variables is reported as absolute and percentage frequencies. For the continuous variables of age and depressive symptoms, mean values and standard deviation are described. Statistical significance was considered to be at a p-value of 0.05 or less. A Pearson's chi-squared test was used to assess significance between groups of categorical data and a one-way ANOVA was used for testing significance between the continuous and the categorical variables. For the purpose of statistical analysis, the outcome and exposure variables were collapsed, with responses for the indefinites like *neither/nor* or *mixed feelings* categorised with the positive ones to delineate the women who responded with truly negative attitudes.

To investigate the predictive role of support in the birth experience, two hierarchical binary logistic regression analyses were performed with dummy coded variables (Tables 4 and 5). The models included the support variables showing significant difference in the perceived birth experience and were adjusted for demographics (i.e., age, education, and occupation), onset of labour, birth mode, perception of prolonged birth, depression symptoms, parity, and prior thoughts about the impending birth. The odds ratio (OR) was calculated with a 95% confidence interval (CI).

All analyses were performed with IBM's statistical software package IBM SPSS Statistics 24 (SPSS for Windows, Rel. 24th, SPSS Inc., Chicago IL, USA).

The study was approved by the National Bioethics Committee (VSNb2008010023/03-1) and was reported to the Icelandic Data Protection Authority (S3695/2008 LSL).

3. Findings

Data on descriptive demographic characteristics at T1 are shown in Table 2 and descriptive data for T2 are illustrated in Table 3. Approximately 80% of the study's participants had spontaneous vaginal birth, the total CS rate was 14.3%, instrumental births were at 5.6%, and the induction rate was 24.1%.

The vast majority of the women were satisfied with the support they received from their partner, from significant others, and from midwives during pregnancy and birth at T1 (Table 2) and T2 (Table 3).

3.1. Prevalence of negative birth experience 5–6 months and 18–24 months after birth

The prevalence of negative birth experience was 5% at T2 and 5.7% at T3, and almost one third of the women perceived their birth experience as both positive and negative (Table 1). None of the women who perceived the birth as negative at T2 experienced a change to a positive perception at T3. A small portion (1.8%) of women changed their perception from negative at T2 to an ambivalent perception at T3, but a slightly larger portion (2.6%) of those who were unsure about their experience at T2 changed their opinion to negative at T3 (not shown in table).

Table 2
Descriptive characteristics of women prior to birth and the birth experience 5–6 months (T2) and 18–24 months (T3) after birth in the Childbirth and Health Study in Iceland, 2009–2011.

	Descriptive T1	The birth experience T2 (n = 765)				p	The birth experience T3 (n = 657)				p
		All	Positive	Both pos/neg	Negative		All	Positive	Both pos/neg	Negative	
	n = 1111	*n* = 765	*n* = 507	*n* = 216	*n* = 38		*n* = 657	*n* = 444	*n* = 172	*n* = 37	
Prior to birth											
Demographics:											
Age(n(%))											
<25 years	186 (16,7)	98 (12.9)	64 (65.3)	27 (27.6)	7 (7.1)		75 (11.5)	56 (74.7)	14 (18.7)	5 (6.7)	
25–34 years	733 (66)	514 (67.5)	341 (66.3)	147 (28.6)	26 (5.1)		444 (68)	302 (68)	117 (26.4)	25 (5.6)	
≥35 years	192 (17,3)	149 (19.6)	102(68.5)	42(28.2)	5(3.4)	0.763	134 (20.5)	86 (64.2)	41 (30.6)	7 (5.2)	0.469
Education (n(%))											
College or university	695 (62,7)	502 (66.1)	331 (65.9)	144 (28.7)	27 (5.4)		449 (68.9)	306 (68.2)	116 (25.9)	27 (6.0)	
Secondary school/high school	291 (26,2)	191 (25.1)	128 (67.0)	52 (27.2)	11 (5.8)		147 (22.5)	98 (67.7)	41 (27.9)	8 (5.4)	
Primary school (10 yr)	123 (11,1)	67 (8.8)	47 (70.2)	20 (29.9)	0 (0.0)	0.401	56 (8.6)	39 (69.6)	15 (26.8)	2 (3.6)	0.941
Occupation (n(%))											
Working	761 (68,5)	546 (71.7)	361 (66.0)	165 (30.2)	20 (3.7)		465 (71.2)	318 (68.4)	123 (26.5)	24 (5.2)	
Student	151 (13,6)	92 (12.1)	56 (60.9)	21 (22.8)	15 (16.3)		81 (12.4)	46 (56.8)	23 (28.4)	12 (14.8)	
Not occupied[a]	199 (17,9)	123 (16.2)	90 (73.2)	30 (24.4)	3 (2.4)	<**0.001**	107 (16.4)	80 (74.8)	26 (24.3)	1 (0.9)	**0.001**
Reproductive history:											
Parity (n(%))											
Primipara	439 (39,5)	298 (39.2)	173 (34.6)	103 (34.6)	22 (7.4)		254 (38.9)	158 (62.2)	75 (29.5)	21 (8.3)	
Multipara	671 (60,5)	463 (60.8)	334 (72.1)	113 (24.4)	16 (3.5)	<**0.001**	399 (61.1)	286 (71.7)	97 (24.3)	16 (4.0)	**0.013**
Prior experience of birth[b] (n(%))											
Very positive/positive/mixed feelings	554 (83.1)	377 (81.6	286 (75.9)	82 (21.8)	9 (2.4)		319 (80.2)	241 (75.5)	72 (22.6)	6 (1.9)	
Negative/very negative	113 (16.9)	85 (18.4)	47 (55.3)	31 (36.5)	7 (8.2)	<**0.001**	79 (19.8)	44 (55.7)	25 (31.6)	10 (12.7)	<**0.001**
Support during pregnancy:											
From partner (n(%))											
Very satisfied/satisfied or neither/nor	712[c] (94.9)	486 (94.6)	325 (66.9)	138 (28.4)	23 (4.7)		424 (95.5)	288 (67.9)	113 (26.7)	23 (5.4)	
Unsatisfied or very unsatisfied	38 (5.1)	28 (5.4)	15 (53.6)	11 (39.3)	2 (7.1)	0.349	20 (4.5)	14 (70.0)	6 (30.0)	0 (0.0)	0.555
From significant others (n(%))											
Yes	1083 (97.7)	745 (97.9)	499 (67.0)	210 (28.2)	36 (4.8)		640 (98.2)	437 (68.3)	169 (26.4)	34 (5.3)	
No	26 (2.3)	16 (2.1)	8 (50.0)	6 (37.5)	2 (12.5)	0.527*	12 (1.8)	7 (58.3)	3 (25.0)	2 (16.7)	0.557*
From midwife (n(%))											
Very satisfied/satisfied or neither/nor	731[c] (96.3)	728 (96.4)	486 (66.8)	209 (28.7)	33 (4.5)		546 (96.3)	371 (68.0)	144 (26.4)	31 (5.7)	
Unsatisfied/very unsatisfied	28 (3.7)	27 (3.6)	17 (63.0)	5 (18.5)	5 (18.5)	**0.004**	21 (3.7)	10 (47.6)	7 (33.3)	4 (19.1)	**0.024**
Prior thoughts about the impending birth (n(%))											
Very positive/positive or mixed feelings	1045 (94.2)	712 (93.7)	483 (67.8)	200 (28.1)	29 (4.1)		611 (93.7)	425 (69.6)	154 (25.2)	32 (5.2)	
Negative/very negative	64 (5.8)	48 (6.3)	24 (50.0)	15 (31.3)	9 (18.8)	<**0.001**	41 (6.3)	19 (46.3)	17 (41.5)	5 (12.2)	**0.006**
Depression symptoms (n(%))											
<13 points	1016 (92.3)	707 (93.4)	474 (67.0)	200 (28.3)	33 (4.7)		605 (93.2)	415 (68.6)	157 (26.0)	33 (5.5)	
≥13 points	85 (7.7)	50 (6.6)	31 (62.0)	14 (28.0)	5 (10.0)	0.244	44 (6.8)	27 (61.4)	13 (29.5)	4 (9.1)	0.480
Depression symptoms (mean(stdev))	5.7 ± 4.2		5.3 ± 3.9	5.5 ± 4.2	7.3 ± 4.7	<**0.05**		5.2 ± 4.0	6.0 ± 4.4	6.3 ± 4.1	0.057

Bold = significant results.
[a] Unemployed, invalid or maternity leaf.
[b] Data fom multiparas only (n = 667).
[c] Measured at T2.
* Yates' p-value.

Table 3
Descriptive characteristics of women during and after birth and the birth experience 5–6 months (T2) and 18–24 months after birth (T3) in the Childbirth and Health Study in Iceland, 2009–2011.

