

PhD Thesis

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# **Traumatic Childbirth**

## **from the Perspective of the Healthcare Professional**

A mixed methods study on midwives' and obstetricians' experiences with traumatic childbirth

Department of Gynaecology and Obstetrics  
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&  
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Department of Public Health  
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University of Southern Denmark

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**OUH**  
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## PhD Thesis

Traumatic Childbirth from the Perspective of the Healthcare Professional

*A mixed methods study on midwives' and obstetricians' experiences with traumatic childbirth*

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## Composition of this thesis

This PhD thesis is based on the three papers listed below. The empirical data for paper I are results from a questionnaire (quantitative), empirical data for paper II are findings from both a questionnaire and an interview study (mixed methods) and empirical data for paper III are findings from an interview study (qualitative). The overall PhD project is an interdisciplinary study using a mixed methods research design. The integration or mixing of methods occurred at different levels of the research process, which is described thoroughly in the thesis, and only briefly or not at all in the papers. Each paper is a separate study (referred to by their roman numerals), and one should consult the papers for more elaborate details on the specific study. The thesis contains only brief summaries of each study, and it provides a more comprehensive review of the overall integration and synthesis of the findings.

In recognition of different writing styles within different research traditions, I will briefly clarify that I have used the grammatical subject *we* when writing about analyses, findings or discussions referring to all co-authors of a particular paper, and *I* when referring to the work of the thesis itself.

## Abbreviations

COPSOQII	Copenhagen psychosocial questionnaire, second version
CTG	Cardiotocography (recording of the fetal heartbeat and the uterine contractions)
HCP	Healthcare professional
PTSD	Posttraumatic stress disorder
STS	Secondary traumatic stress

## List of papers

This PhD thesis is based on the following three papers, which will be referred to by their roman numerals:

- I. **Psychosocial Health and Wellbeing among Obstetricians and Midwives Involved in Traumatic Childbirth.** Schrøder K, Larsen PV, Jørgensen JS, Hjelmberg JvB, Lamont RF, Hvidt NC.  
Submitted for publication, under review.
- II. **Blame and Guilt - A Mixed Methods Study of Obstetricians' and Midwives' Experiences and Existential Considerations after Involvement in Traumatic Childbirth.** Schrøder K, Jørgensen JS, Lamont RF, Hvidt NC.  
Acta Obstetricia et Gynecologica Scandinavica, 2016. Epub ahead of print, DOI:  
10.1111/aogs.12897
- III. **Guilt without Fault – a Qualitative Study into the Ethics of Forgiveness after a Traumatic Childbirth.** Schrøder K, la Cour K, Jørgensen JS, Lamont RF, Hvidt NC.  
Submitted for publication, under review.

## Summary

The overall purpose of this PhD project was to investigate traumatic childbirth from the perspective of midwives and obstetricians. Both professions have been described to have a high incidence of stress, burnout and depression, but only few studies have investigated whether or how the experience of traumatic childbirth influences the psychosocial wellbeing of the healthcare professionals involved. Healthcare professionals who experience an unanticipated adverse event are often referred to as 'second victims', as opposed to 'first victims', who are the patients and their relatives. The experience and handling of being involved in childbirths, where the infant or mother suffers presumed permanent, severe and possibly fatal injuries related to the birth can be distressing, and in those few cases where the outcome may have been a result of adverse events or misconduct, feelings of guilt and responsibility can be burdensome for the individual healthcare professional.

The first aim of this study was to investigate the self-reported psychosocial health and wellbeing of obstetricians and midwives in Denmark both in the most recent four weeks and in the aftermath of a traumatic childbirth. The second aim was to explore to what extent and in what way midwives and obstetricians feel guilt or have existential considerations in relation to these events. Feeling guilty seemed to play a pivotal part in the narratives of being involved in a traumatic childbirth as a healthcare professional, and even in cases of exoneration in subsequent complaint cases, a profound sense of guilt would still torment some of the participants. The final aim was to explore how theories on forgiveness can contribute to the understanding of the complexities of guilt and forgiveness from the perspective of the midwife or obstetrician after a traumatic childbirth.

We conducted a mixed methods study, comprising a national survey among Danish midwives and obstetricians and an interview study. The response rate was 59% (1237/2098) of which 85% stated that they had been involved in a traumatic childbirth. Eight midwives and six obstetricians participated in the interview study.

The main findings were disseminated in three publications. **Study I** demonstrated that profession and present work at the labor ward were associated with psychosocial health and wellbeing both within the most recent four weeks of the survey and in the immediate aftermath of the traumatic birth, whereas age, seniority and time since the traumatic birth were not. Midwives reported higher scores than obstetricians, to a minor extent during the most recent four weeks and to a greater extent immediately following a traumatic childbirth, indicating higher levels of self-reported psychosocial health problems. Sub-group analyses showed that this difference might be gender related. None of the scales were associated with age or seniority in the time after the traumatic birth indi-

cating that both junior and senior staff may experience similar levels of psychosocial health and wellbeing in the aftermath.

In *study II*, we formed five categories during the comparative mixed methods analysis: i) the patient; ii) clinical peers; iii) official complaints; iv) guilt and v) existential considerations. Although blame from patients, peers or official authorities was feared (and sometimes experienced), the inner struggles with guilt and existential considerations were dominant. Feelings of guilt were reported by 36-49%, and 50% agreed that the traumatic childbirth had made them think more about the meaning of life. Furthermore, 65% felt that they had become a better midwife or doctor due to the traumatic incident.

During the analyses of study II, the issue of guilt recurred: Almost half of the respondents who had been involved in a traumatic childbirth agreed that they had felt guilty that things turned out the way they did, and in the interview study this was described as a psychological burden, even in cases where no blame was attached. Philosophical insight has proven to be a useful resource in dealing with psychological issues of guilt, and accordingly, in *study III*, we used Gamlund's theory on forgiveness without blame to demonstrate how theories on forgiveness can contribute to the understanding of the complexities of guilt and forgiveness from the perspective of the second victim. We showed that midwives and obstetricians may experience guilt without being at fault after a traumatic childbirth, and that the acknowledgement of this guilt may be a decisive factor in achieving self-forgiveness. Cases with adverse outcomes, derived from the empirical study, illustrated how guilt—and hence forgiveness—may be appropriate responses, even in situations where the healthcare professionals had a justification or an excuse for their clinical decisions during the course of events. Failing to recognise and acknowledge guilt or guilty feelings precludes self-forgiveness, which could have a negative impact on the recovery of the second victim.

The findings were contextualised to the current patient safety culture. It seemed that there is an interaction working two ways: (1) The safety culture may add to the pressure on the healthcare professionals, because the inherently fallible nature of medicine is neglected and human error is constantly sought eliminated through measures adopted from the aviation or car industry. (2) The physical and emotional state of the healthcare professional impacts upon the quality and the safety of patient care. Ill health in healthcare professionals, such as burnout, stress or depression, causes more mistakes and errors, which negatively impacts upon patient safety. Furthermore, I have discussed another consequence for patient safety, namely the risk of 'defensive medicine', where patients are subjected to unnecessary tests and procedures due to healthcare professionals' fear of litigation, complaints or of being thrown into a personal crisis in the aftermath of a traumatic event.

In an obstetric setting, I have suggested that this could be seen as a contributor to the rise in obstetrical interventions, in the form of induction or augmentation of labour or operative deliveries.

Furthermore, an existential perspective was used to contextualize some of the findings, and I have proposed that we should consider traumatic childbirths as a fundamental condition in midwifery and obstetrics. This approach, or explication, seems in opposition to the dominating idea of preventability in the patient safety culture. However, perceiving traumatic childbirths as a fundamental condition does not exclude attention to safety and prevention of error, but it accentuates the natural unpredictability of childbirths and it gives voice to the midwife and obstetrician who go to work with no intention to cause harm. I have investigated the perspective of the involved healthcare professional from an individual approach, based on the existential-humanistic traditions, where there are no hard and fast rules for responding to crisis or distressing experiences; each person has his or her distinctive way of sensing, living and expressing feelings.

Finally, I have argued that guilt and the need to forgive oneself are both profound and complex feelings, which may require a long, and possibly solitude, process of reconciling one's feelings of guilt with a positive sense of self. Following this, we should be aware that while the 'one size fits all' debriefings may be efficient from an organisational perspective, they may be futile from an individual perspective of personal support. Until we have accumulated more knowledge about this field, we should be cautious in our quest to develop guidelines for handling the aftermath of traumatic childbirths. I have suggested four levels of implications for clinical practice, and further research in the form of an interventional study is proposed.

## Resumé

Det overordnede formål med dette ph.d.-projekt var at undersøge traumatiske fødselsforløb fra jordemødres og obstetrikernes perspektiv. Begge professioner er beskrevet med en høj forekomst af stress, udbrændthed og depression, men kun få studier har undersøgt om og hvordan oplevelser med traumatiske fødselsforløb påvirker de involverede sundhedsprofessionelles psykosociale velbefindende. Sundhedsprofessionelle som oplever en uventet eller utilsigtet hændelse med skadeligt udfald af patienten refereres i den engelsksprogede litteratur til 'second victims', som skal forstås i modsætning til 'first victims', som er de ramte patienter og deres pårørende. At være involveret i fødselsforløb, hvor der opstår formodede varige/og eller livstruende skader på mor eller barn kan være en rystende oplevelse, og i de få tilfælde, hvor det dårlige udfald skyldes utilsigtede hændelse eller begåede fejl, kan følelsen af skyld og ansvar være tyngende for den enkelte sundhedsprofessionelle.

Det første formål med studiet var at undersøge danske jordemødres og obstetrikernes selvrapporterede psykosociale helbred og velbefindende indenfor de seneste fire uger og i tiden efter et traumatisk fødselsforløb. Det andet formål var at udforske i hvilken grad og på hvilken måde jordemødre og obstetrikere føler skyld eller gør sig eksistentielle overvejelser i forbindelse med disse forløb. Et forudgående pilotstudie viste, at skyldfølelse spillede en afgørende rolle i de sundhedsprofessionelles fortællinger om at have været involveret i et traumatisk fødselsforløb, og at en dyb følelse af skyld pinte nogle af deltagerne, selv i de sager hvor de ikke fik nogen påtale i efterfølgende klagesager. Det sidste formål med studiet var at udforske hvordan teori om tilgivelse kunne bidrage til forståelsen af komplekse fænomener som skyld og tilgivelse from jordemoderens og obstetrikernes perspektiv efter et traumatisk fødselsforløb.

Vi udførte et såkaldt 'mixed methods' studie, bestående af en national spørgeskemaundersøgelse blandt danske jordemødre og obstetrikere, og en interviewundersøgelse. Svarprocenten var 59% (1237/2098), hvoraf 85% angav at de havde været involveret i et traumatisk fødselsforløb. Otte jordemødre og seks obstetrikere deltog i interviewundersøgelsen.

Hovedresultaterne blev formidlet i tre publikationer. **Studie I** viste, at profession og nuværende arbejde på fødegangen var associeret med selvrapporteret score for psykosocialt helbred og velbefindende, både indenfor de sidste fire uger før spørgeskemaundersøgelsen og i tiden umiddelbart efter det traumatiske fødselsforløb. Jordemødre rapporterede højere score end obstetrikere, i mindre grad i det seneste fire uger, og i højere grad i tiden efter det traumatiske fødselsforløb, hvilket indikerer højere niveau af selvrapporteret psykosociale helbredsproblemer. Sub-gruppe analyser viste, at forskellen kan være relateret til køn. Hverken alder eller anciennitet var associeret

med selvrapporterede scores i tiden efter det traumatiske forløb, hvilket indikerer at både yngre og ældre medarbejdere synes at opleve samme niveau af psykosocialt helbred og velbefindende i efterforløbet. Tid siden det traumatiske fødselsforløb var ligeledes ikke associeret med de selvrapporterede scores.

I **studie II** dannede vi fem kategorier gennem en komparativ mixed methods analyse: i) patienten; ii) kliniske kolleger; iii) officielle klager; iv) skyld og v) eksistentielle overvejelser. Selvom bebrejdelser fra patienter, kolleger og officielle myndigheder var frygtet (og nogle gange oplevet), var den indre kamp med skyld og eksistentielle overvejelser dominerende. Mellem 36-49% rapporterede at have (haft) skyldfølelse, og 50% var enige i, at det traumatiske fødselsforløb havde gjort, at de havde tænkt mere over meningen med livet. Endvidere var 65% enige i, at deres erfaringer fra fødselsforløbet havde gjort dem til en bedre jordemoder eller læge.

Under det analytiske arbejde med studie II blev temaet omkring skyld ved med at dukke op: Næsten halvdelen af de respondenter, som havde været involveret i et traumatisk fødselsforløb erklærede sig enige i, at de havde følt skyld over, at tingene gik som de gjorde, og i interviewundersøgelsen blev dette beskrevet som en psykisk byrde, selv i de tilfælde hvor der ikke var nogen bebrejdelser. Filosofisk indsigt har vist sig at være en brugbar ressource ved håndtering af psykologiske skyldsspørgsmål, og derfor brugte vi i **studie III** Gamlunds teori om tilgivelse uden bebrejdelse for at vise, hvordan teori om tilgivelse kan bidrage til forståelsen af kompleksiteten omkring skyld og tilgivelse fra et *second victim* perspektiv. Vi viste, at jordemødre og obstetrikere kan opleve at føle skyld uden at have begået fejl efter et traumatisk fødselsforløb, og at anerkendelse af denne skyld kan være en afgørende faktor for at kunne tilgive sig selv. Fra det empiriske studie illustrerede cases med dårligt udfald hvordan skyld – og deraf mulig selv-tilgivelse – kan være vigtige elementer, selv i situationer hvor de sundhedsprofessionelle havde en begrundelse eller undskyldning for deres kliniske beslutninger under forløbet. Manglende opfattelse og anerkendelse af skyld og skyldfølelser kan stå i vejen for, at man kan tilgive sig selv og dermed hele de sår, man har fået som *second victim*.

Fundene blev kontekstualiseret til den nuværende patientsikkerhedskultur. Der ser ud til at være en sammenhæng, der går i to retninger: (1) Sikkerhedskulturen kan øge presset på de sundhedsprofessionelle, fordi det medicinske felts iboende fejlbarlige natur er blevet negligeret og menneskelige fejl konstant forsøges elimineret gennem tiltag, der er adopteret fra fly- og bilindustrien. (2) Sundhedsprofessionelles fysiske og psykiske tilstand påvirker kvaliteten og sikkerhed i behandlingen og plejen af patienter. Dårligt helbred hos sundhedsprofessionelle, i form af udbrændthed, stress og depression, forårsager flere fejl og forseelser, hvilket har en negativ indflydelse på patient

sikkerheden. Desuden har jeg diskuteret en anden konsekvens for patientsikkerheden, nemlig risikoen for 'defensiv medicinsk praksis', hvor patienter udsættes for unødige undersøgelser eller indgreb på grund af de sundhedsprofessionelles frygt for søgsmål, klager eller at blive kastet ud i en personlig krise efter et traumatisk forløb. I en obstetrisk sammenhæng har jeg foreslået, at dette kunne ses som en medvirkende faktor til en øget indgrebsfrekvens i form af igangsættelser, stimulation og instrumentelle forløsninger.

Endvidere har et eksistentielt perspektiv været anvendt til at kontekstualisere nogle af fundene, og jeg har foreslået, at vi skal betragte traumatiske fødselsforløb som et grundlæggende vilkår i jordemoderfaget og i obstetrikken. Denne tilgang, eller eksplicitering, kan synes i opposition til den herskende idé om forebyggelse i patientsikkerhedskulturen. Opfattelsen af traumatiske fødselsforløb som et grundlæggende vilkår hindrer dog ikke opmærksomhed på sikkerhed og forebyggelse af fejl, men det fremhæver den naturlige uforudsigelighed ved fødsler og giver stemme til jordemoderen og obstetrikeren, der går på arbejde uden intentioner om at gøre skade. Jeg har undersøgt den sundhedsprofessionelles perspektiv ud fra en individuel tilgang, baseret på eksistentielle-humanistiske traditioner, hvor der ikke er faste regler for hvordan man skal reagere på kriser og rystende oplevelser; hver person har sin særlige måde at sanse, leve og udtrykke følelser på.

Slutteligt, har jeg argumenteret for at skyld og behovet for at tilgive sig selv begge er dybe og komplekse følelser, som kan kræve en lang, og måske ensom, proces for at forene sin skyldfølelse med en positiv selv-følelse eller selvopfattelse. Som følge deraf, bør vi være opmærksomme på, at mens *one size fits all* debriefings kan være brugbare fra et organisatorisk perspektiv, så er de måske nytteløse ud fra et individuelt perspektiv om personlig støtte. Før vi har opnået mere viden om dette felt, bør vi være tilbageholdende i vores trang til at udvikle retningslinjer for, hvordan man håndterer medarbejderreaktioner efter traumatiske fødselsforløb. Jeg har foreslået fire niveauer af implikationer for klinisk praksis, og desuden kommet med forslag til kommende forskning i form af et interventionsstudie.

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## 1. Introduction

*It is 3 o'clock in the morning. I am sitting by a bed in a delivery room, chatting to the woman in the bed and her husband sitting next to her holding her hand. Every now and again the woman dozes off between her contractions. At some point I leave the room to make some coffee for the father to be and myself. Just outside the door, an emergency situation is taking place: a woman in labour is rushed to the operating theatre. I ask if anything needs to be done, and the charge midwife asks me to take over the labour ward phone while she is at the operating theatre. A caesarean section needs to be performed urgently due to fetal distress. Although it does not happen every day, this is not an unusual scenario in a large labour unit. I continue to make the coffee, I mind the phone, and I pop in and out of the delivery room to make sure everything is okay. After 15 minutes the charge midwife returns. She is clearly affected by the event, and she tells me that they have delivered a life-less girl, and that they are currently trying to resuscitate her. We both continue with our work, although our thoughts are preoccupied with the ordeal and the struggle taking place further down the corridor. The baby girl is soon transferred to the neonatal intensive care unit in a state that appears to be of severe asphyxia. Her father is with her, her mother is taken to the recovery ward. The midwife returns to the labour ward after a few hours. She is distraught, alternating between disbelief and self-blame. "How could this happen? How could I let this happen?" She tells us that she had disconnected the fetal heart rate monitor for about 15 minutes to assist the woman to the toilet. The woman had an epidural, and the monitor had been kept on for this reason. To support the progress of the birth, the midwife had encouraged the woman to mobilise and to empty her bladder, and she had disconnected the monitor. On the return to the bed, the monitor showed a very slow fetal heart rate, indicating a severely compromised fetus. All emergency procedures were followed and the baby was delivered within ten minutes of calling for assistance. Still, at this point in time it seems that the baby has suffered presumed permanent, severe and possibly fatal injuries related to the birth. As we all, midwives and obstetricians, sit down in the staff room to listen and talk to the devastated midwife, similar stories surface and an older midwife says that "We all carry at least one child in our heart for the rest of our lives."*

From this particular night shift and from the questions arising in the aftermath of the event, I developed an interest and attentiveness to traumatic childbirth from the perspective of the midwives and obstetricians involved in the clinical decision making during such events. The ever

increasing pressure on healthcare professionals (HCPs) to do more with less and to ensure the highest standards for patient safety at all times does not seem to leave much room for traumatic events, and certainly not for sufficient support systems for the involved staff. This experience marked the beginning of my research interest in this field, firstly as a part of a master thesis (which served as a pilot project) and secondly as this PhD study. The overall purpose of this study is to explore how midwives and obstetricians experience involvement in a traumatic childbirth, where the infant or mother suffers presumed permanent, severe and possibly fatal injuries related to the birth.

## **2. Background**

In this chapter, I will use Maxwell's *conceptual framework* to outline the background for the study. Maxwell (2005, p. 33-34) argues that the conceptual framework constitutes a system of concepts, assumptions, expectations, beliefs and theories that supports and informs any research design, which includes the research problem or study aim. But first of all, I will address the definition of traumatic childbirth.

### **2.1 Defining traumatic childbirth**

The term 'traumatic childbirth' is central to this study, and although the definition underwent thorough consideration and discussion with my supervisors and clinical colleagues, it remains an imprecise term with different connotations for different individuals. For this reason, I must explain at this stage the contextual use of the term.

I defined traumatic childbirth as a birth where the infant or mother suffers presumed permanent, severe and possibly fatal injuries related to the birth. This excludes the births of infants with congenital anomalies or antepartum stillbirth, because these outcomes are not related to the delivery. Without doubt, these events have an impact on HCPs (Puia et al., 2013, Nuzum et al., 2014, Beck and Gable, 2012), but they differ fundamentally from injuries related to the birth itself, because they are usually beyond the control of the HCP commonly a cause of nature, rather than potentially due to management in the delivery room. This distinction was made intuitively, based on my own clinical experience that events where you *could have* influenced the outcome can torment you more in the aftermath with respect to responsibility and guilt, as op-

posed to traumatic events that you could not have actively influenced the outcome<sup>1</sup>. During my project period a qualitative study was published, which investigated the impact of perinatal loss on obstetric nurses (Puia et al., 2013), and the results were supportive of this distinction. In comparing fetal death to infant death, nurses tended to experience similar reactions to the trauma of the event. One significant difference was the need for the nurse of the patient with infant death to place blame, whether it was on self, physician, patient, or other staff member. In fetal death, the nurse experienced self-doubt and frustration with care, but the nurse in infant death went beyond questioning and truly felt responsible or blamed others for the death of the infant.

Although we excluded events or circumstances not related to the birth, it remains a comprehensive definition, which includes a broad range of diverse events. For example, a traumatic birth may follow a placental abruption in which the labour ward staff faultlessly follow all the correct procedures but are still unable to prevent a fatal outcome. Alternatively, a traumatic birth may result in an unexpectedly severely asphyxiated baby, in which blame is apportioned to the staff because a non-reassuring cardiotocograph (CTG) was ignored or missed. It is likely that the latter, rather than the former outcome, would leave the HCPs concerned whether different actions should have been taken and whether they could have prevented the poor outcome. The midwife on my night shift expressed this when she asked *How could I let this happen?* The degree to which a HCP is left with such feelings is not easily revealed by the classification of the neonatal or maternal outcome, and for this reason I found it necessary to maintain a broad definition.

Finally, my clinical experience also told me that although strict classifications with respect to the long-term maternal or neonatal outcome might serve a scientific purpose, it would not cover the HCP's lived experience of the event. An infant with a low Apgar score and low neonatal pH-values may recover with no, few or extensive adverse sequelae, but in many cases these are not known in the first days or weeks after the birth and only time will tell. Meanwhile the HCPs involved in the traumatic childbirth will have to live with the uncertainty. This uncertainty led me to include the phrasing of *presumed permanent injuries* to the definition, acknowledging that the long-term outcome is not always known, yet plays a part in the HCPs' perception of the event.

It could be argued that such broad definition of a central term may not be appropriate for a scientific research project, but a birth where the infant or mother suffers presumed permanent, severe and possibly fatal injuries related to the birth is not a strict classification. However, I believe that

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<sup>1</sup> All interviewed participants agreed with this definition.

it is an inherent condition when investigating a phenomenon with such complexities and diversities, and although cumbersome, this condition has been a mandatory companion on my quest to understand traumatic childbirth from the perspective of the healthcare professional.

## **2.2 Conceptual framework of the project**

With the definition of the most central term of the project reasonably in place, I will proceed with outlining the conceptual framework of the project. Maxwell (2005) argues that the conceptual framework is a system of concepts, assumptions, expectations, beliefs and theories that supports and informs any research design. It is broader than a simple summary of theoretical or empirical publications (a literature review), a discipline that could mislead one to a narrow focus on “the literature”. This might ignore other valuable conceptual resources, with the risk of generating a complete report of what previous researchers have found, rather than focusing on those studies or theories of particular relevance to your own research (Maxwell, 2005, p. 33-35). Based on Maxwell, the conceptual framework of this project encompasses *experiential knowledge*, *pilot research* and *existing theory and research*, and *connecting with a research paradigm* (Maxwell, 2005, p. 36-46). The first three modules constitute the structure of this chapter, while the latter will be outlined in 3.1.1.

### **2.2.1 Experiential knowledge**

In the introduction I have explained how one particular nightshift sparked my interest in this subject. This happened approximately ten years after I witnessed my first delivery as a student midwife, and naturally during a decade of working on labour wards, a vast amount of *experiential knowledge* is accumulated. Accordingly, although that particular nightshift was a landmark for my research interest, the subsequent years working as a clinical midwife have added to my knowledge, perceptions and experiences in this field. Observations have been stored, interpretations have been developed and a picture of traumatic childbirth from the perspective of the HCP has been formed. I have not personally been involved in such events, but I have experienced so-called near-misses; events where the outcome could have been fatal if circumstances had been different. I have witnessed colleagues taking sick leave or even having left the profession due to the experience of a particular traumatic childbirth. I have listened to mothers and fathers living with the consequences of an adverse event during the birth of their children. Some of them were

resentful or bitter, blaming the HCPs involved, whereas others were grateful for the efforts that were made to save their child, and I have quietly wondered how the HCP involved viewed their experience. I have felt my pulse rise in the delivery room when complications arose, fearing the neonatal or maternal outcome. I have felt the tension between the awareness of the possible risks and facilitating a normal birth expressed metaphorically by a midwife in Scamell's study of midwifery talk and practice: *Us midwives: we are like swans swimming across a lake. On the top we look all serene and tranquil but under the water our feet are flapping about like mad* (Scamell, 2011, p. 987). I have seen the glazed look of a young obstetrician before entering the room with the anxiously waiting father after an emergency caesarean section and I have heard the whispers of the senior obstetrician in the corridor compassionately explaining to the younger colleague that no one could have foreseen the course of events. *The only people it doesn't happen to are the people that don't do it.* I have also heard the desperation in a colleague's voice on the phone calling for assistance on a busy and hectic labour ward. I have listened to colleagues, both midwives and doctors, in the aftermath of emergencies or traumatic events, dissecting every decision made, every task carried out during the entire birthing process. I have participated in audits, courses and conferences where cases have been presented, very often accompanied by CTG traces, and I have felt a quiver of fear when learning the outcome, uncomfortably aware that this could have happened to me. I have eagerly sought to improve my skills and competence, so that I would never misinterpret signs of fetal distress. I have heard the gossip. I have heard the critical questioning. I have noticed the presence or absence of management. I have watched and welcomed and wondered about the implications of introducing a learning culture devoted to patient safety. This summary of a small section of my clinical practice constitutes my experiential knowledge with respect to traumatic childbirth. These preconceptions are not listed as hypotheses for this research project, but inevitably they have informed the design and the literature search. I would never have approached this the same way had it not been for my clinical experience as a midwife.

### **2.2.2 Pilot research**

Proceeding this project, I carried out a qualitative pilot study exploring midwives' experiences of being involved in traumatic childbirths (Schrøder, 2010). I interviewed seven midwives, who had all been involved in traumatic childbirths, and I used existential philosophy and psychology as a theoretical framework to analyse and discuss the midwives' response to the traumatic incident.

The empirical data showed that in the aftermath of the event, midwives predominantly experienced that the focus was directed towards the organizational aspects in order to gain learning experience from the incident. In subsequent debriefings their individual responses to the incident became secondary, or even completely ignored, which was experienced as a deficiency. Some of the midwives were aware of being carriers of a culture where errors and mistakes are viewed as a sign of lack of professional competence, and where additionally you are *expected* to be able to cope with the emotional distress that a traumatic birth incident potentially represents. The existential psychological perspective offered an opportunity for a different understanding of the midwife's response to the traumatic birth incident than proposed in prior literature and research and it is through this theoretical lens that this PhD project was conceived (see 2.2.3 and 6.4).

### 2.2.3 Existing research and theory

Understanding the *context* of traumatic childbirth from the perspective of the healthcare professional is essential, and through a review of existing research and theory, the following section will present the contextualisation of this project.

#### *Patient safety culture*

First of all, I will outline how traumatic or adverse events in healthcare services are handled in accordance with a certain patient safety discourse. The problem of medical error in the United States was suddenly elucidated by the Institute of Medicine's report "To Err is Human", where a staggering number of projected deaths as a result of preventable medical errors was estimated (as many as 98.000 each year) (Kohn et al., 2000, Fahrenkopf et al., 2008, Scott et al., 2008). The publishing of this report has since been described to have marked the beginning of a paradigmatic change in national healthcare service to replace the 'blame culture' with a 'just culture', promoting disclosure and learning in the aftermath of an adverse event (Woodward et al., 2009, Wu and Steckelberg, 2012, Scott et al., 2009, Denham, 2007, Berlinger, 2005, Marx, 2003, Pettker and Funai, 2010).

*To Err Is Human: Building a Safer Health System.* The title of this a report encapsulates its purpose. Human beings, in all lines of work, make errors. Errors can be prevented by designing systems that make it hard for people to do the wrong thing and easy for people to do the right thing (Kohn et al., 2000, p. ix).

When adverse events occur, the blame culture is characterised by a focus on the role of the individual actor and by the use of punitive or sanctioning management tools to reduce the number of errors in healthcare services. This culture has contributed to a considerable concealment of errors and mistakes, because HCPs have feared the consequences of such cases. In Denmark, such punishment could be either an official reprimand or warning, or in the worst cases a withdrawal of professional authorisation. In the United States, HCPs fear litigation, lawsuits and compensation cases. This culture prevents disclosure and learning from our mistakes. Conversely, in a just culture the emphasis has shifted to the system, acknowledging that the overwhelming majority of adverse events are not the fault of any one person, but rather the result of system problems. In this culture errors are acknowledged, analysed, and apologized for, and changes are put in place to prevent them from happening again (Jylling, 2003, Denham, 2007, Woodward et al., 2009, Schrøder, 2010, p. 28-30, Berlinger, 2005).

This change has also been promoted in the Danish national healthcare service, and the Danish Society for Patient Safety was established in 2001. This society works to ensure *that patient safety is an aspect of all decisions made in Danish healthcare* and to develop and build a quality improvement and patient safety focused culture (Mogensen and Pedersen, 2003, Jylling, 2003, The Danish Society for Patient Safety, 2015a). A recent report shows that the estimated number of preventable deaths in Danish hospitals is between 600 and 1,500 per year (The Danish Society for Patient Safety, 2015b). The Danish Act on Patient Safety was put into force in 2004. Some of the elements of the act are that frontline personnel in hospitals and in the primary care sector are obligated to report adverse events to a national reporting system. Patients and relatives may also report adverse events. It is stated that hospital owners are obligated to act on the reports and that the National Board of Health is obligated to communicate the learning nationally. The purpose of the reporting system is to learn, not to punish the HCPs. A traumatic incident may lead to changed procedures and workflows in order to minimize or avoid similar incidents in the future (Mogensen and Pedersen, 2003, Jylling, 2003, The Danish Society for Patient Safety, 2013). The act contains a paragraph protecting HCPs from sanctions:

A frontline person who reports an adverse event cannot as a result of that report be subjected to investigation or disciplinary action from the employer, the Board of Health or the Court of Justice (The Danish Society for Patient Safety, 2013).

All events are reported to The Danish Patient Safety Database at The National Agency for Patients' Rights and Complaints, and in 2011 the database received nearly 100.000 reports (The Danish Society for Patient Safety, 2013).

While the organization has had a significantly increased focus on patient safety over the past decade, the individual midwife's and obstetrician's professional and personal reactions and management of a traumatic childbirth have not been equally considered. In the aftermath of a traumatic event, the subsequent management of employee reaction mainly regards organizational practice, considering what lessons can be learned from the incidents, which may give rise to changes in procedures and work processes in order to minimize or prevent similar incidents in the future (Schrøder, 2011). The Danish Society for Patient Safety has investigated how the employees' reactions are best handled in the aftermath of a traumatic incident, and the conclusive report establishes that there is only very little Danish material on the subject within the healthcare service (Rosenkvist et al., 2015). The lack of research on this matter is in stark contrast with studies showing that both midwives and doctors have a high incidence of work-related health problems, which will be presented in the following.

### *Psychosocial health and wellbeing among midwives and obstetricians*

Studies indicate that both midwives and doctors have a high incidence of mental health problems such as burnout, stress, depression and even suicide (Agerbo et al., 2007, Juel et al., 1999, Balch et al., 2009, Yoshida and Sandall, 2013, Wilkinson, 2015, Hildingsson et al., 2013, Jordan et al., 2013, RCP, 2015). A Danish study on work environment among 2000 employees in public service institutions (hospitals, prisons, home care, assistance office and residential institutions) showed that midwives were at higher risk of burning out than the other professional groups in human service work (Borritz et al., 2006, National Research Centre for the Working Environment, 2006b). Following this, a qualitative PhD study investigated the relation between motivation and burnout to understand the high prevalence of burnout among midwives. Emotional demands as well as a working environment characterised by few resources, unpredictability, shift work and a low degree of influence were found to be main contributors to the phenomena, but traumatic childbirths are mentioned as stressors as well (Engelbrecht, 2005). The Danish Association of Midwives conducted a survey among its members in 2006, which showed that the

prevalence of occupational burnout rises considerably, if the midwife is involved in traumatic or complicated childbirths on a monthly basis (Christiansen and El-Salanti, 2006).

Similarly, studies have consistently shown that a substantial number of physicians and surgeons struggle with burnout, stress, depression and psychiatric morbidity. Abuse of alcohol and drugs are more frequent among physicians than among the general population, and there is significant excess mortality due to suicide (Fernando and Consedine, 2014, Govardhan et al., 2012, Overlægeforeningen, 2008, Gojdz et al., 2015, Agerbo et al., 2007, Wilkinson, 2015, Becker et al., 2006, Sorensen et al., 2015). The psychosocial health and wellbeing of midwives and obstetricians is affected by various factors that are without the remit of this study, and the following will focus on the one factor relevant in this context: traumatic events.

### *Caring professions and emotional stress*

Emotional stress in the caring professions is described in many studies, and I will briefly introduce some central terms often used to describe this. It is widely acknowledged that meeting the emotional needs in another person necessitates a HCP's own emotional involvement, and that caring for people who are or have been experiencing suffering, pain and trauma can cause traumatic stress reactions in the HCP (Leinweber and Rowe, 2010). *Compassion fatigue* and *secondary traumatic stress* are often used to describe this, and when it comes to witnessing trauma, *posttraumatic stress disorder (PTSD)* is also used. They are described as distinct but interrelated occupationally related stress-response syndromes, and although there is controversy in the literature about the definitions and the degree of overlap between them, they are frequently used interchangeably (Leinweber and Rowe, 2010, Rice and Warland, 2013, Beck and Gable, 2012). Table 1 provides a brief overview of the terms, including the term *Second victim* which will be elaborated in the following section.

Term	Definition	Reference
Compassion fatigue	“Compassion fatigue is a type of emotional stress that is less dedicated to a particular incident, instead, it is due to the general fatigue, strain and stress that caring professionals may experience from dealing with trauma, illness and death in their day-to-day work.”	(Rice and Warland, 2013, p. 1057)
Secondary trauma Secondary traumatic stress (STS)	“The natural consequent behaviours and emotions resulting from knowledge about a traumatizing event experienced by a significant other. This stress results from helping or wanting to help a traumatized or suffering person.”	(Beck and Gable, 2012, p. 747)
Posttraumatic stress disorder (PTSD)	“An anxiety disorder that develops after direct exposure to a traumatic event.”	(Leinweber and Rowe, 2010, p. 77)
Second victim	“Second victims are healthcare providers who are involved in an unanticipated adverse patient event, in a medical error and/or a patient related injury and become victimized in the sense that the provider is traumatized by the event. Frequently, these individuals feel personally responsible for the patient outcome. Many feel as though they have failed the patient, second guessing their clinical skills and knowledge base.”	(Scott et al., 2009, p. 326)

Table 1. Overview of terminology regarding emotional distress in caring professions

### *Second victims*

Although adverse outcomes and medical mistakes primarily affect patients and relatives, HCPs also feel upset and experience emotional distress in the aftermath of an adverse event (MacLeod, 2014, Scott et al., 2009, Seys et al., 2013a, Seys et al., 2013b, Edrees et al., 2011). In some parts of the literature, these individuals are referred to as *second victims*, and they often feel personally responsible for the adverse patient outcome (Scott et al., 2009, Croskerry et al., 2010, McCay and Wu, 2012, Seys et al., 2013a, Seys et al., 2013b, Denham, 2007, Sirriyeh et al., 2010). This definition affirms that even the professionals can be seen as victims in cases where they have participated unintentionally in inflicting harm on the person, they were supposed to help or heal. Feelings of guilt, anger, frustration, psychological distress, fear and loss of self-esteem are the most common symptoms of the second victim following an adverse event. In addition, the error can have an impact on both the personal and professional life of the second victim and reactions

can be emotional, cognitive and behavioural (Seys et al., 2013b, Scott et al., 2009). The reactions of second victims are influenced by the outcome of the error and their degree of personal responsibility for the adverse event: Poor patient outcomes and greater perceived personal responsibility have been shown to be associated with more intense reactions and greater personal anguish (Engel et al., 2006, Seys et al., 2013a, Seys et al., 2013b).

Following my definition of traumatic childbirth (see 2.1), I will argue that the second victim phenomenon could contribute with some valuable perspectives. Obviously, far from all events can be easily distinguished as “error” or “non-error”, and a traumatic childbirth within my definition may certainly be an unanticipated adverse event where no error occurred at any point. The point of interest for this project is not whether or not an error occurred, but to investigate the perspective of the HCP involved in the event. And because both midwives and obstetricians are actively involved in the clinical decision making during childbirth, I find that the second victim perspective brings some essential aspects to this investigation that would not be covered by the terms *compassion fatigue*, *secondary trauma* or *PTSD* which all include the more passive, observing role of witnessing trauma or suffering of another person. However, I have to emphasise that this is not an exclusive approach: a second victim may indeed be secondary traumatised or suffer all degrees of compassion fatigue or PTSD.

### ***Traumatic childbirth from the perspective of the healthcare professional***

There is a lack of research considering midwives’ and obstetricians’ responses to traumatic perinatal events, for which reason wider literature often has been used to draw upon by considering the impact of indirect trauma exposure in other professional groups (Sheen et al., 2014). Such reviews may provide some valid information, but the scope of this review of prior research is to identify studies specifically aiming at the impact of traumatic childbirth on obstetric or midwifery healthcare professionals. The reason for this limitation is that although in many ways comparable to other healthcare professions and specialities, midwifery differs fundamentally at one crucial point: the users of our services are generally not patients seeking treatment, but healthy, young women going through a normal process of life (Leinweber and Rowe, 2010, Carolan and Hodnett, 2007, Rice and Warland, 2013). This condition is opposed to most other patients seeking healthcare services and may cause a different response to adverse events from the perspective of the HCP. An association between HCPs’ high levels of stress and incidents involving

young, healthy patients and multiple lives have been found (Vaithilingam et al., 2008). In Denmark, midwives are autonomous, independent practitioners who are able to provide all aspects of maternity care to women considered at low risk. Obstetricians are usually only involved during pregnancy, birth or postpartum in cases of high risk or medical complications, but nonetheless their group of patients are young and healthy compared to many other medical specialities.

Literature searches have been conducted throughout the project period, and most of the studies have been published within this period. Main key words have been *Birth Injury, Blame, Existential Concerns, Guilt, Healthcare Professionals, Midwifery, Obstetrics, Perinatal Death, Psychosocial Health and Wellbeing, Second Victim, Secondary Trauma, Trauma and Traumatic Childbirth*. Chain searches through references used of each study have also been used, as have search alerts from major databases. Appendix A provides an overview of 13 selected studies investigating the impact of stillbirths, perinatal deaths, maternal deaths, obstetrical complications, risk of serious injury, traumatic births and life-threatening childbirth situations on healthcare professionals (nurse midwives/labour and delivery nurses/intrapartum nurses (n=6), midwives (n=5), midwives and obstetricians (n=1) and obstetricians (n=1)). Nine studies have used qualitative methods, two have used quantitative methods and two are mixed methods studies.

Similar to the difficulties in defining traumatic childbirth described in 2.1, the included studies varied in either definitions or research area within traumatic childbirth. These definitions varied from the broader terms of ‘clinical life-threatening childbirth situations’, ‘unexpected or traumatic birth’ and ‘adverse pregnancy outcomes’ to more clinically well-established terms as ‘stillbirth’, ‘perinatal death’, ‘infant death’ and ‘maternal death’. One study stated that ‘Trauma is in the eye of the beholder’, conveying that if the participant had experienced the birth as traumatic, then it was traumatic (Rice and Warland, 2013).

Secondary traumatic stress (STS) was measured in two American studies with 29-35% of the study population (labour and delivery nurses and nurse midwives) reporting moderate to severe levels of STS. These levels are more or less equivalent to other studies of nurses in other specialities (Beck and Gable, 2012, Beck et al., 2015). Ben-Ezra et al. (2014) assessed psychiatric symptoms by three measures (PTSD, depressive and psychosomatic symptoms) in a small population (n=27) of Israeli obstetric nurses and found higher levels of psychiatric symptoms after exposure to perinatal death. Between 26-36% of samples of British and American midwives and nurse midwives screened positive for PTSD (Beck and Gable, 2012, Beck et al., 2015, Sheen et al.,

2015). A limitation to all studies is a low response rate of 5, 15, 16 and 39%, respectively, and the small study population in the study by Ben-Ezra et al.

Ten qualitative studies were conducted in American, Australian, British, Irish and Israeli settings and the overall conclusion is that traumatic or stressful childbirth situations can have a long-term impact on obstetric HCPs' personal and professional identities and mental health (Appendix A). One study included midwives from six different continents and concluded that although midwives' experience of loss or adverse outcome varies by culture, it is a common and painful experience that binds midwives around the world (McCool et al., 2009). The overarching themes in these 11 studies can be put into five categories (though not exhaustive):

1. Themes linked to the professional roles and identities in the nursing and midwifery profession. Within these themes are descriptions of witnessing medical interventions that the woman did not want, witnessing abusive deliveries, witnessing physicians violating women and feeling helpless not being able to prevent this (Rice and Warland, 2013, Beck et al., 2015, Beck and Gable, 2012, Dahlen and Caplice, 2014) .

2. Themes involving descriptions of experiencing shaken belief in the natural birth process and loss of passion and confidence in normal birth as a consequence of experiencing severe obstetric complications. These themes were only described in studies investigating midwives' experiences with traumatic births (Rice and Warland, 2013, Beck et al., 2015, Dahlen and Caplice, 2014).

3. Themes regarding empathetic emotions and feelings for the woman and the family. The tragic consequences for the mothers and/or the newborns resulted in profound feelings of sadness, helplessness, fear, anger, personal grief and loss for the HCPs as well. There was a strong sense of the personal impact, and both midwives, nurses and obstetricians spoke about how stillbirth and traumatic events impacted them at a human level (Halperin et al., 2011, McCool et al., 2009, Nuzum et al., 2014, Cauldwell et al., 2015).

4. Themes related to feelings of guilt, shame and grief and to the weight of responsibility. These were present somehow in all of the 11 studies. "What could I have done differently?" or "Did I miss something?" seemed to be frequently asked questions in the aftermath of a traumatic childbirth. Puia et al. (2013) found that in fetal death, the nurse experienced self-doubt and frustration with care, but the nurse in infant death went beyond questioning and truly felt responsible or blamed others for the death of the infant (see 2.1).