	Descriptive T2	The birth experience T2 (n = 765)				p	The birth experience T3 (n = 657)				p
		All	Positive	Both pos/neg	Negative		All	Positive	Both pos/neg	Negative	
	n = 765	n = 765	n = 507	n = 216	n = 38		n = 657	n = 444	n = 172	n = 37	
During birth											
Birth outcomes:											
Onset of labour (n(%))											
Spontanous onset/elective CS	570 (75.9)	568 (76.0)	403 (71.0)	139 (24.5)	26 (4.6)		434 (77.0)	310 (71.4)	102 (23.5)	22 (5.1)	
Induction of labour	181 (24.1)	179 (24.0)	102 (57.0)	66 (36.9)	11 (6.2)	**0.002**	130 (23.0)	69 (53.1)	49 (37.7)	12 (9.2)	<**0.001**
Birth mode (n(%))											
Spontaneous vaginal/waterbirth	611 (80.1)	610 (80.4)	451 (73.9)	138 (22.6)	21 (3.4)		460 (80.8)	334 (72.6)	110 (23.9)	16 (3.5)	
Emergency CS/instrumental birth	116 (15.2)	114 (15.0)	28 (24.6)	69 (60.5)	17 (14.9)		83 (14.6)	29 (34.9)	37 (44.6)	17 (20.5)	
Planned CS	36 (4.7)	35 (4.6)	26 (74.3)	9 (25.7)	0 (0.0)	<**0.001**	26 (4.6)	19 (73.1)	5 (19.2)	2 (7.7)	<**0.001**
Percepted length of the birth (n(%))											
Short/moderate time	547 (74.2)	546 (74.4)	417 (76.4)	121 (22.2)	8 (1.5)		407 (73.5)	312 (76.7)	83 (20.4)	12 (3.0)	
Prolonged	190 (25.8)	188 (25.6)	75 (39.9)	84 (44.7)	29 (15.4)	<**0.001**	147 (26.5)	59 (40.1)	66 (44.9)	22 (15.0)	<**0.001**
Overall perception of the birth (n(%))											
Easy/very easy/average	470 (62.3)	469 (62.4)	405 (86.4)	64 (13.7)	0 (0.0)		354 (62.9)	307 (86.7)	43 (12.1)	4 (1.1)	
Difficult/very difficult	285 (37.7)	283 (37.6)	95 (33.6)	150 (53.0)	38 (13.4)	<**0.001**	209 (37.1)	70 (33.5)	109 (52.2)	30 (14.4)	<**0.001**
Support during birth:											
From midwife (n(%))											
Very satisfied/satisfied or neither/nor	735 (97.5)	733 (97.5)	496 (67.7)	204 (27.8)	33 (4.5)		548 (97.0)	372 (67.9)	145 (26.5)	31 (5.7)	
Unsatisfied/very unsatisfied	19 (2.5)	19 (2.5)	6 (31.6)	9 (47.4)	4 (21.1)	<**0.001**	17 (3.0)	6 (35.3)	7 (41.2)	4 (23.5)	**0.012***
From partner (n(%))											
Very satisfied/satisfied or neither/nor	730 (99.1)	501 (98.8)	329 (65.7)	148 (29.5)	24 (4.8)		433 (98.6)	295 (68.1)	116 (26.8)	22 (5.1)	
Unsatisfied/very unsatisfied	7 (0.9)	6 (1.2)	5 (83.3)	1 (16.7)	0 (0.0)	0.868*	6 (1.4)	3 (50.0)	3 (50.0)	0 (0.0)	0.708*
After birth T2											
Support											
From partner (n(%))											
Good/very good or neither/nor	715 (95.5)	711 (95.4)	476 (67.0)	200 (28.1)	35 (4.9)		531 (94.6)	356 (67.0)	141 (26.6)	34 (6.4)	
Bad/very bad	34 (4.5)	34 (4.5)	20 (58.8)	12 (35.3)	2 (5.9)	0.617	29 (5.2)	18 (62.0)	10 (34.5)	1 (3.5)	0.569
From significant others (n(%))											
Good/very good or neither/nor	738 (98.0)	735 (98.0)	493 (67.1)	206 (28.0)	36 (4.9)		555 (98.1)	375 (67.6)	147 (26.5)	33 (6.0)	
Bad/very bad	15 (2.0)	15 (2.0)	10 (66.7)	4 (26.7)	1 (6.7)	0.941*	11 (1.9)	7 (63.6)	3 (27.3)	1 (9.1)	0.951*
Depression symptoms (n(%))											
<13 points	707 (93.9)	705 (94.0)	481 (68.2)	194 (27.5)	30 (4.3)		529 (94.0)	362 (68.4)	138 (26.1)	29 (5.5)	
≥13 points	46 (6.1)	45 (6.0)	19 (42.2)	18 (40.0)	8 (17.8)	<**0.001**	34 (6.0)	17 (50.0)	12 (35.3)	5 (14.7)	**0.028**
Depression symptoms (mean(stdev))	5.2 ± 4.2		4.7 ± 3.7	6.0 ± 4.6	7.8 ± 5.2	<**0.001**		4.6 ± 4.0	5.8 ± 4.4	7.1 ± 5.1	<**0.001**

Bold = significant results.
* Yates' p-value.

Table 4
Binary hierarchical logistic regression model, predictors of negative birth experience 5–6 months after birth (T2), (n = 706).

	Model I					Model II					Model III				
	B	OR	95% CI		p-value	B	OR	95% CI		p-value	B	OR	95% CI		p-value
			Lower	Higher				Lower	Higher				Lower	Higher	
I Characteristics before birth															
Age	0.059	1.061	0.978	1.151	0.155	0.041	1.042	0.952	1.140	0.373	0.049	1.050	0.959	1.150	0.293
University education	−0.122	0.885	0.401	1.955	0.762	0.027	1.027	0.426	2.476	0.952	0.078	1.081	0.437	2.672	0.866
Student	1.813	6.130	2.787	13.483	**0.000**	1.975	7.206	2.945	17.633	**0.000**	1.754	5.779	2.222	15.024	**0.000**
Primipara	0.957	2.604	1.192	5.689	**0.016**	0.141	1.152	0.477	2.781	0.754	0.020	1.020	0.405	2.570	0.967
Prior negative thoughts of impending birth	1.867	6.467	2.621	15.956	**0.000**	2.119	8.325	2.973	23.311	**0.000**	2.336	10.341	3.594	29.756	**0.000**
II Events during birth															
Induction of labour						0.186	1.205	0.508	2.855	0.672	0.067	1.070	0.431	2.656	0.885
Any operative birth						0.950	2.586	1.110	6.025	**0.028**	0.949	2.582	1.076	6.198	**0.034**
Perception of prolonged birth						2.481	11.959	4.756	30.069	**0.000**	2.463	11.737	4.565	30.176	**0.000**
III Support from midwives and depressive symptoms															
Unsatisfied with support from midwife during pregnancy											1.402	4.063	1.025	16.102	**0.046**
Unsatisfied with support from midwife during birth											1.757	5.796	1.093	30.731	**0.039**
Depression symptoms 5–6 months after birth											0.099	1.104	1.020	1.195	**0.014**

Bold = significant results.
Defined variables; university education (university or comparable = 1/other = 0), student (student = 1/working or no occupation = 0), primipara (first time mother = 1/mutilpara = 0), prior negative thoughts of impending birth (negative or very negative = 1/other = 0), induction of labour (induction = 1/spontanious onset or elective CS = 0), any operative birth (instrumental or planned/acute CS = 1 spontanious vaginal = 0), perception of prolonged birth (prolonged = 1/moderate or short = 0), support from midwife in antenatal care/during birth (unsatisfied or very unsatisfied = 1/other = 0).
R^2=0.97 (Hosmer and Lemeshow) 0.132 (Cox & Snell) 0.399 (Nagelkerke).
The model is significant ≥ Goodness of fit ≤ 0.001 (Omnibus).
Model x^2 = 100.149.

Table 5
Binary hierarchical logistic regression model, predictors of negative birth experience 18–24 months after birth (T3), (n = 535).