5. Finally, most of the studies presented themes regarding support systems following a traumatic childbirth—or in the majority of cases a lack of support systems or adequate training for HCPs (Cauldwell et al., 2015, Nuzum et al., 2014, Rice and Warland, 2013, Beck and Gable, 2012, Halperin et al., 2011, Goldbort et al., 2011, Beck et al., 2015)

In essence, it has been reported that traumatic childbirths, including stillbirths and maternal death, take their toll on the HCPs involved which may be a long-lasting contributing factor to mental health problems among midwives and obstetricians. The results should be interpreted with caution due to very low response rates and potential selection bias. It is possible that the HCPs who were experiencing secondary traumatic stress symptoms were more likely to respond to participating in such studies because this research held personal interest and meaning for them. On the other hand, it is also possible that the most traumatised HCPs may not have wanted to relive the experience again through the process of study participation. Furthermore, all studies were retrospective and cross-sectional designs, which preclude the establishment of causal relationships. The qualitative studies generated data that are particular to the participants and cannot be generalised to a global population; however, the insights and experiences are likely to have commonalities for other obstetric HCPs.

#### ***Existential psychology as an overall theoretical framework***

A final constituent of the conceptual framework is the existential perspective which this project was conceived through (see 2.2.2). The tradition of existential psychology and philosophy is mainly rooted in European ways of thinking (i.e., Kierkegaard, Frankl, Sartre), although it includes many North American thinkers (i.e., Yalom). The tradition is very broad, but it primarily concerns secular existential orientations, such as meaning, the value of life, personal values, freedom, responsibility, loneliness etc. (la Cour and Hvidt, 2010). In the empirical study, these secular existential orientations are termed *existential considerations*. Although they have the potential for including spiritual and religious domains (la Cour and Hvidt, 2010), I have not addressed those specifically in this project. La Cour and Hvidt argue that *In the real world, patients [people] may think about existence in secular, in spiritual and in religious terms, and a majority do so simultaneously* and they continue by stating that *Reality is multi-layered, and investigation, theory and research should reflect this* (2010, p. 1293).

The choice of the existential perspective was based on the findings in the pilot study, where the existential psychological approach to crisis was proposed as a perspective on the midwives accounts of experiences with traumatic childbirths (Schrøder, 2010). The existential understanding is that a crisis is a disruption of the normal course of life. The disruption arises suddenly and with great intensity. The experience of living through the crisis may involve the overcoming of danger, experiences of relief and, on a deeper level, cleansing, the elimination of old issues of conflict and the attainment of a new and higher level of stabilisation (Jacobsen, 2006). This understanding seemed in accordance with the midwives' narratives of how the traumatic birth had influenced their professional and/or personal lives. Regardless of whether they had experienced a minor or major crisis, the event had brought them certain changes, revelations or reflections, for better or for worse (Schrøder, 2010, p. 67-70). According to Irvin D. Yalom, an existential psychiatrist, there is four basic existential concerns: (1) death (we live now but one day we are going to die), (2) freedom (we structure our lives ourselves, but out of emptiness), (3) isolation (we are born and die alone, but we need other people and a sense of community, and (4) meaninglessness (we seek and construct life meaning, but in a universe without meaning). A crisis is an opportunity to find one's position in relation to these four basic existential dilemmas and we may find ourselves asking questions such as *what is the meaning of life?*, *what is the meaning of my life?*, *why I am here?* and *what is the point of it all?* (Yalom, 1980/1998, Jacobsen, 2006).

The existential psychological perspective approaches each human being as a unique individual, eluding the more stereotypical classifications found in traditional psychiatric and cognitive-psychological practice (Jacobsen, 2009, Yalom, 1980/1998). The expression of feelings may take many forms. For some, the most natural thing is to scream them out, and for others, a quiet tear in a peaceful and contemplative moment will be the right thing. This is somewhat in opposition to the catharsis approach, the psychodynamic approach and the traditional psychiatric approach, where certain stages and phases are described and certain reactions or expressions of emotion (crying) are expected (Jacobsen, 2006). In the existential-humanistic traditions, there are no hard and fast rules for this sort of thing, and I found that this highly individualistic approach could offer a relevant perspective to this project (see 6.4). I consider existential psychology to be one of many possible choices for a theoretical framework. In the words of Høyer's, I perceive it to be a "tin-opener approach" where the phenomenon under investigation can only be investigated through the use of theory, but where, conversely, one can never be sure that a given theory is the most appropriate for one's particular investigation (Høyer, 2007).

## 2.3 Study aim

The overall purpose of this PhD study was to investigate traumatic childbirth from the perspective of Danish midwives and obstetricians. Both groups have been described to have a high incidence of stress, burnout and depression, but only few studies have investigated whether or how the experience of traumatic childbirth influences the psychosocial wellbeing of the HCPs involved. This study investigated the self-reported psychosocial health and wellbeing of obstetricians and midwives both in the most recent four weeks and in the aftermath of a traumatic childbirth. The experience and handling of being involved in childbirths, where the infant or mother suffers presumed permanent, severe and possibly fatal injuries related to the birth may be distressing, and in those few cases where the outcome may have been a result of adverse events or misconduct, feelings of guilt and responsibility can be burdensome for the individual HCP. This study explored to what extent and in what way the HCPs feel guilt or have existential considerations in relation to these events. The purpose of obtaining this knowledge is to contribute to the improvement of the management of the aftermath of traumatic events and to increase awareness at the level of training and educating midwives and doctors.

Initially, we developed the following descriptive research questions, which guided the first steps of the research process:

- How many midwives and obstetricians have experienced being involved in a traumatic childbirth?
- Do midwives and obstetricians report similar levels of psychosocial health and wellbeing presently and in the aftermath of a traumatic childbirth?
- How do midwives and obstetricians experience being involved in a traumatic childbirth?
- Which existential considerations are triggered by having a job where traumatic childbirths may occur?
- Which meaning making strategies – if any – do midwives and obstetricians use after traumatic childbirths?

During the design phase these questions were converted into two study aims for two sub-studies (I and II). The third study aim was developed during the process of conducting study II. A more comprehensive description of the process will follow, but for now I will just outline each specific study aim, one for each sub-study.

### **2.3.1 Specific aims**

I. To investigate the self-reported psychosocial health and wellbeing of obstetricians and midwives during the most recent four weeks and their recall of their psychosocial health and wellbeing immediately following their exposure to a traumatic childbirth.

II. To describe the numbers and proportions of obstetricians and midwives involved in traumatic childbirth and to explore some of their experiences or feelings with guilt, blame, shame and existential concerns.

III. To demonstrate how theories on forgiveness can contribute to the understanding of the complexities of guilt and forgiveness from the perspective of the midwife or obstetrician after a traumatic childbirth.

## **3. Methodology**

This study is an interdisciplinary project using a mixed methods research design. With an expanded use of mixed methods or multimethod research it has become widely practiced and accepted in healthcare research (Creswell et al., 2004, Creswell and Plano Clark, 2011e, Sale et al., 2002). Mixed methods research is more than simply collecting both quantitative and qualitative data; it is also a methodology with underlying philosophical assumptions that guide the direction of the collection, the analysis and the mixing or integration in many phases of the research process. The purpose of this is that neither quantitative nor qualitative methods are sufficient in themselves to capture the trends and details of the situation. When used in combination, both quantitative and qualitative data may complement each other enabling a more complete analysis (Creswell et al., 2004, Creswell and Plano Clark, 2011e). It has been called the “third methodological movement” or the “third research paradigm” following the developments of first quantitative and then qualitative research, and researchers have engaged in ardent disputes about the (in)compatibility of the different paradigms (Johnson and Onwuegbuzie, 2004, Creswell and Plano Clark, 2011e).

### **3.1 Research paradigm and philosophical assumptions in mixed methods research**

The use of the term “paradigm”, which derives from the work of Thomas Kuhn, refers to a set of very general philosophical assumptions about the nature of the world (ontology) and how we can understand it (epistemology), assumptions that tend to be shared by researchers working in a

specific field or tradition (Maxwell, 2005, p. 36). Before outlining the philosophical assumptions behind this study, a brief glance at the paradigm debate in mixed methods is necessary. Creswell and Plano Clark (2011) describe different stages in the history of mixed methods research. Following a formative period of developing mixed methods research, heated debates about paradigmatic positioning occurred in the 1980s and these discussions are still essential when conducting mixed methods research. In very broad terms scholars have argued from three different positions: “Purists” who find mixed methods untenable because it asks for different paradigms to be combined, “situationalists” who adapt their methods to the situation and “pragmatists” who believe that multiple paradigms can be used to address research problems. In the past decade, mixed methods has entered a new *reflective* period characterized by both an assessment of the field and look into the future and also constructive criticisms challenged the emergence of mixed methods and what it has become (Creswell and Plano Clark, 2011d).

Some of this critique came from the field of nursing. In her article *Mixed-methods research - Positivism dressed in drag?*, Giddings (2006) claimed that the thinking in mixed methods research rarely reflects a constructionist or subjectivist view of the world, and that the majority of studies use the analytic and prescriptive style of positivism, albeit with a postpositivist flavour: A design is set in place, a protocol followed, questions are mainly descriptive, traditional positivist research language is used, and the designs come up with structured descriptive results. The message often received by a naive researcher, however, is that mixed methods combines and shares ‘thinking’ at the paradigm level which is not the case. Furthermore, she questioned the lack of theoretical methodological positioning among her fellow mixed methods research peers and recalled a comment from a conference participant after her presentation at the first international mixed methods conference in Cambridge, UK, in July 2005:

After dismissing the value and use of paradigm frameworks in relation to mixed-methods research, one conference participant said: ‘In all my years as a researcher and a teacher, I have never heard any scientist describe themselves as a positivist or a postpositivist.’ His position echoed the hegemonic stand of the traditional positivists. When part of a dominant culture, there is no need to explain ourselves; we do not need to self-label or accept labels (...) (Giddings, 2006, p. 197-198).

Following this perspective, the dominance of a (post)positivistic research paradigm has often led to the use of qualitative methods as a means of verifying or validating the quantitative results in

mixed methods research, meaning that a qualitative aspect of the study is often ‘fitted into’ a positivistic methodology (Giddings, 2006, Krølner et al., 2014).

### **3.1.1 Connecting with a research paradigm**

With no intentions of settling whether mixed methods inappropriately integrate different philosophical perspectives or whether it has developed into a “cover” for the continuing hegemony of positivism, I will proceed with the paradigmatic positioning of this study. Throughout the process I have tested and explored my paradigmatic stance, searching for the best fit for my research—or perhaps rather; the best fit for my own assumptions and methodological preferences.

Trying to work within a paradigm (or theory) that doesn’t fit your assumptions is like trying to do a physically demanding job in clothes that don’t fit—at best you’ll be uncomfortable, at worst it will keep you from doing the job well (Maxwell, 2005, p. 37).

Connecting with the underlying philosophical assumptions behind my research questions has served as a navigator in designing the study and generating and analysing the empirical data. However, this navigator has been constantly challenged by the above mentioned disputes in the mixed methods literature and by my own gradually expanding knowledge and experience as a researcher. Also, the general ontological and epistemological assumptions have proved to be more of a divergent than common or shared nature in my interdisciplinary research team of supervisors and co-authors from different professional backgrounds and traditions. These conditions have naturally forced me to (re)consider my position and clarify my arguments throughout the process.

#### ***Interactional constructionism***

As it may have occurred to the reader, the primary point of departure for this PhD study is within a humanistic research tradition, and it is situated within a constructionist worldview. From this perspective, knowing occurs during socially negotiated processes that are historically and culturally relevant and that ultimately leads to social action. Furthermore, there is a connection between individuals’ meaning and the meanings of others (Koro-Ljungberg, 2008). Following this, the social construct of our mutual reality and the instability and changeability of the phenomena to be investigated are essential in this perspective (Järvinen, 2005). Symbolic interactionism is an approach to the study of human life and human conduct within the constructionist paradigm. The

American sociologist Herbert G. Blumer framed three premises for symbolic interactionism: (1) human beings act toward things on the basis of the meanings that the things have for them; (2) the meaning of such things is derived from, or arises out of, the social interaction that one has with one's fellows; and (3) these meanings are handled in, and modified through, an interpretative process used by the person in dealing with the things he encounters. Furthermore, objects can be classified in three categories: (a) *physical objects*, such as chairs, trees and bicycles; (b) *social objects*, such as students, priests, a mother or a friend; (c) *abstract objects*, such as moral principles, philosophical doctrines or ideas such as justice or compassion. The nature of any object consists of the meaning that it has for the person for whom it is an object. This meaning sets the way in which the person sees the object, prepares to act toward it and talks about it. Although an object may have a different meaning for different individuals, common objects may emerge out of processes of mutual indications, so that objects may have the same meaning for a given set of people and are seen in the same manner by them. From a research point of view, it is necessary to identify people's world of objects in order to understand their action (Blumer, 1969, p. 10-11).

### ***Postpositivism***

The postpositivistic paradigm, a more moderate form of the positivistic stance (Giddings, 2006), is often associated with approaches entailing empirical observation and measurement. Researchers within this paradigm make claims for knowledge based on determination (cause-and-effect) and reductionism (narrowing and focusing on select variables to interrelate). They pursue objectivity and believe that reality exists, though they acknowledge that it can only be known imperfectly and probabilistically (Creswell and Plano Clark, 2011d, Brewer and Hunter, 2006). A part of this study is situated within this paradigm, which has served to navigate methodologically according to the scientific standards and criteria of the methods used. This means that I have treated seriously issues such as measurement validity, measurement error and issues of sampling for purposes of generalisation.

### ***Pragmatism***

Pragmatism has often been suggested as a useful position philosophically and methodologically in mixed methods research. It is a practical and applied philosophy interested in examining practical consequences and empirical findings and, importantly, to help in deciding which action to take next as one attempts to better understand real-world phenomena (including psychological, social, and educational phenomena). This paradigm is not positioned in the forced-choice di-

chotomy between postpositivism and constructivism—it has been described as an “umbrella” paradigm that contains both. Knowledge is viewed as being both constructed *and* based on the reality of the world we experience and live in. The research question is of primary importance and it moves past the paradigm wars by offering a logical and practical alternative (Johnson and Onwuegbuzie, 2004, Creswell and Plano Clark, 2011a, Creswell and Plano Clark, 2011d, Giddings, 2006). This alternative has a moderate and common-sense approach to research. Johnson and Onwuegbuzie (2004) explain that if two ontological positions about the mind/body problem (e.g., monism versus dualism), for example, do not make a difference in how we conduct our research then the distinction is, for practical purposes, not very meaningful. Accordingly, the concrete practical difference is essential when choosing methods and developing theory and it endorses a strong and practical empiricism as the path to determine what works. This study has been situated within this pragmatic “umbrella” containing both paradigms, which has influenced the design, the analyses and the interpretations of this study (see 3.2, 3.3 and 5.1.2).

### 3.1.2 Study design

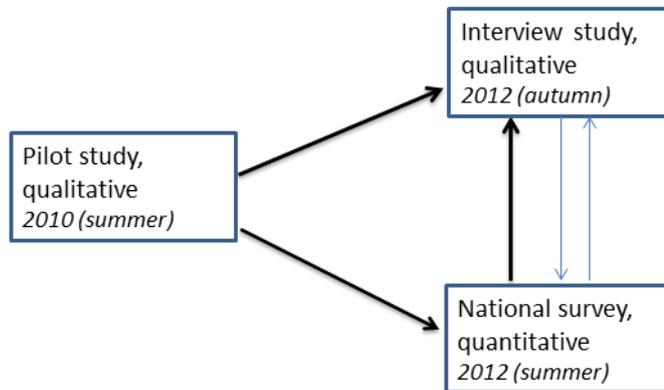
In order to address our research aim adequately, we employed a mixed methods research design with data generated from two different approaches: a national questionnaire survey and a qualitative interview study. The purpose of using mixed methods in this study was to bring together the differing strengths and weaknesses of quantitative methods (large sample size, trends, generalization) with those of qualitative methods (small sample, details, in depth) (Creswell and Plano Clark, 2011a). Figure 1 illustrates the sequential design of the study. The pilot study was an interview study with seven midwives with experiences of traumatic childbirth, described in 2.2.2 (Schrøder, 2010). The pilot study has been conducted separately from the PhD study, but it has constituted a large part of the conceptual framework of this study and the development of questionnaire and interview items.



Figure 1. The sequential study design.

As shown in Figure 2, the results from one method were used to develop and inform the other method. The study design is a merger of Creswell and Plano Clark’s explanatory and exploratory

sequential design models (Creswell and Plano Clark, 2011a). This merged model allowed us firstly to investigate the generalizability of themes that emerged from qualitative data in the pilot study, and secondly to use selected participants from the survey to explore themes in depth. This process will be elaborated further in the following and in chapter 4.



*Figure 2. Study design – merger of Explanatory and Exploratory Sequential Design models*  
*Bold arrows: The pilot study informed both the development of the questionnaire and the interview guide. Results from the survey were explored in the interview study.*  
*Thin arrows: Comparative analyses between the two sets of data as a circular process.*

### 3.2 Styles of research

Supplementary to Creswell and Plano Clark’s model, I have used the approach of Brewer and Hunter (2006) and Frederiksen (2014) to explain the points of integration between the two methods and sets of data in this study. Rather than using the quantitative/qualitative dichotomy, this approach uses *styles of research*. Empirical methods generating and analysing the same type of data are gathered within each style, regardless of how data are analysed and from which overarching epistemological discourse or position. The five research styles are fieldwork, survey research, experimentation, nonreactive research and the multimethod approach. **Fieldwork** is a research style where the researcher personally enters natural social groups and settings and studies them, as far as possible in their full and natural state. This could be through passive observation, participant observation and informant interviews. **Survey research** entails all methods generating data from asking questions to the participants and registering their verbal responses, as is seen in questionnaires, individual interviews or focus groups. **Experimentation** is a research style investigating causal associations between a hypothesized exposure and outcome. This is done by manipulating an exposure and measuring the outcome, while controlling for the contam-

ination influence of other possible causes by the use of control groups and possibly randomisation. RCTs and case-control studies are represented in this research style. **Nonreactive research** employs a strategy of searching out naturally occurring data and opportunities for unobtrusive observations such as documents analysis, archive studies and register studies (Frederiksen, 2014, Brewer and Hunter, 2006). According to Brewer and Hunter, these four research styles represent the conventional methodological options for theoretical inquiry. The fifth style, **the multimethod approach**, provides the possibility of employing a selected set of methods to the study instead of using just one method. Brewer and Hunter classify the multimethod approach to be the use of methods from different research styles (Brewer and Hunter, 2006, p. 32-37), whereas Frederiksen argues that it could also be the use of different methods within the same research style (Frederiksen, 2014, p.14-15).

This approach offers the opportunity to rank research methods along each other, rather than in a hierarchically structure where certain methods are considered the gold standard (Frederiksen, 2014, p. 18, Krølner et al., 2014, Hansen and Tjornhoj-Thomsen, 2015). Consequently, the dominance of a (post)positivistic research paradigm (Giddings, 2006) is counteracted and it supports the pragmatic stance, that choices of design and methods are led by the research question, rather than imposed by a hierarchy of evidence where one style is considered to provide more significant evidence than another (Hansen and Tjornhoj-Thomsen, 2015).

The research style of this study is survey research. Empirical data were generated from both a national questionnaire survey and a qualitative interview study, which will be described in chapter 4. Questionnaire research is particularly well-suited to provide information about large populations and individual interviews are used to provide knowledge of individual experiences and reasoning. Both methods are restricted to topics on which the respondents are able and willing to report verbally (Frederiksen, 2014, Brewer and Hunter, 2006, Hansen and Tjornhoj-Thomsen, 2015). With this first-person perspective of the interview study (Tanggaard and Brinkmann, 2010, p. 31) and the promised high generalisability of the survey research (Brewer and Hunter, 2006, p. 31), this style seemed appropriate and well-suited for the purpose of this project. I will return to the challenges of investigating the same phenomenon from different perceptions and approaches in 6.2.1.

### 3.3 Levels of mixing or integrating within the study

Designing a mixed methods research study entails a variety of choices regarding “the mixing of methods” at different levels of the research process. These choices will be outlined in the following as an elaboration of the design depicted in figure 2 (3.1.2). Creswell and Plano Clark (2011a) propose that mixing may occur at four points during a study’s research process: at the level of design, during data collection, during data analysis and during interpretation. Frederiksen (2014) suggests six different forms of integration, namely theory integration, design integration, method integration, data integration, analytical integration and interpretive integration. According to Johnson and Onwuegbuzie (2004), research approaches should be mixed in ways that offer the best opportunities for answering the research questions or study aims, and this has governed the process irrespective of the methodological terminology of either Creswell and Plano Clark or Frederiksen. I have used Creswell and Plano Clark in my work process, but in retrospect I have found Frederiksen’s forms of integration (p. 20-23) to be a useful guidance to maintain an overview of and explain the process in the following sections.

#### *Integration of theory*

Theory integration refers to the establishment of an overall theoretical framework for connecting different aspects of the study, either epistemologically or from the perspective of a substantial theory. Integration of theory ensures an actual, coherent construction of the research object (Frederiksen, 2014).

The construction of the research object is based on my experiential knowledge, the pilot study and the literature, and both this conceptual framework and the paradigmatic foundation of the project form the same frame for the questionnaire and for the interview study. These shared assumptions have guided the integration of the design as well as the interpretation stage.

#### *Integration of design*

Design integration refers to the description of the study object, based on theory or empirical knowledge (the conceptual framework) and the choice of methods suitable to answer the separate research questions. This form of integration addresses the priority and sequence of the substudies (Frederiksen, 2014). According to Creswell and Plano Clark (2011a), the major mixed methods designs are the convergent parallel design, the explanatory sequential design, the exploratory sequential design, the embedded design, the transformative design and the multiphase design.

The integration of design for this study was planned as a merger of Creswell and Plano Clark's explanatory and exploratory sequential design models (Creswell and Plano Clark, 2011a), which has been described closer in 3.1.2 and 3.2.

#### *Integration of methods*

Method integration depends on the design of the study, e.g. whether it is a parallel or sequential design. The second phase or method may be governed by the insights provided by the first phase, for instance when results from a survey are used to develop an interview guide for conducting individual interviews (Frederiksen, 2014).

The sequential design of this study allowed such integration of methods, as depicted in figures 1 and 2 (3.1.2). However, this integration represented only a minor part of the development of the methods. Only 10 questionnaire items (out of 169) were developed from the pilot study (see 4.2.1 and appendix B). Additionally, using the results from the questionnaire in the interviews seemed more sensible in the planning of the interview study, than it did during the actual interviews (see 6.2.2).

#### *Integration of data*

Data integration is closely related to method integration. This form of integration addresses the concrete relations between the datasets and how the substudies are connected. This could be if the participants in an interview study are part of, or recruited from, the survey population. Or it could be the conversion of data, so different aspects are analysed with different methods, e.g. if qualitative data are quantified (Frederiksen, 2014).

In this study, participants for the interview study was recruited and selected from the survey population, see 4.2.1.

#### *Integration of analysis*

Analytical integration refers to how the researcher analyses the different datasets with the aim of producing both separate and also a coherent analysis across the datasets. This form of integration could happen through analysis or an assessment of the strength and the quality of each separate analysis, as is seen in meta-studies. Or it could be a procedure where the results from each dataset are used in a new combined analysis (Frederiksen, 2014).

This form of integration was used in the second substudy, where the categories from the analysis of the interview study were compared with the questionnaire to find corresponding items that

addressed the same issues. This was a cyclical process which was repeated several times, closely guided by the aim of the study: investigating if themes from the interview data could be represented by the questionnaire data and how results from the quantitative analysis could be elaborated, enhanced or illustrated by the qualitative data (see 5.2).

### *Integration of interpretation*

Interpretative integration is related to the ways in which the analysis or results are related to theory, hypotheses and previous research. As in all research, it may be difficult to identify the end point for the analysis and the start point for the interpretation. One major distinction is however that the interpretative integration is about using theory, knowledge and creativity to create overall meaning with the different elements of the study (Frederiksen, 2014). According to Hansen and Tjørnhøj-Thomsen (2015), analytical and interpretive integration seldom occurs, and there are few examples of how this is accomplished in practice.

I have worked with interpretative integration in study I, which I will elaborate on in 5.1.1 and 5.1.2. While the second substudy had a close integration of analysis, the level of interpretative integration was less pronounced (see 5.2 and 5.2.1). Interpretative integration is used in the discussion (6.3 and 6.4), where the findings of the study are related to theories described in the conceptual framework (about patient safety and existential psychology).

### *Integration of dissemination*

Frederiksen adds this element to his six forms of integration. He describes integration of dissemination to be an immense challenge regardless of which research styles and forms of integrations are used. Fitting a mixed methods study into a journal article may in fact be the greatest challenge when working with multiple methods or research styles (Frederiksen, 2014). This is also addressed by Krølner et al. (2014). Furthermore, they describe the challenge of describing the methods and the results of a mixed methods study in a coherent, clear and orderly manner that will not confuse or exhaust the reader. And finally they point out that the relative weighting of convergent and divergent results may be shifted towards convergence, simply because the inclusion of divergence is too comprehensive for a standard publication. I have certainly struggled with this form of integration throughout the process, which will be discussed further in 5.2.1 and 6.2.

Conclusively, Frederiksen emphasises that there is no hierarchy in the forms of integration. They are all possible, but not necessary, connections between the different methods or styles in the

overall study. Not surprisingly, he states that the more integration, the stronger the connections or relations between the substudies. But also; the higher demands to accordance between the forms of integration and the consistency of the internal structure of the study (Frederiksen, 2014, p. 23).

## **4. Methods and materials**

As mentioned above, the research style of this study is survey research. Empirical data were generated from both a national questionnaire survey and a qualitative interview study.

### **4.1 Questionnaire survey**

#### **4.1.1 Study population and data collection**

The study was designed to include all obstetricians and midwives in Denmark. We contacted The Danish Medical Association and The Danish Association of Midwives to obtain addresses of their members. In Denmark the degree of membership of such associations is very high: respectively, 95% and 98% of all doctors and midwives are members of The Danish Medical Association and The Danish Association of Midwives. The Danish Medical Association provided postal addresses of obstetricians and trainees employed in the departments of gynaecology and obstetrics in the Danish NHS. The Danish Association of Midwives provided postal addresses of active midwives from their lists of members.

In May 2012 a total of 2098, comprising 563 obstetric consultants and trainees (“obstetricians”) and 1535 midwives, were invited to participate in our study. They all received a cover letter providing information about the study (Appendix C) and the questionnaire by post. Fifty-one letters were returned because of unknown address (Appendix D). The respondents were offered a choice between returning the questionnaire by post in a stamped-addressed envelope or by answering the questionnaire online in SurveyXact. The latter option was encouraged by the possibility to enter a prize draw for a gourmet dinner and an overnight stay at a hotel for two persons<sup>2</sup>. The postal questionnaire was returned by 483 (39%), while 754 (61%) replied online. I entered all questionnaires returned by post manually in SurveyXact. We received 22 written refusals, most of which were due to the recipient not having worked on a labour ward for many

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<sup>2</sup> The gift voucher was sponsored by the hotel and a sanitary items company (see Appendix C).

years. In July we sent a letter to all labour ward managers in Denmark including a poster to be displayed in their labour wards, reminding midwives and obstetricians to participate in the study (Appendices E and F). In August 2012, a personal letter was sent to all non-responders (Appendix G). Fifty-nine percent (1237) responded comprising 293 (52%) obstetricians and 944 (62%) midwives.

#### 4.1.2 Construction of the questionnaire

The quantitative part of the study had two aims: The first aim was to investigate the psychosocial health and wellbeing of obstetricians and midwives in Denmark during the most recent four weeks before the survey as well as their recall of their psychosocial health and wellbeing immediately following their exposure to a traumatic childbirth and to compare the outcomes of the two groups. The second aim was to describe the numbers and proportions of obstetricians and midwives involved in traumatic childbirth with respect to feelings with guilt, blame, shame and existential considerations.

Exploring new concepts sometimes requires new tools and methods. The development of the questionnaire constituted a two-sided process: 1) finding the most relevant and previously validated tools that would adequately address the aims of the study, and 2) constructing items based on thorough analysis and interpretation of the pilot study and the literature. Through this process we ended up with a questionnaire consisting of 169 items, spread over 48 main questions, which were divided into four sections (Appendix B and H):

Section	Questions no.	Topic	Origin
i.	1-11 (11 items)	Demographic information. <i>(Age, gender, profession, position, seniority and some information about present workplace and tasks).</i>	
ii.	12-19 (50 items)	Psychosocial health and wellbeing, psychosocial work environment, self-reported health, self-efficacy.	Selected questions from the second version of the Copenhagen Psychosocial Questionnaire (COPSOQII), developed by the National Research Centre for the Working Environment (Pejtersen et al., 2010, National Research Centre for the Working Environment).

Section	Questions no.	Topic	Origin
iii.	20-34 (34 items)	Values, faith and beliefs.	Selected questions from the European Values Study (European Values Study, 2008), some modified and inspired by Prinds et al (Prinds et al., 2014).
iv.	35-48 (74 items)	Traumatic childbirth, second victim.	Selected and modified questions from the Medically Induced Trauma Support Services (MITSS) survey (MITSS, 2009), from the Second Victim Questionnaire (Edrees et al., 2011), inspired by the literature (Aasland and Forde, 2005, Scott et al., 2008, Vis and Boynton, 2008, Sirriyeh et al., 2010, Engel et al., 2006) and finally items developed from a qualitative pilot study (Schröder, 2011).

*Table 2. The four main sections of the questionnaire.*

#### **Motivation for each section**

**Section i:** Demographic information, which does not need any further motivation or explanation.

**Section ii:** This section was developed to address the aim of study I (see 2.3.1), and to collect data on psychosocial work environment for future analysis. Questions from the second version of the Copenhagen Psychosocial Questionnaire (COPSOQII) were chosen to measure individual psychosocial health and wellbeing. This tool is a well-validated and standardized questionnaire developed in a Danish context to be generic and applicable to all sectors of the labour market (industry, service sector, human service work and communication). The purpose of the COPSOQ concept (version I and II) is to improve and facilitate research as well as practical interventions at work places. It is theory-based and it covers what is considered to be the majority of the main theories in occupational health psychology (Kristensen et al., 2005, Pejtersen et al., 2010). Furthermore, it is designed in three versions: a short version for work places, a medium-length version for work environment professionals and a long version for research use. The long version is designed so that researchers can choose the validated scales or items suited for their particular research project (National Research Centre for the Working Environment). Since this was not a general work environment study, we considered this option to “pick and choose” to be an important asset when constructing a questionnaire containing other topics than psychosocial work environment, simply to keep the extent of the questionnaire manageable for the respondents.

Section iii: This section was included in the questionnaire to collect data for future analysis. Data on healthcare professionals' values, faith and beliefs is to be included in an international study within a Network for Research in Spirituality and Health ([www.nersh.org](http://www.nersh.org)). Data from this section is not included in this thesis, but will follow in subsequent publications.

Section iv: This final section was developed to address the aim of both study I and study II (see 2.3.1). No previously validated questionnaire was found for this purpose, so we decided to construct this section from the bottom, covering four areas of relevance for our research questions:

**Second victim:** I contacted Professor Albert Wu, who has studied the handling of medical errors since 1998, and has published extensively about patient safety and second victim. Professor Wu showed interest in our project and he sent us two questionnaires assessing the experience and the support mechanisms for healthcare professionals affected by serious adverse events: The Medically Induced Trauma Support Services<sup>3</sup> (MITSS) survey (MITSS, 2009) and a two-part Second Victim Questionnaire from the Johns Hopkins RISE Organizational Assessment Survey (Edrees et al., 2011). Both of these tools have been used in an American context, but we found them to be transferable into a Danish context. We carefully selected items that we assumed would be useful for the study aims, weighting the suitability of each item against the intention to keep the questionnaire as slim as possible. Through this selection process we included 23 items from the two questionnaires.

**Existential considerations and guilt:** This dimension was included based on the empirical findings and theoretical framework of the pilot study (Schröder, 2010, Schröder, 2011) (see 2.2.3). In keeping with the existential perspective, we created 10 items based both on the qualitative interviews of the pilot study and on the literature (Aasland and Forde, 2005, Scott et al., 2008, Vis and Boynton, 2008, Sirriyeh et al., 2010, Engel et al., 2006). The development of these items constitutes the first element of the mixed methods study design (see 3.1.2).

**Psychosocial health and wellbeing after a traumatic childbirth:** We repeated the 24 items from section ii; items from the COPSOQII to measure individual psy-

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<sup>3</sup> Medically Induced Trauma Support Services (MITSS), Inc. is a non-profit organization founded in June of 2002 whose mission is "To Support Healing and Restore Hope" to patients, families, and clinicians who have been affected by an adverse medical event.

chosocial health and wellbeing, but this time the respondents were asked to complete these items with respect to their psychosocial health and wellbeing in the immediate aftermath of the traumatic childbirth.

**Views on medical error and patient safety in obstetrics:** Finally, we created nine items about the opinion of the respondents on issues within patient safety, medical error, perinatal mortality and human error. These items are not included in the thesis.

The final page of the questionnaire was an invitation to participate in the interview study, accepted by typing a phone number. After this, additional space was provided to comment on the survey.

#### 4.1.3 Data analysis

All the analyses were carried out on the 1027 respondents who had been involved in at least one traumatic childbirth. Respondents who had been involved in >1 traumatic childbirth were asked to complete the questionnaire pertaining to the birth experienced to have had the greatest impact on them. The quantitative data were analyzed using descriptive statistical methods. Statistical analyses were performed using STATA version 13.1 (StataCorp, College Station, TX, USA). The calculation and analysis of the COPSQII-scores for study I, will be described in 5.1.

## 4.2 Interview study

### 4.2.1 Sampling

For the interview study, we recruited 14 respondents from the survey (six obstetricians and eight midwives) to participate in individual, semi-structured interviews. We did a purposive sampling of participants from the questionnaire where respondents consented to participate in the interview study if they entered their contact details. The idea behind purposive sampling is to select interviewees rich on information and who are likely to generate appropriate and useful data (Green and Thorogood, 2009b). While ensuring that both obstetricians and midwives were represented, we selected a list of phone numbers from respondents who *Agreed* or *Strongly agreed* to one particular statement in the questionnaire: “The traumatic event has made me think more about the meaning of life”. This statement was chosen on the assumption that the selected participants had reflected on the event on an existential level, because ‘thinking more about the mean-

ing of life' is an expression of existential considerations. We therefore considered these participants to be 'rich on information'. Since 305 responders in this category had consented to participate in the interview study, we had to select phone numbers randomly from the list.

#### 4.2.2 Generating the data in an interactionist perspective

Since participants were selected from a national survey, they came from all parts of Denmark. They were all asked to choose their preferred interview venue (home [6]; work place [6]; at my office [2]). I conducted all the interviews and I introduced myself as a midwife and researcher. I paid particular attention to creating a non-judgmental atmosphere, focusing on the *experience* of the participants, rather than the obstetric 'facts' of the event. The interviews lasted between 35 and 95 minutes (mean 61) and all were audio-recorded. I transcribed them all verbatim.

An interview guide was developed based on the research questions, data from the pilot study, from initial analysis of the questionnaire and from the literature (paper II, Table S4). However, this was not followed strictly, based on an interactional constructionist (IC) approach perceiving all narratives to be constructed in situ and acknowledging the interviewer's and participant's constitutive contributions to the dialogue (Holstein and Gubrium, 1995). I conceptualized the interview process from an IC approach, where all individuals engaged in the interview process are considered to be "knowing subjects". This implies that *all* interview participants create knowledge and are actively and intentionally engaged in the knowledge production during the interview (Koro-Ljungberg, 2008). Subsequently, I actively used my own experiences and understanding during the interviews. The following excerpts from the interviews are used to exemplify this approach:

KS: Who did you talk to in the days following this event? In work, I mean... *This is a question from the interview guide.*

M5: Uhm...

KS: Did you show the CTG to anybody and discuss it? *Actively using my own perception of the situation based on my own experience (i.e. how I would imagine such a conversation could start out).*

M5: Well... Yes. I don't really remember. I remember that I spoke with NN [the obstetrician who had been involved in the event]. We were on duty together a few times the following days, and we got to talk a bit. In fact, I think that I only talked with him about it. Or... We talked together, him and I. And then of course there was this debriefing, which... well, I suppose it was all-right to establish that we hadn't done something completely... foolish. Or to get a second opinion. (Pause) I didn't talk to any managers or... I don't think that I did actually. No...

KS: But you didn't feel that you needed it somehow? From what I can gather...

*Trying to establish why she had not spoken to others – coincidence, fear/ insecurity or because she did not feel the need. I suggest the latter, based on my intuitive understanding of the context and her narrative about the event (prior to this excerpt).*

M5: No. No. I didn't really.

KS: You didn't need to be taken care of?

*Making sure we have the same perception of the purpose of 'talking to someone'.*

M5: No, not really... Not in this case. But I probably would have, if I had... If someone had thought that I had missed something or made a mistake, then I would have... Then it would have been different.

From a constructionist perspective, the leading idea is that the world we live in and our place in it are not simply and evidently “there” for participants. Rather, participants actively construct the world of everyday life and its constituent elements (Gubrium and Holstein, 2008). According to Koro-Ljungberg, *the goal of the interview is to examine how knowing subjects (researchers and study participants) experience or have experienced particular aspects of life as they are coconstructed through dialogue*” (Koro-Ljungberg, 2008, p. 431).

M8: Yes. Well, both emotionally [upset], but also your professional competence and knowledge make you wonder... “If only I had...” And then I... I did discuss this with someone, and they said “Well [name], there *was* no indication to put on a CTG”, right?

KS: Sure. And somehow, we might say that we... well, expect ourselves to be able to foresee everything. Right?

M8: Exactly! Yes. Maybe one tries to be the God that the women seem to think one is. Because they reckon that once they are in a hospital *nothing* can go wrong. And then it goes wrong. And then I didn't live up to this expectation. (Pause).

*Position myself as a knowing subject in this context by recognising her feeling.*

*The suggestion is met by the participant; coconstruction through dialogue.*

Positioning myself as a knowing subject does not only imply drawing on my clinical knowledge and experience as a midwife. It also implies bringing the research questions into the interview and exploring the phenomena in question further. For instance, one of the aims of study II was to explore the participants' feeling of or experiences with guilt. Rather than just accepting statements such as *I felt guilty afterwards*, I explicitly challenged or continued to ask about this guilt. In these situations, my position as a knowing subject was as a researcher, trying to understand and contextualize the phenomenon *guilt* after a traumatic childbirth, and not as a colleague agreeing and understanding, although I could easily recognize and identify with the feelings described.

KS: Yes. But when you maintain—and when all your descriptions of the talks in the aftermath of the event, from the handover and so on—that in retrospect one might be able to say that it would have been nice, if we had intervened and delivered the baby half an hour earlier, but in the present, when you leave the delivery room, there are *so* many signs that everything is okay, and you have a clear sense, that if that picture changes, then you will be called immediately, how come you maintain that you are partly guilty of the outcome?

*Challenging the participant on her perception of being guilty. This serves two purposes: (i) to convey that I do not see her as guilty and to create a nonjudgmental atmosphere and (ii) to explore this sense of guilt further, trying to understand how come she feels guilty, when she has done nothing wrong.*

O3: Yes. Yes. (Pause) (Sighs). Because I didn't follow my intuition to start with and that I didn't take that blood sample. Really. I suppose. Because that [pH value] would probably have been poor. Otherwise the neonatal pH values wouldn't have been so bad at the delivery. So, I... I can't help thinking that I missed some warning signals at that point. Somehow. Right?

*The guilt seems to be inexplicable. She blames herself for not being able to foresee the events, for having overlooked warning signals (that she cannot account for the nature of), and for not following her intuition.*

KS: Okay. So it is an ongoing wondering about what could have happened, if I had intervened earlier...

*Suggesting that guilt comes with this wondering. (Could I have changed the outcome?)*

O3: Yes.

KS: ... how would it have affected the outcome?

O3: Yes.

KS: So the responsibility...

*Suggesting that the sense of guilt is related to the sense of responsibility.*

O3: O yes!

*Immediately confirmed by the participant.*

KS: And what are your thoughts about having this responsibility in more general terms? When you go to work every day.

*This is a question from the interview guide. [Illustrates how the flow of the interview dictated the sequence of questions].*

The excerpt with obstetrician 3 also illustrates that such exploration of a phenomenon (guilt) occurred at different stages of the interview. In this section, we continued to talk about the responsibility, and we returned to guilt later in the interview.

#### 4.2.3 Data analysis

Initially, a four-step framework analysis was chosen to analyze the qualitative data, comprising four stages: *familiarization* with the data, *thematic analysis*, *indexing* and *charting* (Green and Thorogood, 2009a). This analysis was performed in different stages. Firstly, it was conducted as an open reading of the material, trying to see patterns or recurring themes vertically, in each transcript, and horizontally, across all the transcripts. This process was discussed with my super-

visor to see if we had similar or differing understandings of the material. Secondly, for study II, the framework analysis was repeated with a specific purpose. This is elaborated in 5.2, and Table S3 (paper II) shows an extract of a chart from the framework analysis. And thirdly, the material was read once again in order to explore whether the theoretical perspective of study III could be used as an explanatory model, which is elaborated in 5.2.2 and 5.3.

The major implication of a constructionist approach to interview data is to treat interview narratives as situated, constructed reports, not representations of facts or “true” experiences (Koro-Ljungberg, 2008). Meanings are seen as social products, as creations that are formed in and through the defining activities of people as they interact (Blumer, 1969, p. 11-12). In this understanding, all data are generated in a particular relationship between the participant and me, and they are situated in a particular context allowing certain discourses to be expressed, depending on e.g. the social and professional identity, the sociocultural setting and the local work environment and culture. This attention to the *hows* of the interview should be balanced with the *whats* of the interview during analysis and interpretation (Holstein and Gubrium, 1995, Järvinen, 2005), and this balance has inevitably been a continuing negotiation throughout the process of this project (figure 3).

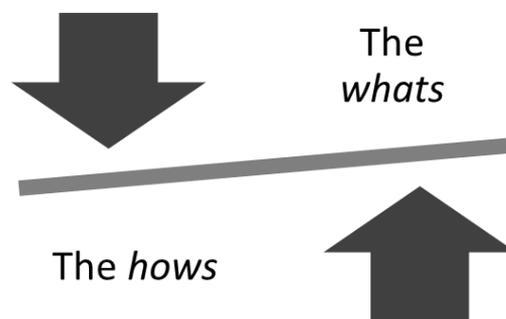


Figure 3. Balancing the hows and the whats of the interview

### 4.3 Ethical considerations

The Danish National Data Protection Agency gave their formal consent (J.no. 2011-41-6841, 16 November 2011) and data were handled and stored in accordance with the agency’s rules. All participants of the interview study received a letter informing them that the purpose of the study was to obtain knowledge about traumatic childbirth from the perspective of the HCP, that all information would be treated confidentially and that all quotes or summaries of the interview would appear in an anonymized form in publications (Appendix I). The letter was signed by all

14 participants. Some of the participants were very emotionally upset during the interviews when recalling the traumatic birth and the aftermath of it. A few of them seemed so affected when talking about it—one participant cried her way through the majority of the interview—that I contacted them after some time to find out to which degree the interview process had (re)surfaced tormenting or unsettling emotions. They all expressed that it had been both upsetting and relieving to talk about the event again, and none of them felt in need of any help or support presently.

## 5. Results

This chapter is a presentation of the three sub-studies of this project, and it must be viewed together as each section presupposes the next. Each study has been reported in the form of a journal article, which is a challenging discipline in terms of providing methodological transparency as well as a balanced presentation and discussion of the findings (see 3.3). Because of the deficiency of this type of dissemination, I have elaborated on certain aspects of the studies in this chapter. In 5.1, 5.2 and 5.3 the journal article of each study is summarised. Although it was not included in the first article manuscript, I will present a perspective encompassing integration of theory and of interpretation in 5.1.1 and 5.1.2 using Blumer's symbolic interactionism. This form of integration may qualify the understanding of the findings and connect this study to the overall framework of the project. In 5.2.1 I will present some reflections on integration of analysis, and in 5.2.2 I will explain how the aim of the third study emerged during the analytical process of the second study.