	Model I					Model II					Model III				
	B	OR	95% CI		p-value	B	OR	95% CI		p-value	B	OR	95% CI		p-value
			Lower	Higher				Lower	Higher				Lower	Higher	
I Characteristics before birth															
Age	0.049	1.050	0.966	1.140	0.250	−0.014	0.986	0.899	1.082	0.773	−0.009	0.991	0.905	1.087	0.855
University education	−0.224	0.799	0.356	1.794	0.587	−0.205	0.814	0.337	1.966	0.648	−0.068	0.935	0.374	2.335	0.885
Student	1.554	4.729	2.042	10.948	**0.000**	1.716	5.565	2.175	14.239	**0.000**	1.529	4.615	1.715	12.417	**0.002**
Primipara	0.976	2.654	1.194	5.899	**0.017**	0.011	1.011	0.406	2.521	0.981	0.049	1.050	0.411	2.684	0.919
Prior negative thoughts of impending birth	0.801	2.228	0.678	7.319	0.187	0.843	2.323	0.668	8.083	0.185	1.044	2.840	0.814	9.913	0.102
II Events during birth															
Induction of labour						0.773	2.166	0.920	5.101	0.077	0.707	2.027	0.839	4.898	0.117
Any operative birth						1.787	5.970	2.487	14.333	**0.000**	1.762	5.821	2.378	14.249	**0.000**
Perception of prolonged birth						1.335	3.802	1.662	8.697	**0.002**	1.254	3.504	1.502	8.172	**0.004**
III Support from midwives and depressive symptoms															
Unsatisfied with support from midwife during pregnancy											1.153	3.169	0.748	13.424	0.117
Unsatisfied with support from midwife during birth											1.111	3.039	0.659	14.016	0.154
Depression symptoms 5–6 months after birth											0.069	1.071	0.989	1.160	0.092

Bold = significant results.
Defined variables; university education (university or comparable = 1/other = 0), student (student = 1/working or no occupation = 0), primipara (first time mother = 1/mutilpara = 0), prior negative thoughts of impending birth (negative or very negative = 1/other = 0), induction of labour (induction = 1/spontanious onset or elective CS = 0), any operative birth (instrumental or planned/acute CS = 1 spontanious vaginal = 0), perception of prolonged birth (prolonged = 1/moderate or short = 0), support from midwife in antenatal care/during birth (unsatisfied or very unsatisfied = 1/other = 0).
R^2 = 0.42 (Hosmer and Lemeshow) 0.111 (Cox & Snell) 0.300 (Nagelkerke).
The model is significant ≥ Goodness of fit ≤ .001 (Omnibus).
Model x^2 = 63.096.

3.1.1. Characteristics, perceived support and depressive symptoms prior to birth and negative birth experience 5–6 months and 18–24 months after birth

Associations between the birth experience at T2 and T3 and characteristics, perceived support, and depressive symptoms as measured at T1 are illustrated in Table 2. Negative birth experience at T2 and T3 was significantly associated with being a student at T1. Overall, perceived negative birth experience was more frequent in nulliparous women than in multiparous women. Associations were found between women's negative birth experience and prior

negative thoughts about the impending birth compared with those with positive or ambivalent thoughts about the birth during pregnancy. Multiparous women who had a prior negative birth experience were more likely to perceive birth as negative compared to women who had positive or mixed feelings about a prior birth. The relationship between higher scores of depression symptoms at T1 and negative birth experience at T2 was significant, but not so at T3. When depression symptoms at T1 were categorised with the cut off score ≥13, no significant relationship was found with the birth experience at either T2 or T3.

Women who were not satisfied with midwifery support during pregnancy were significantly more likely to perceive negative birth experience at both T2 and T3. No significant relationships were found between the birth experience and perception of support from partner or significant others during pregnancy.

3.1.2. Birth outcomes, perceived support during birth and negative birth experience 5–6 months and 18–24 months after birth

Relationships between the birth experience and events during birth are shown in Table 3. Women experiencing an induction of labour more frequently reported a negative birth experience at T2 and T3 than women who had spontaneous onset of labour or planned caesarean section. Women who had emergency operative birth (instrumental or caesarean section) more frequently reported negative birth experience than women who had spontaneous vaginal birth at both time points. Women's own perception of prolonged birth was significantly associated with a negative birth experience. The overall perception of birth was reported as difficult by approximately 37% of the participants; a figure which was significantly related to a negative experience of birth. None of the women perceived the birth as both easy/average and negative at T2, and 1.1% reported as much at T3. One third of the women perceived their birth as being both a difficult and positive experience at T2 and T3.

Associations were found between women who were not satisfied with support from their midwife during birth and negative birth experience at T2 and T3 compared to women who were satisfied with midwifery support. No significant relationships were found between birth experience at T2 and T3 and perception of support from partner or significant others during birth.

3.1.3. Depressive symptoms and perception of support 5–6 months after birth and negative birth experience 5–6 months and 18–24 months after birth

Higher scores of depression symptoms at T2 were significantly more common in women who rated their birth experience at T2 and T3 as negative. When depressive symptoms were categorised to ≥13 points, the relationship was still significant at both time points.

Satisfaction with support from partner or significant others after birth was not significantly related to the perceived birth experience at T2 and T3 (Table 3).

3.2. Logistic regression analysis

Binary logistic regression was conducted for T2 and T3 to assess the impact of participants' dissatisfaction with midwifery support on the probability of their perceiving their birth as negative, controlling for sociodemographic characteristics and known risk factors. The 11 independent variables, entered into the model hierarchically in three steps for T2, are shown in Table 4. Controlling for sociodemographic characteristics, parity, prior thoughts about the impending birth, birth onset, birth mode and depressive symptoms at T2, the model containing all of the predictors was statistically significant ($p < 0.001$) and explained 40% of the variance in the outcome variable. These results indicated that the model was able to distinguish between women who had a negative birth experience and those who had a positive birth experience (Table 4). Seven of the independent variables made a statistically significant contribution to the model at T2. The odds of having experienced birth as negative for respondents who were not satisfied with the support they had received from their midwife during pregnancy were approximately four times greater (4.0, CI 1.0–16.1) than the odds for those respondents who were satisfied with their midwifery support. Women who were not satisfied with the support from their midwife during birth were approximately six times more likely to report a negative birth experience compared to women who were satisfied with the support they received from their midwife (OR 5.8, CI 1.1–30.7). Other variables predictive of negative birth experience at T2 were negative thoughts about the impending birth during pregnancy (OR 10.3, CI 3.6–29.8), being a student (OR 5.8, CI 2.2–15.0), any operative birth (OR 2.6, CI 1.1–6.2), perception of prolonged birth (OR 11.7, CI 4.6–30.1), and depressive symptoms five to six months after birth (OR 1.1, CI 1.02–1.2). In the first step of the model, first time mothers were more likely than multiparous women to perceive the birth as negative (OR 2.8, CI 1.3–6.0), but when birth-related variables where added to the model, this relationship became non-significant.

We repeated the logistic regression model for all the same variables above for women who reported a negative birth experience at T3 (Table 5). At this time point, three of the 11 variables contributed to the model and a significant association was found between negative birth experience and being a student (OR 4.6, CI 1.7–12.4), any operative birth mode (OR 5.8, CI 2.4–14.0), and perception of prolonged birth (OR 3.5, CI 1.5–7.2) compared to women who reported a positive birth experience. Prior negative thoughts about the impending birth, not being satisfied with support from midwives, and depressive symptoms at T2 were not significantly predictive of negative birth experience at T3. The model with all of the predictors was statistically significant ($p < 0.001$) and explained 30% of the variance of negative birth experience.

4. Discussion

This study's findings add to the existing knowledge of negative birth experience by showing that women's perception of the birth experience from six months to two years after birth is relatively consistent. The study's findings also indicate that midwifery support during pregnancy and birth has a discernible impact on women's birth experience. Furthermore, the study found that negative thoughts of the impending birth, being a student, any operative birth, perception of prolonged birth, and depression symptoms after birth were significantly predictive of negative birth experience.

The prevalence of negative birth experience is lower in this study than in former studies[1–3], which raises speculations about the mode of measurement and the context. The first speculation of scholarly and existential interest would be on the terms used for measurement of the birth experience, as more than one third of the women perceived their birth as difficult and only five to six percent as negative. Despite the association between difficult and negative experience, approximately one third of the women perceived their birth as both a difficult and a positive experience. On the other hand, virtually none of them reported the birth as an easy or average experience and negative at the same time. It is therefore reasonable to suggest that using the term 'negative' as a measurement indicator could capture the experience of women who perceive their birth as traumatic and who may be in need of special assistance to review their experience. Furthermore, the

prevalence of negative birth experience in our findings is consistent with the prevalence of PTSD in relation to childbirth in recent meta-analysis,[31] supporting our conclusion that the term negative can be seen as analogous to the term traumatic.

The second speculation would be to consider whether the context of childbirth care had an impact on the low prevalence of negative birth experience found in this study. Iceland has one of the lowest caesarean rates worldwide,[27] all births are attended by midwives where approximately 98% are hospital births and the majority of births (76%) take place at one hospital in the capital area. Almost all women receive their antenatal and postnatal care from midwives where 80% of women are discharged within 72 hours. Although continuity of care is recommended as best practice,[32] prior findings from the *Childbirth and Health Study* showed that only one third of pregnant women received their antenatal care from only one midwife and that 17% received their antenatal care from three or more midwives. The latter group was significantly more likely to be unsatisfied with emotional support from professionals during the pregnancy.[33] But it is important to consider the effects of continuity for women who are not satisfied with midwifery support during pregnancy—controversially they might not benefit from continuity. These findings are of research interest, but they also provide opportunities for making improvements in the quality of childbirth care by enhancing continuity during antenatal care.