### 5.1 Study I

#### *Psychosocial Health and Wellbeing among Obstetricians and Midwives Involved in Traumatic Childbirth*

**Study aim:** The first study investigated the self-reported psychosocial health and wellbeing of obstetricians and midwives in Denmark during the most recent four weeks as well as their recall of their health and wellbeing immediately following their exposure to a traumatic childbirth. As described in 2.2.3, studies have indicated that midwives and doctors have a high incidence of mental health problems such as burnout, stress, depression and even suicide (Agerbo et al., 2007, Juel et al., 1999, Balch et al., 2009, Yoshida and Sandall, 2013, Wilkinson, 2015, Hildingsson et

al., 2013, Jordan et al., 2013). However, only few studies have investigated whether or how the experience of traumatic childbirth influences the psychosocial wellbeing of the midwives involved (Sheen et al., 2014, Sheen et al., 2015). The reasons for this knowledge gap may be numerous, but one of them could be that such associations are not easily investigated. As described in 4.1.2, we designed our questionnaire with 24 items from COPSOQII to measure individual psychosocial health and wellbeing within the most recent four weeks preceding the survey. Those items were repeated later in the questionnaire, but this time the respondents were asked to complete them with respect to their psychosocial health and wellbeing in the immediate aftermath of the traumatic childbirth.

**Material and methods:** The study population is described in 4.1.1. The psychosocial health and wellbeing of the participants was investigated using six scales from the COPSOQII: burnout, sleep disorders, general stress, depressive symptoms, somatic stress and cognitive stress, see table below (Study I; Table 1).

Burnout	Sleep disorders	General stress	Depressive symptoms	Somatic stress	Cognitive stress
<ul style="list-style-type: none"> <li>• How often have you felt worn out?</li> <li>• How often have you been physically exhausted?</li> <li>• How often have you been emotionally exhausted?</li> <li>• How often have you felt tired?</li> </ul>	<ul style="list-style-type: none"> <li>• How often have you slept badly and restlessly?</li> <li>• How often have you found it hard to go to sleep?</li> <li>• How often have you woken up too early and not been able to get back to sleep?</li> <li>• How often have you woken up several times and found it difficult to get back to sleep?</li> </ul>	<ul style="list-style-type: none"> <li>• How often have you had problems relaxing?</li> <li>• How often have you been irritable?</li> <li>• How often have you been tense?</li> <li>• How often have you been stressed?</li> </ul>	<ul style="list-style-type: none"> <li>• How often have you felt sad?</li> <li>• How often have you lacked self-confidence?</li> <li>• How often have you had a bad conscience or felt guilty?</li> <li>• How often have you lacked interest in everyday things?</li> </ul>	<ul style="list-style-type: none"> <li>• How often have you had stomach ache?</li> <li>• How often have you had a headache?</li> <li>• How often have you had palpitations?</li> <li>• How often have you had tension in various muscles?</li> </ul>	<ul style="list-style-type: none"> <li>• How often have you had problems concentrating?</li> <li>• How often have you found it difficult to think clearly?</li> <li>• How often have you had difficulty in taking decisions?</li> <li>• How often have you had difficulty with remembering?</li> </ul>

*Study I; Table 1. Questions about psychosocial wellbeing (from the COPSOQII). Response categories and scores : i) all the time (100); ii) a large part of the time (75); iii) part of the time (50); iv) a small part of the time (25) and v) not at all (0).*

The COPSOQII has been validated using a factor analysis and Cronbach’s alpha as a measure of internal consistency among the items in each scale (Bjorner and Pejtersen, 2010). A detailed de-

scription of the scales, items, and guidelines for calculating the scores have been reported previously (Pejtersen et al., 2010). According to the COPSOQII guidelines (Pejtersen et al., 2010), the five response categories were assigned scores of 0, 25, 50, 75, and 100 from i) not at all (0), to iv) all the time (100). For each participant, the score on the scale was computed as the mean item score on a range from 0-100. If the participant had answered less than half of the questions in a scale, the score was set to missing. The number of reported traumatic childbirths among obstetricians and midwives was compared using the Wilcoxon Rank Sum test. Diagnostic plots of the scores indicated that each COPSOQII scale was normally distributed. Linear regression was used to analyze associations between each COPSOQII scale and respondent characteristics (profession, age, seniority, weekly working hours, work on the labor ward and time since traumatic childbirth). All characteristics were mutually adjusted for each other. We tested for effect modification of profession on the associations between each of the other covariates and each COPSOQII-scale. Since only two male midwives participated in the study, and only one had been involved in a traumatic childbirth, gender was not included in these analyses. To assess whether gender might influence the outcome, we carried out two sub-group analyses, one solely in women and one solely in obstetricians. Paired t-tests were conducted to compare the scores in the most recent four weeks and in the immediate aftermath of the traumatic childbirth. Cronbach's alpha was calculated for each scale. Statistical analyses were performed using STATA version 13.1 (StataCorp, College Station, TX, USA).

**Results:** Tables showing characteristics of the respondents and the mean and adjusted scores of the respondents are found in the manuscript. The main findings showed that profession and present work at the labor ward were associated with psychosocial health and wellbeing. Midwives reported higher scores than obstetricians, to a minor extent during the most recent four weeks and to a greater extent immediately following a traumatic childbirth scale, indicating higher levels of self-reported psychosocial health problems. Sub-group analyses showed that this difference might be gender related: i) female midwives scored statistically significantly higher on only three out of six scales (burnout, sleep disorders and somatic stress) in the immediate aftermath of the traumatic childbirth than did female obstetricians and ii) female obstetricians scored statistically significantly higher than their male colleagues on all six scales in the aftermath of the traumatic childbirth. None of the scales were associated with age or seniority in the time after the traumatic birth indicating that both junior and senior staff may experience similar levels of psychosocial health and wellbeing in the aftermath. The group of participants who had stopped

working on the labor ward because they felt that the responsibility was too great a burden to carry had a significantly higher score on all scales ( $p < 0.001$ ) than the group who still worked on the labor ward, whereas the group of participants who had left the labor ward due to other reasons (e.g. promotion) had a significantly lower score on all scales ( $p < 0.05$ ). Both obstetricians and midwives had a significantly higher score in the scales on sleep disorders and depressive symptoms in the immediate aftermath of the event compared with their scores in the four weeks immediately preceding the survey. Midwives had a significantly higher score on three of six scales in the immediate aftermath of traumatic childbirth compared with the four weeks immediately preceding the survey, whereas obstetricians had a significantly higher score on two scales, but a significantly lower score on three scales.

***Interpretation and discussion:*** Compared to a Danish national survey among 3,517 employees (aged 20-60 years) from 2004-2005 (National Research Centre for the Working Environment, 2011), this study shows similar COPSOQII scores in the four weeks immediately preceding the survey for both midwives and obstetricians. Further, midwives had a significantly higher score than obstetricians on all COPSOQII scales except stress. This is consistent with an earlier Danish study on burnout among employees where midwives had higher levels of burnout than hospital doctors (Borritz et al., 2006). However, this should be interpreted with caution: Although statistically significant, the guideline for calculating mean scores and distributions (National Research Centre for the Working Environment, 2006a) states that score differences less than five are not to be considered clinically relevant.

Some of the possible differences between midwives and obstetricians are discussed in the paper. It has been argued that the greater a professional's empathetic identification becomes with the patient, the greater is their risk of experiencing secondary traumatic stress (Thomas and Wilson, 2004, Leinweber and Rowe, 2010). Midwives consider their relationship with pregnant women to be "the very essence of midwifery care" (Leinweber and Rowe, 2010, p 77). Given the nature of midwives' work (staying with the woman in labor for many hours), they are more likely to develop a more empathetic relationship with laboring women than obstetricians who are often involved for only a short time. The sub-group analyses on female respondents and on obstetricians are also discussed. Women tend to report significantly more distress after adverse events than men do (Seys et al., 2013b), which might explain the possible confounding effect of gender

in this study. Considering whether women in fact *do experience a greater impact* of traumatic childbirth could be an important reflection in the aftermath of such events.

### **5.1.1 Theoretical and interpretative integration**

Although it was not included in the manuscript for study I, I would like to unfold a perspective encompassing integration of theory and of interpretation (see 3.3) using Blumer's symbolic interactionism (see 3.1.1). This form of integration may qualify the understanding of the findings and connect this study to the overall framework of the project.

As described in 3.1, Blumer has framed three premises for symbolic interactionism: (1) human beings act toward things on the basis of the meanings that the things have for them; (2) the meaning of such things is derived from, or arises out of, the social interaction that one has with one's fellows; and (3) these meanings are handled in, and modified through, an interpretative process used by the person in dealing with the things he encounters (Blumer, 1969, p. 2-4). Could these premises qualify the interpretation of questionnaire data? From this perspective, the respondents in our survey act toward things on the basis of the meanings that the things have for them and their responses to each item will depend on their understanding or meaning making of the item and the subject. The nature of any object consists of the meaning that it has for the person for whom it is an object. This meaning sets the way in which the person sees the object, prepares to act toward it and talks about it (Blumer, 1969) (or in this case; replies in the questionnaire). My argument is that this process happens as much when responding in a survey as it does during an interview with another person, which I will unfold in the following.

First of all, Blumer states that a human being can be an object of his own action. This means that a respondent can recognize himself as a competent doctor handling all traumatic incidents very well when reading the questionnaire and he will respond accordingly. In this sense he is an object to himself, and he acts towards himself and guides himself in his actions toward others on the basis of the kind of object he is to himself. The self-object emerges from the process of social interaction in which other people are defining a person to himself. This interaction is social, a form of communication with the person addressing himself as a person and responding thereto (Blumer, 1969, p. 12-13).

Secondly, an object may have a different meaning for different individuals, but common objects may emerge out of processes of mutual indications, so that objects may have the same meaning for a given set of people and are seen in the same manner by them. Human group life is a process in which objects are being created, affirmed, transformed, and cast aside (Blumer, 1969, p. 12-13). Following this, it could be argued that the mutual creation and understanding of an abstract object, such as traumatic childbirth, may influence the inclination to respond according to the mutual perception in the group, either as an obstetrician or as a midwife. In this way, obstetricians may demonstrate less of an impact in the aftermath of traumatic childbirth because they identify professionally with the image of the doctor who copes well with severe illness and trauma (Wu et al., 2003, Aase et al., 2008, Wu, 2000). This could explain the significantly *lower* score on burnout in the aftermath of the event than in the past four weeks (see Study I; Figure 1).

Conversely, midwives might report to suffer more in the aftermath of traumatic childbirth because they identify with the image of being associated with normal birth (Leinweber and Rowe, 2010, Carolan and Hodnett, 2007, Rice and Warland, 2013), and they may allow themselves to be affected when failing to achieve this. This interpretation only addresses the differences between midwives and obstetricians, but it could be applied to the differences between men and women as well. Not as a singular explanatory model, but as a theoretical perspective.

Finally, although there is no *social* interaction with other individuals when responding to a questionnaire, there is always a social context embedded in the interpretations or the meanings for the individual. We had provided a free-space writing box at the end of the questionnaire, and we received 371 comments, adding up to 37 pages. There was a colossal diversity in the nature of these comments, but in this context I would like to highlight those regarding the meta-level of the origin of the questionnaire or the study itself. Evidently, some of our respondents were researchers themselves and used the comment box to suggest how the study could have been designed instead, e.g. which psychometric tests would have been useful in the questionnaire or encouragement to follow up with the qualitative study. Others raised concern about the anonymity of their responses, given the small society of obstetrics and midwifery in Denmark, and speculated whether this would have affected the responses of others. Some were concerned about what they assumed would be our intentions to demonstrate associations or even causality, especially between the items on faith and beliefs and the traumatic childbirths. And finally, numerous comments were commending the study, welcoming the initiative, and expressing gratitude that

someone was recognising this part of their profession. All these comments indicate that the respondents were aware that there is a recipient of their responses, whether it is a midwife, a team of researchers or the audience of the dissemination of the results, and consequently the responders interacted with the questionnaire throughout the responding process.

### **5.1.2 Connecting with a research paradigm**

As described in 3.1.1, connecting with the underlying philosophical assumptions behind my research questions has served as a navigator in not only designing the study and generating the empirical data, but also during the process of analysis and interpretation. Due to the limitations of a journal article, this has not been unfolded in the manuscript of study I, but it I would like to briefly touch upon it here.

The epistemological perspective of the positivistic paradigm would be: How can we get as close as possible to the truth about the psychosocial health and wellbeing of the HCPs in the aftermath of the traumatic childbirth? Which confounders and biases may affect our results, and how can we either adjust for them or at least take them into account in our interpretation and discussion of the results? This is addressed in the manuscript, both in the choice of analytical methods (e.g. the sub-analyses) and in the discussion, addressing selection and recall bias.

Conversely, the epistemological perspective of the constructionist paradigm would be: How can we comprehend the context of the results of the survey, if we understand the responses as situated, constructed reports, not representations of facts or “true” experiences? One approach to this could be the contextualisation above (5.1.1) which demonstrates the social construct of our mutual reality and the instability and changeability of the phenomena to be investigated. This is of course not an entirely traditional approach to questionnaire research, but as I have argued above, responding in a questionnaire may have similar, though not identical, interactional implications as an interview study.

Finally, the pragmatic stance on this would be: Does it make a difference on a practical level? Whichever way we interpret these results, we may end up with the same overall conclusion: women and midwives *report* higher scores in the aftermath of a traumatic childbirth than do men and obstetricians, respectively. We could ask whether the women and midwives are in fact more

affected by the events<sup>4</sup>, from an objective, positivistic position. Or we could ask whether the constructionist perspective on the different processes of mutual indications allows or legitimises certain similar meanings for a given set of people, which will influence the inclination to respond according to this mutual perception in the group. But this may not be the most significant argument to discuss or settle. From a pragmatic perspective, the implications of these findings are that an awareness of this difference is important when handling the aftermath of these events and when caring for the health and wellbeing of obstetric and midwifery personnel. From this perspective, a ‘one size fits all’ debriefing after a traumatic event may be futile, which I will return to in 6.2.2.

## 5.2 Study II

### *Blame and Guilt - A Mixed Methods Study of Obstetricians’ and Midwives’ Experiences and Existential Considerations after Involvement in Traumatic Childbirth*

**Study aim:** The second study described the numbers and proportions of obstetricians and midwives involved in traumatic childbirth and explored their experiences with guilt, blame, shame and existential concerns. In the pilot study we found that midwives were concerned with matters such as guilt, blame and shame, which debriefing or support systems would not normally cover (Schröder, 2011), and this study aimed at exploring this further, using both quantitative and qualitative methods.

**Materials and methods:** The study population is described in 4.1.1 and 4.2.1. In this study we performed an integration of analysis where the categories from the analysis of the interview study were compared with the questionnaire to find corresponding items that addressed the same issues. Firstly, we analysed the quantitative data using descriptive statistical methods. Secondly, the four-step framework analysis described in 4.2.3 was chosen to analyse the qualitative data, comprising four stages: *familiarization* with the data, *thematic analysis*, *indexing* and *charting* (Green and Thorogood, 2009a). Thirdly, the aim of the study, to explore obstetricians’ and midwives’ experiences with blame, shame, guilt and their existential concerns with respect to their involvement in traumatic childbirth, served as the framework for a deductive process. The categories were compared with the questionnaire to find corresponding items that addressed the same

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<sup>4</sup> Such causal association cannot be established in a cross-sectional survey design, so this is purely a speculative argument demonstrating the possible interpretations of different paradigmatic positions.

issues (see figure 2, 3.1.2). This cyclical process was repeated several times, closely guided by the aim of the study to investigate if themes from the interview data could be represented by the questionnaire data and how results from the quantitative analysis could be elaborated, enhanced or illustrated by the qualitative data. All codes and categories were discussed with my main supervisor throughout the process. The table below (Study II; Table 3) shows how the final categories were formed.

Category no.	Categories from the qualitative data	Categories formed from the mixed methods analysis	Corresponding issues addressed in the survey
1.	Worrying about the patient and about being blamed	The patient	Item 7, 13
2.	Worry about reaction from peers	Clinical peers	Item 5, 8, 10
3.	Worry about an official complaint	Official complaints	Item 9
4.	Feeling guilty	Guilt	Item 3, 4
5.	Existential considerations	Existential considerations	Item 1, 2, 6, 11, 12

*Study II; Table 3. Categories formed during the comparative proces of mixed methods analyses*

**Results:** In this mixed methods study of Danish obstetricians' and midwives' experiences of traumatic childbirth, we found: i) fear of being blamed by either the patient, clinical peers or through official complaints was of considerable concern to obstetricians and midwives, although few had actual experiences of such blaming; ii) feelings of guilt were reported by 49% of the respondents who had been involved in a traumatic childbirth and in the interview study this was described as a psychological burden, even in cases where no blame was attached and iii) the traumatic childbirth initiated existential considerations with respect to the meaning of life (50%) or being subjected to personal developmental opportunities (40%). Furthermore, 65% percent felt that they had become a better midwife or doctor due to the traumatic incident. These results were supported by the qualitative findings. The vast majority (76%) did not consider leaving their profession. However, this consideration was present at some stage among many interviewees due to concerns about the consequences for their own health and wellbeing if they were to become involved in yet another traumatic childbirth.

**Interpretation and discussion:** The findings of this study suggest that although few obstetricians and midwives had had actual experiences of being blamed by patients, peers or official authori-

ties, many feared or worried about blaming in the aftermath of a traumatic childbirth. Analysis of the distressful accounts of being blamed by patients or peers provided an understanding of how devastating such blaming can be and why it is feared by HCPs. The fear of being blamed should be viewed in the context of the vast majority confirming that they were troubled by memories of what happened to the patient for a long time after the event. This indicates that obstetricians and midwives exhibit a high level of genuine care for the long term outcome for their patients, regardless of any blame being placed. In support of this finding is the literature advocating a blame-free culture in healthcare services (Woodward et al., 2009, Wu and Steckelberg, 2012, Wu et al., 2003). We found a quantitative discrepancy between fear and actuality of being blamed or judged, which may be explained qualitatively by the obstetricians' and midwives' high regard of their own capabilities or lack of acceptance of their fallibilities. Furthermore, feelings of guilt, even after official exoneration, indicate that the harshest judges after adverse events may be the HCPs themselves. The obstetricians and midwives in our study were struggling with guilt and self-blame, which was a consistent finding in both the survey and the interview study. This inner struggle with issues of guilt and self-blame has been described by Scott et al (Scott et al., 2009), and in a number of other studies (Wu and Steckelberg, 2012, Seys et al., 2013a, Seys et al., 2013b, Sirriyeh et al., 2010, Beck et al., 2015). However, how to cope or live with these tormented feelings of guilt was associated with some degree of uncertainty or even despair in the aftermath of the traumatic event.

Consistent with this, our findings suggest that being involved in a traumatic childbirth initiated various existential considerations. For instance, it had given rise to personal development opportunities of an emotional and/or spiritual character to many of the respondents, for some by achieving a more humble and profound understanding of both professional roles and of life as a whole. This could be viewed as a positive consequence leading to growth and possibility—but primarily it indicates that being involved in a traumatic childbirth has an impact on the HCPs at a deeply personal level. A central finding of existential concern in other qualitative studies is the perspective of considering one's future career and whether or not to move on to a different institution or a different profession (Beck and Gable, 2012, Beck et al., 2015, Scott et al., 2009). Our interview study confirms this as a central issue to some of the participants. However, our survey showed that leaving their profession was *not at all* considered by the majority (76%), and only considered *to a great extent* by 4%.

Finally, having become a better obstetrician or midwife through the experience of the traumatic childbirth was a predominant finding in this study. This could either be interpreted as an indication of the respondents' disposition to benefit finding and posttraumatic growth (Tedeschi and Calhoun, 2004, Helgeson et al., 2006)—that something good must have emerged from this traumatic experience—or as an indication of HCPs in fact improving their skills and competences through such traumatic learning experiences. The interpretation of adverse events inevitably leading to a higher educational level of HCPs is an interesting, albeit controversial, perspective in a modern patient safety culture.

### 5.2.1 Reflections on analytical integration

In this study, we have attempted to do an integration of analysis where the results of each dataset has been used in a new combined analysis, and I would like to highlight some of the reflections that emerged during this process.

Firstly, dissemination through a standard scientific manuscript effectively reduces some depth in both the analysis and interpretation of the material. This is a challenge described in the mixed-methods literature (Creswell et al., 2004, Creswell and Plano Clark, 2011c, Giddings, 2006). A comprehensive analysis drawing on relevant existential psychological theories could have added strength to the analysis, but it has not been possible to unfold in this manuscript<sup>5</sup>. The same applies to the quantitative data where more sophisticated analyses could have been conducted. Descriptive research is typically depicted as being on the lowest rung of the quantitative research design hierarchy, and this view on descriptive analysis as the “crudest form of inquiry” seems to be equivalent in qualitative research (Sandelowski, 2000). Sandelowski advocates that descriptive studies are especially useful in studies where straight descriptions of phenomena are desired, namely the *who*, *what* and *where* of events, which has been the purpose of this study. From this viewpoint, it has been a suitable approach for the study aim. Conversely, it could be argued that the descriptive approach neglects the empirical and theoretical possibilities of contextualization, for instance that data are situated in a particular sociocultural setting in which people may have certain capacities and needs for discoursing on the particular subject (Andersen and Risor, 2014). From this perspective, the empirical data and the analytical potential of the material are not unfolded in this manuscript. This could be seen as the price to pay when compressing two methods into one manuscript, yet we believe that it offers an insight that two separate papers would not.

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<sup>5</sup> Such analysis will be carried out in a future qualitative publication.

Secondly, the integration of analysis was an iterative process, where the categories from the analysis of the interview study were compared with the questionnaire to find corresponding items that addressed the same issues. This method is not normally used nor accepted in quantitative research, where hypothesis, primary and secondary outcomes and analytical methods are predefined. The intention is to avoid that researchers may ‘pick and choose’ analytical strategies and outcomes in order to find significant effect of an intervention (Krølner et al., 2014). However, this approach imposes restrictions on the possibilities of a mixed methods design (Krølner et al., 2014, Giddings, 2006), and in keeping with the constructionist perspective, we allowed a more flexible and explorative approach and picked the items during this comparative process, where also categories from the interview data were discussed and either included or excluded in the final presentation.

A final challenge of attempting integration of dissemination must be addressed. As I have already established this restricted the analyses a descriptive level, which did serve a purpose of providing descriptions of how midwives and obstetricians involved in traumatic childbirth experience guilt, blame, shame and existential concerns. However, I recognize the concern raised by Krølner et al. (2014) about one possible consequence of fitting a mixed methods study into a journal article: the relative weighting of convergent and divergent results may be shifted towards convergence, simply because the inclusion of divergence is too comprehensive for a standard publication.

### **5.2.2 The research process**

Following the first study with the quantitative data and the second study with data from both methods, the third and final study was planned as a qualitative study. However, the aim of the study kept changing as I worked with the analysis of study II. Initially, we had planned to explore existential concerns and considerations among midwives and obstetricians who had been involved in a traumatic childbirth using theories from the existential psychology. But going through the interview data I kept returning to the accounts of feeling guilt. This was a dominant theme, convergent with the questionnaire data showing that 50% agreed to *In the beginning I felt guilty that things turned out the way they did* and 36% agreed to *I will always feel some sort of guilt when thinking about the event*. I did not find the existential psychology suitable or adequate in this context, and my search began for a theoretical perspective that could support further ex-

ploration or enhancement of the phenomenon *guilt*. As described in 4.2.3, the major implication of a constructionist approach to interview data is to treat interview narratives as situated, constructed reports, not representations of facts or “true” experiences (Koro-Ljungberg, 2008). These situated reports, co-constructed through dialogue with me, represented a certain understanding of *guilt* after a traumatic childbirth that did not diverge from my own embedded perception of how and why one would feel guilty after such events. In keeping with a reflexive approach (Malterud, 2001), I continued to attend to this coconstruction, and more questions than answers arose when the framework analysis was conducted. Especially one question kept recurring: How come some of the participants felt guilty when they had done nothing wrong? Some of them explained that even exoneration after an official complaint did not bring them closure and did not relinquish their sense of guilt. Others had difficulties explaining the guilt, like obstetrician 3 in 4.2.2. It seemed that at a cognitive level, they presented why they were *not* guilty, but at an emotional level they either explicitly or implicitly expressed a great sense of guilt over what had happened. Although studies have shown that guilt is a significant feeling in the aftermath of a traumatic event, the findings are purely descriptive (Wu and Steckelberg, 2012, Seys et al., 2013a, Seys et al., 2013b, Sirriyeh et al., 2010, Beck et al., 2015, Scott et al., 2009). I wondered which theoretical grips could improve my investigation of the phenomenon guilt in second victims. In the inductive analysis and interpretation of the empirical data I found that many interviewees struggled with feelings of guilt, uncertainties as to whether they were to blame for the incident and ultimately, difficulties in forgiving themselves. I discussed the prospect of *forgiveness* in this context with my main supervisor, who is a theologian, and I conducted a new, broad literature search, primarily in Scopus and PsycINFO (PsycNET) on the terms forgiveness and self-forgiveness. Through this process the study aim was altered to the final version, which will be presented in the following section.

### 5.3 Study III

#### *Guilt without fault – a qualitative study into the ethics of forgiveness after a traumatic childbirth*

As described above, during the analysis and interpretation of our empirical data for study II, it became apparent to us, that three issues were at stake for the obstetricians and midwives who had been involved in a traumatic childbirth: i) feeling guilty, ii) uncertainties as to whether they were

to blame for the incident and iii) difficulties in forgiving themselves. Inspired by research highlighting philosophical insight as valuable for dealing with psychological issues of guilt (Griswold, 2007), we adopted a moral philosophical perspective on forgiveness to understand these three issues at stake for healthcare professionals involved in adverse events. We thus applied the Norwegian philosopher Espen Gamlund's theory on forgiveness without blame as our theoretical framework. The aim of the study was to demonstrate how theories on forgiveness can contribute to the understanding of the complexities of guilt and forgiveness from the perspective of the midwife or obstetrician after a traumatic childbirth. Our argument was that midwives and obstetricians may experience guilt without being at fault after a traumatic childbirth, and that the acknowledgement of this guilt is a decisive factor in achieving self-forgiveness.

It is widely agreed that forgiveness is governed not only by social norms, but also by moral norms (Griswold, 2007), and philosophical exploration of forgiveness as a moral phenomenon has brought about many different views and is still far from reaching any consensus (Fricke, 2011a). It is a common assumption in moral philosophy that there is nothing to forgive unless the person has deliberately done wrong to another person (Gamlund, 2011, Griswold, 2007, Murphy, 2003). Gamlund refers to this as *'the standard view'*, where blameworthiness or culpability is considered a necessary condition for forgiveness. In cases where the person has done wrong, but has either an excuse or a justification for his action<sup>6</sup>, forgiveness is not the appropriate response. In other words, we can do wrong without deserving blame for it. And when there is no blame, there is nothing to forgive. From this perspective, self-forgiveness may not be an issue for HCPs, because it is presumed they never make mistakes deliberately or intentionally do harm to their patients. However, blame, guilt and self-forgiveness were distinct themes in both our questionnaire and interview data with obstetricians and midwives who had been involved in traumatic childbirth, indicating a shortcoming of *the standard view*.

An *alternative view* is offered by Gamlund, arguing that there is conceptual space for forgiveness in certain cases where a person has an excuse or a justification for his action, and moreover that forgiveness can mean various things in various contexts, contradicting the preservation of a core notion of forgiveness for unexcused or unjustified wrongdoings as presented in the standard

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<sup>6</sup> According to Murphy, a conduct may be excused if the person who engaged in the conduct lacked substantial capacity to conform his conduct to the relevant norms (as in the insanity defense), and a conduct may be justified in cases, where the conduct normally would be wrong, but in the given circumstances and all things considered, it was the right thing to do (as in lawful self-defense) MURPHY, J. G. 2003. *Getting Even: Forgiveness and Its Limits*, New York/Oxford, Oxford University Press.

view. Gamlund argues that in some cases the person has an excuse or a justification for his wrongdoing, but may still seek forgiveness.

In this third study, we presented three cases from the interview data to illustrate this theoretical perspective. During the analytical process of the empirical material, all accounts of traumatic childbirths were condensed into case descriptions and three of them were selected. The criteria for selecting those particular cases were that they represented what we believed to be common dilemmas in obstetric care, based on the entire interview material as well as our own clinical experience.

In the words of Gamlund, these cases represented ‘guilt without fault’, where the person is aware that he is not really at fault but feels guilty nevertheless, and in such cases it is reasonable to suppose that the person feels *as if* he is morally responsible for the event. If these HCPs feel *as if* they have done something wrong, then *There is simply no consolation for them to be found in the thought that what they did was not really their fault* (Gamlund, 2011, p. 124). Following this it becomes vital, that second victims experience *acknowledgement* of their guilty feelings, rather than futile attempts to take away their guilt. According to Gamlund—and well supported in our empirical data—the person will always entertain the thought that he could have done something differently and changed the outcome, regardless of being told that he did nothing wrong. Failing to recognise and acknowledge guilt or guilty feelings precludes self-forgiveness, which could have a negative impact on the recovery of the second victim: *A failure to forgive oneself, when self-forgiveness is due, may lead to destruction of one’s capacity for agency, and even to self-annihilation* (Griswold, 2007, p. 122), or in Gamlund’s wording: *Self-forgiveness restores their capability to carry on as functioning persons even after causing (...) harm or death to other innocent persons* (Gamlund, 2011, p. 125).

We believe that Gamlund’s perspective on forgiveness could be an interesting and necessary contribution in the context of healthcare systems and second victims. As described in 2.3.2, the current patient safety culture has been promoted in obstetrics and midwifery, where perinatal audits and debriefings are conducted to improve procedures and prevent future incidents. However, these measures occur at an organisational level and may leave the individual HCP with no support following traumatic childbirth (Schrøder, 2010, p. 29-30, 50, Wu and Steckelberg, 2012). In fact, individual guilt has been dismissed because it is perceived to go beyond the scope of healthcare and patient safety.

The role of guilt is beyond the purview of public health: it is highly individualistic, based on personal morality and attempts to influence it at a population level would be misguided and doomed to fail (Woodward et al., 2009, p. 1291).

However, it could be argued that the narrow focus on the organisation could prove to be counter-productive if it leads to a failure to recognise and acknowledge the individual HCP's struggle with guilt on a personal level. Pleading for the recognition of guilt as playing a tremendous role in the aftermath of a traumatic event should not be understood as a step-back towards a blame-culture, a culture we have tried to abandon the past 15 years. Quite contrary, we suggest that embracing guilt and feelings of guilt as an inevitable part of the medical profession would contribute to the learning environment in a just organisation, where HCPs legitimately can express the impact they have experienced in the aftermath of a traumatic event. Learning from our mistakes is vital, and in order to provide safe high-quality healthcare, the health and wellbeing of the HCP is an essential aspect to consider (RCP, 2015, Croskerry et al., 2010). Consequently, the impact of guilt and the need for forgiveness deserves more awareness and attention in midwifery and obstetrics.

In this study, we proposed that developing and improving support systems for second victims is a multi-factorial task, and that the narrow focus on medico-legal and patient safety perspectives should be complemented with moral philosophical perspectives, both within the healthcare systems and in the education of HCPs. Non-judgmental recognition and acknowledgement of guilt and the impact of feeling guilty should be promoted, because neglecting or suppressing the feelings of guilt after a traumatic event obstruct the restorative function of self-forgiveness. The contribution that this paper brings to the research on second victims is thus a supplementary identification of issues at stake for the second victim, which should be considered in the development of adequate support systems for HCPs in the aftermath of a traumatic event (see 6.4.4 and 7.1).

## **6. Discussion**

This chapter is divided into four sections. In 6.1 the main findings of the study are presented. Considerations about the limitations of the paradigm, the methodology and the methods used for this study are presented in 6.2. Interpretation and contextualisation of the results are divided into two sections: In 6.3 the context is the present patient safety culture, and in 6.4, traumatic childbirth from the perspective of the HCP is discussed within an existential psychological framework.

## 6.1 Main findings

The overall purpose of this study was to investigate traumatic childbirth from the perspective of midwives and obstetricians. We conducted a mixed methods study, comprising a national survey among Danish midwives and obstetricians and an interview study. The response rate was 59% (1237/2098) of which 85% stated that they had been involved in a traumatic childbirth. Eight midwives and six obstetricians participated in the interview study.

The main findings were disseminated in three publications. *Study I* showed that profession and present work at the labor ward were associated with psychosocial health and wellbeing both within the most recent four weeks of the survey and in the immediate aftermath of the traumatic birth, whereas age, seniority and time since the traumatic birth were not. Midwives reported higher scores than obstetricians, to a minor extent during the most recent four weeks and to a greater extent immediately following a traumatic childbirth, indicating higher levels of self-reported psychosocial health problems. Sub-group analyses showed that this difference might be gender related. None of the scales were associated with age or seniority in the time after the traumatic birth indicating that both junior and senior staff may experience similar levels of psychosocial health and wellbeing in the aftermath.

In *study II*, we formed five categories during the comparative mixed methods analysis: i) the patient; ii) clinical peers; iii) official complaints; iv) guilt and v) existential considerations. Although blame from patients, peers or official authorities was feared (and sometimes experienced), the inner struggles with guilt and existential considerations were dominant. Feelings of guilt were reported by 36-49%, and 50% agreed that the traumatic childbirth had made them think more about the meaning of life. Furthermore, 65% felt that they had become a better midwife or doctor due to the traumatic incident.

During the analyses of study II, the issue of guilt recurred: Almost half of the respondents who had been involved in a traumatic childbirth agreed that they had felt guilty that things turned out the way they did, and in the interview study this was described as a psychological burden, even in cases where no blame was attached. Philosophical insight has proven to be a useful resource in dealing with psychological issues of guilt, and thus, in *study III*, we used Gamlund's theory on forgiveness without blame to demonstrate how theories on forgiveness can contribute to the understanding of the complexities of guilt and forgiveness from the perspective of the second victim. We showed that midwives and obstetricians may experience guilt without being at fault after

a traumatic childbirth, and that the acknowledgement of this guilt may be a decisive factor in achieving self-forgiveness. Cases, derived from our empirical study, illustrated how guilt—and hence forgiveness—may be appropriate responses, even in situations where the HCPs had a justification or an excuse for their clinical decisions and the course of events. Failing to recognise and acknowledge guilt or guilty feelings precludes self-forgiveness, which could have a negative impact on the recovery of the second victim.

## **6.2 Methodological considerations - limitations of the study**

I feel obliged to start this section by stating that the greatest limitation of all is doing this study in the form of a PhD study. Krølner et al. (2014) states that the formal terms and conditions of conducting a PhD study, including the time frame, are limitations in a mixed methods research processes, although this is rarely discussed in publications. A consequence of this may be that far from all empirical data are used, simply due to lack of time to conduct analyses and integration. This has certainly been the case in this project as well. Much of the empirical data have not been analysed within the remit of the project period, and we will continue this work in postdoctoral research.

According to Maxwell (2005, p. 105), the validity of your study depends on the relationship of your conclusions to reality, and there are no methods that can completely assure that you have captured this. With this in mind, I will proceed with presenting considerations about the limitations of the paradigm, the methodology and the methods used for this study. Strengths and limitations for each separate study are discussed in the manuscripts.

### **6.2.1 Research paradigm**

As described in 3.1.1, pragmatism has often been suggested as a useful position philosophically and methodologically in mixed methods research. This paradigm is not positioned in the forced-choice dichotomy between postpositivism and constructivism—it has been described as an “umbrella” paradigm that contains both. Knowledge is viewed as being both constructed *and* based on the reality of the world we experience and live in. The research question is of primary importance and it moves past the paradigm wars by offering a logical and practical alternative (Johnson and Onwuegbuzie, 2004, Creswell and Plano Clark, 2011a, Creswell and Plano Clark, 2011d, Giddings, 2006). This moderate and common-sense approach to research has appealed to me throughout the process. However, two questions have recurred to me from the literature (Sale

et al., 2002, Johnson and Onwuegbuzie, 2004, Creswell and Plano Clark, 2011e) and from my practical experience during this research process: (1) Is it possible to study the same phenomena from different paradigmatic positions? (2) Does the pragmatic stance pay too much attention to immediate and practical results (applied research) at the expense of basic and fundamental research? Although I have no conclusive answers for these questions, I will address them in the following, from the perspective of my own research project:

The first question was merely a theoretical puzzle at the onset of this project period. As stated in 3.3, the construction of the phenomenon or the research object was based on my experiential knowledge, the pilot study and the literature, and both this conceptual framework and the paradigmatic foundation of the project formed the same frame for the questionnaire and for the interview study. These shared assumptions have been considered at all levels of integration in the research process. However, during the data analysis and interpretation of study I, it became evident that the underlying philosophical assumption behind the overall study was not suitable or even applicable in a purely quantitative study.

Both quantitative and qualitative researchers often appear to study the same phenomena. However, these researchers' definition of what the phenomena are and how they can best be described or known differ. Both paradigms may label phenomena identically, but in keeping with their paradigmatic assumptions, these labels refer to different things. For the quantitative researcher, a label refers to an external referent; to a qualitative researcher, a label refers to a personal interpretation or meaning attached to phenomena (Sale et al., 2002, p. 48).

The different labelling of the phenomena appeared to be more essential and indispensable than I had anticipated, leading to many discussions with and between co-authors (and later on reviewers). On the surface, there seemed to be a mutual understanding of the overall phenomenon of traumatic childbirth from the perspective of the HCP, and it was agreed that the COPSOQII questionnaire was a suitable tool to quantify the psychosocial health and wellbeing of a large study population. But on closer inspection, different perceptions of the phenomenon and how to describe it occurred. Were the COPSOQII-scores representative of the psychosocial health and wellbeing of the respondents? Or were they the respondents' own interpretive views of their psychosocial health and wellbeing? These arguments were never settled, possibly because the phenomena under investigation were viewed fundamentally differently. In keeping with the para-

digmatic assumptions behind the COPSOQII, I realised that integration within this study was not possible. Consequently, the results of study I was reported in a separate paper, according to the scientific standards and criteria of the methods used, and the COPSOQII-scores were seen as representatives of the psychosocial health and wellbeing of the respondents, albeit the potential bias of self-reporting, recollection etc. Study I was nested in the overall PhD project through the theoretical and interpretive integration in 5.1.1, and in 5.1.2 the different paradigmatic stances on the results were addressed.

I was aware of the critique of the pragmatic stance that is raised in the second question. Pragmatism may promote incremental change rather than more fundamental, structural, or revolutionary change in society (Johnson and Onwuegbuzie, 2004). Although the attention to immediate and practical results is inherent within the pragmatic perspective, it is not an exclusive approach eliminating all basic and fundamental research. I consider this study to be basic research into a poorly elucidated phenomenon. In 6.3 and 6.4, I will discuss traumatic childbirth from the perspective of HCPs in a broader context, and in 6.4.4 and 7.1, I will explicate that although I have applied a pragmatic stance, I will not propose any ‘quick-fixes’ in this complex field.

### **6.2.2 Mixed methods research**

As described in chapter 3, the purpose of doing mixed methods research is that neither quantitative nor qualitative methods are sufficient in themselves to capture the trends and details of the situation (Creswell et al., 2004, Creswell and Plano Clark, 2011e). However, this research approach requires certain skills, time and resources (Creswell and Plano Clark, 2011e, Johnson and Onwuegbuzie, 2004), which—as mentioned in 3.1—has been a severe challenge to conduct within the remits of a PhD study. Creswell and Plano Clark (2011e) recommend that researchers first gain experience with both quantitative research and qualitative research separately before undertaking a mixed methods study, or at a minimum are acquainted with both quantitative and qualitative data collection and analysis techniques. Although I was acquainted with both methods, when I started this study, I was far from experienced, and I believe that this condition has been a greater weakness than if I had focused on only one method. Having to learn both methods, which also means following PhD courses in both quantitative and qualitative methods, may possibly be at the price of not learning either method very well. The interdisciplinary research team of supervisors has obviously been invaluable, but it has been a tremendous task to achieve

the necessary skills and competences in both methods *and* in the methodology of mixed methods itself. From this perspective, it could be argued that in this project, the mixed methods design in itself holds a paradox limitation contradictory of the purpose of achieving comprehensiveness and providing strengths *that offset the weaknesses of both quantitative and qualitative research* (Creswell and Plano Clark, 2011e, p. 12).

Another reflection on the mixed methods approach regards the choice of a sequential study design. The pilot study was of immense importance and has constituted a large part of the conceptual framework of this project (see 2.2.2). It was a great advantage that this was carried out as my master thesis, before the commencement of the PhD, because all lessons learned and all reflections emerging from that process had time to mature and served to improve this study.



Figure 1. The sequential study design.

The sequential design seemed ideal up until this point, going from the first box to the next in figure 1. However, in the following sequence of the merged model, I became aware of a discrepancy between the intentions and theories behind the sequential design and the actual usability in a practical setting. The idea to use selected participants from a survey to explore themes in depth is widely used. Creswell and Plano Clark (2011b) suggest to choose a strategy of following up on certain results, for instance the statistically significant results or outliers or extreme cases. I had conducted crude, descriptive analysis of some of the questionnaire data before the interview study, but I soon realised that I had not thought through the actual usage of this knowledge. Was I supposed to ask the participants to explain some of these findings? Ask them how come xx% felt guilty after the event or xx% had become better midwives or doctors due to their experiences from the traumatic childbirth? Or was it just to identify areas of interest? Those areas had already been identified in the design phase of the study, and my interview guide did not change remarkably after the results of the questionnaire were known. In retrospect, the study would not have differed significantly, had we conducted a parallel design instead. The major strength of the sequential design appeared to be the possibility of sampling within the study population.

### 6.2.3 Survey research

Questionnaire research is particularly well-suited to provide information about large populations and individual interviews are used to provide knowledge of individual experiences and reasoning, and the mixing of both methods offers a complementarity or triangulation that bring together the differing strengths and weaknesses of quantitative methods (large sample size, trends, generalization) with those of qualitative methods (small sample, details, in depth) (Creswell and Plano Clark, 2011a, Frederiksen, 2014). We found the survey research style to be the best suited for the purpose of the study. However, both methods are restricted to topics on which the respondents are able and willing to report verbally and to the limitations of self-reported data in terms of establishing causality (Frederiksen, 2014, Brewer and Hunter, 2006, Hansen and Tjornhoj-Thomsen, 2015). To complement this mutual weakness of the two methods, we did consider to include field work as another research style, but because traumatic childbirth are such rare events in the Danish maternity services, chances of encountering such an event seemed extremely slim. We are considering the possibilities of conducting an intervention study after this, which would include experimentation as a research style investigating causal associations between a hypothesized exposure and outcome (see 7.2).

#### *Questionnaire study*

We have described the strengths and limitations of the questionnaire study in the manuscripts of study I and II, but I would like to elaborate briefly here.

It is worth asking whether COPSOQII is an appropriate tool in this context. Other studies have used different scales measuring Secondary Traumatic Stress or diagnostic criteria of PTSD symptoms, depressive symptoms and psychosomatic symptoms. In concordance with the existential perspective on crisis (see 2.2.3 and 6.3.1), we found the COPSOQII-scales more suitable measuring psychosocial health and wellbeing in a broader context than in a particular crisis perspective, such as PTSD and STS. Moreover, this tool had a high degree of internal consistency (Cronbach's alpha varied between 0.75 and 0.93 on all scales, with the exception of somatic stress, for which alpha was 0.64).

It should be kept in mind that the COPSOQII is only validated in the context of *the four weeks immediately preceding the survey*, and that the repetition of this battery *with respect to their psychosocial health and wellbeing in the immediate aftermath of the traumatic childbirth* is not validated. Indeed, this long recall period may be subject to scrutiny: A recall period that is too long

may lead to a failure to recall, and the majority of these events occurred more than three years ago. However, there is no set standard for length of recall period in surveys. In a review of optimal recall periods for patient reported outcomes, it is concluded, that one size does not fit all: a standard recall period is not appropriate for measuring and understanding all phenomena. Different phenomena require different recall periods: The recall period must be tied to the phenomenon of interest and the purpose of the assessment (Stull et al., 2009). For this study, we did not have any knowledge of the optimal recall period, but given the rarity of traumatic childbirths, we were aware that the majority of respondents would have a recall period over three years. In study I, the adjusted analysis showed that *time since the traumatic event* was not associated with any of the COPSQII scales. In study II, we carried out analysis to see if the results differed between the groups (time since the event). Due to very low numbers in some groups, p-values could not be calculated. However, the overall picture is that responses were similar regardless of time since the event.

Stull et al. (2009) states that both context and salience of the recalled phenomena should be considered when deciding the recall period. Context refers to the meaning the event or experience has to the respondents – including its personal and social relevance and its position in the broader life environment. Salience refers to the significance or relevance of an event, experience, symptom, or other phenomenon to the respondent and can influence recall and reporting. This takes us back to the discussion about the variety of the traumatic childbirths (see 2.1) and the results of study II regarding the meaning of the event; some of the events have made a deep impact on the respondents, and they would easily recall many details, whereas other events may have made a minor impact and hence a poor recollection. It could be argued that respondents have ‘under-‘ or ‘over’-reported their psychosocial health and wellbeing symptoms (Stull et al., 2009) due to the long recall period. Between 10 and 20% replied that they did not remember in each of the six COPSQII scales in the aftermath of the traumatic childbirth. This response was not an option in the four weeks immediately preceding the survey.

Another limitation is the cross-sectional design of the study. Since all the information is collected at the same point in time, it is not possible to determine causal associations or relations between traumatic childbirth and COPSQII-scores. For this purpose, a prospective study might have provided a stronger design, collecting information on COPSQII and participant characteristics at baseline and again immediately after the traumatic childbirth. However, given the rarity

of these events, all baseline information on health and wellbeing may be irrelevant when the traumatic childbirth occurs, because it was obtained many years prior to the event.

### *Interview study*

Interviewing one's professional peers has several implications for the research process. First of all, there is the possibility of "conceptual blindness", whereby the insider perspective of the interviewer may govern the dialogue and dominate the process of data analysis and interpretation, which may be a hindrance to novel insights (Coar and Sim, 2006). As shown in the interview excerpts in 4.2.2, I have sought to address this through a reflexive approach to the study and the interviews, where I have positioned myself as a *knowing subject*. I was very conscience of my interactions with the participants, and I noted this in the margin during transcription (see 4.2.2). Furthermore, I have attempted to remain attentive to ideas and interpretations through discussions with my supervisors and peers. Secondly, there is a risk that the participants may feel that the interview is a test of knowledge or competence despite assurances to the contrary (Coar and Sim, 2006). I addressed this by focusing on the *experience* of the participants, rather than the obstetric 'facts' of the event and to pay attention to create a nonjudgmental atmosphere. While I have sought to recognize and take these limitations into account, I have equally appreciated the strengths of interviewing my peers. I found our common knowledge about obstetrics and midwifery to be an advantage, because it allowed the participants to talk freely, to use medical terminology and to address serious events, without the concern of disturbing a layperson. I felt that the mutual understanding between us contributed to the generation of these open-hearted, honest and trustful accounts of experiencing a traumatic childbirth as a midwife or obstetrician. Some participants expressed relief after the interview, because they had verbalized emotions and thoughts about the event that they had never said out loud before.

A limitation to the interview study is the number of interviews. In other contexts 14 interviews could have been sufficient, but admittedly I did not reach a certain point of *saturation*. One reason for this is the inclusion of two different professions with two different roles to play and two different perceptions of childbirth in general. We had estimated to include 16-20 participants, but I had to cease after 14 interviews for pragmatic reasons: I was 36 weeks pregnant myself by then. In retrospect these circumstances would have been another argument for the parallel design, which would have allowed us to start the interview process earlier.

Finally, as mentioned in 5.2.1, it is a limitation that the full potential of the material is not unfolded in this project and that the analysis for study II is of a descriptive character. A comprehensive theoretical analysis, for example drawing on relevant existential psychological theories, would have added substance and theory informed interpretation (and will be included in future work). This thesis allows the opportunity to add broader sociocultural contextualization and a more comprehensive interpretation of the empirical data than has been possible in each of the three manuscripts.

### *Complementarity of the two methods*

Having presented my considerations about the limitations of the paradigm, the methodology and the methods used for this study, I will highlight the strengths. As stated earlier, the combination of both quantitative and qualitative data yield a more complete analysis, and they complement each other (Creswell et al., 2004, Creswell and Plano Clark, 2011e). Hopefully, this complementarity and comprehensiveness has been evident to the reader until now, but I would like to address it specifically in this context as well.

**Study I:** This first study is not using mixed methods at an empirical level, since the questionnaire was designed to address the specific aim of the study. Overall, the possibility of over- or underestimation of the symptoms (here; the COPSOQII-scores) is an inherent weakness in self-reported studies. This weakness is not compensated by the qualitative data, but it is a strength that we have been able to qualify or add nuance through the contextualization of the results in the broad framework of this study. The theoretical and interpretive integration (see 5.1.1) adds a theoretical perspective to this study that a purely quantitative study, grounded in the positivistic research paradigm, would not have.

**Study II:** The complementarity of the methods has been unfolded the most in this study, and we have deliberately chosen to present the study in themes with both quantitative and qualitative data, rather than presenting the two methods separately. The interviews added depth and nuances to the questionnaire results. For example, we found a quantitative discrepancy between fear and actuality of being blamed or judged, which may be explained qualitatively by the obstetricians' and midwives' high regard of their own capabilities or lack of acceptance of their fallibilities. Another example is that the results of the questionnaire data did not seem to differ according to *time since the event*. In the interview study some participants found it difficult to remember all details from the event or the aftermath, whereas others had vivid recollections of even the small-

est details many years ago. These differences did not seem to be influenced by time since the event, but rather the severity of the event or difficulty in talking about what happened (avoidance). This supports the overall picture of minimal influence of the recall period from the questionnaire study. I have already addressed the challenges with convergent and divergent results in 3.3, but I would like to emphasise that we did find a high degree of convergence within these descriptive results. This could possibly be explained by the mutual sociocultural background for both the questionnaire respondents and the interview participants, relating to the same discourses about traumatic childbirth from the perspective of the HCP.

**Study III:** For this study, we did not use any data from the questionnaire study. However, some of the quantitative results did influence the development of the research question, because the large numbers added to my curiosity of the accounts of feeling guilt. It was a dominant theme, but not only for the few: The questionnaire data showed that 50% agreed to *In the beginning I felt guilty that things turned out the way they did* and 36% agreed to *I will always feel some sort of guilt when thinking about the event*. The convergence between the results confirmed that this was an issue of salience for both midwives and obstetricians, and this induced my further investigation into the phenomenon.

#### **6.2.4 Transferability and generalizability**

According to Malterud (2001), the researcher must be prepared to use strategies for: questioning findings and interpretations, instead of taking them for granted; assessing their internal and external validity, instead of judging them obvious or universal; thinking about the effect of context and bias, without believing that knowledge is untouched by the human mind; and displaying and discussing the processes of analysis, instead of believing that manuals grant trustworthiness. I have sought to comply with this throughout this study, and I have attended systematically to the context of knowledge construction, especially to the effect of my own role as a researcher. The transparent and detailed descriptions of the conceptual framework, the design, the generation and analysis of data and the methodological considerations listed in this thesis and in the manuscripts have accounted for this.

One final criterion to address is transferability. The terms transferability, external validity and generalizability roughly cover the same, namely in what contexts the findings of a study can be applied. The aim of research is to produce information that can be shared and applied beyond the

study setting, although no study, irrespective of the method used, can provide findings that are universally transferable (Malterud, 2001).

The questionnaire study includes a large national sample. We do not have any information on non-responders, so we have not been able to carry out a respondent analysis. Although one would always hope for a higher response rate, we have achieved a similar rate as a study of 3517 Danish employees (Pejtersen et al., 2010), and it is considerably higher than response rates previously reported in studies on traumatic childbirth (5-39%) (Beck and Gable, 2012, Beck et al., 2015, Sheen et al., 2015, Ben-Ezra et al., 2014). To our knowledge, this is the only study on traumatic childbirth from the perspective of the healthcare professional in a Danish setting, and it is the largest population compared to international studies. We believe that our results are generalizable to other obstetrical settings, where midwives and obstetricians have similar professional roles and conditions as in Denmark.

We also believe that our results may be transferred to different medical specialities within healthcare where clinical decision making takes place, subject to the reservation stated in 2.2.3: Although in many ways comparable to other healthcare professions and specialities, midwifery differs fundamentally at one crucial point, because the users of their services are generally not patients seeking treatment, but healthy, young women going through a normal process of life (Leinweber and Rowe, 2010, Carolan and Hodnett, 2007, Rice and Warland, 2013). However, I have now presented my results in societies of general practitioners and patient safety key persons with both nursing and medical background and all agree that this is highly relevant for their professions as well.

Considerations of transferability of the qualitative data must entail two important reflections: (1) The sampling of the participants, and (2) the conceptual framework of this specific study, including my role as a researcher. The participants were sampled purposively on the assumption that they had reflected on the event on an existential level and hence were considered to be 'rich on information' (see 4.2.1). The overall study aim and the specific aim of study II (see 2.3) guided the decision of this sampling procedure. The existential perspective could thus be expected to be more dominant in this particular group than in other groups, and this should be kept in mind when considering transferability. The conceptual framework of this study (see 2.2) and my role as a researcher (see 2.2.1 and 4.2.2) have been treated with pertinent transparency.

The findings from a qualitative study are not thought of as facts that are applicable to the population at large, but rather as descriptions, notions, or theories applicable within a specified setting. Dependent on positions and perspectives, different researchers might therefore access different, although equally valid, representations of the situation that is studied. In qualitative research, these different ways of approaching the same subject result in an increased understanding of complex phenomena, not in a failure of reliability (Malterud, 2001, p. 484).

Finally, I would like to note that transferability of results may be an arbitrary criterion in terms of clinical implications, which I will return to in chapter 7.

### **6.3 Interpretation and contextualisation of the results, part I**

As explained in 2.2, the patient safety culture has been a part of the conceptual framework for this study, and in the following, I will discuss the findings of the study in the context of the existing patient safety culture. I have previously mentioned, that far from all events can be easily distinguished in “error” or “non-error”, and a traumatic childbirth within our definition may certainly be an unanticipated adverse event where no error occurred at any point (see 2.2.3). The point of interest for this project has not been whether or not an error occurred, but to investigate the perspective of the HCP involved in the event. And my argument is that this perspective has to be seen in the context of the current safety culture, even in cases where no error occurred.

During the past 10-15 years, a ‘just culture’ has been promoted in healthcare services, rather than the previous ‘blame culture’ (see 3.3), and this approach seems beneficial in terms of stimulating a more open learning environment with emphasis on minimising or even eliminating medical errors. However, the overall findings of this study could initiate a broader discussion of the implications of the present safety culture from the perspective of the HCP. Not as an argument to step back to the ‘blame culture’, but as a contribution to the continuous development of a safe and just culture for both patients and staff in healthcare services.

#### **6.3.1 The myth of a failsafe system**

First of all, the understanding of making a mistake or an error seems to be defined by the current discourse in patient safety programmes. In her PhD thesis, Zinck Pedersen (2013) argues that the current patient safety programme can be said to be dominated by an organizational myth of failsafe systems. Under the headline of systems thinking, organisational learning, and ‘non-blame’, errors are now described as ‘adverse events’ or ‘critical incidents’ and these efforts have been

closely linked to the technical ambitions of the programme. These ambitions involved the introduction of non-sanctioning incident reporting systems, incident analysis tools, and a wide range of safety systems and procedures that are all conceived of from a dominating idea of preventability: The idea that by diminishing variation and increasing standardisation, the risk of error can be eliminated and errors can be prevented. Zinck Pedersen has consulted some classic texts on the safety culture in healthcare, among others Renée Fox, a prominent medical sociologist who in the 1950's wrote about the crucial tensions involved in practicing as a physician, coping with the tensions related to the links between uncertainty, risk, and professional responsibility. She has also drawn on Marianne Paget's characterisation of medical work's inherently fallible nature and her perception of this predicament in the ethos of the HCP:

(...) the moral dimensions of, on the one hand acting in good faith with the possibility that you later realize you were wrong and, on the other, the risk that such 'acts going wrong' will have catastrophic consequences for other people's lives; a moral dimension to medical work which Paget labels 'a complex sorrow' (Zinck Pedersen, 2013, p. 134).

Zinck Pedersen makes a case for a more situation-based and pragmatic stance on patient safety management. She suggests a possible alternative to the current patient safety vocabulary by putting forward three axioms, (1) take point of departure in the clinical situation; (2) be cautious about ideals of risk elimination through system improvements; and (3) preserve the importance of existing practices, habits, and experiences. Further she argues that the vocabulary of the mistake and the problem of incompetence has disappeared from today's safety methodology and discourse, which have weakened conditions for sorting and managing various forms of error, mistake, and incompetence within the professional community.

Although clinicians in general probably do not believe in a failsafe system, they work within a system subtly or explicitly promoting this culture, which may counteract the acceptance of their own fallibility (Schrøder, 2010, p. 37-39). In study II we found that obstetricians and midwives had a high regard of their own capabilities and a low acceptance of their own fallibilities. Also, which could not be included in the results, participants expressed uncertainties of the general managerial acceptance of error<sup>7</sup>. Wears and Wu have expressed that *We live in an age in which*

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<sup>7</sup> This uncertainty was expressed in different ways, here by one participant: *Well, I think it's really difficult to see the management's perspective in to this... whether they see the one purpose or the other [in debriefings]. Is it done to find out where and why the error happened? Or is it to say that... it is okay that errors do happen? I don't know. [...] I think we're supposed to learn from it. [...] And I don't think they approve of errors happening.* Midwife 1

*the only universally acceptable cause of death is decapitation – all else is considered reparable* (Wears and Wu, 2002, p. 345). A qualitative study on maternal death in obstetrics found that the majority of the interviewed midwives and obstetricians (10/14) believed that the general public now had an expectation that childbirth was a jubilant event and to suggest any possible harm to the mother was met with incredulity (Cauldwell et al., 2015). From this perspective, the current patient safety culture may add to the ever increasing pressure on HCPs, and for this reason our healthcare system may benefit from retaining the notion of medical work's inherently fallible nature, and reflect on the possible deceptive illusion of a failsafe system. Not to abandon the ambition of the highest standards for patient safety, but to promote a culture where the congenital humanity and fallibility of our HCPs is acknowledged and embraced.

Finally, it should be accentuated that having become a better obstetrician or midwife through the experience of the traumatic childbirth was a predominant finding in this study, both in the interviews and in the questionnaire. The participants felt that they had improved their skills and competences through the traumatic learning experiences, which could be seen as contradictive of the failsafe system: errors and adverse events serve the purpose of educating our HCPs. The interpretation of adverse events inevitably leading to a higher educational level of HCPs is an interesting, albeit controversial, perspective in a modern patient safety culture.

### **6.3.2 System approach as opposed to person approach**

Although human fallibility may be acknowledged, it is hardly embraced. The idea is that *since* humans have such fallible nature, we have to build *systems* that will compensate for this fallibility and ensure that human faults and errors do not cause harm to the patients. The emphasis on the system rather than on the individual HCP may cause some unintended downfalls, as sympathetic as it may seem to advocate a 'just culture', where the entire system is evaluated rather than the frontline person being accused or blamed. The question is whether in fact this approach is helpful for the HCPs involved in traumatic events? Our empirical data suggests that it is inadequate to work on the improvement of safety systems and procedures, if the HCP feels responsible for the event, which I will return to in 6.4.3. Additionally, one might ask whether the feeling of guilt and responsibility is just a feeling, or whether in fact the individual HCPs are causing the poor outcomes, rather than the systems. In 2.2.3, I presented literature acknowledging that the overwhelming majority of adverse events are not the fault of any one person, but rather the result

of system problems. However, this perception is not undisputed. In obstetrics, a Norwegian study examined 315 compensation claims with neurological sequela or death following alleged birth asphyxia, of which 161 were awarded compensation. Human error was a frequent reason of substandard care, seen as inadequate fetal monitoring (50%), lack of clinical knowledge and skills (14%), noncompliance with clinical guidelines (11%), failure in referral for senior medical help (10%) and error in drug administration (4%). System errors were registered in only 3%, seen as poor organisation of the department, lack of guidelines and time conflicts. The HCP held responsible for substandard care was an obstetrician in 49% and a midwife in 46% (Andreasen et al., 2012). These figures reveal that it may be misleading to merely act in accordance with the system approach, the organisational learning, and the ‘non-blame’ in the aftermath of a traumatic childbirth, because the majority of cases is assessed to be at an individual level and not a systemic level.

It could be argued that in this attempt to protect the frontline person from blame, we may neglect to acknowledge his or her part in the course of events. This may retain the HCP in solitude or even isolation at this point, because there is no room for the feelings of guilt and anguish, which I will return to in 6.4.4<sup>8</sup>. Although the current ‘just culture’ was promoted to increase safety and to relieve the frontline personnel from blame, it may adversely have contributed to the abandonment of the individual HCP, failing to acknowledge the torment of coping with genuine feelings of guilt.

Some of the empirical cases represent ‘guilt without fault’, where the person is aware that he is not really at fault but feels guilty nevertheless, and in such cases it is reasonable to suppose that the person feels *as if* he is morally responsible for the event. If these HCPs feel *as if* they have done something wrong, then *There is simply no consolation for them to be found in the thought that what they did was not really their fault* (Gamlund, 2011, p. 124). Following this it becomes

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<sup>8</sup> We have conducted a qualitative data analysis that has not been compiled into a manuscript as yet and hence not included in this thesis. In this analysis it is a dominant theme to feel isolated or dismissed by peers or management immediately acquitting the participants after the event. This could be with well-intended consoling remarks or comments such as “It wasn’t your fault”, “You couldn’t have foreseen the outcome” or “I would’ve done the same”. One participant talked about the nature of a debriefing: *They started out by saying that this was not about allocating any blame or finding out if anybody had done something wrong. And I know, in theory, that this is the right approach. But on the other hand... I’m probably the type of person who... I’d rather be told if I’ve done something wrong. You know, I can’t really use a debriefing if it’s only about commending me for what I did right, and it’s prohibited to say what I did wrong. And that’s the nature of a debriefing really, I know that. (...) But I need to be told the good **and** the bad in order to move on.* Midwife 2. An example of a debriefing guideline can be seen in Appendix J

vital that second victims experience *acknowledgement* of their guilty feelings, rather than futile attempts to take away their guilt. According to Gamlund—and well supported in our empirical data—the person will always entertain the thought that he could have done something differently and changed the outcome, regardless of being told that he did nothing wrong. Zinck Pedersen (2013) characterises the current safety programme as interested in training HCPs in ‘appropriate’ blame-free attitudes and in approaching errors as systemic. As I have argued above, this approach may not be entirely helpful for the involved HCP, and we should be aware that recognising and acknowledging the guilt that *may* be tormenting the HCP could be more supportive than simply dismissing it.

### 6.3.3 Healthcare *human beings*

The system approach, in the company of guidelines, evidence based medicine and programmes for quality and accreditation in healthcare, may have influenced the perception of human interaction in healthcare. Throughout this thesis I have denoted midwives and obstetricians as healthcare *professionals*. But the connotations attached to this terminology could be somewhat misleading. Irrespective of the high degree of professionalism held by both midwives and obstetricians, all clinical decision making is carried out by human beings (in their roles as professionals), who have to deal with the consequences of these decisions, not only as professionals but also as humans. And although *human* error is acknowledged, it is not necessarily in human nature that we look for the answers. The Institute of Medicine’s report “To Err is Human” is cited in 2.2.3:

*To Err Is Human: Building a Safer Health System.* The title of this report encapsulates its purpose. Human beings, in all lines of work, make errors. Errors can be prevented by designing systems that make it hard for people to do the wrong thing and easy for people to do the right thing (Kohn et al., 2000, p. ix).

The report continues:

Cars are designed so that drivers cannot start them while in reverse because that prevents accidents. Work schedules for pilots are designed so they don't fly too many consecutive hours without rest because alertness and performance are compromised. In health care, building a safer system means designing processes of care to ensure that patients are safe from accidental injury. When agreement has been reached to pursue a course of medical treatment, patients should have the assurance

that it will proceed correctly and safely so they have the best chance possible of achieving the desired outcome (Kohn et al., 2000, p. ix).

Rhetorically it is interesting how designing *processes of care* seems to be equating designing cars or work schedules for pilots, although neither cars nor airplanes seem to have many similarities with patients. Nonetheless, the parallel to the car and airline industry has been used in the patient safety movement (Kapur et al., 2016, Doucette, 2006).

Like an airplane cockpit, a hospital is a highly technical environment where the interaction between man and machine determines outcomes. Many of the principles adopted by the aviation industry are easily applied to the health care setting (Doucette, 2006, p. 50).

This comparison could be seen as a reinforcement of the notion of the healthcare *professional* working within systems comprising both organisational and technical resources, which may be improved by applying some core principles and training from the aviation industry. A “paradox of error” has been identified, in which techniques to avoid mistakes can be perfected, but the human beings who use the techniques cannot (Berlinger, 2005, p. 19). Consequently, humanity appear to be a flawed or defective component of medical decisions and care, and words like compassion, fellow feeling and philanthropy seem to have evaporated in a culture of safety, evidence and professionalism. However, the comparison has also been criticised, because healthcare is a fundamentally different service than aviation (Lyndon, 2006, Kapur et al., 2016), and because patients are not to be compared to airplanes.

Patients are unique living beings with lives, interests, family, and perhaps even souls if you are inclined to believe this. Airplanes are inanimate objects that function based on the laws of engineering and physics, with no humanity or uniqueness (Rissmiller, 2006, p. 2869).

Rissmiller states that a protocol can help remind us of frequent causes of a malfunction, but it will never be all inclusive. Similar to this is Zinck Pedersen’s (2013) axiom about taking point of departure in the clinical situation (see 6.1.1). And although Blumer did not theorise over clinical situations, the interactional approach may offer a valid perspective here as well:

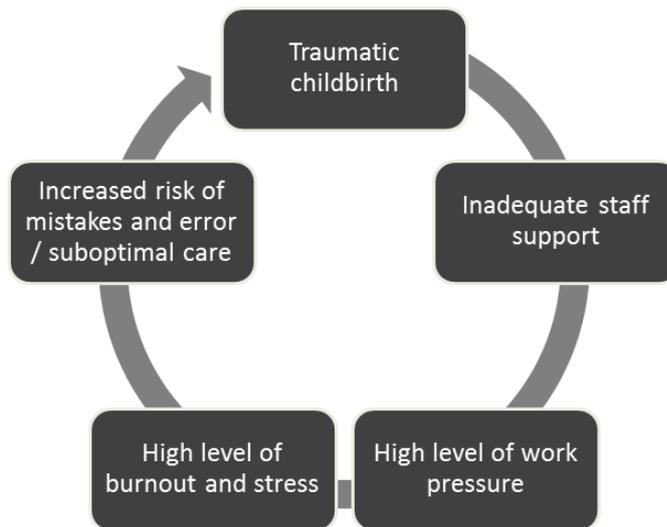
We must recognize that the activity of human beings consists of meeting a flow of situations in which they have to act and that their action is built on the basis of what they note, how they assess and interpret what they note, and what kind of projected lines of action they map out (Blumer, 1969, p. 16).

In essence, it is probably fair to assume, that midwives and obstetricians meet a flow of situations in the delivery room, and that their action is built on what they note, how they assess and interpret what they note, and what kind of projected lines of action they map out. This is how human beings behave, even in their roles as professionals. Evidence based medicine and continuous education and professional training of the HCPs are obviously vital—this is how they learn what to note and which action to take—but the close personal contact and the interaction are unique in every clinical situation, hence the interaction is a condition of possibility for what the HCP note in the situation. Adopting measures from aviation without adapting them for the unique healthcare environment is unwise (Kapur et al., 2016), not only in terms of patient safety but also in terms of the psychosocial health and wellbeing of the HCP, who otherwise has to navigate in systems created for machines and not for humans.

#### **6.3.4 Patient safety and the wellbeing of the HCP**

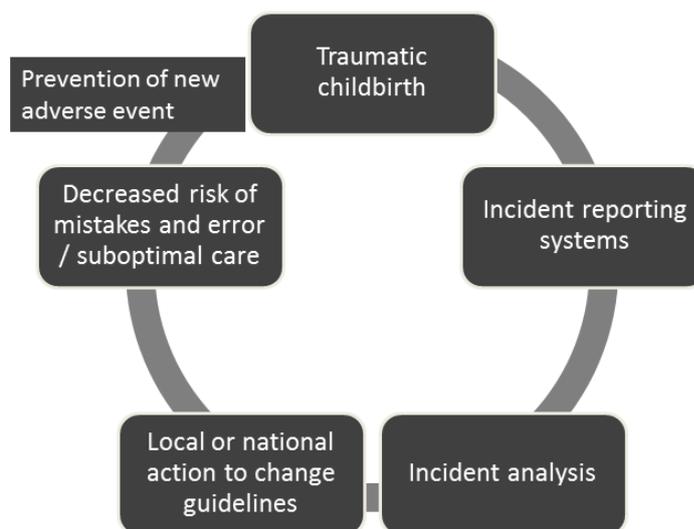
Having discussed the implications of the present safety culture from the perspective of the HCP, I will move on to discussing the physical and emotional state of the HCP as the condition of possibility for the quality and safety of patient care. In other words: How is patient safety and care affected by the wellbeing of the HCPs?

In 2015, the Royal College of Physicians published a report entitled *Work and wellbeing in the NHS: why staff health matters to patient care*, in which the inextricable link between the people who provide care and the patients that they care for is established (RCP, 2015). It is stated that ill health in NHS staff (henceforth HCPs) negatively impacts upon the quality and the safety of patient care, and since the health and wellbeing of HCPs are neglected, it is not only individual members of staff who suffer the consequences, but also the quality and safety of patient care. The NHS organisation as a whole suffer too with huge direct and indirect financial costs to cover from already stretched budgets and during a period of increasing pressure on NHS finances. Doctors are found to have higher rates of mental health problems, and psychological distress caused by involvement in adverse events could be of considerable concern (RCP, 2015). The trajectory outlined by the RCP is crudely illustrated in figure 4, adapted to the context of traumatic childbirth.



*Figure 4. Illustration of the negative impact of poor working conditions on patient safety.*

This figure is contrasting figure 5 below, which crudely illustrates the trajectory as it is perceived in patient safety programmes. In this figure, the sequence of the circle is obstructed, because the measures taken will prevent a new adverse event (the learning organisation).



*Figure 5. Illustration of learning from the traumatic childbirth*

One figure does not preclude the other. Indeed, it seems plausible that they both represent important perspectives in a modern healthcare organisation. According to Pat Croskerry, MD and researcher in patient safety and clinical decision making, however, important aspects of individual performance may have been minimized in the process of finding system level solutions (Croskerry et al., 2010), which means that the system approach has effectively dominated, as I have argued above.

In essence, the emotional state of the HCPs affects the patient safety (Croskerry et al., 2010, Croskerry et al., 2008, Pezaro et al., 2015) and traumatic or adverse events affect the health and wellbeing of the HCPs (RCP, 2015, Pezaro et al., 2015). We have empirical data, which awaits analysis and publication<sup>9</sup>, but the effect of the emotional state of the HCPs on patient safety is not easily measured or demonstrated scientifically. Conversely, the results of study I do not unambiguously support the idea of a possible association between HCPs experiencing a traumatic childbirth and their psychosocial health and wellbeing. In study I, Figure 1, shows that obstetricians and midwives had a significantly higher score in only two out of six scales, namely the scales on sleep disorders and depressive symptoms, in the immediate aftermath of the event compared with their scores in the four weeks immediately preceding the survey. Midwives had a significantly higher score on three of six scales in the immediate aftermath of traumatic childbirth compared with the four weeks immediately preceding the survey, whereas obstetricians had a significantly higher score on two scales, but a significantly lower score on three scales. However, one group stands out in this context: The respondents (n= 64) who no longer worked on the labor ward because they felt that the responsibility was too great a burden to carry. In this group, all were women, 58 were midwives and 6 were doctors. They scored tremendously high on all COPSOQII scales in the aftermath of the traumatic childbirth (burnout; 50, sleep disorders; 50, stress; 41, depressive symptoms; 46, somatic stress; 30, cognitive stress; 27). These scores were statistically significantly higher ( $p < 0.001$ ) than the group who still worked on the labor ward, whereas the group of participants who had left the labor ward due to other reasons (e.g. promotion) (=192) had a significantly lower score on all scales ( $p < 0.05$ ). For this group it is evident, that they reported poor psychosocial health and wellbeing in the aftermath of traumatic childbirth.

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<sup>9</sup> We have data from both the survey and the interviews about how midwives and obstetricians perceived their ability to work and practice safely after the event. (E.g. items such as 'I found it difficult to continue to practice effectively after the event' or 'There were times when I felt less able to work safely and effectively because of what happened').

We have no data on whether or not these high COPSOQII scores influenced patient safety. While acknowledging the immense importance of investigating the association between the mental health of the HCPs and patient safety, I would like to elucidate another aspect of possible equal importance in this context. The trajectory in figure 4 illustrates how high levels of burnout and stress leads to increased risk of mistakes and errors and suboptimal care. Assumingly, these mistakes and errors happen as a consequence of the mental and emotional state of the HCP causing distraction or failure in concentration. Another trajectory following traumatic childbirth is depicted in figure 6.

Dahlen and Caplice (2014) describe how an atmosphere of anxiety and lost confidence in midwives impact on their ability to facilitate normal births, and they argue that midwives' fears can misdirect practice and cause trauma rather than protect from it. Following this, the traumatic experience impacts the clinical decision making of the HCPs.

This touches upon the entire field of 'defensive medicine', where patients are subjected to unnecessary tests and procedures which increases the risk of associated adverse outcomes due to HCPs' fear of litigation, complaints or adverse events (Dahlen and Caplice, 2014, Croskerry et al., 2010, Fuglenes et al., 2009, Jylling, 2003, Symon, 2000). In obstetrics, the rate of operative deliveries (caesarean sections, vacuum extractions and forceps), continues to rise throughout the world. These are associated with significant maternal and neonatal morbidity (Costley and East, 2013). Inducement and augmentation of labour have also increased, but while augmentation can be effective, their inappropriate use can cause harm and unnecessary interventions can negatively affect the childbirth experience and the mother's autonomy (Lavender et al., 2013). It is an ongoing concern to identify reasons for this rise, and to address the use of unnecessary monitoring and intervention during childbirth (Blix, 2013, Eri et al., 2011, Hood et al., 2010). In this context, the role of 'defensive medicine' may play a greater part than previously assumed (or demonstrated). In

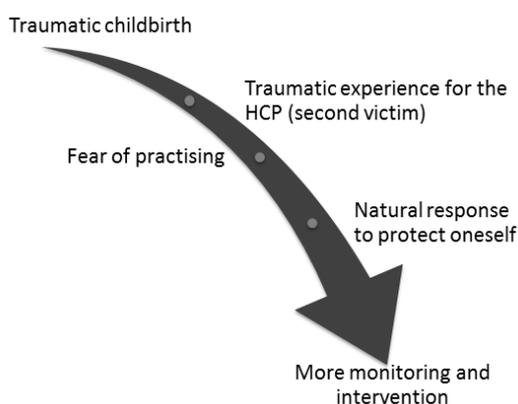


Figure 6. Traumatic childbirth and defensive medicine.

ing concern to identify reasons for this rise, and to address the use of unnecessary monitoring and intervention during childbirth (Blix, 2013, Eri et al., 2011, Hood et al., 2010). In this context, the role of 'defensive medicine' may play a greater part than previously assumed (or demonstrated). In

the light of this study's results, 'defensive medicine' should be considered not only from fear of litigation, as mentioned above, but also from fear of the traumatic experience on a personal or even existential level. When asked about what impact the traumatic birth had had on their lives, some of the participants of the interview study had considered whether they would be capable of going through a similar ordeal in the future. In study II (see result section in the manuscript), two obstetricians were cited: *Should I really put, not so much other patients, but should I really put myself through all this?* (Obstetrician 2). *And how much do I really want to be involved in my career? Is being an obstetrician really that important to me compared to the risk of causing injury to myself?* (Obstetrician 6). It is worth considering that even in the best of systems, with the best of evidence available, healthcare *human beings* do make clinical decisions (marginally?) influenced by their instinct to protect themselves. In an obstetric setting, dealing with such uncontrollable events as childbirths, the best protection may be perceived control through monitoring and intervening, hence contributing to the rise in obstetrical interventions, which is illustrated in figure 6.

### 6.3.5 Summary

In this section, I have contextualised the findings of the study to the current patient safety culture. It seems that there is an interaction working two ways: (1) The safety culture may add to the pressure on the HCPs, because the inherently fallible nature of medicine is neglected and human error is constantly sought eliminated through measures adopted from the aviation or car industry. (2) The physical and emotional state of the HCP impacts upon the quality and the safety of patient care. Ill health in HCPs, such as burnout, stress or depression, causes more mistakes and errors, which negatively impacts upon patient safety. Furthermore, I have discussed another consequence for patient safety, namely the risk of 'defensive medicine', where patients are subjected to unnecessary tests and procedures. Such practice increases the risk of associated adverse outcomes due to HCPs' fear of litigation, complaints or of being thrown into a personal crisis in the aftermath of a traumatic event. In an obstetric setting, I have suggested that this could be seen as a contributor to the rise in obstetrical interventions, in the form of inducement or augmentation of labour or operative deliveries.

## **6.4 Interpretation and contextualisation of the results, part II**

For this final part of the discussion, I will include the existential perspective described in 2.2.3, which has been a part of the conceptual framework of this study. In the previous section, I focused on the cultural and organisational context of traumatic childbirths, and I will now turn to a more isolated perspective on the individual: the midwife and the obstetrician. During my project period I have often come across opinionated statements such as ‘this is worth investigating if you can demonstrate that it is of importance to the patients and the public health’. This has even been explicated in rejected proposals for funding. Apparently, the group of midwives and obstetricians is simply too small to be of interest in its own right, hence the perception that we must use the patients or the users of our services as battering rams to attract attention or funding to this field. Passing no judgement on the possible fallacy of such statements, I shall concentrate nonetheless on the perspective of the midwife and the obstetrician in the following.

### **6.4.1 Traumatic childbirth in an existential crisis perspective condition**

In the pilot study, Yalom’s fundamental conditions of existence (death, freedom, isolation and meaninglessness) and Frankl’s *will to meaning* were used as the theoretical frame for the analysis, and interview participants expressed a high degree of existential considerations (Schrøder, 2010, p. 63-78). This present study provided the opportunity to investigate these themes quantitatively, and the results of study II confirmed that existential considerations are present in a large group of the general population of midwives and obstetricians. As previously described, we have not analysed the qualitative data within an existential psychological framework (as yet), but as explained in 2.2.3, 4.1.2, 4.2.2 and 4.2.3, the insights gained from generating, analyzing and interpreting the data in the pilot study has formed or even defined the conceptual framework of this study. For this reason I would like to unfold some of the perspectives from the existential psychology in the following discussion, mainly drawing on existential psychologist, Bo Jacobsen.

### **6.4.2 Traumatic childbirth as a fundamental condition**

As described in 2.2.3, the existential understanding is that a crisis is a disruption of the normal course of life. The disruption arises suddenly and with such unusual intensity that life seems to be at stake for as long as the crisis lasts. The experience of living through the crisis may involve the overcoming of danger, experiences of relief and, on a deeper level, cleansing, the elimination

of old issues of conflict and the attainment of a new and higher level of stabilisation (Jacobsen, 2006). In the pilot study, I found that this understanding seemed in accordance with the midwives' narratives of how the traumatic birth had influenced their professional and/or personal lives. Regardless of whether they had experienced a minor or major crisis, the event had brought them certain changes, revelations or reflections, for better or for worse (Schrøder, 2010, p. 67-70).

From an existential perspective, there should be scope for crises in both family life and the work place. If one can only cope with the smooth and the well-controlled, then there is no room left for the human being. Crises should not be ignored or relegated to special spheres of life. They belong among us (Jacobsen, 2006, p. 39).

Jacobsen argues against the psychiatric and cognitive-psychological practice, where the effects of a trauma are diagnosed as PTSD and the condition is generally seen as a negative phenomenon that needs to be repaired. This conceptual understanding seems to underpin studies investigating the impact of perinatal deaths with outcome measures such as STS or PTSD (Beck and Gable, 2012, Beck et al., 2015, Ben-Ezra et al., 2014, Sheen et al., 2015). Embracing crisis as a part of human life bears resemblance to embracing human fallibility, as proposed in 6.4.1. From the perspective of the HCP, it may be futile or even disturbing to respond to their reaction (and possible crisis) in the aftermath of a traumatic childbirth by investigating how it could have been avoided in the first place. Critique has been raised that we have been more concerned with the avoidance of traumatic events, rather than the management of their aftermath (Gazoni et al., 2008), and numerous studies have pointed out the poor supportive systems for second victims and have proposed interventions and organisational strategies to improve this deficiency (Rice and Warland, 2013, Beck, 2011, Beck, 2013, Halperin et al., 2011, Goldbort et al., 2011, Ben-Ezra et al., 2014, Sheen et al., 2015, Cauldwell et al., 2015, Sirriyeh et al., 2010, Seys et al., 2013a, Seys et al., 2013b).

As described in 5.3 (study III), one approach to a second victim experiencing a crisis in the aftermath of the event is to attempt to take away his or her guilt. However, if the crisis emanates from the guilt feeling, it has to be recognised rather than dismissed. As already stated, if these HCPs feel *as if* they have done something wrong, then *There is simply no consolation for them to be found in the thought that what they did was not really their fault* (Gamlund, 2011, p. 124). Rather than trying to take away or diminish the guilt and repairing the crisis, we should acknowledge and embrace it. From an existential perspective, the crisis itself is an inescapable

condition in human existence, it belongs among us, and it may bring new insight and possibilities.

When someone is thrown into a crisis, it is as if a crack opens in ground that was previously covered with sand, in much the same way as cracks appear in the earth during an earthquake. The crack allows the individual to look deep into something very significant. In this way, the crisis becomes existential and can become a personal turning point, a new life possibility. (...) The fundamental conditions of existence suddenly reveal themselves in all their nakedness. The covers are torn away from everyday life (Jacobsen, 2006, p. 46).

A crisis is an opportunity to find one's position in relation to Yalom's four fundamental conditions of existence (death, freedom, isolation and meaninglessness), and we may find ourselves asking questions such as *what is the meaning of life?*, *what is the meaning of my life?*, *why I am here?* and *what is the point of it all?* (Yalom, 1980/1998, Jacobsen, 2006).

Our empirical data seems to resonate with this perspective. In study II, we found that 40% strongly agreed or agreed with *The event gave rise to personal development opportunities of an emotional and/or spiritual character*, and that 50% strongly agreed or agreed with *The traumatic event has made me think more about the meaning of life*. This expression of existential impact was also evident in the interviews, although it appeared to be difficult to talk about. As cited in the manuscript, one obstetrician explains that:

I think it's because it's something existential. I don't think that... there will always be a sense of loneliness. Because it's about life and death. [...] We are dealing with something bigger than ourselves. And really speaking, it's also bigger than the sense of unity we might share on the ward. It's a different dimension. I think it's something else. And in those massive existential things that happen in life, whatever it may be [...], I know that we come up short. We just have to realize that we, as human beings, are all alone. On this earth, right? *Obstetrician 2*

Difficulties in verbally expressing those "massive existential things" were more common than not. In the pilot study, I found that a certain *implicit mutual understanding* was dominant between midwifery colleagues, when confronted with these events. They expressed that they just *knew* how that person felt, and because they *knew*, they did not have to explicate those feelings. And although the familiarity of this position may be comforting to a certain extent, it did potentially leave the midwife alone with all her thoughts and emotions (Schröder, 2010, p. 73-74). Nonetheless, in the interview situation of both the pilot and the present study, all participants

appeared to present a clarified narrative about the consequences of this experience or crisis, they had been through. The influence of the traumatic childbirth on both their professional and personal lives was acknowledged to be everything from insignificant or marginal to be shattering and life-changing, and in this small population, the experienced impact seemed to be proportional with the severity of the birth injury and the perception of being at fault (see 6.2.3).

In our questionnaire, 85% of the respondents had been involved in a traumatic childbirth, and we should probably consider traumatic childbirths as a fundamental condition in midwifery and obstetrics. Following the existential understanding presented above, it could be said that a traumatic childbirth is a disruption of the normal course of life in a labour ward. There should be scope for these events, because if one can only cope with the smooth and the well-controlled, then there is no room left for the human being. This is obviously an approach, or an explication, that seems in opposition to the dominating idea of preventability in the patient safety culture. However, perceiving traumatic childbirths as a fundamental condition does not exclude attention to safety and prevention of error, but it accentuates the natural unpredictability of childbirths and it gives voice to the midwife and obstetrician who go to work with no intention to cause harm.

#### **6.4.3 An individual approach**

It is fair to say, even after this study, that the phenomenon of traumatic childbirth from the perspective of the HCP cannot be subjected to uniform interpretations and hence not recommendations. The individual experience of a particular childbirth cannot be directly transferred to someone else in another situation, although certain themes may be generalizable (see 6.2.4). It seems illusive to capture the broad diversity of each variable within a research study. These varieties are great limitations, not only in a research context but also when translating research into practice. In healthcare, we seem to build our knowledge on a biomedical model of care and our approach to practice follows the approach in a positivistic research paradigm. Based on scientific knowledge, we develop theories and classification systems to grasp the organic order of the human body in a logical, unambiguous language (Blaaka and Schauer Eri, 2008). It could be said, that when we become aware of a problem or disorder, we work in terms of establishing symptoms, diagnosis and prognosis for relief or cure. This methodology could be applied to the phenomenon of traumatic childbirth from the perspective of the healthcare professional, and previous studies seem to have been conducted within this conceptual framework. Based on the pilot

study and concepts from the existential perspective, I will argue why this may be an inappropriate or deficient approach.

As described in 2.2.3, the existential psychological perspective—with its roots in existential philosophy—approaches each human being as a unique individual, eluding the more stereotypical classifications found in traditional psychiatric and cognitive-psychological practice (Jacobsen, 2009, Yalom, 1980/1998). The expression of feelings may take many forms. In the existential-humanistic traditions, there are no hard and fast rules for this sort of thing; each person has his or her distinctive way of sensing, living and expressing feelings. This is somewhat in opposition to the catharsis approach, the psychodynamic approach and the traditional psychiatric approach (Jacobsen, 2006).