Despite a rather low prevalence of negative birth experience in the study's sample, it is noteworthy that the birth experience was consistent over time among the vast majority of women. According to the literature on traumatology, a traumatised individual tends to postpone the processing of the traumatic event until a later time, sometimes even years or decades after the event.[34] Such knowledge highlights the importance of recognising women who have perceived their birth as negative as traumatised individuals and, consequently, of providing therapeutic intervention that has been adapted for the needs of this vulnerable group. To the authors' knowledge, recommendations for the systematic screening of birth experience have not yet been published.

To our knowledge, this is the first study to address changes in the perception of birth experience from ambivalent to positive or negative over time, although one study has suggested changes from positive or negative experience towards mixed feelings about the birth over time.[24] That 26.3–28.4% of women in our study reported an ambivalent perception at either time point is significant in that a portion of them varied their perception from ambivalent to negative at both time points. This result is of clinical relevance and helps professionals to address the questions of birth experience and the interpretations of women's answers. That none of the women who expressed a negative perception of their birth at either of the two time points changed their perception to a positive one serves as a strong indication of usefulness and efficacy of the measurement vocabulary: referring to the birth experience as positive, ambivalent, or negative can be helpful for midwives in recognising women's need to review their birth experience and in promoting discussion on the perception of birth experience.

This study demonstrates the role of support from midwives, both during pregnancy and birth. The importance of support from professionals during birth has already been given research attention elsewhere,[1] but to our knowledge this is the first study to investigate the relationship between midwife support during pregnancy and the birth experience. Previous studies indicate that insufficient time for the woman's questions during antenatal appointments is associated with a negative birth experience.[1] Furthermore, recent evidence from the *Childbirth and Health Study* showed that 41% of Icelandic women perceived that too little time was spent on information about birth during antenatal care and that women who experienced their birth as difficult were more likely to have this perception than those who experienced their birth as easy.[35] Providing information to the expectant parents can be seen as one of the components of midwifery support in antenatal care. As such, the very low prevalence of negative birth experience among women who underwent planned caesarean section in this study is of interest. The pathway of antenatal, parturition and postpartum care for these women was structured, and moreover, it has been found that this group has proven to be the most satisfied when it comes to the time spent on antenatal information on birth.[35] Concluding that one of the components of professional support is informational,[23] we can then consider whether the structured preparation provided prior to planned caesarean section plays a significant role in managing unpredictability of the process. In this context, we can ask ourselves whether improvements could be made in midwifery care for the majority of pregnant women – women who are aiming to have a normal birth – by enhancing informational support. Renfrew et al.[36] have demonstrated in their framework for maternal and newborn care that improved education, information, communication and understanding of women's needs are crucial aspects of good quality midwifery care [36]. This is extended in a midwifery model of woman-centred childbirth care, developed in Swedish and Icelandic settings, where the emphasis on the birthing atmosphere and reciprocal relationship is recognised as crucial in providing optimal care.[37] According to these, midwifery care must be tailored to women's circumstances and needs, an attitude and approach which is in line with the ICM's philosophy and model of midwifery care [38]. One can speculate further about not being satisfied with midwifery support—this could be related to the context of the birthing environment where midwives are facing dilemmas between the conflicting ideologies of women's preferences and institutional power of protocols.[37] To this end, information about a woman's previous experience of birth and her thoughts about the impending birth in antenatal care could be instrumental for the midwife in her efforts to tailor care to the woman's needs. Association between prior negative experience of birth and negative birth experience has been shown in other studies[12] and indicates a need for a more specialised support during antenatal care.

It is noteworthy that approximately 17% of multiparous women in the sample had a prior negative experience of birth, whereas the total prevalence was only 5–5.7% in this study. The timing of reporting the prior birth experience could play a role, as this took place during pregnancy when the impending birth was experienced as a matter of fact. Such a result would only reiterate the need for enhanced support for this group of women during antenatal care.

In contrast to some studies,[14,15,21] our findings suggest that the role of perceived support from a partner, friends or other family members during pregnancy, birth and after birth does not have a significant impact on the birth experience, which is consistent with other studies.[1,19,20] Recognising childbirth as a unique life experience for both parents, we were not surprised that the support from midwives had greater impact than support from partners or significant others in this context. Furthermore, it can be assumed that the partner or significant others may themselves be in need of support, especially when complications arise during pregnancy or birth.

That similar findings on the relationship between depressive symptoms and negative birth experience have also been found in a previous study[4] highlights the importance of discussing the birth experience in a targeted manner, both during pregnancy and after birth – similar to the recommended screening for depressive symptoms. In this context, it is also important to be cognisant of the effect of anxiety and depression on the individual's recognition of support.[19]

The predictive role of being a student, a finding we did not expect, needs further exploration. To our knowledge no previous studies have shown a relationship between being a student and having a negative birth experience. However, in a recent Icelandic study, being a student did increase the likelihood of perinatal distress,[39] which indicates that students could be more vulnerable during the childbirth period than women from other demographic groups and hence in need of more emotional support. Some studies have suggested that students have higher levels of psychological distress than the general population;[40] however, recent findings from an Icelandic study of female university students did not confirm this.[41] Further studies on the topic are needed especially because students represented approximately 14% of the study sample.

Our results are in accordance with previous studies that show an association between negative birth experience and interventions in the birth process,[1,3,12] an association which extends to both time points and which could explain why the significant relationship between induction of labour and negative birth experience became non-significant when added to the regression model. Moreover, the role of being a first time mother, which had a predictive role in the first step of the model, became non-significant when operative birth mode was added to the regression model. Other studies have found primiparity to have a predictive role in negative birth experience, measured within the first months after birth[4,22] but in our study, events during birth and support from midwives outweighs the role of being a first time mother.

The strengths of this study lie in the sample size, repeated follow-up measures, stratification of the sample in regards of residency, and representativeness of the Icelandic population of childbearing women. Many parts of the questionnaire have been used before in the Nordic countries.[28] The study's response rate was also quite good (59%). And it can also be speculated that the study reached women whose birth experience was truly negative as the prevalence of negative birth experience was lower than in previous studies.

Despite promising findings, it should be noted that they refer to the birth experience of women giving birth in one country where many sociocultural factors come into play which are not explored in this study. As such, the result should be interpreted cautiously to other subsets of women in different cultural context. It would have been interesting to have information about the perception of birth experience earlier after birth so as to explore any changes in the perceived birth experience from birth until six months postpartum, but no measurements were performed between T1 and T2, which can be considered a limitation. Furthermore, we acquired no information on the women who dropped out from T1 to T3. Similarly, it may also be considered a limitation that some of the women that responded at T3 did not respond at T2. Data on midwifery support after birth was not available but would have been of interest in this context. Finally, a recall bias cannot be ruled out as all information was self-reported.

5. Conclusion

Despite good accessibility to maternity care and relatively good outcomes of childbirth care in Iceland, a considerable number of women perceive their birth as negative up to two years after birth with minimal changes over time. It is well known that the childbirth period is an emotionally vulnerable time and that the well-being of the mother is crucial to the newborn's development. Our findings suggest that women are clear about the importance of midwifery support during this unique period in their lives. This knowledge presents a challenge to midwifery care—namely, that improvement in midwifery support should contain tailored information, education and an understanding of childbearing woman's needs. In this context, we must consider that both the cultural context and conflicts between different ideologies in childbirth care can affect both the birth experience and midwifery practice, implicating a change in midwifery practice even more challenging.

The emphasis in childbirth care needs to focus on preventing negative birth experience, developing methods that recognise women who may be susceptible to such an experience and offering them a form of intervention that suits their needs. Midwives are primary maternity care providers and therefore play a central role in promoting discussion on the topic, both during pregnancy and after birth, and in detecting women who may need to review their birth experience. Current knowledge of the predictive factors and helpful terms revealed in this study provide a base for such a discussion, which should be a routine part of childbirth services as it would provide women with an opportunity to review their birth experience, perhaps in the form of an 'after-birth talk'. That said, further studies are needed to explore the childbearing women's needs and preferences regarding midwifery intervention for reviewing the birth experience.

This study contributes to existing knowledge on the predictive factors in childbirth by highlighting the role of midwifery support in antenatal care and serves as a stimulus for the further development of midwifery care.

Declaration of interests

There is no declaration of interests.

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Paper II

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Processing birth experiences: A content analysis of women's preferences

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ABSTRACT

Background: Negative birth experiences may have adverse effects on the wellbeing of women and babies. Knowledge about useful interventions to assist women in processing and resolving negative birth experiences is limited.
Objective: To explore women's experience and preferences of reviewing their birth experience at a special midwifery clinic.
Design: The study is a qualitative content analysis of women's written text responses to semi-structured questions, included in a retrospective study.
Setting: A special counselling clinic, 'Ljáðu mér eyra', at Landspitali University Hospital in Reykjavik, provides women with an opportunity to review their birth experience and discuss their fears about an upcoming birth with a midwife.
Sample, recruitment and data collection: A questionnaire was sent to all women attending the clinic from 2006–2011 ($n = 301$). Of the 131 women completing and returning the questionnaire, 125 provided written responses to the open-ended questions. The questionnaire consisted of demographic and reproductive characteristics of women, questions about why they attended the clinic, whether their expectations were fulfilled, helpful components of the interview and open-ended questions about women's views of the process.
Data analysis: Data on participant characteristics, the reason for attending the clinic, whether the interview fulfilled their expectations and helpful components were analysed using quantitative descriptive data, while written responses to semi-structured questions were analysed using content analysis.
Findings: The main reasons for attending the clinic were a previous negative birth experience, anxiety about the upcoming birth, and/or loss of control during a prior birth. Two themes and three subthemes were identified. The overarching theme was '*on my terms*' with the subthemes of *'being recognised'*, *'listening is paramount'* and *'mapping the unknown'*. The final theme was *'moving on'*.
Key conclusions: Women want to be recognised and invited to review their birth experience in a tailored conversation on their terms. By fulfilling their expectations of reviewing the birth experience, they regained control and strength to move on.
Implications for practice: Findings support the importance of recognising women's need to review their birth experiences and offer an intervention to reflect on their perceptions. A discussion of the birth experience should be a routine part of maternity services.

Introduction

A woman's birth experience is known to have profound long-term effects on psychological wellbeing and family relationships (Ayers et al., 2006; Fenech and Thomson, 2014). Adverse consequences of negative birth experiences on women's and babies'

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health and well-being are well documented and several interventions to assist women to manage such an experience have been developed and tested (see Table 1). Risk factors for a negative birth experience are well known, and recent studies show that the prevalence of women perceiving their birth experience as negative ranges from 5–16.5% (Rijnders et al., 2008; Sigurdardottir et al., 2017a; Waldenström et al., 2004). The perception of birth experience seems to be consistent over time, suggesting that the passage of time alone does not have a healing effect (Sigurdardottir et al., 2017a; Waldenström, 2004). Comparative studies of useful interventions to assist women with negative birth experiences are outlined in Table 1. In comparing studies, consideration should be given to the extensive time between publication of the first paper and the most recent paper and the variability in design in terms of type and timing of the interventions, inclusion and exclusion criteria, the type and training of the practitioner providing the intervention and outcome measures. The effectiveness of the interventions on women's well-being remains inconsistent. The five studies demonstrating psychological improvements were defined variably as 'counselling' (Gamble et al., 2005; Ryding et al., 1998), 'debriefing' (Lavender and Walkinshaw, 1998; Meades et al., 2011) and 'writing about feelings' (Di Blasio et al., 2015). The debriefing and counselling interventions included a mixture of reviewing events from birth, listening to women's account of their experience, active listening, counselling and providing information, however the effectiveness of each component of the intervention has not been identified. Six studies showed little or no psychological benefits (Kershaw et al., 2005; Priest et al., 2003; Ryding et al., 2004; Selkirk et al., 2006; Small et al., 2006; Tam et al., 2003). Recent studies have tested an intervention involving women writing about their birth experience (Di Blasio et al., 2015), and Eye Movement Desensitization and Reprocessing (EMDR) (Sandström et al., 2008; Stramrood et al., 2012) with promising results showing a reduction in trauma symptoms and increased confidence about a future birth. Small sample sizes in the EMDR studies make generalisability of findings difficult.

The need to review the birth experience in most studies was based on the view of health professionals rather than women self-selecting to participate in intervention. Also, in some studies, the interviews were limited to women who experienced an operative birth (Kershaw, et al., 2005; Ryding et al., 1998; Ryding et al., 2004; Small et al., 2006), or unexpected events during birth (Tam et al., 2003). These studies were not effective in improving women's psychological health, apart from one, where serious traumatic reactions and general mental distress were less in the intervention group (Ryding et al., 1998). Likewise, the time between the negative birth experience and the intervention ranged from the first week after birth to seven years after birth. Similarly, the structure, content, and quantity of interviews varied. Each study's design and outcome measures varied significantly making it difficult to determine which components of the interventions women considered most effective. Despite the failure in many of the studies to show significant changes in psychological measures, women reported that it was helpful to participate in the intervention (Baxter et al., 2014; Cunen et al., 2014).

In summary, interventions to assist women to process a negative birth experience show inconsistent results. Less is known about the helpfulness of various components of the interventions and what women expect from the process. A better understanding of women's views about birth review interviews may inform further development of such interventions. This study aims to explore how women using a purpose-specific midwifery clinic *Ljáðu mér eyra*, perceive the process of reviewing and reconciling their birth experience.

Methods

Setting

The average annual birth rate in Iceland is between 4200–4500 births, with approximately 3000 births taking place at Landspitali University Hospital in Reykjavik. Midwives provide nearly all routine antenatal and postnatal care in the country, and all births are attended by midwives, including operative births. The caesarean section rate has been steady around 15–17% for the last decade. In 2011, 45.4% of the women birthing at Landspitali University Hospital had an epidural, 27.4% had their labour induced, and 8.1% of births were operative vaginal births (Bjarnadóttir et al., 2014).

In 1999 the special counselling clinic *Ljáðu mér eyra* was implemented at the Women's Clinic at Landspitali-University Hospital for women wanting to discuss their previous birth experience or if they reported fear of childbirth during antenatal care. Most of the women were self-referred. Originally based on the Swedish *Aurora team* listening service (Nilsson et al., 2010; Waldenström et al., 2006), the clinic offers an interview intervention developed by three midwives and one obstetrician. The interviews are provided by experienced midwives trained in communication and counselling skills, including active listening which is a way of listening and reflecting both the content and the emotion of it back to the interviewee to facilitate a shared understanding of feelings and perspective (Rogers and Farson, 1957). Some cognitive behavioural approaches are integrated into the sessions, enhancing women's ability to become aware of the connections between events during birth, thoughts and emotional challenges (Beck, 1979). While the midwives conducting the interview intervention are not required to hold a formal counselling qualification, the group has regular peer-guidance meetings for professional development and to promote fidelity of interview performance. Before meeting with a woman, the midwife reviews the woman's birth records and ensures that all the appropriate health records are available during the interview. Along with the woman's narrative, the records are used to provide an overall picture of the birth. The components of the interview are a mixture of debriefing, counselling, support, and information. The midwife acknowledges the woman's perceptions of events and helps her to develop a birth plan, if appropriate. Most women have one face-to-face appointment, lasting approximately one hour. They are encouraged to be accompanied by their partner, if appropriate. Occasionally, women are referred to an obstetrician or psychologist following the interview. Around 50–70 women attend the special counselling clinic each year.

The first author of the paper (VLS), has been a part of the counselling group since 2008 and is experienced in providing interviews. She may have provided the interview to some of the participants in the study.

Study design

The study is part of a larger retrospective study which was conducted in 2011 and data collected with questionnaires including open-ended questions. A qualitative content analysis was used to analyse data from the open-ended questions describing women's experience of the special counselling clinic interviews and their preferences for reviewing their birth experience. Content analysis is known to be a convenient method to analyse the content of large volumes of written data (Elo and Kyngäs, 2008) to identify prominent themes and patterns (Polit and Beck, 2018).

Sample, recruitment and data collection

All women who attended the special counselling clinic from 2006 to 2011 were included in the study ($n = 301$) and invited

Table 1
Comparison studies using intervention group and control group.