Consequently, it poses an alternative to the identification of or division into stages or phases that is seen in some of these perspectives on crisis (Jacobsen, 2006, Jacobsen, 2009). An example of such identification of stages is seen in qualitative study by Scott et al. (2009) *The natural history of recovery for the healthcare provider “second victim” after adverse patient events*, where six stages are identified delineating the natural history of the second victim phenomenon. These are (1) chaos and accident response, (2) intrusive reflections, (3) restoring personal integrity, (4) enduring the inquisition, (5) obtaining emotional first aid and (6) moving on. These stages were developed on the basis of 31 HCPs’ experiences with adverse events. Much of the second victims literature refers to this study and those stages, and it is mentioned in the recommendations for care for second victims by the Danish Society for Patient Safety (Rosenkvist et al., 2015). Other stages have been described in a review article on care of the clinician after an adverse event (Pratt and Jachna, 2015).

According to Jacobsen, theories of phases or stages mainly serve the purpose of helping the therapist, the professional or the helper and not the person experiencing the crisis. Jacobsen even claims that such approach will shift the focus from the individual to the phases or boxes, which may leave the suffering person feeling degraded or uncomfortable with the labelling (Jacobsen, 2009, p. 110-111). In the pilot study, one midwife ended up on sick leave following her involvement in several traumatic childbirths. At an appraisal interview with her manager, the midwife states that she is not ready to return to the labour ward. The manager brings a chart, points to a box on the paper and says: *You seem to be somewhere around this stage. Anxiety*. The midwife was astonished and felt labelled, hurt and misunderstood (Schrøder, 2010, p. 64). In the

existential perspective, proposed by Jacobsen, this manager uses a crisis theory model or chart to understand and even help the midwife, but she fails to do either, because her focus has shifted away from the unique situation of this particular individual who is left feeling degraded and labelled.

The same could be said for the ‘one size fits all’ debriefings that I mentioned briefly in 5.1.2. Appendix J is an example of a guideline to defusing and debriefing after a traumatic event in an obstetrical department in Denmark. Such guidelines may not be found in every department, but this example seems to be in accordance with the accounts of the interview participants, who had participated in a debriefing within the past years. In the pilot study, I found that debriefings were experienced to be important from a professional perspective, especially the opportunity to be acknowledged and supported in one’s clinical decision making by management or senior colleagues was central. However, the debriefing set-up was not seen as a place to relieve emotional or psychological distress, or at least only to a certain extent (Schrøder, 2010, p. 50, 60). According to interview participants, a typical obstetrical debriefing involves between 5 and 12 people: the midwife, possibly a student midwife, one or two obstetricians (junior and senior), an auxiliary nurse, a charge midwife (or head), a chief (or head) obstetrician, and possibly a paediatrician, an anaesthesiologist and one or two staff members from the OR. The particular team may not have been assisting each other previously, and they may not do so in the future. This potential ‘room full of strangers’ may not be seen as a place to relieve emotional or psychological distress for the individual. While support from peers may be crucial in the aftermath of a traumatic event, this support may not be experienced in the context of formal debriefings.

Rather than looking for symptoms, diagnosis and treatment of this phenomena, I have now proposed a different perspective on crisis and on the exceptionality of the individual. As stated in 2.2.3, I consider existential psychology to be one of many theoretical possibilities for research in this field, and I can never be sure that this theory is the most appropriate. However, Brewer and Hunter (2006, p. 33) have argued that applications of a theory developed in one subfield to another may provoke new questions, provide useful insights, and suggest new ways of looking at phenomena, and this encapsulates the use of existential psychological theory in this context: It has brought an interpretation of the empirical data and hence our understanding of the perspective of the HCP, which we would not find in the present system approach to handling the aftermath of a traumatic event. I will reflect upon the implications of this insight in chapter 7.

#### 6.4.4 Forgiveness as an existential matter

In 5.2.2 and 5.2.3, I have described how study III developed from the initial plan of exploring existential concerns and considerations using theories from the existential psychology, to exploring the complexities of guilt and forgiveness from the perspective of the midwife or obstetrician after a traumatic childbirth. The practice of forgiving has long been an object of interest for theologians. Christians ask God to forgive their sins and to promise to forgive those who have wronged them in return. To take a forgiving attitude is central in other religions too. Despite these religious overtones, forgiveness has been an object of increasingly intensive study from psychologists, psychotherapists and philosophers (Fricke, 2011b). Griswold argues that forgiveness can be seen as a secular virtue, meaning that it is not dependent on any notion of the divine. Forgiveness is a concept that comes with conditions attached and it is governed by norms. Forgiveness has not been given or received, simply because it has been said out loud (Griswold, 2007).

What is forgiveness? A moment's reflection reveals that forgiveness is a surprisingly complex and elusive notion. (...) Forgiveness is not simply a matter of finding a therapeutic way to "deal with" injury, pain, or anger – even though it does *somehow* involve overcoming the anger one feels in response to the injury. If it were just a name for a *modus vivendi* that rendered us insensible to the wrongs that inevitably visit human life, then hypnosis or amnesia or taking a pill might count as forgiveness (Griswold, 2007, p. xiv).

In study III, we concluded that *non-judgemental recognition and acknowledgement of guilt and the impact of feeling guilty should be promoted, because neglecting or suppressing the feelings of guilt after a traumatic event obstruct the restorative function of self-forgiveness*. But we did not unfold the complexities of forgiveness, neither from a philosophical nor a psychological perspective. Such discussion is without the remit of this thesis, but I would like to emphasise that proposing an increased awareness of issues of guilt and the restorative function of self-forgiveness is not a pragmatic or *quick-fix* solution to handling the aftermath of a traumatic childbirth. Though it may seem needless to state this, the previously mentioned (6.4.3) tendency to develop theories and classification systems to establish symptoms, diagnosis and prognosis for relief or cure may grasp the simplistic version of this perspective, making *self-forgiveness the new black* in our handling the aftermath of traumatic childbirths.

Self-forgiveness may be described as a solitary act and a difficult and circuitous journey of return to the human community. *The journey is a passage from being stuck in the past, holding*

*onto illusions about who one is, to coming to terms with oneself as a fellow human being, like others, imperfect but no longer alone* (Bauer et al., 1992, p. 160). The illusions about who one is, could be seen as the obstetricians' and midwives' high regard of their own capabilities or lack of acceptance of their fallibilities (see 5.2).

One moves from an attitude of judgment to embracing who one is. This shift in identity grows out of the larger meaning the given incident has for one's life: whereas the initial distress is experienced in the context of a specific occasion or "wrongdoing," at some point there is an awareness that one is in need of forgiveness for merely being human. There is a clarity about oneself and one's place in the world, a sense of connectedness and freedom in the face of the future (Bauer et al., 1992, p. 153).

Wenzel et al. explain that psychologists and philosophers have been careful to distinguish genuine self-forgiveness from pseudo self-forgiveness:

To genuinely forgive oneself, one must firstly acknowledge the wrongdoing and accept responsibility. Where offenders fail to accept responsibility and minimize or excuse the behaviour and its consequences, they engage in pseudo self-forgiveness, essentially "letting themselves off the hook." Under these circumstances, offenders may describe themselves as self-forgiving when, in fact, they do not believe they have done anything wrong. Furthermore, there can be no psychological shift towards a new acceptance of oneself, as one is already accepting of oneself. To be genuine, self-forgiveness cannot be instantaneous; instead, it requires a process of reconciling one's feelings of guilt with a positive sense of self (Wenzel et al., 2012, p. 617).

This may be an important distinction in this context, because the system approach of the patient safety culture could impede the individual HCP's genuine self-forgiveness by neglecting to acknowledge his or her experienced part in the course of events (see 6.3.3). Inadvertently, the sociocultural context may encourage pseudo self-forgiveness, because it seems like we have collectively decided to abandon guilt under the headline of systems thinking, organisational learning, and 'non-blame'. Hence, this lack of acknowledgement of guilt and the futile attempts to remove it (see 6.3.2) may promote suppression of guilty feelings, hampering the restorative function of genuine self-forgiveness.

Finally, the perspective on the journey of self-forgiveness and the process of reconciling one's feelings of guilt with a positive sense of self seem close to an existential psychological understanding of the repair process after a traumatic experience. When a traumatic event occurs, the

individual will usually experience aspects of his or her personality that seriously conflict with his or her fundamental belief in the kind of person he or she is, and what he or she stands for.

These experiences are split off because they cannot be in the same room as the self. Therefore, an important part of the repair process consists in the individual's exploration and confrontation of the beliefs and assumptions he or she actually carries around. Does he or she really believe that all that matters is to be respectable? Or helpful, bright, brave or perfect? (Jacobsen, 2006, p. 50)

In the pilot study, I found that this confrontation was difficult for the midwives. They felt that they had not been helpful, bright or perfect in these situations, and this loss of self-image left them feeling helpless and distressed. This loss was not addressed in any debriefings in the aftermath, and the midwives were essentially left to rebuild their confidence alone (Schröder, 2010, p. 77-78). Rather than facing that her (professional) personality seriously conflicted with his or her fundamental belief in the kind of midwife she is, she may split off these experiences and fail to engage in the repair process of reconciling her feelings of guilt with a positive sense of self.

#### 6.4.5 Summary

In this final section, I have used an existential perspective to contextualize some of the findings of this study. I have proposed that we should consider traumatic childbirths as a fundamental condition in midwifery and obstetrics. This approach, or explication, seems in opposition to the dominating idea of preventability in the patient safety culture. However, perceiving traumatic childbirths as a fundamental condition does not exclude attention to safety and prevention of error, but it accentuates the natural unpredictability of childbirths and it gives voice to the midwife and obstetrician who go to work with no intention to cause harm. I have investigated the perspective of the involved HCP from an individual approach, and I have argued that the usual biomedical methodology of problem solving within the frame of establishing symptoms, diagnosis and prognosis for relief or cure, may be an inappropriate or deficient approach in this context. Previous studies of second victims have proposed theories of phases or stages that the HCP may go through, but according to the existential perspective, such division mainly serve the purpose of helping the therapist, the professional or the helper and not the person experiencing the crisis, who may feel degraded or uncomfortable with such labelling. The expression of feelings may take many forms. In the existential-humanistic traditions, there are no hard and fast rules for this sort of thing; each person has his or her distinctive way of sensing, living and expressing feel-

ings. Furthermore, I have argued that guilt and the need to forgive oneself are both profound and complex feelings, which may require a long, and possibly solitude, process of reconciling one's feelings of guilt with a positive sense of self. Following this, we should be aware that while the 'one size fits all' debriefings may be efficient from an organisational perspective, they may be futile from an individual perspective of personal support. Finally, until we have accumulated more knowledge about this field, we should be cautious in our quest to develop guidelines for handling the aftermath of traumatic childbirths.

## 7. Perspectives

The Danish Society for Patient Safety has investigated how the employees' reactions are best handled in the aftermath of a traumatic incident, and the conclusive report establishes that there is only few scientific studies on the subject, and that no Danish scientific publications were identified, except the work in progress of this PhD project (Rosenkvist et al., 2015, p. 11). We have very little scientific knowledge to support our handling of the aftermath of traumatic or adverse events in healthcare, and in this chapter I will reflect on how this study may contribute to this knowledge.

### 7.1 Implications for clinical practice

The findings from this study could be used to identify four levels of implications for clinical practice, which I will outline in the following:

#### *A call for the individual perspective*

In a time of increased centralisation of healthcare services and with a safety culture focusing on the system approach, the HCP's individual experience of a traumatic childbirth may not attract much attention. This is somewhat contrasting the general promotion of individual care and user involvement in healthcare services. I would suggest that we expand the focus to the individual HCP as well, and that we cautiously consider the implications of a system approach when handling the aftermath of a traumatic event. According to the existential perspective, the expression of feelings may take many forms, and each person has his or her distinctive way of sensing and responding to trauma. This study found that midwives and obstetricians, and women and men, reported significant differences in psychosocial health and wellbeing in the aftermath of a trau-

matic childbirth. Following this, management at Danish labour wards may reflect on questions such as: How do we include the individual perspective in our handling of the aftermath of a traumatic childbirth? Who makes sure that every involved HCP is taken care of from an individual approach beyond working towards avoiding such events in the future? And how should we relate to the possible differences between professions and gender, for instance when the debriefing for female midwives is conducted by a male obstetrician?

### *Awareness of sociocultural influences*

The next thing to consider is our awareness of the significance of present cultural movements. Certain cultures may dominate and influence our general understanding of the phenomenon *traumatic childbirth from the perspective of the HCP*, and in this study I have discussed the influence of the current patient safety culture. The dominating idea of preventability may influence negatively on the HCP's ability to accept his or her own fallibility, which may cause even more guilt or anguish. From a constructionist and interactionist perspective, we act toward things on the basis of the meanings that the things have for us, and this meaning is derived from the social interaction we have with each other (see 5.1). We may inadvertently adopt a certain understanding of how we *should* respond to traumatic childbirths within the sociocultural setting of our professional society. The patient safety movement may have influenced our perception of how we should handle traumatic events, and we should recognise these potential influences, rather than adopting them as universal solutions. We do not have a lot of evidence to build on as yet, and we have to continue to develop this part of our healthcare system, not only for the benefit of our HCPs, but also for the patients. This study has shown that existential considerations played an important role for some of the midwives and obstetricians who had been involved in traumatic childbirths, and this may foster a critical perspective on our current support system. A place to start could be to consider: How well do we accommodate this existential aspect of the medical and midwifery professions? And how is this evident in our handling of traumatic childbirths?

### *The elimination of guilt is a fallacy*

The premises for the promoted just culture in healthcare are that adverse events are not the fault of any one person, but rather the result of system problems. In this culture errors are acknowledged, analysed, and apologized for, and changes are put in place to prevent them from happening again (see 2.2.3). Guilt and blame appear to have been expelled from the vocabulary, at least it seems like we have collectively decided to abandon guilt under the headline of systems thinking, organisational learning, and 'non-blame'. The consequences of this approach may be that

guilt is either neglected or dismissed by everybody else than the person who is haunted by it. This study has shown that guilt was essential in midwives' and obstetricians' experiences with traumatic childbirths, and that many had very few, if any, means to handle this complex and distressing feeling. It seemed that at a cognitive level, they presented why they were *not* guilty, but at an emotional level they either explicitly or implicitly expressed a great sense of guilt over what had happened. Consequently, we must consider whether the well-intended just culture fails the HCPs, because there is no room for feeling guilty within this perspective. In recognition of the central role of guilt, we should consider how to provide adequate support for HCP, regardless of the level of reason for feeling guilty. Genuinely recognising the guilt could be more a supportive approach than trying to dismiss it. I would suggest that we employ the distinction between guilt and fault as proposed in this study to qualify this supportive approach.

### **Early introduction**

The final implication for clinical practice that I would like to highlight is the integration of the above implications in our educational programmes for both midwives and doctors. It has been an ambition of mine as a part of this project to develop suitable lectures, and I have taught medical and midwife students in the Region of Southern Denmark in this subject. Early familiarity with concepts such as the second victim, guilt without fault and the existential aspect of their profession may not only enhance the students' understanding of the field they are about to enter, it may provide them with the essential knowledge of not being alone when they one day have to face the *predicament of irreversibility*<sup>10</sup> after a traumatic or adverse event.

## **7.2 Implications for further research**

When we began the planning of this study in 2011, very few studies had been published on this subject. Ten out of the 13 studies in the literature review (Appendix A) have been published during the project period. Gradually, this field has become a research topic, and more scientific knowledge will be generated in the years to come. I have previously mentioned that far from all empirical data have been used in this study simply due to lack of time to conduct analyses and integration, and that we will continue this work in postdoctoral research.

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<sup>10</sup> This term is taken from an often-used quote by German philosopher, Hannah Arendt: *The possible redemption from the predicament of irreversibility – of being unable to undo what one has done though one did not, and could not, have known what he was doing – is the faculty of forgiving*. As quoted by Griswold (2007, p. xv).

Numerous studies have pointed out the poor supportive systems for second victims and have proposed interventions and organisational strategies to improve this deficiency (see 6.4.2). Consequently, a natural next step could be to initiate intervention studies to generate research based knowledge about how to support HCPs in the aftermath of traumatic events. One example is an action research study, which is planned by a research group in New Zealand, to work with midwives about their experiences of successfully navigating adverse events with the aim of facilitating accessible support to reduce the trauma of adverse events. The authors will interview midwives about what helped them successfully navigating adverse events, what steps did they initiate themselves, how did others support them in a way that helped them to come to a realistic understanding of what happened, and what worked in terms of calming the emotional anxiety and relieving the stress (Austin et al., 2014). We are planning an intervention study based on the knowledge we have generated in this study. The aim is to explore the impact of a formalised or structured network of the labour ward staff to provide support to each other. Every midwife and obstetrician will be asked to designate one colleague (a “buddy”) whom they would feel comfortable sharing their experiences of traumatic events with and this “buddy” is responsible of providing empathetic support in the aftermath of such events. A questionnaire will be developed and assessed at baseline before the intervention and after a set period. The idea is that through a “buddy” support network a more individual approach is possible, even in large obstetric departments, because the personal relation builds on the HCP’s own choice of a trusted colleague. This relation may initiate the essential confidentiality and familiarity that is needed to share the vulnerability of existential considerations and feelings of guilt. Furthermore, the responsibility of contacting and following up on the second victim lies with one person, and not a manager in charge of 50 staff members or more.

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## 9. List of papers

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## Paper I

**Title:**

Psychosocial Health and Wellbeing among Obstetricians and Midwives Involved in Traumatic Childbirth

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## Abstract

**Objective:** This study investigates the self-reported psychosocial health and wellbeing of obstetricians and midwives in Denmark during the most recent four weeks as well as their recall of their health and wellbeing immediately following their exposure to a traumatic childbirth.

**Material and methods:** A 2012 national survey of all Danish obstetricians and midwives (n=2098). The response rate was 59% of which 85% (n=1027) stated that they had been involved in a traumatic childbirth. The psychosocial health and wellbeing of the participants was investigated using six scales from the Copenhagen Psychosocial Questionnaire (COPSOQII). Responses were assessed on six scales: burnout, sleep disorders, general stress, depressive symptoms, somatic stress and cognitive stress. Associations between COPSOQII scales and participant characteristics were analyzed using linear regression.

**Results:** Profession and present work at the labor ward were associated with psychosocial health and wellbeing. Midwives reported higher scores than obstetricians, to a minor extent during the most recent four weeks and to a greater extent immediately following a traumatic childbirth scale, indicating higher levels of self-reported psychosocial health problems. Sub-group analyses showed that this difference might be gender related. None of the scales were associated with age or seniority in the time after the traumatic birth indicating that both junior and senior staff may experience similar levels of psychosocial health and wellbeing in the aftermath.

**Key conclusions and implications:** This study shows an association between profession (midwife or obstetrician) and self-reported psychosocial health and wellbeing both within the most recent four weeks and immediately following a traumatic childbirth. The association may partly be explained by gender. This knowledge may lead to better awareness of the possibility of differences related to profession and gender when conducting debriefings and offering support to HCPs in the aftermath of traumatic childbirth. As many as 85% of the respondents in this national study stated that they had been involved in at least one traumatic childbirth, suggesting that the handling of the aftermath of these events is important when caring for the psychosocial health and wellbeing of obstetric and midwifery staff.

**Keywords:** *Midwives; Obstetricians; Psychosocial health and wellbeing; Second victim; Secondary trauma; Traumatic childbirth.*

**Abbreviations:** HCP; healthcare professional.

COPSOQII; Copenhagen psychosocial questionnaire, second version.

## Introduction

When complications arise in childbirth, midwives and obstetricians may witness severe and possibly fatal injuries to the infant or mother. It seems reasonable to assume that such traumatic childbirths may affect not only the family but also the healthcare professionals (HCPs) involved. Danish midwives conduct normal deliveries and are the primary HCPs for women in labor. If complications or emergencies arise during labor or delivery, the midwife may call for medical assistance and take part in the appropriate emergency measures (Danish Health Authority, 2001). Obstetricians in most European countries are usually only involved in deliveries that deviate from normal and are therefore more likely than their midwifery colleagues to be exposed to complicated childbirth. Healthcare professionals (HCPs) who experience such adverse events are often referred to as the “second victims” and these individuals frequently feel responsible for the poor outcome (Scott et al., 2009, McCay and Wu, 2012, Seys et al., 2013b). Studies indicate that midwives and doctors have a high incidence of mental health problems such as burnout, stress, depression and even suicide (Agerbo et al., 2007, Juel et al., 1999, Balch et al., 2009, Yoshida and Sandall, 2013, Wilkinson, 2015, Hildingsson et al., 2013, Jordan et al., 2013). However, only few studies have investigated whether or how the experience of traumatic childbirth influences the psychosocial wellbeing of the midwives involved (Sheen et al., 2014, Sheen et al., 2015). We have been unable to find evidence of the influences on the obstetricians involved, but a recent study showed that stillbirth was identified as amongst the most difficult experiences for consultant obstetrician gynaecologists (Nuzum et al., 2014) .

The second version of the Copenhagen Psychosocial Questionnaire (COPSOQII) is a standardized and validated tool covering a range of items assessing psychosocial work environment developed for the use of both research and work place assessments (Pejtersen et al., 2010). The items from COPSOQII form the basis of this study. Current research on dealing with traumatic or adverse events has focused individually on either midwives/delivery nurses (Halperin et al., 2011, Beck, 2011, Beck, 2013, Beck and Gable, 2012, Sheen et al., 2014, Sheen et al., 2015, Schrøder, 2011) or doctors (Waterman et al., 2007, Wu, 2000, Wu et al., 2003, Aase et al., 2008, Aasland and Forde, 2005, Nuzum et al., 2014), but has not compared the two professions. For an organization to manage the aftermath of a traumatic childbirth, sufficient support for the staff

involved and knowledge of inter-professional differences is essential, and research involving both professions is required. Accordingly, the aim of this study was to investigate the self-reported psychosocial health and wellbeing of obstetricians and midwives in Denmark during the most recent four weeks before the survey as well as their recall of their psychosocial health and wellbeing immediately following their exposure to a traumatic childbirth and to compare the outcomes of the two groups.

## Methods

This study is a part of an interdisciplinary project about traumatic childbirth from the perspective of the healthcare professional. A mixed methods research design was employed, and data were generated from two different approaches: a national questionnaire survey and a qualitative interview study, allowing a descriptive as well as an exploratory approach. The questionnaire contained items from the European Value Survey (EVS, 2008), from the Medically Induced Trauma Support Services (MITSS) survey (MITSS, 2009), from the COPSOQII (Pejtersen et al., 2010) and finally items developed from a qualitative pilot study (Schrøder, 2011). This study uses data from the psychosocial health and wellbeing scales of the COPSOQII. Data from remaining items will be reported separately, as will the qualitative interview study.

### *Study population*

The study was designed to include all obstetricians and midwives in Denmark (n=2098) comprising 563 obstetric consultants and trainees (“obstetricians”) and 1535 midwives. The Danish Medical Association provided postal addresses of obstetricians and trainees employed in the departments of gynecology and obstetrics in the Danish NHS. The Danish Association of Midwives provided postal addresses of active midwives from their lists of members.

Fifty-one letters were returned because of unknown address. The respondents were offered a choice between returning the questionnaire by post in a stamped-addressed envelope or by answering the questionnaire online. The postal questionnaire was returned by 483 (39%), while 754 (61%) replied online. We received 24 written refusals, most of which were due to the recipient not having worked on a labor ward for many years. We also sent a poster to be displayed in all labor wards in Denmark and a personal letter was sent to all non-responders after three months. Sixty percent (1237) responded, comprising 293 obstetricians and 944 midwives, of whom, 1027 (85%) stated that they had been involved in a traumatic childbirth (264/293 [93%] obstetricians

and 763/944 [82%] midwives). All the analyses were carried out on the 1027 respondents who had been involved in at least one traumatic childbirth. Respondents who had been involved in >1 traumatic childbirth were asked to complete the questionnaire pertaining to the birth experienced to have had the greatest impact on them.

### *Questionnaire*

The psychosocial health and wellbeing of obstetricians and midwives was investigated using six scales of the COPSOQII developed by the Danish National Research Centre for the Working Environment (Pejtersen et al., 2010): i) burnout; ii) sleep disorders; iii) general stress; iv) depressive symptoms; v) somatic stress and vi) cognitive stress. Each scale consisted of four items with five response categories: a) all the time; b) a large part of the time; c) part of the time; d) a small part of the time and e) not at all. An overview of the scales and corresponding items is presented in Table 1. Differences of less than 5 points on a scale can be regarded as less relevant, because the respondents do not feel the impact of such minor differences (NFA, 2006). The respondents were asked to complete these items with respect to their psychosocial health and wellbeing in the immediate aftermath of the traumatic childbirth and to their psychosocial health and wellbeing in the most recent four weeks. In the questionnaire and in the cover letter, traumatic childbirth was clearly defined as a birth where the infant or mother had suffered presumed permanent, severe and possibly fatal injuries related to the birth.

### *Data analysis*

The COPSOQII has been validated using a factor analysis and Cronbach's alpha as a measure of internal consistency among the items in each scale (Bjorner and Pejtersen, 2010). A detailed description of the scales, items, and guidelines for calculating the scores have been reported previously (Pejtersen et al., 2010). According to the COPSOQII guidelines (Pejtersen et al., 2010), the five response categories outlined above were assigned scores of 0, 25, 50, 75, and 100 from i) not at all (0), to iv) all the time (100). For each participant, the score on the scale was computed as the mean item score on a range from 0-100. If the participant had answered less than half of the questions in a scale, the score was set to missing. The number of reported traumatic childbirths among obstetricians and midwives was compared using the Wilcoxon Rank Sum test. Diagnostic plots of the scores indicated that each COPSOQII scale was normally distributed. Linear regression was used to analyze associations between each COPSOQII scale and respondent characteristics (profession, age, seniority, weekly working hours, work on the labor ward and

time since traumatic childbirth). All characteristics were mutually adjusted for each other. We tested for effect modification of profession on the associations between each of the other covariates and each COPSOQII-scale. Since only two male midwives participated (only one had been involved in a traumatic childbirth), gender was not included in these analyses. To assess whether gender might influence the outcome, we carried out two sub-group analyses, one solely in women and one solely in obstetricians. Paired t-tests were conducted to compare the scores in the most recent four weeks and in the immediate aftermath of the traumatic childbirth. Cronbach's alpha was calculated for each scale. Statistical analyses were performed using STATA version 13.1 (StataCorp, College Station, TX, USA).

### *Details of ethics approval*

The Danish National Data Protection Agency gave their formal consent (J.no. 2011-41-6841, 16 November 2011) and data were handled and stored in accordance with the agency's rules.

## **Results**

The characteristics of the participants are presented in Table 2. The median number of reported traumatic births was higher among obstetricians (three) than midwives (two) ( $p < 0.001$ ). For all COPSOQII scales, the scores ranged from 0-100. Cronbach's alpha varied between 0.75 and 0.93 on all scales, with the exception of somatic stress, for which alpha was 0.64.

In the four weeks immediately preceding the survey the adjusted results on **profession** showed that midwives had a significantly higher score compared to obstetricians on all COPSOQII scales except general stress (Table 3). **Age** was associated with sleep disorders, with a significantly higher score from the group aged  $\geq 40$  compared to the group aged  $\leq 39$  years, but not with the remaining scales. **Seniority** was not associated with any of the scales. At the time of the survey, 21% no longer worked at the labor ward. Of these, 25% responded that they had left the labor ward partly or primarily because they felt that the responsibility was too great a burden to carry. The remaining 75% did not work at the labor ward because of other reasons. Present **work at the labor ward** was associated with some of the scales: The participants ( $n = 64$ ) who no longer worked on the labor ward because they felt that the responsibility was too great a burden to carry were all women, 58 were midwives and 6 were doctors. They had a significantly higher score on sleep disorders, general stress and somatic stress, than did the group who still worked on the labor ward. **Time since the traumatic childbirth** was not associated with any of the scales.

In the aftermath of traumatic childbirth, the adjusted results on **profession** showed that midwives had a significantly higher score than obstetricians on all scales ( $p < 0.001$ ) (Table 4). The group of participants who had stopped **working on the labor ward** because they felt that the responsibility was too great a burden to carry had a significantly higher score on all scales ( $p < 0.001$ ) than the group who still worked on the labor ward, whereas the group of participants who had left the labor ward due to other reasons (e.g. promotion) had a significantly lower score on all scales ( $p < 0.05$ ). **Age, seniority** and **time since the traumatic birth** were not associated with any of the scales.

The sub-group analysis (Table S1) on women only showed no statistically significant differences between midwives and obstetricians in psychosocial health and wellbeing in the four weeks immediately preceding the survey, except on the somatic stress scale, where midwives had a significantly higher score. In the immediate aftermath of traumatic childbirth, female midwives had a significantly higher score on burnout, sleep disorders and somatic stress than did female obstetricians. The second sub-group analysis (Table S1) on obstetricians only showed no statistically significant differences between women and men in the most recent four weeks, but in the aftermath of the traumatic birth female obstetricians scored statistically significantly higher than their male colleagues on all six scales.

Comparing the psychosocial health and wellbeing within the most recent four weeks with the immediate aftermath of the traumatic birth revealed that, overall, the participants had a higher score on sleep disorders and depressive symptoms in the immediate aftermath of the traumatic event than in the four weeks immediately preceding the survey. The scores on burnout, general stress, somatic stress and cognitive stress were not significantly different. Separate analyses on midwives and obstetricians (Figure 1) showed that the midwives had a significantly higher score on burnout, sleep disorders and depressive symptoms in the immediate aftermath of the event than in the four weeks immediately preceding the survey. The obstetricians had a significantly higher score on sleep disorders and depressive symptoms, but a significantly lower score on burnout, somatic stress and cognitive stress.

## Discussion

### *Main findings*

In this national survey of all Danish obstetricians and midwives, we found that 85% of respondents stated that they had been involved in at least one traumatic childbirth. Profession and present work at the labor ward were associated with psychosocial health and wellbeing both within the most recent four weeks of the survey and in the immediate aftermath of the traumatic birth. Seniority and time since the traumatic birth were not associated with any of the scales. Age was associated with sleep disorders, but not any of the other scales. Sub-group analyses showed that: i) female midwives scored statistically significantly higher on burnout, sleep disorders and somatic stress in the immediate aftermath of the traumatic childbirth than did female obstetricians and ii) female obstetricians scored statistically significantly higher than their male colleagues on all six scales in the aftermath of the traumatic childbirth.

Both obstetricians and midwives had a significantly higher score in the scales on sleep disorders and depressive symptoms in the immediate aftermath of the event compared with their scores in the four weeks immediately preceding the survey. Midwives had a significantly higher score on three of six scales in the immediate aftermath of traumatic childbirth compared with the four weeks immediately preceding the survey, whereas obstetricians had a significantly higher score on two scales, but a significantly lower score on three scales.

### *Strengths and limitations*

To our knowledge, this is the first national study on the psychosocial health and wellbeing of midwives and obstetricians involved in traumatic childbirth. The study includes 1027 individuals and provides a unique opportunity to compare the two professions in the same study using a validated tool to ensure a high degree of internal consistency. Cronbach's alpha varied between 0.75 and 0.93 on all scales, with the exception of somatic stress, for which alpha was 0.64. This is equivalent to the findings of the study that developed this version of the Copenhagen Psychosocial Questionnaire comprising 3517 Danish employees (Pejtersen et al., 2010).

A limitation of this study is the response rate of 60%, which may suggest some selection bias. However, the response rate is similar to that achieved in the earlier Danish study (Pejtersen et al., 2010). Another limitation is the cross-sectional design of the study. Since all the information is collected at the same point in time, it is not possible to determine causal associations or relations

between traumatic childbirth and COPSOQII-scores. For this purpose, a prospective study might have provided a stronger design, collecting information on COPSOQII and participant characteristics at baseline and again immediately after the traumatic childbirth. However, given the rarity of these events, all baseline information on health and wellbeing may be irrelevant when the traumatic childbirth occurs, because it was obtained many years prior to the event. Our definition of traumatic childbirth, that the infant or mother should have suffered presumed permanent, severe and possibly fatal injuries related to the birth, underwent thorough consideration and discussion. However, it remains an imprecise term, which may have prompted a variety of different interpretations among the participants. We asked respondents to choose between all traumatic childbirths within the definition, regardless of recollection of details such as Apgar scores, neonatal pH values or exact knowledge of long-term outcome of the mother or child. An additional limitation is that, when interpreting our results, the diversity of the events may have affected the psychosocial health and wellbeing of the HCPs differently. For example, a traumatic birth may follow a placental abruption in which the labor ward staff faultlessly followed all the correct procedures but were unable to prevent a fatal outcome. Alternatively, a traumatic birth may result in an unexpectedly severely asphyxiated baby, in which blame is apportioned to the staff because a non-reassuring CTG was ignored or missed. This diversity of events will affect the psychosocial health and wellbeing of HCPs differently, which should be borne in mind when interpreting the outcome measures and the proportion of obstetricians and midwives who have been involved in at least one traumatic childbirth.

Finally, the vagueness of the reference period “time after the traumatic birth”, and the fact that the event could have occurred at any time in the past, may cause some recall bias. In particular, the comparisons between COPSOQII scores at the two time-points in Figure 1 may be affected by recall bias, as well as the associations between time since traumatic birth and COPSOQII scores in the aftermath of the traumatic event (Table 4). It should be emphasized that this study investigates how the participants *perceived* their psychosocial health and wellbeing today and after the traumatic event, and all replies are based on the subjective recollection of the individuals involved, rather than an objective measure.

### *Interpretation*

Compared to a Danish national survey among 3,517 employees (aged 20-60 years) from 2004-2005 (NFA, 2011), this study shows similar COPSOQII scores in the four weeks immediately

preceding the survey for both midwives and obstetricians. Further, midwives had a significantly higher score than obstetricians on all COPSOQII scales except stress. This is consistent with an earlier Danish study on burnout among employees where midwives had higher levels of burnout than hospital doctors (Borritz et al., 2006). However, this should be interpreted with caution: Although statistically significant, the guideline for calculating mean scores and distributions (NFA, 2006) states that differences less than five are not to be considered clinically relevant.

In the time after the traumatic childbirth, our analyses show that profession is the only characteristic significantly associated with the COPSOQII scales, and that midwives have a higher mean score (>5) than obstetricians on all scales. However, our sub-group analyses on female respondents and on obstetricians suggest that gender may be an important confounder. Women tend to report significantly more distress after adverse events than men do (Seys et al., 2013b), which might explain the possible confounding effect of gender. Considering whether women in fact *do experience a greater impact* of traumatic childbirth could be an important reflection in the aftermath of such events. Some of the occupational differences between the two professional groups persisted in the sub-group analyses in women only. It has been argued that the greater a professional's empathetic identification becomes with the patient, the greater is their risk of experiencing secondary traumatic stress (Thomas and Wilson, 2004, Leinweber and Rowe, 2010). Midwives consider their relationship with pregnant women to be “the very essence of midwifery care” (Leinweber and Rowe, 2010, p 77). Given the nature of midwives' work (staying with the woman in labor for many hours), they are more likely to develop a more empathetic relationship with laboring women than obstetricians who are often involved for only a short time.

In the time after the traumatic event both obstetricians and midwives had significantly higher scores on the two scales of sleep disorders and depressive symptoms than in the four weeks immediately preceding the survey. It seems plausible that sleep patterns could be affected after being involved in a traumatic event. Depressive symptoms are scored from items regarding feeling sad, feeling guilty, lack of self-confidence and lack of interest in everyday things (Table 1), which all are conceivable emotional responses to traumatic childbirth. This is consistent with several studies, reporting that HCPs respond emotionally to adverse events with feelings of guilt, anger and frustration, depression and even post-traumatic stress disorder (Seys et al., 2013b, Sheen et al., 2014, McCay and Wu, 2012, Seys et al., 2013a, Beck and Gable, 2012).

We find it of interest that none of the scales were associated with age or seniority in the time after the traumatic birth indicating that both junior and senior staff may experience similar levels of psychosocial health and wellbeing in the aftermath. The participants who had left the labor ward because they felt that the responsibility was too great a burden to carry had significantly higher scores on all six scales than both participants who had left the labor ward due to other reasons and participants working at the labor ward, indicating that the traumatic childbirth might have influenced their decision to leave the labor ward. This finding is consistent with qualitative studies showing that traumatic events initiated thoughts of leaving the labor ward and applying for a different position or even leaving the profession (Beck et al., 2015, Scott et al., 2009).

## Conclusion

This study investigated the psychosocial health and wellbeing of obstetricians and midwives in Denmark during the most recent four weeks before the survey as well as their recall of their psychosocial health and wellbeing immediately following exposure to a traumatic childbirth and compared the outcomes of the two groups. Midwives report significantly higher scores on all but one of the COPSOQII scales than obstetricians both during the most recent four weeks as well as immediately following a traumatic childbirth. These results may be explained partly by gender. None of the scales were associated with age or seniority in the time after the traumatic birth indicating that both junior and senior staff experience similar levels of psychosocial health and wellbeing in the aftermath. The participants who had left the labor ward because they felt that the responsibility was too great a burden to carry had significantly higher scores on all six scales than both participants who had left the labor ward due to other reasons and participants working at the labor ward, indicating that the traumatic childbirth might have influenced their decision to leave the labor ward. This knowledge may lead to a better awareness of the possibility of differences related to profession and gender when conducting debriefings and offering support to HCPs in the aftermath of traumatic childbirth. As many as 85% of the respondents in this study stated that they had been involved in at least one traumatic childbirth, suggesting that the handling of the aftermath of these events is important when caring for the psychosocial health and wellbeing of obstetric and midwifery staff. Future research may include implications of the COPSOQII scores on e.g. working capability and sick leave, and long-term impact on health considering factors other than psychosocial health and wellbeing. This may contribute to a better and more complete understanding of this complex field and to the development of adequate support systems and the implementations of such.

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## Legends of Figures and Tables

- Table 1: Questions about psychosocial wellbeing (from the COPSOQII). Response categories and scores: i) all the time (100); ii) a large part of the time (75); iii) part of the time (50); iv) a small part of the time (25) and v) not at all (0).
- Table 2: Demographic and work-related characteristics of all respondents, respondents who had been involved in a traumatic childbirth, midwives who had been involved in a traumatic childbirth, and obstetricians who had been involved in a traumatic childbirth, respectively.
- Table 3: Means and adjusted differences with 95%-confidence intervals between participant characteristics and each COPSOQII scale during the most recent four weeks. All differences were adjusted for all other characteristics using linear regression#. N=1027
- Table 4: Means and adjusted differences with 95%-confidence intervals between participant characteristics and each COPSOQII scale in the time after the traumatic birth. All differences were adjusted for all other characteristics using linear regression#. N=1027
- Figure 1: Figure 1. a) Mean COPSOQII scores among midwives during the past four weeks and in the aftermath of the traumatic birth. Paired t-test for change in score over time (p). b) Mean COPSOQII scores among obstetricians during the past four weeks and in the aftermath of the traumatic birth. Paired t-test for change in score over time (p).
- Table S1: Table S1: Means and adjusted differences with 95%-confidence intervals between participant characteristics and each COPSOQII scale during the most recent four weeks and in the timer after the traumatic birth; Women only and Obstetricians only. Adjusted for age, seniority, work at labour ward and time since traumatic birth using linear regression.

Burnout	Sleep disorders	General stress	Depressive symptoms	Somatic stress	Cognitive stress
<ul style="list-style-type: none"> <li>• How often have you felt worn out?</li> <li>• How often have you been physically exhausted?</li> <li>• How often have you been emotionally exhausted?</li> <li>• How often have you felt tired?</li> </ul>	<ul style="list-style-type: none"> <li>• How often have you slept badly and restlessly?</li> <li>• How often have you found it hard to go to sleep?</li> <li>• How often have you woken up too early and not been able to get back to sleep?</li> <li>• How often have you woken up several times and found it difficult to get back to sleep?</li> </ul>	<ul style="list-style-type: none"> <li>• How often have you had problems relaxing?</li> <li>• How often have you been irritable?</li> <li>• How often have you been tense?</li> <li>• How often have you been stressed?</li> </ul>	<ul style="list-style-type: none"> <li>• How often have you felt sad?</li> <li>• How often have you lacked self-confidence?</li> <li>• How often have you had a bad conscience or felt guilty?</li> <li>• How often have you lacked interest in everyday things?</li> </ul>	<ul style="list-style-type: none"> <li>• How often have you had stomach ache?</li> <li>• How often have you had a headache?</li> <li>• How often have you had palpitations?</li> <li>• How often have you had tension in various muscles?</li> </ul>	<ul style="list-style-type: none"> <li>• How often have you had problems concentrating?</li> <li>• How often have you found it difficult to think clearly?</li> <li>• How often have you had difficulty in taking decisions?</li> <li>• How often have you had difficulty with remembering?</li> </ul>

*Table 1. Questions about psychosocial wellbeing (from the COPSOQII). Response categories and scores : i) all the time (100); ii) a large part of the time (75); iii) part of the time (50); iv) a small part of the time (25) and v) not at all (0).*

	Respondents		Respondents involved in a traumatic childbirth		Midwives involved in a traumatic childbirth		Obstetricians involved in a traumatic childbirth	
	Percent	Number	Percent	Number	Percent	Number	Percent	Number
<b>Profession, n</b>		1237		1027		-		-
Midwife	76.3	944	74.2	763	-	-	-	-
Obstetrician	23.7	293	25.7	264	-	-	-	-
<b>Sex, n</b>		1237		1027		763		264
Women	91.7	1134	90.9	933	99.9	762	64.8	171
Men	8.3	103	9.1	94	0.1	1	35.2	93
<b>Age, n</b>		1215		1007		751		256
<29 years	7.9	96	5.4	55	7.3	55	0	0
30-39 years	31.4	382	28.9	290	31.8	239	19.9	51
40-49 years	25.7	312	26.7	268	24.8	186	32.0	82
50-59 years	24.7	300	28.1	283	27.2	204	30.9	79
>60 years	10.3	125	11.0	111	8.9	67	17.2	44
<b>Seniority, n</b>		1219		1010		754		256
<5 years	23.2	283	18.2	184	23.5	177	2.7	7
6-10 years	16.9	206	16.1	163	15.6	118	17.6	45
11-15 years	17.0	207	18.1	183	19.6	148	13.7	35
>15 years	42.9	523	47.5	480	41.2	311	66.0	169
<b>Work at the labour ward, n</b>		1235		1027		763		264
Yes	78.6	971	78.0	801	76.4	583	82.6	218
No*	21.4	264	22.0	226	23.6	180	17.4	46
<b>Involved in a traumatic birth, n</b>		1212		1027		763		264
Yes	84.7	1027	100	1027	100	763	100	264
No	15.3	185	0	0	0	0	0	0
<b>Time since traumatic birth, n</b>		1026		1026		762		264
< 6 months	8.9	91	8.9	91	7.7	59	12.1	32
6-12 months	7.0	72	7.0	72	8.4	64	3.0	8
1-3 years	23.7	243	23.7	243	23.0	175	25.8	68
> 3 years	60.4	620	60.4	620	60.9	464	59.1	156

\* N=256 (8 missing); of those 25% of the respondents had left the labour ward because they (partly or primarily) felt that the responsibility was too great a burden to carry. 75% had left the labour ward due to other reasons.