Authors, (publication year) and country	Design and sample IG = intervention group; CG = control group	Timing of intervention	Provider of intervention	Content of intervention	Outcome and timing of measure	Results
Lavender and Walkinshaw (1998) England	Primiparas, after normal birth, healthy baby IG $n = 56$ CG $n = 58$	<1 m pp 1 session.	Midwife No formal training in counselling.	Debriefing. Interactive interview, discussion about the birth, questions and exploration of feelings. Listening and discussion vs control (not described).	HAD 3 w pp	IG less likely to have high anxiety and depression scores.
Ryding et al. (1998) Sweden	After emergency c/s IG = 50 CG = 53	<2–3 w pp 3–4 sessions	Obstetrician with primary psychotherapy qualification.	Counselling. Semi-structured interview, six phases of the birth experience were explored vs usual care (routine visit from doctor or midwife from birth). One counsellor provided interviews.	W-DEQ, IES, SCL 1 and 6 m pp	IG more positive cognitive appraisal of the birth, less serious PTS reactions. Less general mental distress. No effect on serious PTSS or serious mental distress.
Priest et al. (2003). Australia	After birth of a healthy term baby IG $n = 875$ CG $n = 870$	<72 h pp 1 session, 15 min - 1 h.	Midwives trained in critical incident stress debriefing.	Critical incident stress debriefing. Structural psychological interview in 7 phases vs. control (not described). No integrity checking.	IES, EPDS 2, 6 and 12 m pp	No significant difference
Tam et al. (2003) China	After unexpected events or suboptimal outcomes of birth IG $n = 261$ CG $n = 255$	<1 w pp, 1–4 sessions, 25–50 min.	Trained research nurse in psychological counselling and midwifery.	Educational and psychological interview based on a counselling paradigm vs. control without input from nurse counsellor. One nurse provided interviews.	HADS, GHQ, CGI, WHO-QOL 6 w pp	No significant difference
Kershaw et al. (2005) UK	Primiparas after operative birth IG $n = 93$ CG $n = 102$	10 d and 10 w pp 2 sessions	Community midwives, specially trained in postpartum debriefing.	Debriefing, six phases: introductory, fact finding, feelings, symptoms, teaching and validation, re-entry, action plan vs standard pp care plus "normal debriefing". No integrity checking.	WDEQ 10 d, 10 w and 20 w pp	No significant. A tendency for lower scores for the IG group.
Ryding et al. (2004) Sweden	After emergency c/s IG $n = 59$ CG n = 65	2 m pp 2 sessions 2 h each, 2–3 w interval 4–5 pr group	Group leaders: psychologist and experienced midwife	Group counselling vs no treatment. Same group leaders provided all counselling.	W-DEQ, IES, EPDS 6 ms pp	No difference.
Gamble et al. (2005) Australia	Women meeting criterion A of DSM-V for PTSD pp IG $n = 50$ CG $n = 53$	<72 h and 4–6 w pp, 40–60 min 2 sessions	Midwives	Counselling. Elements of critical stress debriefing and issues pertinent to the childbearing context vs. standard pp care. One midwife provided all interviews.	EPDS, DASS-21, MINI-PTSD 3 m pp	IG reduced symptoms of trauma, depression, stress and self-blame.

(*continued on next page*)

Table 1 (*continued*)

Authors, (publication year) and country	Design and sample IG = intervention group; CG = control group	Timing of intervention	Provider of intervention	Content of intervention	Outcome and timing of measure	Results
Selkirk et al. (2006) Australia	IV group, n = odd numbers Control group n = even numbers ?? care	<3 d pp, 30–60 min 1 session.	Hospital midwife specifically employed for debriefing and parenting craft	Debriefing. Eight phases: introduction, fact, thoughts, feelings, symptoms, education, re-entry and final phase. One midwife provided all interviews.	SCL 90-R, DAS, STAI, EPDS, POBS, IIS, IES PSI, FAD 1 and 3 m pp	No difference.
Small et al. (2006) Australia	After c/s, forceps, or vacuum extraction, IG n = 467 CG n = 450	<1 w pp, 60 min 1 session	Midwives experienced in discussing birth experience	Debriefing, not described in details. Content was determined by each woman's experiences and concerns. No integrity checking.	EPDS, SF-36 6 m and 4–6 years pp	No difference
Meades et al. (2011) UK	Women who met criterion A for PTSD IG n = 46 (requested debriefing) CG n = 34	1,3–72,2 m pp ? 1 session	Midwives with specialist training (counselling or CBT and solution-focused)	Debriefing. Opportunity to discuss, pregnancy, birth, feelings, emotions, concerns, future birth. Medical notes available. Information on support services vs no treatment. No integrity checking.	PTSS-SR, EPDS 1 m after debriefing	PTSD symptoms decreased with both groups but more in the IG group. No effects on depression.
Di Blasio et al. (2015) Italy	IG n = 87 women CG n = 89	3–4 d pp, 20 min session		Writing. Making sense – writing about deep emotions, expectations and thoughts connected with birth vs writing about daily events in behavioral terms.	BDI-II, LASC, PPQ 3 m pp	IG reduced symptoms of depression and PTSD

IES: The Impact of Events Scale; W-DEQ: The Wijma Delivery Expectancy/Experience Questionnaire A or B; SCL: The Symptoms Check List; PTSD: Post Traumatic Stress Disorder; EPDS: Edinburgh Postnatal Depression Scale; HADS: The Hospital Anxiety and Depression Scale; GHQ: The General Health Questionnaire; CGI: The Clinical Global Impression; WHO-QOL: The World Health Organisation Quality of Life scale; BDI-II: Beck Depression Inventory II; STAI: State-Trait Anxiety Index; DASS-21: Depression Anxiety and Stress Scale-21; MINI-PTSD: Mini-International Neuropsychiatric Interview–Post-Traumatic Stress Disorder; SCL 90-R: Symptom Checklist 90-R; DAS: Dyadic Adjustment Scale; POBS: Perception of Birth Scale; IIS: Intrapartum Intervention Scale; PSI: Parenting Stress Index Short Form; FAD: Feedback after Debriefing Questionnaire; PTSS-SR: PTSD Symptom Scale – Self Report; SOS: Significant Other Scale; LASC: Los Angeles Symptoms Checklist of PTSD; PPQ: Perinatal PTSD Questionnaire.

to participate by a letter sent via the post. The survey was included with the letter of invitation, and qualitative data was collected using open-ended questions along with quantitative data reported elsewhere (Sigurdardottir et al., 2017b). A reminder invitation was sent seventeen days later to all women. A total of 131 (44%) women returned the survey, and of those, 125 (42%) women responded to the open-ended questions, resulting in approximately 9000 words of written text. All data were anonymous, and no information was obtained about the women who declined participation.

The questionnaire was adapted from a small survey with 16 women (Hauksdottir, 2005), further developed by the researchers (VLS and HG) by adding topics ascertained from a literature review and the clinical context (Sigurdardottir et al., 2017b). Furthermore, the questionnaire was pilot tested with 20 women (Gudmundsdottir, 2011). The survey collected data about participants' demographic and reproductive characteristics, the reasons for attending the clinic, helpful components of the interview intervention, whether their expectations were fulfilled, and women's views of the process. Participants were asked:

(1) What did you expect from the interview?
(2) Did the interview fulfil your expectations?
(3) If you had the opportunity to provide some advice of improvement to the interview, what would that be?
(4) What do you feel is important for us to focus on when improving the clinic?

The characteristics of the 131 participants, information about why women attended the clinic, and time between their perceived negative birth and clinic attendance, are provided in Table 2. The mean age was 34.2 years (range 24–45 years), most women were married or cohabiting, employed outside the home, had completed college or university education, and had more than one child. Over two thirds of participants attended the clinic more than one year after birth.

Data analysis

The data was analysed using qualitative content analysis based on three main phases: preparation, organising and reporting (Elo and Kyngäs, 2008). During the first phase, the text from each woman was selected as the unit of analysis, then read several times by the first author (VLS) to make sense of the data and identify the prominent themes and patterns. In the second phase, data were broken down into smaller units, then coded, and relationships between the themes were explored. During the analysis, the researchers (VLS and HG) moved back and forth between the whole and parts of the text and endeavoured to explore both the manifest and latent content using an inductive approach (Elo and Kyngäs, 2008; Graneheim et al., 2017). Finally, the codes were clustered to create themes which are represented in a model. A part of the text was dismissed because it could not be categorised into relevant themes as it contained women's expressions about their birth experience. Data analysis was supported by NVivo 11 software to manage the written data. To enhance the authenticity of the analysis, a peer-debriefing was undertaken with an expert panel of three midwives whom all have more than 15 years' experience and some knowledge in qualitative research. During the panel session, researchers presented a summary of the data, emerging themes and their interpretations of the data, as described by Polit and Beck (2018). The panel discussion led to minimal changes in the wording of the themes. Quotations from the women's written text are used to illuminate the themes, and some of the quantitative data has been added to put the findings in context. The women were assigned with the numbers W1–W131.

Table 2
Descriptive findings of women in the 'Ljáðu mér eyra' special counselling clinic study in Iceland 2011.

	$n = 131$
	n (%)
Demographics:	
Age	
(mean (stdv))	34.2 (4.2)
24–29 yr	14 (10.8)
30–34 yr	56 (43.1)
35–39 yr	44 (33.8)
40–45 yr	16 (12.3
Education	
Primary school (10 yr)	2 (1.5)
Secondary school/high school	21 (16.2)
College or university	107 (82.3)
Occupation	
Paid work	105 (80.2)
Not working	25 (19.1)
Marital status	
Married/cohabiting	122 (93.1)
Single	9 (6.9)
Parity	
One child	22 (16.8)
Two children	79 (60.3)
Three children	22 (16.8)
More than three children	8 (6.1)
Reasons for attending LME	
Negative experience of birth	109 (83.2)
Anxiety for upcoming birth	84 (64.1)
Fear of pain in labour	17 (13)
I wanted a planned caesarean	14 (10.7)
I needed information	37 (28.2)
Bad experience of communication with staff	43 (32.8)
I had no control during birth	67 (51.1)
Other	15 (11.5)
Time from birth to the LME interview ($n = 119$)	
<4 weeks	1 (0.8)
4–6 weeks	5 (4.2)
6–12 weeks	10 (8.4)
3–6 months	9 (7.6)
6–12 months	9 (7.6)
>1 year	85 (71.4)

Ethical considerations

The study was approved by the Scientific Committee of the National University Hospital of Iceland (61/2010) and was reported to the Icelandic Data Protection Authority (S5038/2010) before the initiation of the data collection. The participants in the study were provided by informed consent and participated voluntarily. Anonymity and confidentiality of respondents was respected in the study.

Findings

The most common reasons for seeking help were a negative birth experience, anxiety about an upcoming birth, and/or not feeling in control during birth. Ninety-four women perceived their expectations of the interview were fulfilled while 35 reported the opposite. Representing data from the 125 participants who responded to the open-ended questions is embodied in the themes, with one overarching theme (1) *'on my terms'* and three sub-themes: *'being recognised', 'listening is paramount' and 'mapping the unknown'*. These underpinned the final theme (2) *'moving on'* (Fig. 1).

(1) On my terms

The overarching theme related to women's request of being met on their terms and it underpins the other themes (Fig. 1) as individual preferences require tailored care. They wanted choice about

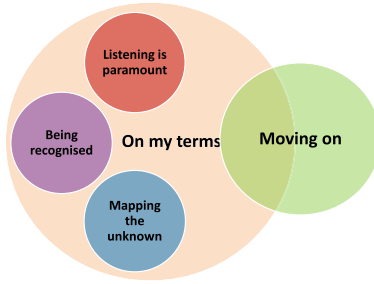

Fig. 1. Themes - women's processing and reconciling of negative birth experience during the 'Ljáðu mér eyra' special counselling interview.

the provider, content, timing, and place for the intervention, and relied on the provider recognising their preferences for the interview process. About half of the women would have liked to be interviewed by the midwife who attended the birth: '*… It would have been better if I could have talked to my midwife…*' (W122). However other women emphasised that the interviewer should not have been involved in caregiving during birth but rather a midwife who provided antenatal or postnatal care ($n = 43$), a midwife from the special counselling team ($n = 73$) or an obstetrician ($n = 13$), '*… to be able to talk frankly about all things related to the process*' (W5). The optimal time to discuss the birth experience varied, with 24 women reporting that the most favourable time was within a week after birth: '*I would have liked to have the interview earlier. For example, the first week after birth…*' (W45), while 58 women felt that four to six weeks was suitable, and 31 women preferred more than six weeks after birth. Many women wished that they had attended the interview much earlier: *'I should have attended an interview soon after the difficult birth rather than seven and half years later, then pregnant again'* (W73).

One third of participants, would have liked to have more interviews or a chance to follow up on their discussion: '*I think it would be good to offer women an interview a few weeks after birth and then six months later*' (W50), '*… because one interview was not at all enough*' (W32).

The place where the interview was provided was of concern to some women as it provoked difficult emotions to attend the hospital where the birth took place:

> … not have the first interview where the birth took place… Difficult to come back to the location where the difficult event took place, then there was much focus on the environment and the stress around it. Difficult to deal with the problem. Still, I think it is essential that the woman goes back to the birthplace again…(W58)

They recognised that a visit to the place they gave birth was an important part of their healing process

> '… to be able to come back to the women's clinic and take that place into reconciliation' (W92). The home was suggested by 32 women as the best place for an interview: '… I would have liked to have the interview at home…' (W3).

Participants wrote about the issue of flexibility in the content of the interview and referred to the importance of their expectations and needs being recognised, to be able to have the care provided on their terms. This connects to the subtheme *'listening is paramount'*, with women reporting that their preferences need to be addressed early in the process: '*Listen, listen and listen! It is good to inform about the technique, but there are some other things needed*' (W83). About three-quarters of the women were satisfied with the content of the interview while others identified that they did not value some aspects of the session: '*Most important to listen, not only recite what is written in the birth records…*' (W72) and '*… examine each case personally with the interviewee's interests as the guiding light… '* (W118).

Being recognised

Recognition of their negative birth experience was important for many women, and they wanted to be invited to review the experience on their terms, regarding their individual needs and cultural background. They wished that health professionals had recognised their negative experience and offered help: *'I wish that someone had encouraged me right after the birth, but not when I was pregnant again, five years later*' (W30). Many women stated that they did not know about the clinic when they felt they needed help and were devastated about not receiving help earlier. Most women attended the clinic many years after the perceived negative birth experience:

> … I never heard about the special counselling clinic at that time, but I would have needed it so much … The pregnancy was difficult, a traumatic event in the family and despite that I broke down twice in front of the midwife (before birth), I was never offered any help … One brief interview would have helped a lot (W93).

Some participants suggested that a conversation about birth experience should be offered to all women after birth: ' *Important to give all women an opportunity to talk about their experience…'* (W8) while other women focused on providing follow up for women who report negative birth experiences: *'Offer all women who perceive negative birth an immediate help to process their experience*' (W35).

There were some data about the general accessibility to the clinic and information, for example for first time mothers*: '… reach to women who have never given birth and are anxious about the process'* (W125) or migrant and refugee women: '*… I am not sure that many foreign women know about the service*' (W49). Extending the initiative to fathers was an issue for some women: '*My husband should have been asked about his experience and how he felt. He was present during birth and attended the interview*' (W101).

Listening is paramount

The women entered the interview with expectations and needed the midwife to listen carefully to their preferences and react on individual terms. Most women ($n = 105$) reported that talking about the birth experience was useful. They emphasised that explaining their experience and perspective was of most importance whilst having the birth acknowledged and understood without judgement: '*Listening and acknowledgement of my experience. Despite providing that, you are not acknowledging any incompetency or mistake made by the staff …'* (W130). If they perceived that the midwife really listened and explored their emotions with sympathy, respect, and neutrality, they felt safe enough to express themselves and delve deeper into their emotions: *'The support I got during the interview was invaluable! Very professional, and good work, intuition and understanding*' (W116). They valued the midwife showing interest, providing encouragement and reassurance, and appropriately timing the provision of information or advice: *'Perhaps try to delve deeper and ask about how I feel, rather than only answering questions…'* (W9).

A lack of active listening was considered as detrimental to the healing process. If women perceived their experience was somehow belittled, the care or caregiver's decisions during birth were defended, or an untimely attempt was made to '*talk me into normal birth'* (W131), they described how they lost the connection to the interviewer and got stuck in the reviewing process:

> Understanding [is] number one, two and three! Not that 'right is right' view on your behalf… [I] would have liked more warmth and understanding because of my distress and a terrible prolonged first birth… The interviewer was more into to telling the mother that everything was normal rather than listening to her experience and provide support, understanding, and warmth … (W25).

Mapping the unknown

It seemed critical for participants to have thorough information about the birth and how to manage their well-being in a tailored way. The women wanted to review events and the care they received during labour and birth, with explanations of decisions and interventions to help them to understand and get the whole picture of what really happened: '*I think it is important that women are informed of everything that happens during the birth, I thought it was good to review the birth records and talk thoroughly about the birth*' (W106). Information was helpful in enhancing well-being as it enabled women to determine '*…what can be done differently next time. Get information about ways to manage anxiety*' (W80) and prepare for moving forward: '*I expected explanations of the care I got in my first birth and strengthening before the upcoming birth*' (W35). The majority of women reported reviewing the birth records as helpful, and 75 women perceived answers to their questions to be useful.

(2) Moving on

The final step in the process could be achieved if women felt their needs were met on their terms, as shown in Fig. 1. Many of the women described this as a platform to move on in their healing journey: '*… I wanted to be able to think about the birth without starting to cry and even consider having more children*' (W48). By expressing themselves, being really listened to and getting the whole picture of the birth, they described how they felt relieved and could move on with their lives '*… [I] wanted to get strength and decisive answers about how plans for third birth could be made in best way*' (W121). Around half of the women felt it was important to get advice from the midwife while one third of participants reported it was useful to make plans for the next birth. For others, the achievement of enhanced well-being or confidence was the main issue in moving on with their lives. The achievement of reconciling their birth experience on their terms acted as a connecting theme in the process to be able to move on with their lives. Moreover, they seemed to regain some control, which half of participants perceived was not the case during birth. The journey of processing the birth experience emerges at a glance in the following quotation:

> I wanted a promise of a caesarean section, which I did not get but still, I left the interview incredibly reconciled. Assured that I was in control… My experience was that I was really listened to and my confidence for the upcoming birth increased. I felt it was great to review the prior birth, to know that the next one would not be the same. Listen, review prior birth, enhance the confidence for the upcoming birth (W33).

Discussion

The study sheds light on women's perceptions of reviewing their birth experience using the special counselling clinic, whether reviewing the birth fulfilled their expectations and how they were enabled to move on emotionally. It provides insight into how recognition of women's preferences and customising the birth review session is crucial for women in processing their birth experience and reconciling their emotions effectively. If women's expectations were met on their terms, it facilitated their ability to move on. Almost three-quarters of women perceived that the intervention fulfilled their expectations, and the most helpful components were an opportunity to talk about the birth experience, reviewing the birth records and gaining information about events, decisions, and care provided during birth. These components should be considered in the future planning of interventions to assist women following negative birth experiences.