*Table 2. Demographic and work-related characteristics of all respondents, respondents who had been involved in a traumatic childbirth, midwives who had been involved in a traumatic childbirth, and obstetricians who had been involved in a traumatic childbirth, respectively.*

	Burnout		Sleep disorders		General stress		Depressive symptoms		Somatic stress		Cognitive stress	
	Mean	Adjusted Difference [95% CI]	Mean	Adjusted Difference [95% CI]	Mean	Adjusted Difference [95% CI]	Mean	Adjusted Difference [95% CI]	Mean	Adjusted Difference [95% CI]	Mean	Adjusted Difference [95% CI]
<b>Profession</b>												
Midwife	33	-	21	-	24	-	20	-	18	-	18	-
Obstetrician	29	-3.17* [-5.72; -0.62]	18	-4.32*** [-6.95; -1.68]	22	-2.25 [-4.72; 0.22]	17	-3.14** [-5.38; -0.90]	11	-5.56*** [-7.68; -3.47]	13	-4.60*** [-6.81; -2.38]
<b>Age</b>												
<29 years	36	1.37 [-3.96; 6.70]	16	-0.00 [-5.52; 5.51]	23	-1.38 [-6.54; 3.79]	18	-3.11 [-7.80; 1.57]	19	2.05 [-2.36; 6.45]	13	-3.51 [-8.15; 1.12]
30-39 years	33	-	15	-	23	-	19	-	16	-	16	-
40-49 years	32	0.43 [-3.07; 3.93]	19	4.94** [1.32; 8.57]	24	0.60 [-2.79; 3.99]	19	1.32 [-1.76; 4.40]	15	1.03 [-1.87; 3.92]	17	2.63 [-0.42; 5.67]
50-59 years	32	-0.29 [-4.72; 4.14]	25	10.02*** [5.43; 14.60]	25	0.53 [-3.77; 4.82]	20	1.78 [-2.11; 5.67]	17	1.63 [-2.03; 5.30]	18	3.54 [-0.31; 7.39]
>60 years	29	-2.90 [-8.23; 2.44]	24	9.62*** [4.11; 15.14]	21	-3.15 [-8.32; 2.02]	17	-1.68 [-6.37; 3.01]	15	0.46 [-3.95; 4.87]	15	0.52 [-4.11; 5.16]
<b>Seniority</b>												
<5 years	35	1.27 [-3.89; 6.42]	17	0.54 [-4.80; 5.88]	24	-0.79 [-5.79; 4.21]	21	2.71 [-1.83; 7.24]	18	1.66 [-2.60; 5.95]	16	1.68 [-2.81; 6.16]
6-10 years	33	0.31 [-4.11; 4.73]	17	0.26 [-4.31; 4.84]	24	-1.04 [-5.33; 3.25]	19	0.06 [-3.83; 3.94]	17	1.98 [-1.67; 5.64]	17	1.95 [-1.90; 5.80]
11-15 years	31	-2.22 [-5.87; 1.43]	17	-2.77 [-6.56; 1.01]	23	-2.39 [-5.93; 1.16]	18	-1.45 [-4.66; 1.77]	14	-2.24 [-5.26; 0.79]	15	-1.45 [-4.63; 1.73]
>15 years	31	-	24	-	24	-	19	-	16	-	17	-
<b>Work at the labour ward</b>												
Yes	32	-	19	-	23	-	19	-	16	-	16	-
No A	35	2.57 [-1.94; 7.08]	27	5.46* [0.80; 10.13]	30	6.45** [2.08; 10.82]	23	3.49 [-0.48; 7.45]	22	4.88** [1.16; 8.61]	20	3.39 [-0.53; 7.31]
No B	31	-0.65 [-3.72; 2.42]	22	-0.89 [-3.27; 3.08]	24	0.83 [-2.15; 3.80]	19	0.01 [-2.69; 2.71]	16	-0.71 [-3.24; 1.83]	18	1.51 [-1.16; 4.18]
<b>Time since the traumatic birth</b>												
<6 months	32	0.62 [-3.27; 4.51]	19	0.15 [-3.87; 4.18]	24	1.59 [-2.18; 5.36]	20	1.10 [-2.32; 4.52]	15	-1.37 [-4.59; 1.84]	17	1.32 [-2.06; 4.71]
6-12 months	33	-0.43 [-5.12; 4.27]	18	0.49+E23 [-4.36; 5.34]	22	-0.73 [-5.27; 3.82]	18	-2.12 [-6.25; 2.00]	17	-1.12 [-5.00; 2.76]	13	-2.69 [-6.77; 1.39]
1-3 years	33	1.41 [-1.40; 4.22]	17	-1.30 [-4.20; 1.61]	24	1.69 [-1.03; 4.42]	19	-0.42 [-2.89; 2.05]	15	-1.65 [-3.98; 0.66]	17	0.86 [-1.59; 3.30]
>3 years	31	-	22	-	23	-	19	-	17	-	17	-
# There was no significant interaction between profession and any of the other characteristics in relation to any of the scales.												
*P < 0.05, **P < 0.01, ***P < 0.001.												
A Has left the labour ward because they felt that the responsibility was too great a burden to carry.												
B Has left the labour ward due to other reasons.												

Table 3. Means and adjusted differences with 95%-confidence intervals between participant characteristics and each COPSOQII scale during the most recent four weeks. All differences were adjusted for all other characteristics using linear regression#. N=1027

	Burnout		Sleep disorders		General stress		Depressive symptoms		Somatic stress		Cognitive stress	
	Mean	Adjusted Difference [95% CI]	Mean	Adjusted Difference [95% CI]	Mean	Adjusted Difference [95% CI]	Mean	Adjusted Difference [95% CI]	Mean	Adjusted Difference [95% CI]	Mean	Adjusted Difference [95% CI]
<b>Profession</b>												
Midwife	35	-	29	-	25	-	30	-	18	-	17	-
Obstetrician	23	-11.02*** [-15.23; -6.80]	20	-10.10*** [-14.28; -5.91]	18	-6.99*** [-10.72; -3.26]	22	-6.49*** [-9.77; -3.21]	9	-8.28*** [-11.23; -5.33]	11	-7.09*** [-10.79; -3.40]
<b>Age</b>												
<29 years	36	0.88 [-7.53; 9.29]	36	-0.24 [-8.68; 8.21]	24	2.21 [-5.36; 9.78]	29	-0.22 [-6.97; 6.52]	19	3.63 [-2.33; 9.60]	14	1.33 [-6.17; 8.83]
30-39 years	35	-	35	-	24	-	30	-	16	-	16	-
40-49 years	31	-1.18 [-6.92; 4.56]	31	1.80 [-4.00; 7.61]	24	1.00 [-4.11; 6.10]	29	1.10 [-3.48; 5.68]	15	0.49 [-3.55; 4.53]	16	-0.51 [-5.51; 4.49]
50-59 years	31	-1.92 [-9.27; 5.43]	31	3.47 [-3.88; 10.81]	24	-0.91 [-7.47; 5.65]	28	1.00 [-4.82; 6.82]	16	-0.04 [-5.15; 5.07]	16	-2.61 [-9.01; 3.79]
>60 years	25	-5.71 [-14.62; 3.20]	25	0.37 [-8.50; 9.24]	19	-3.60 [-11.46; 4.25]	22	-2.61 [-9.59; 4.37]	11	-2.25 [-8.42; 3.92]	11	6.57 [-14.30; 1.16]
<b>Seniority</b>												
<5 years	35	0.65 [-7.72; 9.01]	35	-2.87 [-11.33; 5.59]	23	-4.12 [-11.63; 3.40]	28	-1.25 [-7.93; 5.44]	17	-0.50 [-6.36; 5.37]	15	-7.82** [-13.26; -2.38]
5-10 years	35	2.67 [-4.62; 9.96]	35	-2.26 [-9.59; 5.07]	26	0.80 [-5.65; 7.25]	31	3.02 [-2.68; 8.73]	17	2.13 [-2.95; 7.20]	18	-7.21* [-13.76; -0.67]
11-15 years	33	-0.53 [-6.19; 6.08]	33	-4.74 [-10.76; 1.29]	23	-3.59 [-8.99; 1.80]	30	-2.43 [-7.25; 2.38]	15	-1.95 [-6.18; 2.29]	14	-4.43* [-8.43; -0.44]
>15 years	29	-	29	-	24	-	27	-	14	-	15	-
<b>Work at the labour ward</b>												
Yes	32	-	32	-	23	-	28	-	15	-	15	-
No A	50	15.08*** [7.23; 22.93]	50	12.73*** [5.05; 20.40]	41	15.26*** [8.39; 22.13]	46	14.59*** [8.02; 21.16]	30	12.43*** [6.69; 18.17]	27	8.84*** [2.35; 15.34]
No B	25	-7.19** [-12.57; -1.83]	25	-5.44* [-10.62; -0.26]	19	-5.16* [-9.84; -0.48]	23	-5.68* [-10.25; -1.12]	11	-3.66* [-7.30; -0.03]	11	-5.75** [-9.87; -1.62]
<b>Time since the traumatic birth</b>												
<6 months	28	-5.58 [-11.60; 0.45]	28	-7.89 [-14.01; -1.78]	21	-2.62 [-7.98; 2.74]	23	-1.49 [-6.16; 3.19]	14	-1.93 [-6.16; 2.30]	15	-1.02 [-8.37; 6.34]
6-12 months	35	-2.37 [-9.67; 4.93]	35	-5.67 [-12.98; 1.65]	22	-2.81 [-9.34; 3.72]	25	-3.73 [-9.50; 2.04]	14	-4.24 [-9.35; 0.87]	14	1.79 [-4.60; 8.19]
1-3 years	31	-3.74 [-8.27; 0.78]	31	-2.73 [-7.27; 1.80]	23	-1.33 [-5.34; 2.68]	27	-2.88 [-6.44; 0.67]	15	-1.64 [-4.82; 1.54]	14	-0.28 [-5.64; 5.08]
>3 years	33	-	33	-	25	-	30	-	16	-	16	-
# There was no significant interaction between profession and any of the other characteristics in relation to any of the scales.												
*P < 0.05, **P < 0.01, ***P < 0.001.												
A Has left the labour ward because they felt that the responsibility was too great a burden to carry.												
B Has left the labour ward due to other reasons.												

Table 4: Means and adjusted differences with 95%-confidence intervals between participant characteristics and each COPSOQL scale in the time after the traumatic birth. All differences were adjusted for all other characteristics using linear regression#. N=1027

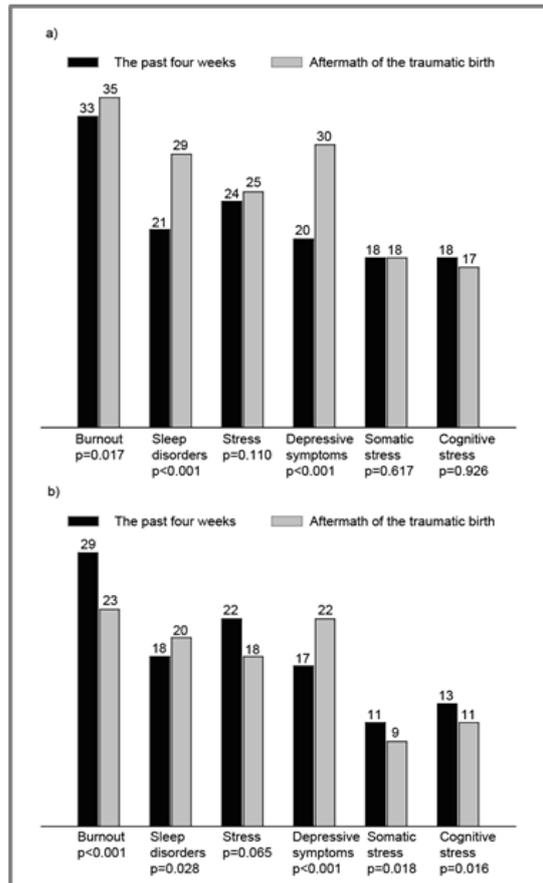


Figure 1. a) Mean COPSQII scores among midwives during the past four weeks and in the aftermath of the traumatic birth. Paired t-test for change in score over time (p). b) Mean COPSQII scores among obstetricians during the past four weeks and in the aftermath of the traumatic birth. Paired t-test for change in score over time (p).

	Burnout		Sleep disorders		General stress		Depressive symptoms		Somatic stress		Cognitive stress	
	Mean	Adjusted Difference [95% CI]	Mean	Adjusted Difference [95% CI]	Mean	Adjusted Difference [95% CI]	Mean	Adjusted Difference [95% CI]	Mean	Adjusted Difference [95% CI]	Mean	Adjusted Difference [95% CI]
<b>Women only</b>												
<b>Recent four weeks</b>												
Midwives, female	33	-	21	-	24	-	20	-	18	-	18	-
Doctors, female	30	-1.82 [-5.53; 1.89]	17	-2.61 [-6.40; 1.17]	23	-0.78 [-4.38; 2.81]	17	-2.01 [-5.29; 1.27]	13	-3.17* [-6.22; -0.12]	15	-1.84 [-5.09; 1.41]
<b>Time after the event</b>												
Midwives, female	35	-	28	-	25	-	30	-	18	-	17	-
Doctors, female	26	-8.62** [-14.94; -2.29]	22	-7.69* [-13.92; -1.46]	21	-4.07 [-9.60; 1.47]	25	-4.16 [-9.68; 1.35]	11	-4.80* [-9.29; -0.32]	13	-4.31 [9.29; 0.67]
<b>Obstetricians only</b>												
<b>Recent four weeks</b>												
Women only	27	-	17	-	23	-	17	-	13	-	15	-
Men only	30	-0.88 [-5.40; 3.64]	19	-0.48 [-5.14; 4.77]	20	-1.22 [-5.75; 3.32]	15	-2.60 [-6.53; 1.34]	9	-1.71 [-5.45; 2.04]	11	-2.75 [-6.47; 0.97]
<b>Time after the event</b>												
Women only	26	-	22	-	21	-	25	-	11	-	13	-
Men only	17	-7.22* [-14.41; -0.04]	15	-7.94* [-15.34; -0.55]	14	-6.91* [-13.43; -0.39]	16	-10.27* [-17.07; -3.47]	5	-5.31** [-9.35; -1.27]	6	-7.40** [-12.42; -2.38]

\*P < 0.05, \*\*P < 0.01, \*\*\*P < 0.001.

Table S1. Means and adjusted differences with 95%-confidence intervals between participant characteristics and each COPSOQII scale during the most recent four weeks and in the timer after the traumatic birth; Women only and Obstetricians only. Adjusted for age, seniority, work at labour ward and time since traumatic birth using linear regression.

## Paper 2

**Title:** Blame and Guilt - A Mixed Methods Study of Obstetricians' and Midwives' Experiences and Existential Considerations after Involvement in Traumatic Childbirth

**Short running title:**

Blame and Guilt After Traumatic Childbirth

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**Disclosure of interests**

The authors report no declarations of interest. The authors alone are responsible for the content and writing of the paper.

## Abstract

**Introduction.** When complications arise in the delivery room, midwives and obstetricians operate at the interface of life and death, and in rare cases the infant or the mother suffers severe and possibly fatal injuries related to the birth. This descriptive study aimed at investigating the numbers and proportions of obstetricians and midwives involved in such traumatic childbirth and to explore their experiences with guilt, blame, shame and existential concerns.

**Materials and methods.** Mixed methods study comprising a national survey of Danish obstetricians and midwives and a qualitative interview study with selected survey participants.

**Results.** The response rate was 59% (1237/2098) of which 85% stated that they had been involved in a traumatic childbirth. We formed five categories during the comparative mixed methods analysis: the patient, clinical peers, official complaints, guilt, and existential considerations. Although blame from patients, peers or official authorities was feared (and sometimes experienced), the inner struggles with guilt and existential considerations were dominant. Feelings of guilt were reported by 36-49%, and 50% agreed that the traumatic childbirth had made them think more about the meaning of life. Sixty-five percent felt that they had become a better midwife or doctor due to the traumatic incident.

**Conclusions.** The results of this large, exploratory study suggest that obstetricians and midwives struggle with issues of blame, guilt and existential concerns in the aftermath of a traumatic childbirth. This may be important knowledge when providing supportive healthcare systems in the aftermath of traumatic childbirth.

**Keywords:** *Birth Injury, Blame, Existential Concerns, Guilt, Healthcare Professionals, Second Victim, Traumatic Childbirth.*

**Abbreviations:** HCP; healthcare professional.

**Key Message Box:** Existential concerns and feelings of blame and guilt are commonly experienced by obstetricians and midwives in the aftermath of traumatic childbirth.

## Introduction

Although adverse outcomes and medical mistakes primarily affect patients and relatives, healthcare professionals (HCPs) also feel upset and experience secondary traumatic stress in the aftermath of an adverse event (1-4). These individuals are sometimes referred to as “second victims”, and although far from all events can be easily distinguished in “error” or “non-error”, the HCPs often feel personally responsible for the adverse patient outcome (1, 2, 5-8). The Institute of Medicine’s report “To Err is Human” (9) in 2000 has been proclaimed to have marked the beginning of a paradigmatic change in healthcare to replace the blame culture with a just culture promoting disclosure and learning in the aftermath of an adverse event (1, 7, 10, 11). This new culture has been promoted in obstetrics and midwifery, where human as well as systemic error are corrected in different ways, such as perinatal audits, obstetric skills training or debriefings to improve procedures and prevent future incidents (12, 13). However, these measures occur at an organizational level and in the aftermath of a traumatic childbirth, the primary focus is on the patient and to a lesser extent the HCP (14-18). Although it is recognized that second victims also need support, restricted healthcare budgets and a limited knowledge of how to deal with HCPs in such circumstances provides a challenge (1, 2, 7). Qualitative studies have shown that traumatic or stressful childbirth situations can have a long-term impact on obstetric HCPs’ mental health and professional and personal identities, and themes regarding guilt and the weight of the responsibility have been identified (19-21). Until now, most studies in larger populations have investigated the prevalence of symptoms of posttraumatic stress or secondary traumatic stress in midwives or obstetric nurses, and they should be interpreted with caution due to very low response rates and possible selection bias (3, 14, 22). In a qualitative pilot study preceding this study, we found that midwives were concerned with matters such as guilt, blame and shame and existential considerations, which debriefing or support systems would not normally cover. In this mixed methods study, obstetricians and midwives were viewed as a single group of “obstetric HCPs”, and the aim was to describe the numbers and proportions of obstetricians and midwives involved in traumatic childbirth and to explore some of their experiences or feelings with guilt, blame, shame and existential concerns.

## Materials and methods

This study was part of an interdisciplinary project about traumatic childbirth from the perspective of the HCP. We employed a mixed methods research design with data generated from two

different approaches: a national questionnaire survey (summer 2012) and a qualitative interview study (autumn 2012). ‘Mixed methods’ is a generic term, which refers to the integrated use of both qualitative and quantitative methods in one study. The intention of using mixed methods in our study was to bring together the differing strengths and weaknesses of quantitative methods (large sample size, trends, generalization) with those of qualitative methods (small sample, details, in depth) (23). We used the results from one method to develop and inform the other method, as shown in Figure 1. The study design is a merger of Creswell and Plano Clark’s Explanatory and Exploratory Sequential Design models (23). This merged model allowed us to investigate the generalizability of themes that emerged from qualitative data in the pilot study (interview study with seven midwives with experiences of traumatic childbirth), and to use selected participants from the survey to explore the themes of being shamed or blamed, feeling guilty and existential considerations.

The national survey included all obstetricians and midwives in Denmark registered with the Danish Medical Association and the Danish Association of Midwives (n=2098) comprising 563 consultants and trainees in obstetrics and gynecology (obstetricians) and 1535 midwives. Approximately 98% and 95% of obstetricians and midwives are members of their respective associations. Fifty-one letters were returned because of unknown address. Fifty-nine percent (1237/2098) responded comprising 293 (52%) obstetricians and 944 midwives (61%). Traumatic childbirth was defined as an event in which the infant or the mother suffered presumed permanent, severe and possibly fatal injuries related to the birth. Of 1212 responders to this item, 1027 (85%) stated that they had been involved in a traumatic childbirth (264/293 obstetricians [93%] and 763/944 midwives [82%]). Respondents who had been involved in more than one traumatic birth were asked to complete the questionnaire pertaining to the birth that had had the greatest impact on them. We recruited 14 respondents from the survey (six obstetricians and eight midwives) to participate in individual, semi-structured interviews. Characteristics of the respondents (questionnaire) and participants (interviews) are presented in Table 1. Table S1 shows characteristics according to profession.

For the national survey, postal addresses were provided by the Danish Medical Association and the Danish Association of Midwives from their lists of members. The respondents were offered the choice of returning the questionnaire by post in a stamped-addressed envelope or by completing the questionnaire online. The postal questionnaire was returned by 483 (39%), and 754

(61%) replied online. A poster was sent to all labor wards in Denmark after five weeks, and a personal letter was sent to all non-responders after three months. The questionnaire contained 169 items, spread over 48 main questions divided into four sections: demographic information, psychosocial health and wellbeing, values, faith and beliefs, and traumatic childbirths and second victims. This study reports from the first and the last section (demographic data and traumatic childbirth). We selected 13 items from the last section, of which the first six were questions developed from the qualitative pilot study and the literature (8, 17, 18). The following seven items were questions translated from an existing tool, the MITSS survey (24). These items and their translation were face validated by eight obstetricians and midwives. Other items in the questionnaire will be presented separately from this manuscript. The selection of items will be explained in the following section.

For the interview study, we recruited 14 respondents from the survey (six obstetricians and eight midwives) to participate in individual, semi-structured interviews. We did a purposive sampling of participants from the questionnaire where respondents consented to participate in the interview study if they entered their contact details. The idea behind purposive sampling is to select interviewees rich on information and who are likely to generate appropriate and useful data (25). While ensuring that both obstetricians and midwives were represented, we selected a list of phone numbers from respondents who *Agreed* or *Strongly agreed* to one particular statement in the questionnaire: “The traumatic event has made me think more about the meaning of life”. This statement was chosen on the assumption that the selected participants had reflected on the event on an existential level and were therefore ‘rich on information’. Since 305 responders in this category had consented to participate in the interview study, we had to select phone numbers randomly from the list. Because participants were selected from a national survey they came from all parts of Denmark. They were all asked to choose their preferred interview venue (home [6]; work place [6]; at the office of the interviewer [2]). An interview guide (Table S4) was developed based on data from the pilot study, from initial analysis of the questionnaire and from the literature. However, this was not rigidly followed, based on a social constructionist approach perceiving all narratives to be constructed *in situ* and acknowledging the interviewer’s and participant’s constitutive contributions to the dialogue (26). The first author (K.S.) conducted all the interviews and introduced herself as a midwife and researcher. The interviewer paid particular attention to create a non-judgmental atmosphere, focusing on the *experience* of the participants,

rather than the obstetric ‘facts’ of the event. Interviews lasted between 35 and 95 minutes (mean 61) and all were audio-recorded and transcribed verbatim by the first author.

We performed an integration of analysis where the categories from the analysis of the interview study were compared with the questionnaire to find corresponding items that addressed the same issues. Firstly, we analyzed the quantitative data using descriptive statistical methods. Statistical analyses were performed using STATA version 13.1 (StataCorp, College Station, TX, USA). Secondly, a four-step framework analysis was chosen to analyze the qualitative data, comprising four stages: *familiarization* with the data, *thematic analysis*, *indexing* and *charting* (25). Table S3 shows an extract of a chart from the fourth stage. Thirdly, the aim of the study, to explore obstetricians’ and midwives’ experiences with blame, shame, guilt and their existential concerns with respect to their involvement in traumatic childbirth, served as a conceptual framework for a deductive process. The categories were compared with the questionnaire to find corresponding items that addressed the same issues. This iterative process was repeated several times, closely guided by the aim of the study: investigating if themes from the interview data could be represented by the questionnaire data and how results from the quantitative analysis could be elaborated, enhanced or illustrated by the qualitative data. All codes and categories were discussed by the first and last author throughout the process. We used a distinction between an individual’s uncomfortable feeling that they had done something wrong by their own lights – guilt – and the emotions caused by incurring society’s moral disapproval – shame and the process by which society allocates shame - blame (10). Although, this distinction between shame and blame is commonly used (10, 11), it became clear during this process that blame and shame were experienced quite differently depending on who represented ‘society’. Consequently, we transformed three categories concerning blame and shame into i) the patient, ii) clinical peers and ii) official complaints. Individual feelings of self-blame and guilt formed the fourth category of guilt, and finally all data concerning existential considerations or concerns formed the fifth category of existential considerations.

### **Ethics approval**

The Danish National Data Protection Agency gave their formal consent (J.no. 2011-41-6841, 16 November 2011) and data were handled and stored in accordance with the agency’s rules. All participants of the interview study received a letter informing them that the purpose of the study was to obtain knowledge about traumatic childbirth from the perspective of the HCP, that all information would be treated confidentially and that all quotes or summaries of the interview

would appear in an anonymized form in publications. The letter was signed by all 14 participants.

## Results

The results from the questionnaire are displayed in Table 2. Table S2 shows the distribution of obstetricians and midwives for each question. The overall findings concern: i) fear of being blamed (no 1-3) ii) feelings of guilt (no 4) and iii) existential considerations (no 5). These are described in five categories which will be presented separately with results from the quantitative analysis followed by findings from the qualitative analysis. Table 3 shows the five categories which were formed during the mixed methods analysis, including the numbers of the questions from the questionnaire.

### *The patient*

Table 2 shows that 87% of the respondents agreed that *to a great* or *to some extent*, ‘Memories of what happened to the patient kept troubling me for a long time after the event’ (item 7). ‘The patient and/or next of kin blamed me for what happened’ (item 13) was experienced *to a great* or *some extent* by 17%, *to a small extent* by 10 % and *not at all* by 62%. Eleven percent responded that they did not know. All participants in the interview study expressed a continuing awareness and sense of caring for the child and the parents a long time after the birth. However, many of them were unaware of the present health or of the effect on the mother or child. One midwife explained that even now, 12 years after the event, she would still think about that particular mother and child when passing through their town. They all described the fear of being blamed by the parents. Some were not blamed at all. Others experienced fierce accusations at follow-up meetings between the parents and HCPs or in letters from distraught or bereaved parents.

She [the mother] wrote to me for a long time after. Long, long, long, evil letters. Full of sorrow, she was so unhappy. And on the child’s first birthday, or what should have been the first birthday, I had yet another one of these letters, a last one, I didn’t open them anymore. I just put them in her medical records. It was... it was distressing. *Obstetrician 4*

One midwife was openly criticized by the parents in the local newspaper, naming her “The murderer of Town X”. Others described a great sense of relief when they realized that the frustration, grief and anger over the outcome of the birth was not turned against them.

### *Clinical peers*

A total of 30% worried *to a great* or *to some extent* about what their peers would think of them after the event (item 8): 34% *to a small extent* and 35% *not at all*. 'For a while after the event I felt shunned by some of my clinical colleagues' (item 5) was experienced *to a great* or *to some extent* by 2%, *to a small extent* by 6% and *not at all* by 90%. Twelve percent *strongly agreed* or *agreed* with 'Comments or behavior from one or several colleagues caused more guilty feelings and/or lower self-esteem' (item 10) and 87% *disagreed* or *strongly disagreed*. In the interview study, obstetricians in particular were aware of the possibility of a judgmental atmosphere at the doctors' morning handover meeting, as a consequence of which they would carefully contemplate how to present the course of events during the traumatic birth. Midwives also considered whether colleagues or management would view them differently, and for that reason, some found it difficult to disclose all aspects of the event. In keeping with the survey data, only a few experienced harsh comments, so the worry of what their peers might have thought of them was often more prominent than their experience of judgmental comments or behavior.

It wasn't very nice. Because then the fingers came (*points*). Those invisible fingers, you know? Not that I think that they [colleagues] really... well, accused me, I don't believe that they did. It's more a matter of the feeling I had myself, because I would look back and think that I could have done something differently, I could have done something that might have been better, in retrospect. So that's the reason why I thought that others must have been thinking the same. *Midwife 8*

Some of the participants reflected that well respected colleagues were subject to less judgement from peers than colleagues carrying less professional respect.

### *Official complaints*

The respondents were asked whether they worried about the possibility of, or an actual official complaint in item 9, and 10% replied *to a great extent*, 19% *to some extent*, 25% *to a small extent* and 44% *not at all*. The interview study demonstrated that worrying about an official complaint was closely related to the type of traumatic birth in which the participant had been involved. Participants who blamed themselves for the outcome seemed to have worried more about receiving a complaint. Not all participants had experienced an official complaint, but they all considered it to be stressful and a psychological burden. Some explained that it was difficult to 'get closure' while waiting for the ruling of the complaint. A few recorded that although they were initially relieved following exoneration, they did not experience closure and they did not relinquish their sense of guilt.

...of course it was a relief to be exonerated, but I still thought that... It wasn't like I thought "O well. Then it was nothing." Because it was still a bad outcome for that child, right? And the mother still had a terrible experience, and... and I was, at least partially, responsible for what had happened, right? *Midwife 6*

### **Guilt**

Half of the respondents *strongly agreed* or *agreed* with 'In the beginning I felt guilty that things turned out the way they did' (item 3), and 36% *strongly agreed* or *agreed* with 'I will always feel some sort of guilt when thinking about the event' (item 4). In the interview study, all participants expressed that their sense of guilt was closely related to their perception of their own impact on the course of events. Those who had doubts about whether a different approach might have changed the outcome were more troubled by guilt, and even more so if an actual mistake had occurred.

You know, that feeling that I actually... maybe didn't kill that child, but may have contributed to it. *Obstetrician 2*

Most participants described having spent many hours agonizing and wondering whether they could have prevented the adverse outcome. One midwife said that her sense of guilt would never disappear because she knew that the parents would have to live with the consequences of her handling of the delivery:

...I think that, what makes it really hard, is the fact that (cries)... they [the parents] *continue* to have a disabled child and all that. It doesn't go away. *Midwife 4*

Another midwife felt guilty to rejoice over the development of her own one-year-old daughter:

...because that other woman had had a [child] who more than likely wouldn't develop normally, you know? That was an extremely heavy burden to carry. *Midwife 6*

Uncertainty as to how to handle guilt was predominant in most interviews yet all the participants felt that guilt was a potential part of their professional life.

We have to live with the fact that we can be guilty of something... I reckon we have to live with it. That we can be guilty of something. *Obstetrician 3*

### *Existential considerations*

Five items in the questionnaire were related to this category. These items concerned considerations at an existential level, addressing both professional and personal implications of the event. Less than ten percent recorded *to a great or some extent* when asked if they had considered leaving either their profession or their institution because of the event (item 11 and 12), whereas more than 75% recorded *not at all*. Half of the respondents *strongly agreed* or *agreed* with, ‘The traumatic event has made me think more about the meaning of life’ (item 6). ‘The event gave rise to personal development opportunities of an emotional and/or spiritual character’ (item 2) was *strongly agreed* or *agreed* by 40%. ‘I have become a better midwife or doctor due to my experiences from the traumatic birth’ (item 1) was *strongly agreed* or *agreed* by 65%. When asked about what impact the traumatic birth had had on their lives, some of the participants of the interview study had considered whether they would be capable of going through a similar ordeal in the future.

Should I really put, not so much other patients, but should I really put myself through all this? *Obstetrician 2*

And how much do I really want to be involved in my career? Is being an obstetrician really that important to me compared to the risk of causing injury to myself? *Obstetrician 6*

One midwife left her profession a few months after the traumatic birth and another spent several years travelling and working before returning to midwifery. Some participants had briefly considered leaving their profession, yet others not at all. However, it was not only the consideration of leaving their jobs which affected participants, more personal and existential considerations were brought into the interview by both obstetricians and midwives.

I think it’s because it’s something existential. I don’t think that... there will always be a sense of loneliness. Because it’s about life and death. [...] We are dealing with something bigger than ourselves. And really speaking, it’s also bigger than the sense of unity we might share on the ward. It’s a different dimension. I think it’s something else. And in those massive existential things that happen in life, whatever it may be [...], I know that we come up short. We just have to realize that we as human beings are all alone. On this earth, right? *Obstetrician 2*

Some participants mentioned positive aspects of personal development and of becoming a better obstetrician or midwife. One obstetrician reckoned that she had become a better doctor, not with respect to her obstetric skills but by achieving a more humble and profound understanding of her

profession and of life as a whole. Other participants stated that they felt obliged to learn from this experience and become a better midwife or doctor. Correspondingly, most participants recorded that the traumatic event had made an impact not only at a professional level, but also on an existential level with respect to a reconsideration of their own path in life or by attempting to create meaning from what could have been a life-shattering event. Some participants included variations on the statement ‘the only people it doesn’t happen to are those who don’t do it’ in the process of making sense of the event, whereas others revolved around ‘why did it happen to *me*?’ Common to all participants was a sense of uncertainty as to how to address this aspect of their profession.

## Discussion

In this mixed methods study of Danish obstetricians’ and midwives’ experiences of traumatic childbirth, we found: i) fear of being blamed by either the patient, clinical peers or through official complaints was of considerable concern to obstetricians and midwives, although few had actual experiences of such blaming; ii) feelings of guilt were reported by 49% of the respondents who had been involved in a traumatic childbirth and in the interview study this was described as a psychological burden, even in cases where no blame was attached and iii) the traumatic childbirth initiated existential considerations with respect to the meaning of life (50%) or being subjected to personal developmental opportunities (40%). Furthermore, 65% percent felt that they had become a better midwife or doctor due to the traumatic incident. These results were supported by the qualitative findings. The vast majority (76%) did not consider leaving their profession. However, this consideration was present at some stage among many interviewees due to concerns about the consequences for their own health and wellbeing if they were to become involved in yet another traumatic childbirth.

To our knowledge, this is the first time that such a mixed methods study has been conducted on both obstetricians’ and midwives’ experiences with blame, guilt and existential concerns when involved in traumatic childbirth. Compared to previous studies, the survey includes a large, national sample of 1027 individuals. The research design merges the Explanatory and Exploratory Sequential Design models described by Creswell and Plano Clark (23). This merged model allowed us to investigate the generalizability of themes that emerged from qualitative data in the pilot study. It also permitted us to conduct interviews and explore further the themes of being

blamed, feeling guilty and the existential considerations of selected participants from the survey. By using this complementary approach to elaborate, illustrate and clarify the results from one method with the results from the other method (23), we gained a more comprehensive understanding of obstetricians' and midwives' existential considerations and experience with blame and guilt after a traumatic childbirth. To our knowledge, these themes have not previously been investigated quantitatively.

A limitation of our study is the response rate of 59% to the questionnaire, which may lead to selection bias, yet this is considerably higher than previously reported response rates that ranged from 5-16% (3, 14, 22). Another concern could be that 60% of the events occurred more than three years ago, which may affect the memory and hence the responses. For the quantitative data we carried out analysis to see whether the responses differed between the groups (time since traumatic birth). Due to very low numbers in some groups, p-values could not be calculated. However, the overall picture is that responses are similar regardless of time since the event. In the interview study some participants found it difficult to remember all details from the event or the aftermath, whereas others had vivid recollections of even the smallest details many years ago.

Another limitation is that no comparison was made between the two professions, their gender, age or seniority and that more sophisticated analyses could have been conducted on both sets of data. Reporting from a mixed methods study in the same manuscript will invariably reduce some of the depths in the presentation, which is a challenge well described in the mixed-methods literature (27, 28).

It could also be argued that the use of a questionnaire developed specifically for this study is a limitation of validity and internal consistency. Conversely, exploring new concepts sometimes requires new tools and methods, and each item was carefully constructed based on thorough analysis and interpretation of the pilot study and the literature. In addition, although our definition of *traumatic* childbirth, where the infant or the mother suffered presumed permanent, severe and possibly fatal injuries related to the birth, underwent thorough consideration and discussion, it remains a somewhat imprecise term. The study aimed to explore experiences with blame, guilt and existential concerns in the aftermath of traumatic childbirth, and we found it essential to apply a definition that would allow some subjective interpretation among the respondents. This was decided to allow respondents' to include all traumatic childbirths within the definition, regardless

of possible poor recollection of details such as Apgar scores, neonatal pH values or other exact measures, and also to acknowledge individual differences in experience and perception of trauma and birth injury. However, such a comprehensive definition is a limitation when interpreting our results, because it includes a broad range of diverse events.

Finally, the process of interviewing one's professional peers has several implications for the research process (29). In this case, we found it an advantage to allow the participants to talk freely, to use medical terminology and to address serious events, without the concern of disturbing a layperson. The possible disadvantages included the risk of the participants withholding information for fear of being judged by a peer, and the potentially implicit mutual understanding during the interview, possibly preventing the interviewer from pursuing or exploring certain subjects. The former was addressed by developing an interview guide that focused on the *experience* of the participants, rather than the obstetric 'facts' of the event, and the latter by sharing the reflections of the interviewees among the group of authors throughout the period of the interviews.

The findings of this study suggest that although few obstetricians and midwives had had actual experiences of being blamed by patients or peers, many feared or worried about blaming in the aftermath of a traumatic childbirth. Analysis of the distressful accounts of being blamed by patients or peers provided an understanding of how devastating such blaming can be and why it is feared by HCPs. The fear of being blamed by patients, peers or official authorities should be viewed in the context of the vast majority confirming that they were troubled by memories of what happened to the patient for a long time after the event. This indicates that obstetricians and midwives exhibit a high level of genuine care for the long term outcome for their patients, regardless of any blame being placed. In support of this finding is the literature advocating a blame-free culture in healthcare services (10, 30) which can be summarized in an often quoted statement by Donald Berwick, former President and CEO of the Institute for Healthcare Improvement: "*Health care workers' egos can be big. But believe me, their superegos are a lot bigger*" (7, p 109). The 'big superegos' of the HCPs may explain some of the discrepancy between fear and actuality of being blamed or judged. Obstetricians' and midwives' high regard of their own capabilities or lack of acceptance of their fallibilities was expressed by midwife 8, when she explained how she attributed her own judgement of herself to her peers, assuming that they had accused her behind her back, because she herself felt she could have prevented the outcome. The participants' reflections about well-respected colleagues being subject to less judge-

ment from peers than colleagues carrying less professional respect indicate that fallibility is linked to (perceived) level of competence. Scott et al has described the significance of coming to terms with personal reflections such as ‘what will others think of me’ and ‘will I ever be trusted again’ when second victims struggle with restoring personal integrity after a traumatic event (1). Furthermore, feelings of guilt, even after official exoneration (midwife 6), indicate that the harshest judges after adverse events may be the HCPs themselves. The obstetricians and midwives in our study were struggling with guilt and self-blame, which was a consistent finding in both the survey and the interview study. This inner struggle with issues of guilt and self-blame has been described by Scott et al (1), and in a number of other studies (2, 3, 8). However, how to cope or live with these tormented feelings of guilt was associated with some degree of uncertainty or even despair in the aftermath of the traumatic event.

Consistent with this, our findings suggest that being involved in a traumatic childbirth initiated various existential considerations. To our knowledge, existential considerations of thinking more about the meaning of life after being involved in a traumatic childbirth have not been previously explored, but with half of the respondents agreeing to this statement, further investigation is necessary. As stated by obstetrician 2 “We come up short” when faced with such existential challenges, and although most participants expressed an awareness of this aspect of their profession, they also displayed uncertainty as to how to address it. Nevertheless, the traumatic childbirth had given rise to personal development opportunities of an emotional and/or spiritual character to many of the respondents, for instance by achieving a more humble and profound understanding of both professional roles and of life as a whole. This could be viewed as a positive consequence leading to growth and possibility—but primarily it indicates that being involved in a traumatic childbirth has an impact on the HCPs at a deeply personal level. A central finding of existential concern in other qualitative studies is the perspective of considering one’s future career and whether or not to move on to a different institution or a different profession (1, 3, 14). Our interview study confirms this as a central issue to some of the participants. However, our survey showed that leaving their profession was *not at all* considered by the majority (76%), and only considered *to a great extent* by 4%.

Finally, having become a better obstetrician or midwife through the experience of the traumatic childbirth was a predominant finding in this study. This could either be interpreted as an indication of the respondents’ disposition to benefit finding and posttraumatic growth (31)—that some-

thing good must have emerged from this traumatic experience—or as an indication of HCPs in fact improving their skills and competences through such traumatic learning experiences. The interpretation of adverse events inevitably leading to a higher educational level of HCPs is an interesting, albeit controversial, perspective in a modern patient safety culture.

In conclusion, the fear of being blamed by the patient, peers or official authorities is of considerable concern to both obstetricians and midwives after a traumatic childbirth, even in cases where there is no blame. Self-blame and guilt appears to dominate when obstetricians and midwives struggle to cope with the aftermath, which is a consistent finding regardless of time since the event. This could indicate that although the current patient safety programs have promoted a more just and learning culture with less blaming and shaming, the personal feeling of guilt remains a burden for the individual HCP. Existential considerations such as thinking more about the meaning of life and experiencing personal development opportunities of an emotional and/or spiritual nature equally seem to play a profound role in the aftermath. This indicates that obstetricians and midwives are not only affected professionally, but also personally when involved in a traumatic childbirth. These existential considerations may be an important part of providing the most adequate support in the aftermath of traumatic childbirth, and further research on how to construct such support systems is required.

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## Legends of Figures and Tables

- Table 1: Demographic and work-related characteristics of all respondents (questionnaire) and participants (interview study)
- Table 2: Distribution of responses to thirteen questionnaire items. Numbers (and percentage) for each response category
- Table 3: Categories formed during mixed methods analyses
- Figure 1: Study design
- Table S1: Demographic and work-related characteristics of all respondents of the questionnaire, stratified by profession
- Table S2: Distribution of responses to thirteen questionnaire items; Obstetricians, Midwives and All. Numbers (and percentage) for each response category
- Table S3: Extract of chart, fourth stage of qualitative framework analysis
- Table S4. Interview guide

<i>Table 1. Demographic and work-related characteristics of the respondents (questionnaire) and participants (interview study)</i>			
	Respondents (Questionnaire)		Participants (Interview)
	Percent	Number	Number
<b>Profession, n</b>		1.237	14
Midwife	76.3	944	8
Obstetrician	23.7	293	6
<i>Missing</i>		0	
<b>Sex, n</b>		1.237	14
Women	91.7	1.134	11
Men	8.3	103	3
<i>Missing</i>		0	
<b>Position, n</b>			
Midwife	57.3	708	
Charge midwife	5.7	70	
Lead midwife	3.2	40	
Practice development midwife	3.3	41	
Specialist trainee	6.2	77	
Specialist registrar	2.4	30	
Consultant	13.0	161	
Head of department	1.0	12	
College tutor	0.6	8	
Other	7.1	88	
<i>Missing</i>		2	
<b>Age, n*</b>		1.215	14
≤29 years	7.9	96	0
30-39 years	31.4	382	5
40-49 years	25.7	312	4
50-59 years	24.7	300	3
≥60 years	10.3	125	2
<i>Missing</i>		22	
<b>Seniority, n</b>		1.219	14
≤5 years	23.2	283	2
6-10 years	16.9	206	2
11-15 years	17.0	207	3
>15 years	42.9	523	7
<i>Missing</i>		18	
<b>Work at the labour ward, n</b>		1.235	14
Yes	78.6	971	11
No**	21.4	264	3
<i>Missing</i>		2	
<b>Involved in a traumatic birth, n</b>		1.212	14
Yes	84.7	1.027	14
No	15.3	185	0
<i>Missing</i>		25	
<b>Time since traumatic birth, n</b>		1.026	12***
< 6 months	8.9	91	3
6-12 months	7.0	72	0
1-3 years	23.7	243	1
> 3 years	60.4	620	8
<i>Missing</i>		1	
* Mean age, years (sd): 44.5 (10.9) Min; max: 20; 73			
** 25% had left the labour ward because they (partly or primarily) felt that the responsibility was too great a burden to carry. 75% had left the labour ward due to other reasons.			
*** 2 participants talked about various events, not recalling a particular time.			

<i>Table 2. Distribution of responses to thirteen questionnaire items. Numbers (and percentage) for each response category.</i>							
<b>The following statements are about your experiences after the traumatic childbirth. How do you agree?</b>	N	All	Strongly agree	Agree	Disagree	Strongly disagree	Don't know
1. I have become a better midwife or doctor due to my experiences from the traumatic birth	1020	138 (13.5%)	525 (51.5%)	164 (16.1%)	65 (6.4%)	128 (12.5%)	
2. The event gave rise to personal development opportunities of an emotional and/or spiritual character	1022	58 (5.7%)	346 (33.9%)	287 (28.1%)	207 (20.3%)	124 (12.1%)	
3. In the beginning I felt guilty that things turned out the way they did	1021	162 (15.9%)	345 (33.8%)	268 (26.2%)	210 (20.6%)	36 (3.5%)	
4. I will always feel some sort of guilt when thinking about the event	1019	96 (9.4%)	271 (26.6%)	346 (34.0%)	275 (27.0%)	31 (3.0%)	
5. Comments or behaviour from one or several colleagues caused more guilty feelings and/or lower self-esteem	1021	28 (2.7%)	96 (9.4%)	290 (28.4%)	585 (57.3%)	22 (2.2%)	
6. The traumatic event has made me think more about the meaning of life	1019	129 (12.7%)	375 (36.8%)	266 (26.1%)	163 (16.0%)	86 (8.4%)	
<b>To which extent do the following statements describe your experience after the traumatic childbirth?</b>	N	All	To a great extent	To some extent	To a small extent	Not at all	Don't know
7. Memories of what happened to the patient kept troubling me for a long time after the event	1022	470 (46.0%)	417 (40.8%)	100 (9.8%)	33 (3.2%)	2 (0.2%)	
8. I worried a lot about what my clinical peers would think about me after the event	1024	86 (8.4%)	227 (22.2%)	344 (33.6%)	361 (35.3%)	6 (0.6%)	
9. I worried about an official complaint (or the possibility of one)	1022	107 (10.5%)	195 (19.1%)	260 (25.4%)	450 (44.0%)	10 (1.0%)	
10. For a while after the event I felt shunned by some of my clinical colleagues	1017	4 (0.4%)	17 (1.7%)	56 (5.5%)	918 (90.3%)	22 (2.2%)	
11. I considered moving to another institution because of the event	1018	26 (2.6%)	26 (2.6%)	49 (4.8%)	898 (88.2%)	19 (1.9%)	
12. I considered leaving my profession because of the event	1018	43 (4.2%)	79 (7.8%)	112 (11.0%)	770 (75.6%)	14 (1.4%)	
13. The patient and/or the next of kin blamed me for what happened	1014	76 (7.5%)	88 (8.7%)	104 (10.3%)	631 (62.2%)	115 (11.3%)	

Table 3. Categories formed during the comparative proces of mixed methods analyses

Category no.	Categories from the qualitative data	Categories formed from the mixed methods analysis	Corresponding issues addressed in the survey
1.	Worrying about the patient and about being blamed	The patient	Item 7, 13
2.	Worry about reaction from peers	Clinical peers	Item 5, 8, 10
3.	Worry about an official complaint	Official complaints	Item 9
4.	Feeling guilty	Guilt	Item 3, 4
5.	Existential considerations	Existential considerations	Item 1, 2, 6, 11, 12

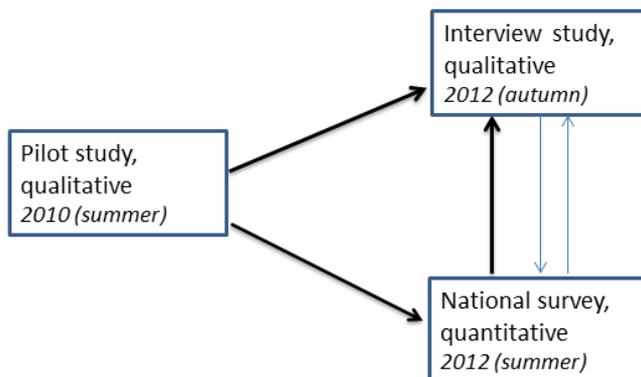


Figure 1. Study design – merger of Explanatory and Exploratory Sequential Design models

*Bold arrows: The pilot study informed both the development of the questionnaire and the interview guide. Results from the survey were explored in the interview study.*

*Thin arrows: Comparative analyses between the two sets of data as a circular proces.*

Table S1. Demographic and work-related characteristics of all respondents of the questionnaire, stratified by profession

	Respondents		Respondents involved in a traumatic childbirth		Midwives involved in a traumatic childbirth		Obstetricians involved in a traumatic childbirth	
	Percent	Number	Percent	Number	Percent	Number	Percent	Number
<b>Profession, n</b>		1237		1027		-		-
Midwife	76.3	944	74.2	763	-	-	-	-
Obstetrician	23.7	293	25.7	264	-	-	-	-
<b>Sex, n</b>		1237		1027		763		264
Women	91.7	1134	90.9	933	99.9	762	64.8	171
Men	8.3	103	9.1	94	0.1	1	35.2	93
<b>Age, n</b>		1215		1007		751		256
≤29 years	7.9	96	5.4	55	7.3	55	0	0
30-39 years	31.4	382	28.9	290	31.8	239	19.9	51
40-49 years	25.7	312	26.7	268	24.8	186	32.0	82
50-59 years	24.7	300	28.1	283	27.2	204	30.9	79
≥60 years	10.3	125	11.0	111	8.9	67	17.2	44
<b>Seniority, n</b>		1219		1010		754		256
≤5 years	23.2	283	18.2	184	23.5	177	2.7	7
6-10 years	16.9	206	16.1	163	15.6	118	17.6	45
11-15 years	17.0	207	18.1	183	19.6	148	13.7	35
>15 years	42.9	523	47.5	480	41.2	311	66.0	169
<b>Work at the labour ward, n</b>		1235		1027		763		264
Yes	78.6	971	78.0	801	76.4	583	82.6	218
No*	21.4	264	22.0	226	23.6	180	17.4	46
<b>Involved in a traumatic birth, n</b>		1212		1027		763		264
Yes	84.7	1027	100	1027	100	763	100	264
No	15.3	185	0	0	0	0	0	0
<b>Time since traumatic birth, n</b>		1026		1026		762		264
< 6 months	8.9	91	8.9	91	7.7	59	12.1	32
6-12 months	7.0	72	7.0	72	8.4	64	3.0	8
1-3 years	23.7	243	23.7	243	23.0	175	25.8	68
> 3 years	60.4	620	60.4	620	60.9	464	59.1	156

\* 25% had left the labour ward because they (partly or primarily) felt that the responsibility was too great a burden to carry. 75% had left the labour ward due to other reasons.

		Table S2. Distribution and responses to thirteen questionnaire items; Obstetricians, Midwives and All. Numbers (and percentage) for each response category															
The following statements are about your experiences after the traumatic childbirth. How do you agree?	N All (1027) N Obst. (264) N Midw. (763) Non-missing	Strongly agree			Agree			Disagree			Strongly disagree			Don't know			
		All	Obstetricians	Midwives	All	Obstetricians	Midwives	All	Obstetricians	Midwives	All	Obstetricians	Midwives	All	Obstetricians	Midwives	
1. I have become a better midwife or doctor due to my experiences from the traumatic birth	1020	263	757	138 (13.5%)	38 (14.4%)	100 (13.2%)	525 (51.5%)	137 (52.1%)	388 (51.3%)	164 (16.1%)	39 (14.8%)	125 (16.5%)	65 (6.4%)	21 (8.0%)	44 (5.8%)	28 (10.6%)	100 (13.2%)
2. The event gave rise to personal development opportunities of an emotional and/or spiritual character*	1022	263	759	58 (5.7%)	14 (5.3%)	44 (5.8%)	346 (33.9%)	69 (26.2%)	277 (36.2%)	287 (28.1%)	83 (31.6%)	204 (26.9%)	207 (20.3%)	63 (25.0%)	144 (19.0%)	124 (12.1%)	90 (11.9%)
3. In the beginning I felt guilty that things turned out the way they did	1021	262	759	162 (15.9%)	37 (14.1%)	125 (16.5%)	345 (33.8%)	87 (33.2%)	258 (34.0%)	268 (26.2%)	67 (25.6%)	201 (26.5%)	210 (20.6%)	61 (23.3%)	149 (19.6%)	36 (3.5%)	10 (3.8%)
4. I will always feel some sort of guilt when thinking about the event	1019	262	757	96 (9.4%)	23 (8.8%)	73 (9.6%)	271 (26.6%)	62 (23.7%)	209 (27.6%)	346 (34.0%)	87 (33.2%)	259 (34.2%)	275 (27.0%)	80 (30.5%)	195 (25.8%)	31 (3.0%)	10 (3.8%)
5. Comments or behaviour from one or several colleagues caused more guilty feelings and/or lower self-esteem	1021	262	759	28 (2.7%)	8 (3.1%)	20 (2.6%)	96 (9.4%)	27 (10.3%)	69 (9.1%)	290 (28.4%)	67 (25.6%)	223 (29.4%)	585 (57.3%)	154 (58.8%)	431 (56.8%)	22 (2.2%)	16 (2.1%)
6. The traumatic event has made me think more about the meaning of life*	1019	262	757	129 (12.7%)	26 (9.9%)	103 (13.6%)	375 (36.8%)	77 (29.4%)	298 (39.4%)	266 (26.1%)	81 (30.9%)	185 (24.4%)	163 (16.0%)	54 (20.6%)	109 (14.4%)	86 (8.4%)	24 (9.2%)
<b>To which extent do the following statements describe your experience after the traumatic childbirth?</b>																	
7. Memories of what happened to the patient kept troubling me for a long time after the event*	1022	263	759	470 (46.0%)	93 (35.4%)	377 (49.7%)	417 (40.8%)	113 (43.0%)	304 (40.1%)	100 (9.8%)	41 (15.6%)	59 (7.8%)	33 (3.2%)	16 (6.1%)	17 (2.2%)	2 (0.2%)	2 (0.3%)
8. I worried a lot about what my clinical peers would think about me after the event	1024	263	761	86 (8.4%)	25 (9.5%)	61 (8.0%)	227 (22.2%)	60 (22.8%)	167 (21.9%)	344 (33.6%)	97 (36.9%)	247 (32.5%)	361 (35.3%)	80 (30.4%)	281 (36.9%)	6 (0.6%)	5 (0.7%)
9. I worried about an official complaint (or the possibility of one)	1022	263	759	107 (10.5%)	31 (11.8%)	76 (10.0%)	195 (19.1%)	47 (17.9%)	148 (19.5%)	260 (25.4%)	80 (30.4%)	180 (23.7%)	450 (44.0%)	104 (39.5%)	346 (45.6%)	10 (1.0%)	9 (1.2%)
10. For a while after the event I felt shunned by some of my clinical colleagues *	1017	262	755	4 (0.4%)	1 (0.4%)	3 (0.4%)	17 (1.7%)	9 (3.4%)	8 (1.1%)	56 (5.5%)	14 (5.3%)	42 (5.6%)	918 (90.3%)	235 (80.7%)	683 (90.5%)	22 (2.2%)	3 (1.1%)
11. I considered moving to another institution because of the event	1018	262	756	25 (2.6%)	2 (0.8%)	24 (3.2%)	26 (2.6%)	7 (2.7%)	19 (2.5%)	49 (4.9%)	10 (3.8%)	39 (5.2%)	898 (88.2%)	240 (91.6%)	658 (87.0%)	19 (1.9%)	3 (1.1%)
12. I considered leaving my profession because of the event *	1018	262	756	43 (4.2%)	7 (2.7%)	36 (4.8%)	79 (7.9%)	12 (4.6%)	67 (8.9%)	112 (11.0%)	23 (8.8%)	89 (11.8%)	770 (75.6%)	215 (82.1%)	555 (73.4%)	14 (1.4%)	5 (1.9%)
13. The patient and/or the next of kin blamed me for what happened	1014	261	753	76 (7.5%)	24 (9.2%)	52 (6.9%)	88 (8.7%)	28 (10.7%)	60 (8.0%)	104 (10.3%)	32 (12.3%)	72 (9.6%)	631 (62.2%)	148 (56.7%)	483 (64.1%)	115 (11.3%)	29 (11.1%)

Table S3. Extract of chart, fourth stage of qualitative framework analysis

Participant	Worrying about the patient and about being blamed	Worry about reaction from peers	Worry about an official complaint	Feeling guilty	Existential concerns and considerations. Meaning making.
Obstetrician 1	Visited the couple many times the following days (at the ward), p. 2. Sometimes the couple may blame you although you have not done anything wrong, p. 8.	Didn't talk much about it, only with the senior consultant, p. 2. It is a sensitive subject to discuss with colleagues, p. 6.	Not in this case. Talked to the couple afterwards and felt assured that they were not dissatisfied with the treatment from the HCPs, p. 9.	Called for back-up by senior consultant who took over, so didn't feel guilt himself, p. 3.	With responsibility comes the risk of guilt, part of the job, p. 3. The experience has made him a better doctor, p. 4.
Obstetrician 2	Relieved when couple asked for her assistance at the following birth, p. 3. Knows the feeling of worrying about meeting the couple again, will they be blaming me?, p. 14.	A great concern to present the course of events to colleagues, p. 2. Difficult to admit that you have failed, p. 5.	The general public is not very understanding; 'public spanking', p. 10.	Felt she took part in killing the baby, p. 1. Difficult that it cannot be undone, p. Stomach in a knot, did not sleep, was in crisis, p. 6. Recalls it vividly, 16 years after, p. 6.	You are expected to move on, p. 6. Makes you realise that you are all alone in the world, p. 7. Should not be allowed to have a job with this kind of responsibility, p. 10.
Obstetrician 3	Knew the patient, had been through IVF and a previous fetus mortuus in week 24, p. 1. Knew that this baby was very important!, p.1.	Sensitive subject. You only discuss it with selected colleagues, p. 12.	Supervisor read through her writings in the patient file - in case of a complaint. Suggested to delete some parts about her thoughts and only leave her actual doings in the file. They did complain over the entire admission and treatment, not over her though, p 4+5.	Frightened when the infant did not move, looked dead. Immediate thought: "My fault!", p. 4. Stomach in a knot when talking about it (four years after), p. 13.	Guilt not associated with the outcome itself, associated with one's involvement in the process/the birth, p. This birth will follow her for the rest of her life, p. Something we have to learn to live with, p. 15.
Midwife 4	The parents blamed her, the talk with them some months after the event was the worst thing she has ever been through in her life, p. 6. Still think a lot about them, six years after, p. 8.	Nurse at the NICU spoke with a tone of accusation and blame, p. 4. A consultant was sympathising with her situation, spoke with her several times. So did her manager, p. 4+6+7+10.	Complaint - the ruling came after 2 years, just as she was going on maternity leave. She was criticised for not calling a doctor in due time, p. 1+2.	Guilt is difficult to share, you have to carry it yourself, p. Self-blame is much worse than blaming from others, p. 4. Feels guilty that the couple have to continue to live with her mistake, p. 8.	Scared of continuing your job, scared of the births, p. 4. Although colleagues and friends were supportive, she did not share everything. Was ashamed. Lead to a sense of being all alone, p. 12. Responsible for life and death, no acknowledgement for this effort (not even in our wages), p. 18.
Midwife 5	Do not know whether the child has suffered long term sequelae, p. 1. Thought a lot about them in her spare time, p. 4.	Spoke a lot with the involved obstetrician, mutual support, p.3. Harsh comment from the obstetric manager, p. 3.	No complaint, the couple were anxious to know that the staff had learned from the event, p. 2. Guidelines for this were changed after the event, p. 2.	Went over and over the course of events in her mind to find out if she was to blame, if she should have done something different, p. 3. Would have been very difficult to live with, if she had made a mistake, p. 9.	Did this baby survive by pure luck?, p. 1. Was humbled by their inability to foresee the poor outcome, they were an experienced team!, p. 3. Considerations about her future clinical decision making, p. 6.
Midwife 6	The woman blamed her several things, e.g. that she had forced her in to a certain birthing position. Felt wrongly accused, it was not like that!, p. 3. Still think about the woman when passing her town, p. 12.	Worried that she would not be allowed back to work!, p. 4. Senior midwives mentioned that amount of contractions, but understated the importance of them. Told her to forget about it, p. 5.	Worried about a complaint. Received it after 18 months, p. 2. Was acquitted. Hoped the mother would receive some financial compensation, p.5.	Went home and felt "my fault, my fault, my fault!", p. 1. Felt guilty for an awful long time, should have seen a psychologist, p.9.	Could not rejoice over her own (healthy) daughter, p. 2+6. Worried in her second pregnancy whether her baby would be healthy, whether she would be punished for her part in that particular birth, p. 6. Unfair that she ended up here - should not even have been on duty!, p.13.

## Paper 3

**Title:**

Guilt without fault: a qualitative study into the ethics of forgiveness after a traumatic childbirth

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## Abstract

Traumatic childbirth, where the infant or the mother suffers severe and possibly fatal injuries related to the birth process, is by no means an inescapable result of human or medical error. Many other reasons may have preceded such adverse outcomes. A traumatic childbirth may occur without the involved midwife or obstetrician being able to prevent the cause of events regardless of undertaking all possible measures but it may also occur as a direct result of the clinical decisions made during the delivery. Nevertheless, far from all adverse events can be easily distinguished as “error” or “non-error”. In our empirical data we found numerous examples of midwives and obstetricians expressing uncertainty about their responsibility and guilt, regardless of any blame being placed. Feeling guilty seemed to play a pivotal part in the narratives of being involved in a traumatic childbirth as a healthcare professional, and even in cases of exoneration in subsequent complaint cases, a profound sense of guilt would still torment some of the participants. Philosophical insight has proven to be a useful resource in dealing with psychological issues of guilt and we used Gamlund’s theory on forgiveness without blame, including his distinction between *‘the standard view’* and *‘the alternative view’*, as our theoretical framework. This philosophical view on error and forgiveness elucidates an interesting dilemma in the field of traumatic events and medical harm in healthcare systems, where healthcare professionals experience that well-intended actions may cause injury, harm or even death to their patients.

## Introduction

Midwifery and obstetrics are associated with joyous events as witnesses the birth of new life welcomed by the parents. However, in rare cases the infant or mother suffers presumed permanent, severe and possibly fatal injuries related to the labour or delivery, and the event may turn into a traumatic experience for all involved. Healthcare professionals (HCPs) who experience an unanticipated adverse event are referred to as ‘second victims’, as opposed to ‘first victims’, who are the patients and their relatives. Second victims often feel responsible for the outcome and are at risk of a variety of symptoms in the aftermath of the event, such as burnout, emotional distress, depressive symptoms, sleep disorders and posttraumatic stress disorder (PTSD) (Beck, 2011, Beck and Gable, 2012, Croskerry et al., 2010, Denham, 2007, McCay and Wu, 2012, Scott et al., 2009, Seys et al., 2013a, Seys et al., 2013b, Sheen et al., 2015, Sirriyeh et al., 2010). In particular, the issues of guilt and feeling responsible for the event appear to be central in the aftermath of the event for the second victims, challenging not only their confidence and self-esteem, but also their ability to move on and put the event behind them (Beck et al., 2015, Wu and Steckelberg, 2012, Scott et al., 2008). In a mixed methods study comprising a national survey of Danish obstetricians and midwives and a qualitative interview study with selected survey participants, we found that obstetricians and midwives struggle with issues of blame, guilt and existential considerations in the aftermath of a traumatic childbirth. Three issues were evident for the obstetricians and midwives who had been involved in a traumatic childbirth: i) feeling guilty; ii) uncertainties as to whether they were to blame for the incident and iii) difficulties in forgiving themselves (Schrøder et al., 2016). Since philosophical insight is a valuable tool for dealing with psychological issues of guilt (Griswold, 2007), we adopted a moral philosophical perspective on forgiveness to obtain a better understanding of these three issues. Accordingly, we applied Gamlund’s theory of forgiveness without blame, including his distinction between ‘*the standard view*’ and ‘*the alternative view*’, as our theoretical framework (Gamlund, 2011a). In this study, we will demonstrate how theories on forgiveness can contribute to the understanding of the complexities of guilt and forgiveness from the perspective of the second victim. We will argue that midwives and obstetricians may experience guilt without being at fault after a traumatic childbirth, and that the acknowledgement of this guilt may be a decisive factor in achieving self-forgiveness.

# 1. Theoretical background

## 1.1 Second victims – error and forgiveness

Previous studies have investigated the prevalence and severity of secondary trauma experienced by HCPs after a traumatic event, and have contributed to the acknowledgement of the need for institutional awareness of the second victim to establish an effective support system for HCPs involved (Seys et al., 2013b, Beck and Gable, 2012, Beck et al., 2015, Scott et al., 2009, Wu, 2000). Literature and research regarding the ‘second victim’ invariably refers to the Institute of Medicine’s report on the problem of medical error in the United States “*To Err is Human: Building a Safer Health System*” (Kohn et al., 2000). The title indicates that human error is inevitable while human beings are involved in delivering healthcare and alludes to the complete aphorism “to err is human, to forgive, divine”, although the nature of forgiveness after medical error is not addressed in the report (Berlinger, 2005, p. ix). Berlinger (2005) explored medical harm from “error” to “forgiveness” and applied “disclosure”, “apology” and “repentance” to describe the sequence of practices and expectations that may culminate in forgiveness: When a medical *error* causes harm to a patient, the post-event trajectory may include *disclosing* what happened, taking full responsibility and *apologising*, expressing sincere *remorse* or even anguish, which may lead to *forgiveness* (Berlinger, 2005).

This study is concerned with aspects of self-forgiveness. The quantitative data from this project showed that 15% of obstetricians and midwives (study population = 1027) who had been involved in a traumatic childbirth had experiences of blame from patients, next of kin or colleagues, whereas as many as 50% had felt some sort of guilt over the outcome of the traumatic birth (Schröder et al., 2016). Our interview study found that HCPs expressed agony and difficulty in letting go of the experience and the guilt attached to it, as stated by one obstetrician: “...*that birth will haunt me for the rest of my life...*” (Obstetrician 3). From the perspective of the potentially therapeutic effect of self-forgiveness described below, we have focused on self-forgiveness instead of interpersonal forgiveness. Although we believe that healthcare organisations must remain attentive to the harmed patient, it goes beyond the aim of this paper to address the complexities of interpersonal forgiveness from the perspective of the patient and relatives.

Self-forgiveness may play an essential part in the aftermath of an adverse event, yet it remains unaddressed in the literature concerning the second victim. The potentially therapeutic effect of self-forgiveness should be considered in this context, because

(...) a failure or inability to forgive oneself is problematic morally and psychologically. It seems possible to be overly hard hearted toward oneself. Indeed we sometimes wonder whether a person's refusal to forgive herself betrays an objectionable sort of pride in being outstandingly principled, in never buckling under the weight of one's humanity. A failure to forgive oneself, when self-forgiveness is due, may lead to destruction of one's capacity for agency, and even to self-annihilation. (...) The issue is humanly important; it is also complex philosophically (Griswold, 2007, p. 122).

We will introduce Gamlund's perspective on forgiveness, and since he claims that self-forgiveness and interpersonal forgiveness follow the same structure (Gamlund, 2014), we will not distinguish the two in the following.

### ***1.2 Forgiveness with or without blame***

Based on findings from the empirical study, that many participants struggled with feelings of guilt, uncertainties as to whether they were to blame for the incident and ultimately, difficulties in self-forgiveness (Schrøder et al., 2016), we chose a philosophical approach for this study, to understand some of the complexities of guilt, blame and forgiveness for the second victim following traumatic childbirth.

It is widely agreed that forgiveness is governed not only by social norms, but also by moral norms (Griswold, 2007), and philosophical exploration of forgiveness as a moral phenomenon has brought about many different views and is still far from reaching any consensus (Fricke, 2011). It is a common assumption in moral philosophy that there is nothing to forgive unless the person has deliberately done wrong to another person (Gamlund, 2011b, Griswold, 2007, Murphy, 2003). Gamlund refers to this as *'the standard view'*, where blameworthiness or culpability is considered a necessary condition for forgiveness. In cases where the individual has done wrong, but has either an excuse or a justification for his action, forgiveness is not the appropriate response. According to Murphy, a conduct may be excused if the person who engaged in the conduct lacked substantial capacity to conform his conduct to the relevant norms (as in the insanity defence), and a conduct may be justified in cases, where the conduct normally would be wrong, but in the given circumstances and all things considered, it was the right thing to do (as in lawful self-defence) (Murphy, 2003). In other words, we can do wrong without deserving blame for it, and when there is no blame, there is nothing to forgive. From this perspective, self-

forgiveness may not be an issue for HCPs, because it is presumed they never make mistakes deliberately or intentionally do harm to their patients. However, blame, guilt and self-forgiveness were distinct themes in both our empirical study (Schrøder et al., 2016), indicating a shortcoming of *the standard view*.

An *alternative view* is offered by Gamlund who argues that there is conceptual space for forgiveness in certain cases where a person has an excuse or a justification for his action, contradicting the preservation of a core notion of forgiveness for unexcused or unjustified wrongdoings as presented in *the standard view*. Gamlund argues that in some cases the person has an excuse or a justification for his wrongdoing, but may still seek forgiveness.

Gamlund proposes a more nuanced view on justifications and forgiveness based on two arguments, the first being *the argument from reasonable rejection of justification*. According to *the standard view*, an act of self-defence that causes a bloody nose is a valid justification of the wrongdoing of hitting another person. There is nothing to forgive because the person was justified in defending himself against the attack, and the victim (in this case the attacker) cannot reasonably reject this justification. What seems to be decisive in this case of self-defence is the fact that the justification is a valid one that everybody can be expected to accept.

However, I claim that not all cases of justification are of the kind where reasonable agreement exists about whether or not it is reasonable for the victim to reject the agent's justification. (Gamlund, 2011b, p. 113)

Gamlund refers to cases where it is not so obvious what the agent should do, and where through no fault of his own he is faced with a difficult choice between two duties or requirements. Depending on which ethical theory one defends, one might come up with different answers to justify the choice of the agent, and consequently, it is not a valid justification which everybody can be expected to accept. Assuming that it is an open question which justification overrides the other, there is room for reasonable disagreement about whether or not it is reasonable to reject the agent's justification. Following this, in a case of justified wrongdoing, if the justification is reasonably rejected (by the victim or even by the agent himself), it is plausible that there is something to forgive.

The other argument is *the argument from moral remainder*. Gamlund argues that moral dilemmas raise some special challenges for forgiveness, because in a moral dilemma one must often do wrong in order to do right. In such cases there is conceptual space for both apology and for-

givenness for overriding a moral duty, for instance not to harm an innocent person, although the action came with a moral justification. Regardless of whether the justification is reasonably rejected or not, the victim may legitimately feel wronged because she/he had to suffer the moral remainder of the wrongdoing, which could have caused pain or hurt and feelings of anger, resentment and bitterness. The agent may legitimately feel sorry for the consequence of her/his action.

The above two arguments support the claim that there could be something to forgive in cases where the agent has a *justification* for his action. Furthermore, Gamlund argues that in the relationship between *excuses* and forgiveness, there is an exception to *the standard view* according to which there is nothing to forgive in cases where someone has an excuse for their action. This exception occurs in one type of excuse, which he calls ‘mitigating excuses’. A mitigating excuse is one that does not eliminate all responsibility from the person performing the action, which creates a conceptual space for forgiveness. Insanity is often used as an example of an exculpatory excuse, whereas a mitigating excuse could be a situation of extreme emotional distress causing for instance inattentiveness in the traffic and consequently a car accident. The victim of this accident may be able to understand and forgive the driver if he receives information about the reason for the emotional distress of the driver. From this alternative view, forgiveness may be the appropriate response to an excusable action.

## **2. Data and methods**

Having presented Gamlund’s three arguments for an alternative view whereby we may reasonably talk about forgiveness in the context of justified or excusable actions, the empirical data of this study will be presented.

### **2.1 Study design**

This study is the third part of an interdisciplinary research project about traumatic childbirth from the perspective of the HCP, the first two parts have been reported previously. To summarize the earlier parts of the study: we employed a mixed methods research design, with data generated from two different approaches: a national questionnaire survey (summer 2012) and a qualitative interview study (autumn 2012), allowing a descriptive as well as an exploratory dimension. The national survey included all obstetricians and midwives in Denmark (n=2098) comprising 563 obstetric consultants and trainees (obstetricians) and 1535 midwives. The response rate

was 59%, corresponding to 1237 respondents (293 obstetricians and 944 midwives). A total of 1027 (85%) stated that they had been involved in a traumatic childbirth (264 obstetricians [93%] and 763 midwives [82%]), which was clearly defined as events where the infant or mother suffered presumed permanent, severe and possibly fatal injuries related to the labour or delivery.

## **2.2 Recruitment**

We recruited 14 respondents from the survey (six obstetricians and eight midwives) to participate in individual, semi-structured interviews. We did a purposive sampling of participants from the questionnaire where respondents consented to participate in the interview study if they entered their contact details. The idea behind purposive sampling is to select interviewees who appear to be rich in information relevant to the project and who are likely to generate appropriate and useful data (Green and Thorogood, 2009). While ensuring that both obstetricians and midwives were represented, we selected a list of phone numbers from respondents who *Agreed* or *Strongly agreed* to one particular statement in the questionnaire: “The traumatic event has made me think more about the meaning of life”. This statement was chosen on the assumption that the selected participants had reflected on the event on an existential level and were therefore ‘rich on information’. Since 305 respondents in this category had consented to participate in the interview study, we had to add a dimension of random selection to our sampling, which was simply performed by picking random phone numbers from the list.

## **2.3 Qualitative interviews and data analysis**

Due to the recruitment strategy as a national survey, the participants came from all parts of Denmark. They were asked to choose their preferred place of interview (home [6]; work place [6]; at the office of the interviewer [2]). All the interviews were conducted by the first author (K.S.), lasted between 30 and 95 minutes (mean 60 minutes) and all were audio-recorded and transcribed verbatim by the first author.

An interview guide was developed based on data from a pilot study, from the initial analysis of the questionnaire and from the literature. However, this was not followed strictly, based on a social constructionist approach perceiving all narratives to be constructed in situ and acknowledging the interviewer’s and participant’s constitutive contributions to the dialogue (Holstein and Gubrium, 1995). In all interviews, the introducing question was to ask the participants to tell about the traumatic childbirth they had attended. They all provided a chronological account of the delivery and their thoughts and concerns during the course of events.

The interviewer introduced herself as a midwife and researcher. The process of interviewing one's professional peers has several implications for the research process (Coar and Sim, 2006). In this case, we found it advantageous to allow the participants to talk freely, to use medical terminology and to address serious events without the concerns that might disturb a layperson. The possible disadvantages included the risk that the participants might withhold information for fear of peer review, and also the potentially implicit mutual understanding during the interview that might prevent the interviewer from pursuing or exploring certain subjects. The former was addressed by developing an interview guide that focused on the *experience* of the participants, rather than the obstetric 'facts' of the event, and the latter by sharing the reflections of the interviewees among the group of co-authors throughout the period of the interviews.

During the analytical process, all accounts of traumatic childbirths were condensed into case descriptions and three of them were selected to illustrate the theoretical perspective chosen for this paper; feeling guilty without being at fault. The criteria for selecting these particular three cases were that they represented what the authors believed to be common dilemmas in obstetric care, based on the entire interview material as well as their own clinical experience.

#### **2.4 Research ethics**

The study was reported to The Danish National Data Protection Agency who gave their formal consent (J.no. 2011-41-6841, 16 November 2011) and data were handled and stored in accordance with the agency's rules. All participants of the study received a letter informing them that the purpose of the study was to obtain knowledge about traumatic childbirth from the perspective of the HCP, that all information would be treated confidentially and that all quotes or summaries of the interview would appear in an anonymized form in publications. Furthermore, the letter stated that all interview data could be withdrawn at any time if the participant wished to do so. The letter was signed by all 14 participants.

### **3. Results**

The results are presented in three sections each corresponding to a genuine case which illustrates each argument of Gamlund's alternative view.

### **3.1 The argument from reasonable rejection of justification**

*Midwife Lewis has just come on for her morning labour ward shift. In one of the delivery rooms is Melissa and her husband, who are about to have their second child. Midwife Lewis was Melissa's midwife throughout this and her first pregnancy and delivery. Melissa's first delivery was a prolonged and strenuous experience for her and though her baby was fine, she had a very bad experience giving birth. In her mind, the only thing that got her through that delivery was the presence of midwife Lewis, and she is therefore extremely pleased to find that she is on duty this morning. Midwife Lewis is told at the handover, that Melissa has been pushing involuntarily for a while, and this continues after the handover. Midwife Lewis feels quite certain that this baby will be born without any complications, as did the older sibling a few years previously. Melissa is very much against being constrained by the belts and cords of a fetal heart rate monitor, and to respect her wishes midwife Lewis monitors the fetal heart closely by intermittent auscultation. She is not concerned about the baby at any stage, but after two hours of pushing, the obstetrician on duty is called in, and he decides to deliver the baby by vacuum extraction due to the lack of progress. However, this attempt fails and at this stage a continuous fetal heart rate monitor has been put on Melissa, showing that the baby is in distress and needs to be delivered quickly. A caesarean section is performed and a baby girl with signs of severe asphyxia is delivered. Midwife Lewis performs an emergency baptism in the operating room, and the girl is rushed to neonatal intensive care. She never recovers and dies 24 hours later.*

*More than ten years after the delivery, midwife Lewis still questions her decision to respect Melissa's wish and not put on the fetal heart monitor. She feels that it would have made a difference, although she will never know if it would have changed the outcome.*

According to Gamlund, not all cases of justification are of a kind where reasonable agreement exists about the justification. An example of such a case could be the case of midwife Lewis. Although, midwife Lewis had not estimated the fetus to be compromised, she still blames herself for not putting on the fetal heart monitor at an earlier stage. Her justification for not doing so was her duty to respect the woman's autonomy. Conversely, it could be argued, that the midwife's duty to protect the unborn child would override her duty to respect the wishes of the labouring woman, in which case she would be justified to put on the fetal heart monitor. Especially in cases where there is no immediate evidence of the fetus being in distress such as a fetal bradycardia during intermittent auscultation, it is an open question as to which justification overrides the oth-

er. Depending on which interpretation (patient's rights versus the potential risk during labour and delivery) one might come up with different answers to the question of the justification of the midwife's act. According to Gamlund, there is room for reasonable disagreement about whether the midwife was justified in not putting on the fetal heart monitor, and the victim (in this case the bereaved parents) may reasonably reject the justification of the action, hence making it plausible that there is something to forgive. In the case of midwife Lewis, the couple filed a complaint after the loss of their daughter, but it was dismissed by the authorities on the grounds, that there was no medical indication to put on the fetal heart monitor. In this respect, midwife Lewis was found morally not guilty for the death of the infant. However, this exoneration did not relieve her of her guilt.

### **3.2 The argument from moral remainder**

*Dr Jones is on duty in a specialized obstetric unit and has been called to the labour ward to attend a twin delivery. After the delivery of twin I, twin II's heartbeat drops to a critical level. An artificial rupture of the membranes is performed to ensure better monitoring of the fetal heart. Unfortunately, the fetus turns into a transverse position, denying the option of vaginal birth. The woman is taken to the operating theatre and preparations for a caesarean section are made. Dr Jones considers the options and decides to attempt to turn the fetus internally to spare the woman a caesarean section (following the vaginal delivery of twin I). His intention is to pull twin II's feet down and to deliver it in a breech position (breech extraction). He succeeds in this procedure, and the baby is born as far as the umbilicus. At this point Dr Jones detects that both of the baby's arms are extended and that one of them is somehow stuck between the baby's head and the pubic bone of the mother. He attempts all possible manoeuvres and tractions to deliver the arms, but they remain stuck. Caesarean section is no longer an option at this stage. Finally, he manages to reach the humerus of the anterior arm and pull it down, and the rest of the delivery goes smoothly. Twin II is alive and well immediately after the delivery; however, the anterior arm is completely limp. Later examination shows that she has suffered permanent damage to the Brachial plexus (Erb's palsy) due to the severe traction during her delivery.*

Gamlund argues that moral dilemmas raise some special challenges for forgiveness. Although clinical decision-making in general may contain various ethical dilemmas, it is probably rarely considered to contain moral dilemmas. However, midwives and obstetricians have a statutory obligation in critical situations to prioritise the condition and the health of the mother over the

condition and health of the fetus (Bergholdt and Ottesen, 2011), and this could entail some moral dilemmas. Dr Jones' decision to attempt a breech extraction to spare the woman a caesarean section was in accordance with his duty to consider the condition and health of the mother. In this case, the woman was not only the mother of twin II *in utero*, but also the mother of the already delivered twin I. Recovery after a vaginal delivery *and* a caesarean section is undoubtedly more protracted than recovery after just a vaginal delivery, and this could have a major impact on the mother's ability to take care of her two babies during the postpartum period. Furthermore, Dr Jones estimated that this manoeuvre would result in a quicker delivery of the compromised twin II than preparing for and performing a caesarean section. It could be argued that Dr Jones' moral dilemma was choosing between two principles in medical care: First the principle of "Primum non nocere" (First, do no harm), which is a well-known maxim concerning not only the potential for harm of every therapy or treatment, but also a consideration of the potential benefits (Smith, 2005). A caesarean section carries the risks of complications, and if compliant with this principle, it should only be performed in cases where the risks for the mother or fetus exceed the risks of the operation. The other principle is included in both the Declaration of Geneva (physician's oath) and in the Hippocratic Oath for Danish medical doctors and is an oath to always practice the medical profession conscientiously and with due diligence<sup>11</sup> (World Medical Association, 2006, The Danish Medical Association, 1815).

According to *the standard view*, Dr Jones was justified in deciding to deliver twin II vaginally, following which neither blame nor forgiveness are appropriate responses. Conversely, Gamlund would argue that depending on which of the two principles one would defend, there is room for reasonable rejection of the justification (as in the case of midwife Lewis). Furthermore, according to *the argument from moral remainder*, there is something to forgive *independently* of whether the victim (twin II) accepts the justification for the action or not. Even if in retrospect she acknowledges that Dr Jones' decision to attempt a vaginal delivery was justified in the principle of "Primum non nocere", she may still legitimately feel wronged. She may feel that her anger, resentment and bitterness are justified *because* she had to suffer the moral remainder of this decision and live with a life-long disability, and this gives her a standing to forgive the doc-

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<sup>11</sup> The exact wording in the Declaration of Geneva: "(...) I will practice my profession with conscience and dignity (...)" (World Medical Association, 2006)

The exact wording in the Hippocratic Oath for Danish medical doctors (authors' translations): "(...) to use my skills with diligence and care for the benefit of society and my fellow men (...)" (The Danish Medical Association).

tor. Accordingly, from the perspective of Dr Jones, who is the individual with the dilemma (the dilemmatic chooser, according to Gamlund), there is conceptual space for an apology for having harmed a patient, although his action came with a moral and a medical justification<sup>12</sup>.

### **3.3 Mitigating excuses**

*Midwife Price is on an evening shift on the labour ward. She is handed over a delivery where so far, the woman in labour has had a prolonged and painful labour. Prior to this shift, the woman has received several epidural top-ups with only minor pain relief. During the next few hours, the labour progresses slowly and midwife Price calls both the junior and consultant obstetrician a few times to discuss the poor progress, the interventions (among others a syntocinon drip to encourage contractions) and also a slight rise in the woman's temperature. Both doctors are very busy in the emergency room, and midwife Price agrees to consult the doctors over the phone, sensing that her patient is not as acute as the patient in the emergency room. Finally the baby is delivered but unexpectedly shows signs of severe asphyxia. She is quickly referred to the neonatal intensive care unit, and the following weeks reveal that she has suffered permanent cerebral damage. The obstetric consultant on duty sees the CTG trace a few hours after the delivery and comments that there were too many contractions and that the drip probably should not have been increased, although he ordered it over the phone. Midwife Price is distraught that she did not get this second opinion during the delivery when she could have acted upon it and regrets that she did not insist on the doctor leaving the patient at the emergency room to go to the labour ward.*

Until now, we have examined the relation between justification and forgiveness, and we have proposed two arguments in support of Gamlund's claim that there is something to forgive in certain cases, where there is a justification for an action. In this part, we will examine the relationship between excuses and forgiveness, viz a case of a 'mitigating excuse'. Gamlund gives an example of a mitigating excuse where a driver has just received severely bad news that his daughter has fallen down the stairs and died. This causes him to be less attentive and hit a child on the road when rushing home. In our case, midwife Price is not in emotional distress, but in a situation, which is familiar to most HCPs: a busy labour ward where it is difficult to get adequate assistance, in this case help from doctors who are attending acute patients. Although certain

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<sup>12</sup> No official complaint was filed by the couple in this case. However, Dr Jones encouraged the couple to apply for financial compensation.

measures can be taken to solve this predicament, such as summoning extra staff, the urgency of unforeseen complications may still overturn the workload, leaving staff in situations where they have to prioritise which complication is the most acute or severe. In retrospect, the delivery midwife Price attended was more complicated than she estimated, and the infant suffered permanent cerebral damage. Although one will never know whether the delivery itself caused the adverse outcome and whether it could have been prevented, midwife Price feels guilty that she did not insist on calling the doctors on duty to the labour ward. It could be argued that an exceedingly busy ward is a mitigating excuse, where labour ward staff must realise that there is a balance of need and that some patients will receive suboptimal care and treatment. If an adverse event arises due to such busy shifts, the victim may be able to understand and forgive if they receive information about the situation and the predicament in which the staff found themselves trying to prioritise patients. From this alternative view, forgiveness may be the appropriate response to an excusable action. In this case, the woman filed an official complaint, which was dismissed. When midwife Price finally received this exoneration, she explained that:

(...) of course it was a relief to be exonerated, but I still thought that... It wasn't like I thought "O well. Then it was nothing." Because it was still a bad outcome for that child, right? And the mother still had a terrible experience, and... and I was, at least partially, responsible for what had happened, right? *Midwife Price*

#### 4. Discussion

The three cases presented clinical situations where the midwife or obstetrician involved is faced with a dilemmatic choice, from which Gamlund's theories on forgiveness have contributed to the understanding of the complexities of guilt and forgiveness from the perspective of the second victim. During the interviews, all participants described how their decision making was subsequently subjected to careful examination by themselves, questioning every detail in the process leading to their decision. This was done to try to decide for themselves whether they were to blame for the poor outcome. In none of the cases a reprimand or official blame verdict was placed on the HCP. However, all three HCPs expressed feelings of guilt despite the fact that following an official complaint in two of the cases they were exonerated.

In the words of Gamlund, these cases represent 'guilt without fault', where the person is aware that he is not really at fault but nevertheless feels guilty, and in such cases it is reasonable to

suppose that the person feels as if he/she is morally responsible for the event. If these HCPs feel *as if* they have done something wrong, then *There is simply no consolation for them to be found in the thought that what they did was not really their fault* (Gamlund, 2011b, p. 124). Following this it becomes vital that second victims experience acknowledgement of their guilty feelings rather than futile attempts to take away their guilt. According to Gamlund, and supported in our empirical data, the HCPs will always entertain the thought that they could have done something differently and changed the outcome, regardless of being told that they did nothing wrong. Failing to recognise and acknowledge guilt or guilty feelings precludes self-forgiveness, which could have a negative impact on the recovery of the second victim. As stated earlier: *A failure to forgive oneself, when self-forgiveness is due, may lead to destruction of one's capacity for agency, and even to self-annihilation* (Griswold, 2007, p. 122), or in Gamlund's wording: *Self-forgiveness restores their capability to carry on as functioning persons even after causing (...) harm or death to other innocent persons* (Gamlund, 2011b, p. 125).

We propose Gamlund's perspective on forgiveness to be an interesting and necessary contribution in the context of healthcare systems and second victims. The Institute of Medicine's report "To Err is Human" (Kohn et al., 2000) established a new era in healthcare to replace the blame culture with a culture where, in the aftermath of an adverse event, there is disclosure and lessons learnt (Woodward et al., 2009, Wu and Steckelberg, 2012, Scott et al., 2009, Denham, 2007). This new culture is embedded in obstetrics and midwifery, where perinatal audits and debriefings are conducted to improve procedures and prevent future incidents. However, these measures occur at an organisational level and may leave the individual HCP with no support following traumatic childbirth (Wu and Steckelberg, 2012). As a result, individual guilt has been dismissed because it is perceived as going beyond the scope of healthcare and patient safety.