The women who participated in the study represent the general population in terms of all sociodemographic characteristics, except educational level. Women in this study had a higher level of education compared to the national data. However, this could be explained by the tendency of educated individuals to complete health research (Tolonen et al., 2005). Moreover, there was a high prevalence of medical interventions during the birth, postpartum depression and history of previous professional help for mental distress in the study group compared with national data and known prevalence of mental distress around childbirth (Sigurdardottir et al., 2017b).

The overarching theme relates to the women's emphasis on individual variation in needs. Reviewing and managing a negative birth experience needs to be on the woman's terms to be perceived as successful. This requires the interviewer to initially recognise each woman's expectations. A thorough recognition of women's needs increases their participation during the conversation which might be the first step in their healing process and an important part of reclaiming the control that half of the participants reported they lacked during birth. An offer of a follow-up session or an 'after birth talk' might have made a difference in meeting their needs and provided an opportunity for a genuine discussion. Similarly, a careful choice of the interview provider and the place for the interview may increase a woman's sense of control. While some of the women did not want to review their birth experience with caregivers from birth, the majority thought the interview should be conducted by a known midwife who provided care during pregnancy, birth or postnatally, indicating their need for some continuity of care. The request of such a woman-centred focus is in line with Renfrew et al. (2014) framework for midwifery care where understanding women's needs and continuity of care are fundamental to the provision of quality woman-centred and supportive midwifery care.

The role of active listening is of paramount importance in meeting women on their terms. Childbirth involves significant emotional work for women (Edwards, 2009), increasing their vulnerability and making the whole process of resolving negative birth experience particularly complex. The issue of communication with caregivers during pregnancy or birth is of special interest as perceived lack of support, care or communication with the staff affects how the women feel about birth (Rijnders et al., 2008; Sigurdardottir et al., 2017a; Waldenström, et al., 2004). If she perceives that her emotions or experiences are not acknowledged, the risk is that she will not assert her views or even doubt her right to feel the way she does (Edwards, 2009). She may become reluctant to 'rock the boat' (Hunter and Deery, 2005 p. 12) to avoid conflict and act in compliance with the system. Therefore, it is crucial to concurrently recognise women's emotions by really listening, asking questions to deepen the conversation and encourage sincere expressions.

Childbirth involves a wide spectrum of uncertainties, especially for first time mothers who reported encountering birth feeling 'novice' (Dahlen et al., 2010, p. 417) and that they are entering 'unknown territory' (Borrelli et al., 2018, p. 41) creating the need for comprehensive information. One of the key factors in processing the birth experience in this study was to get the whole picture about what really happened during birth. This was achieved by concurrently reviewing the birth records and receiving information and explanation from the midwife during the interview. Pro-

vided in a customised way, this was helpful in mapping unknown issues and was acknowledged as an important step towards moving on. Providing information can help women to see events in a different light, to reconcile their experience and enhance their coping abilities (Parratt, 2008). There is broad agreement in the literature with the value of providing women with information about the care and events during the birth (Fenwick et al., 2013; Gamble and Creedy, 2009; Lavender and Walkinshaw, 1998), with further support from the International Confederation of Midwives' definition of the core components of midwifery care (International Confederation of Midwives, 2017).

The women's preference for recognition of their need to review their birth experience and that many women would have liked to participate in the reviewing session much sooner after the birth suggests an 'after birth talk' should be offered. Inviting discussion about the birth experience may assist women who need and want help but may not seek it on their initiative. The evidence about unmet need is also borne out in the prevalence of women experiencing a negative birth experience compared with the proportion accessing the special counselling clinic. About 1–2% of childbearing women in Iceland attend the clinic annually, yet, in a recent study, 5% of women reported a negative birth experience (Sigurdardottir et al., 2017a). The high level of educational in the study group indicates that the health care system does not reach to all women who might need help, since educational level has not been shown to affect birth experience (Sigurdardottir et al., 2017a) Rather, this discrepancy could be explained by the tendency of educated individuals to know where to seek help (Fabian et al., 2005; Gottfredsdottir, 2011). Initiation of a conversation about birth experience could go some way to redress the perceived lack of communication, caring (Beck et al., 2013) or support (Sigurdardottir et al., 2017a; Waldenström et al., 2004), which are known predictors of negative birth experience.

The final stage in the process is being able to move on (see Fig. 1). Unpicking and managing emotions helped women to reconcile difficult emotions and enhanced their well-being, which in turn may provide a pathway to further plans. Regaining confidence, control, and empowerment during a subsequent birth after a traumatic one has been described in qualitative studies (Beck and Watson, 2010; Thomson and Downe, 2010). The sense of increased confidence and reclaiming their bodies was empowering (Beck & Watson, 2010) as well as the redeeming from a 'state of disgrace to a state of grace' (Thomson and Downe, 2010). Reconciling complex emotions seems to be an important part of the process and is congruent with the International Confederation of Midwives' philosophy of midwifery care which acknowledges childbirth as 'a profound experience, which carries significant meaning to the woman and her family' (International Confederation of Midwives, 2014). This highlights the need to offer a discussion about the birth experience soon after the birth rather than waiting for the next pregnancy or birth and involving the woman's partner if appropriate.

Despite the majority of women reporting that the special counselling clinic met their needs and was useful in helping them process their birth experience, a significant proportion did not find the service fulfilled their expectations. This is of concern and needs consideration about further development of the intervention to help women to process negative birth experience and reconcile their emotions. One of the important issues relates to improving the clinic is in the training of midwives to enhance the fidelity of the intervention. Furthermore, providing the interview on women's terms seems to be crucial for the effectiveness as a standardised interview intervention, provided at set time-point is not necessarily the answer to all women's needs. The limited effectiveness of a psychosocial intervention in some of the prior research (Kershaw et al., 2005; Priest et al., 2003; Ryding et al., 2004; Selkirk et al., 2006; Small et al., 2006; Tam et al., 2003) may be explained by a lack of flexibility and rigid inclusion criteria, rather than providing the intervention on women's terms.

Notably, many women wrote about their birth experience and care they received during labour and birth despite the open-ended questions focusing on women's views about the clinic. This may suggest an ongoing need for further opportunity to express their feelings about the birth. The benefits of writing about the experience of a distressing birth were found to be helpful in reducing symptoms of post-traumatic stress and depression in a study by Di Blasio et al. (2015). The idea of providing an opportunity to write about the birth experience in combination with a midwifery intervention requires further exploration and development of an intervention for this group.

Strengths and limitations

The main strength of the study is that all women attending special counselling clinic for a five-year period (2006–2011) had the opportunity to participate and provided a range of responses. Secondly, providing women with an opportunity to express themselves in their own words provided richer data about their experience of the interview and how the clinic could be improved, rather than a fixed response survey. The opportunity for the women to express themselves anonymously using written text enabled uninhibited communication without considerations of the researcher's views or reaction.

There are some limitations to this study. Firstly, the sample is a self-selected group and does not necessarily reflect all women who have negative birth experiences or all women who used the clinic. Secondly, the higher educational level of participants limits the generalisability of the findings to the wider population. Thirdly, the data is dated as it was collected between 2006 and 2011. However, the findings are of value in informing the further development of such clinics as there have been insignificant changes to it since 2011. Furthermore, researchers were not able to ask additional questions to clarify or deepen understanding. Finally, no information was gathered about whether women were pregnant when they attended the interview, but this could have provided greater insight into their preferences in relation to an upcoming birth.

The first author's participation in the special counselling group may have affected her perspective and exposed the study to some bias.

Conclusions

This study provides important insights into women's views about processes designed to assist women to reconcile emotions associated with birth experience. It describes the process in a multifocal dimension, with women's views about different components of the midwifery interview intervention. Women's preferences should be recognised, and customised help provided. Birth involves complex emotions and the addition of perceiving the birth as negative increases the complexity. Discussing the birth experience provided an opportunity for many women to make sense of their emotions, relieve the burden and move on with their lives. The voices of the women who did not achieve a level of moving on are helpful for guiding improvements in practice and further development of midwifery intervention to review birth experience.

Implications for practice

Initiation of a conversation about birth experience should be included in routine care for all women within the first weeks after birth to detect the women who might be in need to process and reconcile their experience. Midwives are in a unique position to

undertake such a conversation and to provide a tailored 'after birth talk' about the birth experience, as they are the main caregivers during pregnancy, birth and postnatally (International Confederation of Midwives, 2014; Renfrew et al., 2014). Respectful and flexible care is in accordance with the International Confederation of Midwives' philosophy and models of midwifery care (International Confederation of Midwives, 2014; Renfrew et al., 2014). A follow up for women who need to review their birth experience on more than one occasion or in more depth needs further attention.

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Paper III