The role of guilt is beyond the purview of public health: it is highly individualistic, based on personal morality and attempts to influence it at a population level would be misguided and doomed to fail (Woodward et al., 2009, p. 1291). However, it could be argued that the narrow focus on the organisation could prove to be counter-productive if it leads to a failure to recognise and acknowledge the individual HCP's struggle with guilt on a personal level. Pleading for the recognition of guilt as playing an important role in the aftermath of a traumatic event should not be understood as a backwards step towards a blame-culture that we have tried to abandon over the last 15 years. On the contrary, we suggest that embracing guilt and feelings of guilt is an essential part of the medical profession that con-

tributes to the learning environment in a just organisation, where HCPs can legitimately express their experience in the aftermath of a traumatic event. Learning from our mistakes is vital and to provide safe, high-quality healthcare, the health and wellbeing of the HCP is an essential aspect to consider (RCP, 2015, Croskerry et al., 2010). Consequently, the impact of guilt and the need for forgiveness deserves more awareness and attention in midwifery and obstetrics.

The aphorism “To Err is Human” seems to be invalid for HCPs in pursuit of improving patient safety and minimising or eliminating errors and mistakes. In the UK National Health Service, unprecedented pressure with increasing workloads, repeated reorganisation, and a culture of blame and fear are taking their toll on the health and wellbeing of HCPs (Wilkinson, 2015). Similar circumstances are evident in many other countries where soaring healthcare budgets have resulted in increased pressure on HCPs to do more with less often resulting in poor management of the aftermath of traumatic events and with insufficient support systems for the HCPs involved (Wu and Steckelberg, 2012). By adopting Gamlund’s terminology of ‘guilt without fault’ we could clarify some of the uncertainty and ambivalence HCPs experience after traumatic events—when they feel guilty without being at fault. *Many physicians express both repudiation and acceptance of guilt. This ambivalence suggests uncertainty and conflict in physicians’ attribution, and in their perceptions of personal responsibility* (Collins et al., 2009, p.1289), which we recognised in our interview study.

Three points for discussions should be addressed in this context. The first relates to the use of moral philosophy as a theoretical framework in the context of healthcare and traumatic events. It could be argued, that midwives and obstetricians are faced with medical and not moral dilemmas, and the use of Gamlund’s moral philosophical perspective could be rejected in this context. However, it is an inadequate assumption that clinical decisions are based only on evidence and facts, and research is carried out to understand the complexities of human thinking and reasoning in clinical decision making (Croskerry, 2009, Croskerry et al., 2010, Kyratsis et al., 2014, Stark and Fins, 2014). The uncertainty about guilt expressed by HCPs indicates a need for an even broader philosophical discussion about responsibility and accountability in healthcare.

The second point for discussion relates to the pitfall of what has been called “pseudo self-forgiveness”, where the wrongdoer might dissociate himself from the wrongdoing by downplaying the severity of the wrongdoing or excusing his actions and avoiding responsibility (Woodyatt and Wenzel, 2013). It is worth acknowledging that *Self-forgiveness is rightly suspect-*

*ed of abuse. [...] It all too easily degenerates into self-interested condonation or excuse making* (Griswold, 2007, p. 122). However, genuine self-forgiveness includes sincere acknowledgment of the wrongdoing and acceptance of responsibility, and only genuine self-forgiveness offers the restorative effect on the wrongdoer's self-regard and psychological well-being (Woodyatt and Wenzel, 2013). Gamlund argues that counterfactual narrative thinking is required for self-forgiveness to be morally appropriate, such as *If I were in those very same circumstances over again, then I, as I now am, would not do what I did then* (Gamlund, 2014, p. 245-246). While there are occasional instances of HCPs malevolently damaging patients, this is extraordinary (Woodward et al., 2009). The vast majority of traumatic incidents in healthcare occur due to unforeseen or unavoidable events due to organisational problems or due to clinical decisions made to the best of the HCPs' abilities and professional knowledge during the course of events which turned out to be either suboptimal or damaging leading to adverse outcomes. In the three cases presented, we have tried to emphasise these points. Such counterfactual narrative thinking was expressed by all participants of our study who would have acted differently if they had known the adverse outcome.

The final point relates to the constitutive elements of self-forgiveness and when it is morally permissible to forgive oneself. Gamlund argues that before an agent considers whether to forgive him/herself, he/she must also address the perceived wrongdoing to the victim in order to validate that self-forgiveness is morally permissible (Gamlund, 2014). Both Gamlund and Griswold have proposed different scenarios for self-forgiveness with respect to injuries to others (Gamlund, 2014, Griswold, 2007), where the victim is respectively willing, unwilling or unable to forgive the agent for various reasons. The nature of the relationship between a HCP and a patient adds further complexity to the interpersonal forgiveness. Berlinger explains how the organisational handling of medical harm may (...) *place pressure on injured patients and their families to forgive automatically—by reminding them, in subtle or not-so-subtle ways, that “good” people are “forgiving”, or by assuring them that offering forgiveness will bring them “closure”, or by telling them that, after all, nobody meant to harm them—even as these patients and their families remain profoundly distressed (...)* (Berlinger, 2005, p. 82) For this reason we consider Gamlund's argument that the agent should address the victim before considering to forgive him/herself, to be inadequate in the context of traumatic events in healthcare because disclosure, repentance and apology to the patient in some cases may place ethical pressure on the patient to forgive the HCP.

## 5. Conclusion

The objective of this paper was to demonstrate how theories on forgiveness can contribute to the understanding of the complexities of guilt and forgiveness from the perspective of the second victim. We have shown that midwives and obstetricians may experience guilt without being at fault after a traumatic childbirth, and that the acknowledgement of this guilt is a decisive factor in achieving self-forgiveness. Cases, derived from our empirical study, have illustrated how guilt and hence forgiveness may be appropriate responses, even in situations where the HCPs were justified or had an excuse for their clinical decisions and the subsequent course of events. Failing to recognise and acknowledge guilt or guilty feelings precludes self-forgiveness, which could have a negative impact on the recovery of the second victim. Developing and improving support systems for second victims is a multi-factorial task, and we suggest that the narrow focus on medico-legal and patient safety perspectives is complemented with moral philosophical perspectives, both within the healthcare systems and in the education of HCPs. Non-judgemental recognition and acknowledgement of guilt and the impact of feeling guilty should be promoted, because neglecting or suppressing the feelings of guilt after a traumatic event obstruct the restorative function of self-forgiveness.

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## 10. List of appendices

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**Appendix A**  
**Literature Review**

Authors	Title	Year	Setting	Study population	Sampling	Midwifery/Obstetrics	Type of study	Findings	Definition of traumatic events
Rice, Warland and Ed	Bearing witness: Midwives experiences of witnessing traumatic birth	2012	Community practice and obstetric tertiary referral centre, Australia	Ten currently and previously registered midwives	Self-selected through snowball sampling	Midwifery	Descriptive qualitative study, semi-structured interviews	<p>Three main themes: 'Stuck between two philosophies', 'What could I have done differently?' and 'Feeling for the woman'.</p> <p>Midwives reported symptoms of secondary traumatic stress. They were not only traumatised by obstetric emergencies but by witnessing medical interventions, they considered the woman did not want.</p>	'Trauma is in the eye of the beholder' (meaning that if the participant had experienced the birth as traumatic, then it was traumatic).

Authors	Title	Year	Setting	Study population	Sampling	Midwifery/Obstetrics	Type of study	Findings	Definition of traumatic events
Beck and Gable	A Mixed Methods Study of Secondary Traumatic Stress in Labor and Delivery Nurses	2012	Members of the Association of Women's Health, Obstetric and Neonatal Nurses (US)	464 Labor and Delivery nurses (response rate 15%) of which 322 (70%) participated in the qualitative part of the study.	Random sample of members of the AW-HONN	Midwifery (nursing)	Mixed methods: questionnaire with the Secondary Traumatic Stress Scale and a free space writing for description of experiences with traumatic childbirth	<p>35% reported moderate to severe levels of secondary traumatic stress, 26% met all diagnostic criteria for a positive screen for PTSD. These levels are more or less equivalent to other studies of nurses in other specialties or professionals outside nursing (e.g. social workers).</p> <p>Six themes emerged from the qualitative analysis. The top three traumatic births were infant/fetal demise, maternal death and shoulder dystocia. Abusive deliveries were described as traumatic, witnessing physicians violating women</p>	<p>Quantitative study: Secondary traumatic stress.</p> <p>Qualitative study: "Please describe in as much detail as you can remember your experiences being present at a traumatic childbirth."</p>

Authors	Title	Year	Setting	Study population	Sampling	Mid-wifery/ Obstetrics	Type of study	Findings	Definition of traumatic events
Halperin, Goldblatt et al	Stressful Child-birth Situations: A Qualitative study of Mid-wives	2011	6 labor and delivery units in Israel	18 mid-wives	Purposive-convenience sampling of information-rich informants	Mid-wifery	Individual semi-structured in-depth interviews	Two main themes; one related to stressful childbirth situations and their impact on midwives, the other to coping with stressful situations, focusing on coping difficulties and suggestions for change. Concludes that stressful childbirth situations can have a long-term impact on midwives' professional and personal identities.	Clinical life-threatening childbirth situations

Authors	Title	Year	Setting	Study population	Sampling	Midwifery/Obstetrics	Type of study	Findings	Definition of traumatic events
Beck	The obstetric nightmare of shoulder dystocia: A tale from two perspectives	2013	US	57 nurses (and 23 mothers from another study, omitted from this review).	Sampled cases in which nurses had identified shoulder dystocia as the traumatic birth in their free space writing in Beck and Gable, 2012.	Midwifery (nursing)	Secondary analysis of qualitative data from Beck and Gable, 2012. Survey with a free space writing for description of experiences with traumatic childbirth.	Descriptions of feeling helpless, feeling like being part of a gang rape, feeling numb, feelings of regret about not speaking up, silently praying and fear of litigation. Haunted by memories even many years after the incident.	Shoulder dystocia
Goldbort, Knepp et al.	Intrapartum nurses' lived experience in a traumatic birthing process	2011	Members of the Indiana Association of Women's Health, Obstetric and Neonatal Nurses (US)	Nine nurses	Call-out to members of Indiana's AW-HONN Section Chapters.	Midwifery (nursing)	Semi-structured interviews	The impact of an unexpected event can be emblazoned on one's memory for many years with an immediate response of secondary traumatic stress disorder symptoms.	"Tell me about your experience of participating in an unexpected/traumatic birth"

Authors	Title	Year	Setting	Study population	Sampling	Mid-wifery/Obstetrics	Type of study	Findings	Definition of traumatic events
Ben-Ezra, Palgi et al.	The impact of perinatal death on obstetric nurses: a longitudinal and cross-sectional examination	2014	Sourasky Medical Center, Tel Aviv (10,000 births/year)	27/70 (39%) obstetric nurses (all also midwives)	<p>Study 1: 70 obstetric nurses (=all employed in the unit) were approached and asked to participate.</p> <p>Study 2: Participants in study 2 (n=27) and a comparison group of obstetric nurses (n=63) who were not exposed to perinatal death in the past 2 months.</p>	Mid-wifery (nursing)	<p>Study 1: longitudinal study.</p> <p>Study 2: cross-sectional study.</p>	<p>Psychiatric symptoms assessed by three measures: PTSD symptoms, depressive symptoms and psychosomatic symptoms. Psychological factors were also measured.</p> <p>Higher levels of psychiatric symptoms were measured after exposure to perinatal death.</p>	Perinatal death

Authors	Title	Year	Setting	Study population	Sampling	Midwifery/Obstetrics	Type of study	Findings	Definition of traumatic events
Dahlen and Caplice	What do midwives fear?	2014	Workshops on keeping birth normal and grief and loss in Australia (15) and New Zealand (2)	667 midwives and 72 student midwives	As part of the workshop a session on fear was run. Participants in these sessions were asked to participate in the study.	Midwifery	Qualitative descriptive study	<p>Top fears:</p> <ol style="list-style-type: none"> <li>1. Death of a baby</li> <li>2. Missing something that causes harm</li> <li>3. Obstetric emergencies</li> <li>4. Maternal death</li> <li>5. Being watched and criticised</li> <li>6. Being the cause of a negative birth experience</li> <li>7. Dealing with the unknown and not being prepared</li> <li>8. Losing my passion and confidence in normal birth</li> </ol>	Midwives were asked to write down on a piece of paper their greatest fear.

Authors	Title	Year	Setting	Study population	Sampling	Mid-wifery/Obstetrics	Type of study	Findings	Definition of traumatic events
Sheen, Spiby and Slade	Exposure to traumatic perinatal experiences and post-traumatic stress symptoms in midwives: Prevalence and association with burnout	2015	Members of Royal College of Midwives, UK.	421 midwives who had experienced at least one traumatic perinatal event.	Random selection of 2800 midwives from the Royal College of Midwives' membership database. 464 (16%) responded.	Mid-wifery	National postal survey	33% of midwives within this sample were experiencing symptoms commensurate with clinical post-traumatic stress disorder. Empathy and previous trauma exposure (personal and whilst providing care to women) were associated with more severe posttraumatic stress responses.	The midwife witnessed or listened to an account of an event where they perceived the mother and/or her child to be at risk of serious injury or death and where they (the midwife) experienced a sense of fear, helplessness or horror.

Authors	Title	Year	Setting	Study population	Sampling	Midwifery/Obstetrics	Type of study	Findings	Definition of traumatic events
McCool, Guidera et al.	The Pain That Binds Us: Midwives' Experiences of Loss and Adverse Outcomes Around the World	2009	Midwives from nations located on six different continents.	22 midwives. From the United States ( $n=12$ ), North America outside of the United States ( $n = 1$ ), South America ( $n = 2$ ), Asia ( $n = 2$ ), Australia ( $n = 1$ ), Europe ( $n = 2$ ), and Africa ( $n = 2$ ).	Purposeful sampling	Midwifery	Qualitative interview study	The lack of acknowledgment of the role played by adverse outcomes in midwifery practice exists across the globe. Although midwives' experience of loss or adverse outcome varies by culture, it is a common and painful experience that binds midwives around the world.	Midwives' professional and personal experiences following adverse pregnancy outcomes

Authors	Title	Year	Setting	Study population	Sampling	Mid-wifery/Obstetrics	Type of study	Findings	Definition of traumatic events
Cauldwell, Chapel et al.	Learning about maternal death and grief in the profession:  a pilot qualitative study	2015	An academic National Health Service teaching hospital in London (>5000 births/year).	14 maternity professionals; 4 midwives, 5 trainees and 5 consultants.	Purposive sampling and snowballing technique	Mid-wifery and obstetrics	Qualitative interview study	Maternal death has a major impact on professionals' feelings of grief, guilt and shame, which they are reluctant to talk about. Maternity professionals expressed a desire for training to prepare themselves to respond effectively in the event of maternal death and for better education regarding grief and bereavement.	Maternal death

Authors	Title	Year	Setting	Study population	Sampling	Mid-wifery/Obstetrics	Type of study	Findings	Definition of traumatic events
Nuzum, Meaney and O'Donoghue	The impact of stillbirth on consultant obstetrician gynaecologists: a qualitative study	2014	A university maternity hospital in Ireland (9000 birth/year. Stillbirth rate of 4.6/1000).	8 consultant obstetrician gynaecologists (50% of consultant obstetrician gynaecologists in the hospital).	Purposive sampling	Obstetrics	Qualitative interview study	Stillbirth was identified as amongst the most difficult experiences for consultants. Two superordinate themes emerged: the human response to stillbirth and the weight of responsibility.	The lived experiences, personal feelings and professional impact of stillbirth on consultant obstetrician gynaecologists.

Authors	Title	Year	Setting	Study population	Sampling	Midwifery/Obstetrics	Type of study	Findings	Definition of traumatic events
Puia, Lewis and Beck	Experiences of Obstetric Nurses Who Are Present for a Perinatal Loss	2013	Members of the Association of Women's Health, Obstetric and Neonatal Nurses (US)	464 cases described by 322 labor and delivery nurses, of which 155 included experiences of being present for a perinatal loss.	91 cases (/155) where selected due to rich descriptions and were able to be analyzed	Midwifery (nursing)	Secondary analysis of qualitative data from Beck and Gable, 2012. Survey with a free space writing for description of experiences with traumatic childbirth	In comparing fetal death to infant death, nurses tended to experience similar reactions to the trauma of the event. One significant difference was the need for the nurse of the patient with infant death to place blame, whether it was on self, physician, patient, or other staff member. In fetal death, the nurse experienced self-doubt and frustration with care, but the nurse in infant death went beyond questioning and truly felt responsible or blamed others for the death.	The impact of perinatal loss on obstetric nurses (stillbirth and infant death)

Authors	Title	Year	Setting	Study population	Sampling	Midwifery/Obstetrics	Type of study	Findings	Definition of traumatic events
Beck, Lo-Giudice and Gable	A Mixed-Methods Study of Secondary Traumatic Stress in Certified Nurse-Midwives: Shaken Belief in the Birth Process	2015	Members of the American Midwifery Certification Board (AMCB)	473 certified nurse midwives (response rate 5%) of which 246 (52%) participated in the qualitative part of the study.	All certified nurse midwives (CNM) members of the AMCB were invited (n=9,214)	Midwifery (nurse midwives)	Mixed methods: questionnaire with the Secondary Traumatic Stress Scale and a free space writing for description of experiences with traumatic childbirth	29% reported high to severe STS, and 36% screened positive for PTSD due to attending traumatic births. The top 3 types of traumatic births described were fetal/neonatal death, shoulder dystocia, and infant resuscitation. Content analysis revealed 6 themes: 1) protecting my patients; 2) wreaking havoc; 3) circling the wagons: it takes a team to provide support . . . or not; 4) litigation; (5) shaken belief in the birth process; 6 moving on.	Quantitative study: Secondary traumatic stress.  Qualitative study: "Please describe in as much detail as you can remember your experiences of attending one or more traumatic births."

## **Appendix B**

### **Origin of questions**

	<b>QUESTIONS</b>	<b>ORIGIN</b>
1-11	Background, demographics	New
12	Self-reported health	COPSOQII
13	Self-efficacy (5 items)	COPSOQII
14	Health and wellbeing, recent four weeks (24 items)	COPSOQII
15	Medication (3 items)	COPSOQII
16	Alcohol (3 items)	COPSOQII
17	Sick leave, days	COPSOQII
18	Sick leave, periods	COPSOQII
19	Help and support at work (12 items)	COPSOQII
20	Meaning of life	The Views and Values Survey from the Danish Twin Registry (2009)
21	Satisfied with life	The European Value Study (2008)
22	Meaning and value in life (16 items)	The European Value Study (2008)
23	Membership, church or other	The European Value Study (2008)
24	Church attendance	The European Value Study (2008)
25	Ceremonies, faith (3 items)	The European Value Study (2008), slightly adapted after face validation
26	Ceremonies, culture (3 items)	The European Value Study (2008), slightly adapted after face validation
27	Religious person	The European Value Study (2008)
28	Life after death	The Views and Values Survey from the Danish Twin Registry (2009)
29	Reincarnation	The European Value Study (2008)
30	Faith	The European Value Study (2008)
31	Faith in God	The Views and Values Survey from the Danish Twin Registry (2009)
32	Personal religious practice	The European Value Study (2008)

	QUESTIONS	ORIGIN
33	Prayer and meditation	The Views and Values Survey from the Danish Twin Registry (2009) The European Value Study (2008)
34	Prayer or meditation	The European Value Study (2008)
35	Involved in traumatic childbirth	Adapted from Second Victim Questionnaire, Wu et al.
36	How many times	New
37	Present place of work	Second Victim Questionnaire, Wu et al.
38	Time since the event	MITSS
39	Who did you talk to	Second Victim Questionnaire
40	Sick leave after event	New
41	Length of sick leave	New
42	Experiences in the aftermath, professional character + support from work place (20 items)	MITSS, all items except the last one, which is inspired by Aasland and Førde, 2005.
43	Event covered by the media	New. Inspired by Aasland and Førde, 2005.
44	Experiences in the aftermath, personal and existential character (10 items)	All new items, constructed on the basis of the pilot study and inspired by The Views and Values Survey from the Danish Twin Registry (2009) and Scott et al, (2008), Vis and Boyton (2008), Sirriyeh et al (2010), Engel et al, (2006).
45	Health and wellbeing, aftermath (26 items)	COPSOQII
46	Time of symptoms	New
47	Opinion on medical error and unintended incidents (4 items)	New. (Numbers from Danish Society for Patient Safety)
48	Opinion on perinatal mortality and medical error (5 items)	New. (Numbers from Hove, Bock, Christoffersen, Hedegaard, 2008)

## **Appendix C**

**Cover letter, questionnaire**

Kære

Denne spørgeskemaundersøgelse handler om, hvordan jordemødre og læger oplever at være involveret i et traumatisk fødselsforløb. I denne sammenhæng defineres et traumatisk fødselsforløb som en fødsel, hvor der opstår formodede varige/og eller livstruende skader på mor eller barn, eller hvor mor eller barn ikke overlever fødslen. Formålet med undersøgelsen er at få viden om traumatiske fødselsforløbs betydning for psykisk arbejdsmiljørelaterede helbredsproblemer, og om hvordan jordemødre og læger håndterer at være involveret i disse forløb på det personlige og eksistentielle plan.

Spørgeskemaet er sendt ud til alle jordemødre og hospitalsansatte læger i obstetrik og gynækologi i Danmark. Du opfordres til at deltage i undersøgelsen, uanset om du har været involveret i et traumatisk fødselsforløb. Det har stor betydning for undersøgelsens kvalitet, at så mange som muligt deltager. Det tager ca. 30-45 minutter at læse og besvare spørgeskemaet. Alle besvarelser vil blive behandlet anonymt i henhold til gældende retningslinjer fra Datatilsynet. Du kan deltage i undersøgelsen på en af følgende to måder:

- Udfyld og returner spørgeskemaet i den vedlagte frankerede svarkuvert.
- Udfyld spørgeskemaet elektronisk. Dette gøres ved at XXXXXXXX Kode:

Hvis du udfylder spørgeskemaet elektronisk har du mulighed for at deltage i lodtrækningen om et gavekort til Thomas Pasfalls Nydelsesophold for to personer på Munkebo Kro. Se mere information på <http://www.munkebokro.dk/nydelsesoph.html>. Opholdet er sponsoreret af **Libero** og Munkebo Kro.

Du kan læse mere om undersøgelsen på [www.triobs.dk](http://www.triobs.dk). Vi håber, at du vil deltage i undersøgelsen, og at du vil opfordre dine kolleger til at gøre det samme.

Venlig hilsen



**Katja Schrøder**  
Jordemoder, ph.d.-  
studerende. Syddansk Uni-  
versitet.



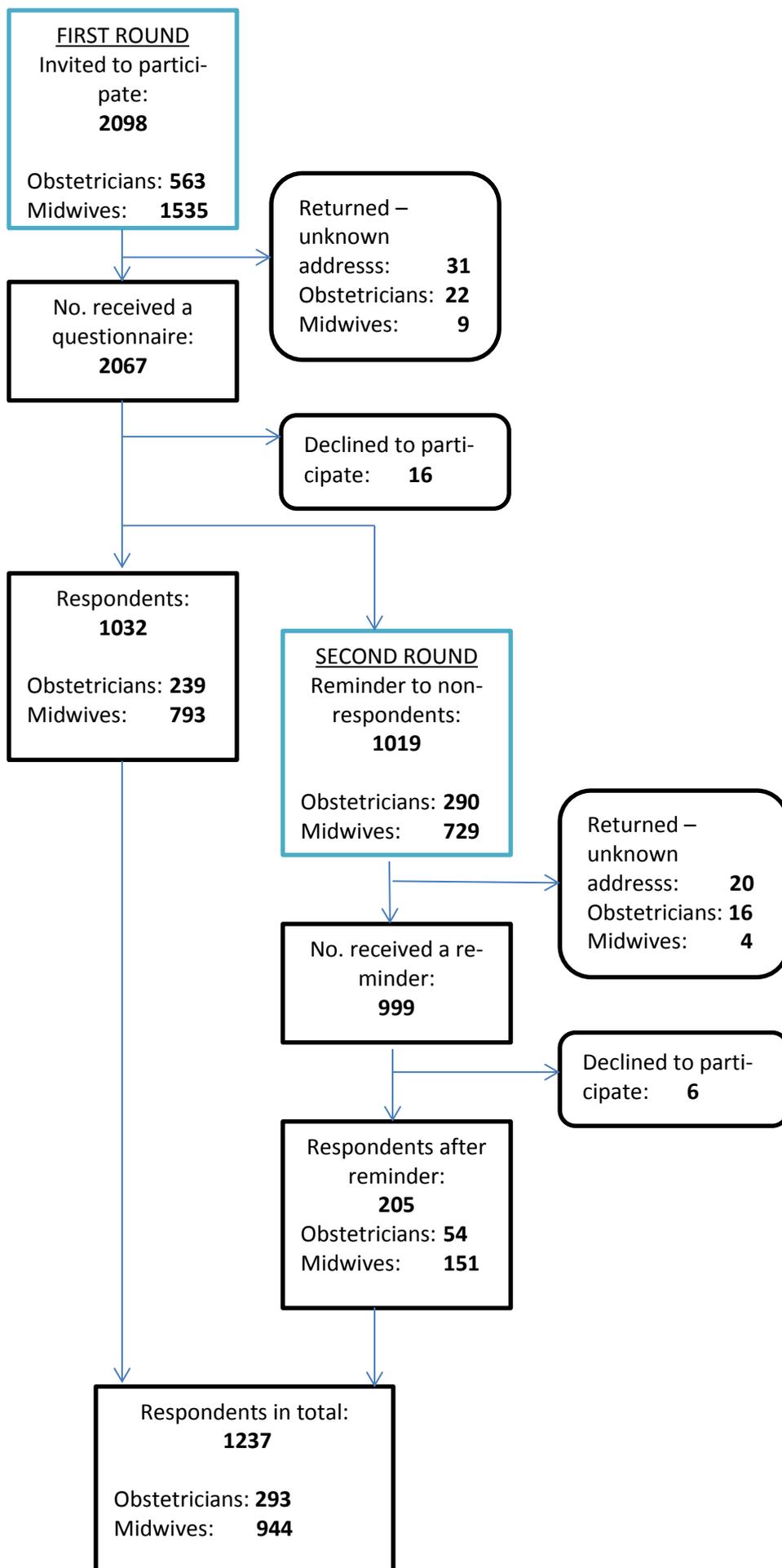
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Odense Universitetshospital.

## Appendix D

### Flowchart of respondents



## **Appendix E**

### **Letter to managers**

Til afdelingsledelsen,

Vi tillader os at skrive til jer for at informere om den spørgeskemaundersøgelse, vi er ved at udføre i forbindelse med forskningsprojektet ”Traumatiske fødselsforløb fra den sundhedsprofessionelles perspektiv”. Projektet handler om, hvordan jordemødre og læger oplever at være involveret i et traumatisk fødselsforløb. I denne sammenhæng defineres et traumatisk fødselsforløb som en fødsel, hvor der opstår varige/og eller livstruende skader på mor eller barn som følge af selve fødslen, eller hvor mor eller barn ikke overlever fødslen. Formålet med undersøgelsen er at øge vores viden om traumatiske fødselsforløbs betydning for det psykiske arbejdsmiljø, og hvordan jordemødre og læger både personligt og eksistentielt håndterer at være involveret i disse forløb.

Spørgeskemaet er sendt ud til alle jordemødre og hospitalsansatte speciallæger samt kursister i gynækologi og obstetrik i Danmark, i alt 2100. Vi har indtil nu modtaget svar fra godt 45% samlet set – hvor jordemødrene har den højeste svarprocent, mens lægerne er lige under 40%.

Det har naturligvis stor betydning for undersøgelsens kvalitet, at så mange som muligt deltager, uanset om de har været involveret i et traumatisk fødselsforløb eller ej. Vi har fået utroligt mange positive kommentarer til undersøgelsen, der udtrykker et stort ønske om, at netop denne side af vores fag belyses og anerkendes.

Vi vil derfor bede jer om at opfordre jeres medarbejdere til at deltage i undersøgelsen. Vi vedlægger et par sider, som I kan hænge op på fødegangen og/eller i jeres konferencelokale. Hvis I har mulighed for at minde om projektet i forbindelse med jeres morgenkonferencer eller ved personalemøder, ville det naturligvis også være meget værdsat.

Ønsker I mere information om projektet, kan I læse mere på [www.triobs.dk](http://www.triobs.dk). Hvis I har spørgsmål, er I velkomne til at kontakte den projektansvarlige, Katja Schrøder, på [kschroeder@health.sdu.dk](mailto:kschroeder@health.sdu.dk) eller på tlf. 6550 4315 / 2383 4327.

Vi håber, at undersøgelsens resultater kan anvendes til gavn for jeres medarbejdere på sigt.

På forhånd tak for jeres tid!



**Katja Schrøder**  
Jordemoder, ph.d.-studerende.  
Syddansk Universitet.



**Niels Christian Hvidt**  
Lektor, theol. Dr.  
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## **Appendix F**

### **Poster for labour wards**

## TIL ALLE JORDEMØDRE OG LÆGER

Tak til de mange af jer, der allerede har deltaget i vores spørgeskemaundersøgelse i forbindelse med forskningsprojektet ”Traumatiske fødselsforløb fra den sundhedsprofessionelles perspektiv”.

Omkring 1000 jordemødre og læger har taget sig tid til at udfylde spørgeskemaet, heraf har 600 svaret elektronisk. Tak for jeres tid!

Vi har fået mange positive kommentarer fra jer, som udtrykker et stort ønske om at netop denne side af vores fag belyses. For at gøre dette bedst muligt har vi brug for, at endnu flere deltager – uanset om de har været involveret i et traumatisk forløb eller ej. Vi håber derfor, at vi med dette opslag kan minde jer om at udfylde skemaet, som I har fået tilsendt. Meget gerne elektronisk – man kan stadigvæk vinde et ophold på Munkebo Kro!

Hvis du ikke har modtaget et spørgeskema – eller det er forsvundet i mellemtiden – kan du skrive til Katja Schrøder på [kschroeder@health.sdu.dk](mailto:kschroeder@health.sdu.dk). Det gælder også, hvis du har spørgsmål til undersøgelsen. Ellers kan du læse mere på [www.triobs.dk](http://www.triobs.dk).

Venlig hilsen



**Katja Schrøder**  
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## **Appendix G**

### **Reminder letter**

Kære

Vi har tidligere skrevet til dig med henblik på deltagelse i spørgeskemaundersøgelsen vedrørende traumatiske fødselsforløb. Vi tillader os at kontakte dig igen for venligt at minde dig om, at du stadigvæk kan deltage. Det gælder uanset om du har været involveret i et traumatisk forløb eller ej. Det har naturligvis virkelig stor betydning for undersøgelsens kvalitet, at så mange som muligt deltager, og vi vil være meget taknemmelige, hvis du vil tage dig tid til at svare. Skulle det ske, at du allerede har svaret, skal du blot se bort fra denne henvendelse.

Formålet med undersøgelsen er at få viden om traumatiske fødselsforløbs betydning for det psykiske arbejdsmiljø, og om hvordan jordemødre og læger både personligt og eksistentielt håndterer at være involveret i disse forløb. I denne sammenhæng defineres et traumatisk fødselsforløb, som en fødsel hvor der opstår varige/og eller livstruende skader på mor eller barn *som følge af selve fødslen*, eller hvor mor eller barn ikke overlever fødslen.

Spørgeskemaet er sendt ud til alle jordemødre og speciallæger samt kursister i gynækologi og obstetrik i Danmark, og indtil nu har halvdelen svaret.

Det tager mellem 15 og 30 minutter at læse og besvare spørgeskemaet. Alle besvarelser behandles anonymt og alle data håndteres i henhold til gældende retningslinjer fra Datatilsynet. Du kan deltage i undersøgelsen på en af følgende to måder:

- Udfyld og returner det tidligere udsendte spørgeskema i den vedlagte frankerede svarkuvert. Hvis du ikke længere har spørgeskemaet, sender vi dig gerne et nyt.
- Udfyld spørgeskemaet elektronisk på [www.datafabrikken.dk](http://www.datafabrikken.dk). Din personlige kode er XXX-XXX

Du kan læse mere om undersøgelsen på [www.triobs.dk](http://www.triobs.dk). Har du spørgsmål eller ønsker du at få et nyt spørgeskema tilsendt, er du meget velkommen til at skrive til Katja Schrøder på [kschroeder@health.sdu.dk](mailto:kschroeder@health.sdu.dk). Vi håber, at du vil deltage i undersøgelsen, og at du vil opfordre dine kolleger til at gøre det samme.

Venlig hilsen



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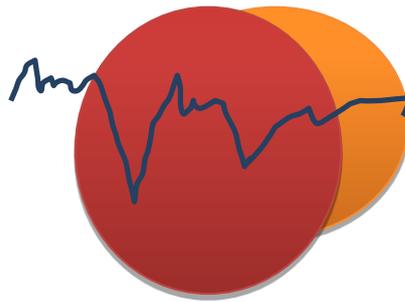
## **Appendix H**

### **Questionnaire**

# SPØRGESKEMA

## Traumatiske fødselsforløb fra den sundhedsprofessionelles perspektiv

Spørgeskemaundersøgelse blandt alle jordemødre og hospitalsansatte læger i obstetrik og gynækologi i Danmark.



**Forskningsenheden Helbred, Menneske og Samfund**  
Institut for Sundhedstjenesteforskning  
DET SUNDHEDSVIDENSKABELIGE FAKULTET

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SKEMAET MÅ MEGET GERNE UDFYLDES ELEKTRONISK PÅ [WWW.DATAFABRIKKEN.DK](http://WWW.DATAFABRIKKEN.DK).  
DIN KODE FINDER DU I FØLGEBREVET.

HVIS DU FORETRÆKKER AT UDFYLDE DENNE PAPIRVERSION AF SPØRGESKEMAET, BEDES DU RETURNERE DET I VEDLAGTE SVARKUVERT.

Læs mere på [www.triobs.dk](http://www.triobs.dk).

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# Velkommen til spørgeskemaundersøgelsen!

Først vil vi bede dig svare på nogle spørgsmål om din baggrund og stilling.

1. Hvilket år blev du født?

\_\_\_\_\_

2. Hvad er dit køn?

Kvinde

Mand

3. Hvad er din uddannelse?

Jordemoder

Speciallæge i gynækologi og obstetrik

Læge under hoveduddannelsesforløb i gynækologi og obstetrik

4. Hvilket år afsluttede du din uddannelse? *(For læger; kandidatår)*

\_\_\_\_\_

5. Hvad er din nuværende stillingsbetegnelse?

Jordemoder

Afdelingsjordemoder eller koordinerende jordemoder

Jordemoder med ledelsesansvar (souschef eller chef)

Uddannelsesansvarlig jordemoder eller underviser på jordemoderuddannelsen

Reservelæge eller 1. reservelæge

Afdelingslæge

Overlæge

Administrerende eller ledende overlæge

Uddannelsesansvarlig overlæge

Andet: \_\_\_\_\_

6. Er du ansat i (*svare kun hvis relevant*):
- Gynækologisk søjle (med eller uden vagtarbejde på fødegang)
  - Obstetrisk søjle
  - Begge dele
7. Hvor mange fødsler varetages årligt i den afdeling, hvor du er ansat?
- Under 1500 fødsler årligt
  - Mellem 1500 og 3000 fødsler årligt
  - Over 3000 fødsler årligt
  - Jeg er ikke ansat på en sygehusafdeling
8. Hvor mange timer arbejder du i gennemsnit om ugen?
- \_\_\_\_\_
9. Arbejder du med fødsler? (*Her menes i klinisk forstand, som jordemoder eller læge*).
- Nej
  - Ja, gå til spørgsmål 12.
10. Hvorfor arbejder du ikke med fødsler?
- Jeg har udelukkende ledelses- og administrative funktioner
  - Jeg er ansat til at varetage funktioner indenfor svangre- og barselsområdet (jordemoder)
  - Jeg er ansat som uddannelsesansvarlig / underviser (jordemoder)
  - Jeg er ansat i gynækologisk søjle uden vagtarbejde i obstetrisk søjle (læge)
  - Jeg er ansat på særlige vilkår (f.eks. seniorordning)
  - Andet
11. Har du fravalgt ansættelse på fødegangen, fordi du har følt, at ansvaret ved varetagelse af fødsler var for tungt at bære?
- Ja, det er den primære årsag til mit valg
  - Ja delvis, det er en af flere årsager til mit valg
  - Nej, det skyldes andre årsager

De næste spørgsmål handler om dit helbred og velbefindende.

12. Hvordan synes du, at dit helbred er alt i alt?

- Fremragende
- Vældig godt
- Godt
- Mindre godt
- Dårligt

13. Hvor godt passer disse påstande på dig? (Her menes hvordan du opfatter dig selv som person, ikke kun i forhold til dit arbejde).

	Passer præcist	Passer nogenlunde	Passer en smule	Passer slet ikke
Jeg kan altid løse problemer, hvis jeg prøver ihærdigt nok.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg er sikker på, at jeg kan håndtere uventede hændelser.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeg bevarer roen, når der er problemer, da jeg stoler på mine evner til at løse dem.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Når jeg støder på et problem, kan jeg som regel finde flere løsninger.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lige meget hvad der sker, kan jeg som regel klare det.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14. Hvordan du har haft det de sidste 4 uger? (Sæt venligst kryds ved alle spørgsmålene).

	Hele tiden	En stor del af tiden	En del af tiden	Lidt af tiden	På intet tidspunkt
Hvor tit har du sovet dårligt og uroligt?	<input type="checkbox"/>				
Hvor tit har du følt dig udkørt?	<input type="checkbox"/>				
Hvor tit har du haft svært ved at falde i søvn?	<input type="checkbox"/>				
Hvor tit har du været fysisk udmattet?	<input type="checkbox"/>				
Hvor tit har du været trist til mode?	<input type="checkbox"/>				
Hvor tit har du følt dig svag og modtagelig over for sygdom?	<input type="checkbox"/>				
Hvor tit har du været følelsesmæssigt udmattet?	<input type="checkbox"/>				
Hvor tit er du vågnet for tidligt uden at kunne falde i søvn igen?	<input type="checkbox"/>				
Hvor tit har du været træt?	<input type="checkbox"/>				
Hvor tit er du vågnet flere gange og har haft svært ved at falde i søvn igen?	<input type="checkbox"/>				
Hvor tit har du tænkt: "Nu kan jeg ikke klare mere"?	<input type="checkbox"/>				
Hvor tit har du haft problemer med at slappe af?	<input type="checkbox"/>				
Hvor tit har du haft koncentrationsbesvær?	<input type="checkbox"/>				
Hvor tit har du været irriteret?	<input type="checkbox"/>				
Hvor tit har du manglet selvtillid?	<input type="checkbox"/>				
Hvor tit har du haft ondt i maven?	<input type="checkbox"/>				
Hvor tit har du haft svært ved at tænke klart?	<input type="checkbox"/>				

	Hele tiden	En stor del af tiden	En del af tiden	Lidt af tiden	På intet tidspunkt
Hvor tit har du været anspændt?	<input type="checkbox"/>				
Hvor tit har du haft ondt i hovedet?	<input type="checkbox"/>				
Hvor tit har du haft svært ved at træffe beslutninger?	<input type="checkbox"/>				
Hvor tit har du været stresset?	<input type="checkbox"/>				
Hvor tit har du haft hjertebanken?	<input type="checkbox"/>				
Hvor tit har du haft dårlig samvittighed eller skyldfølelse?	<input type="checkbox"/>				
Hvor tit har du haft svært ved at huske?	<input type="checkbox"/>				
Hvor tit har du manglet interesse for de ting, du foretager dig i dagligdagen?	<input type="checkbox"/>				
Hvor tit har du haft muskelspændinger?	<input type="checkbox"/>				

15. Har du indenfor de sidste 3 måneder brugt - (Sæt kun ét kryds ud for hvert spørgsmål)

	Dagligt	1 til flere gange om ugen	1 til flere gange om måneden	Sjældnere eller aldrig
- smertestillende midler, herunder hovedpinepiller?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- beroligende midler, herunder nervemedicin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- sovemedicin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

16. Hvor meget alkohol drikker du i gennemsnit om ugen? (Sæt et tal ved hver type - også hvis det er 0)

Øl (eller cider): antal flasker om ugen \_\_\_\_\_

Vin: antal glas om ugen \_\_\_\_\_

Spiritus: antal genstande á 2 cl. om ugen \_\_\_\_\_

17. Hvor mange sygedage har du haft på dit arbejde inden for de sidste 12 måneder? (*Her menes antal dage, du sammenlagt har været sygemeldt fra din arbejdsplads*).

Antal dage, cirka \_\_\_\_\_

18. Hvor mange sygeperioder har du haft inden for de sidste 12 måneder? (*Her menes antal gange, du har været sygemeldt fra din arbejdsplads*).

Antal perioder, cirka \_\_\_\_\_

De følgende spørgsmål handler om psykisk arbejdsmiljø, tilfredshed og trivsel i arbejdet.

19. Spørgsmålene handler om situationer, hvor du har brug for hjælp eller støtte i dit arbejde.

	Altid	Ofte	Somme- tider	Sjældent	Aldrig/ næsten aldrig
Hvor ofte får du hjælp og støtte fra dine kolleger?	<input type="checkbox"/>				
Hvor ofte er dine kolleger villige til at lytte til dine problemer med arbejdet?	<input type="checkbox"/>				

	Altid	Ofte	Somme- tider	Sjældent	Aldrig/ næsten aldrig
Hvor ofte taler dine kolleger med dig om, hvor godt du udfører dit arbejde?	<input type="checkbox"/>				
Er der en god stemning mellem dig og dine kolleger?	<input type="checkbox"/>				
Er der et godt samarbejde blandt kollegerne på din arbejdsplads?	<input type="checkbox"/>				
Føler du dig som en del af et fællesskab på din arbejdsplads?	<input type="checkbox"/>				
Hvor ofte er din nærmeste overordnede villig til at lytte til dine problemer med arbejdet?	<input type="checkbox"/>				
	Altid	Ofte	Somme- tider	Sjældent	Aldrig/ næsten aldrig
Hvor ofte får du hjælp og støtte fra din nærmeste overordnede?	<input type="checkbox"/>				
Hvor ofte taler din nærmeste overordnede med dig om, hvor godt du udfører dit arbejde?	<input type="checkbox"/>				
Er dine arbejdsopgaver meningsfulde?	<input type="checkbox"/>				
Føler du, at du yder en vigtig arbejdsindsats?	<input type="checkbox"/>				
Føler du dig motiveret og engageret i dit arbejde?	<input type="checkbox"/>				

I det følgende kommer der spørgsmål, der handler om overbevisninger og livsindhold.

20. Tænder du over meningen eller formålet med livet?

I høj grad     
  I nogen grad     
  I ringe grad     
  Slet ikke     
  Ved ikke

21. Alt taget i betragtning – hvor tilfreds er du for tiden med livet?

I høj grad     
  I nogen grad     
  I ringe grad     
  Slet ikke     
  Ved ikke

22. Hvad skaber mening og værdi i dit liv? Vurder faktorerne herunder og sæt et kryds, hvor du synes det passer bedst ved hver mulighed:

	I høj grad	I nogen grad	I lille grad	Slet ikke	Ikke relevant / Ved ikke
Min familie	<input type="checkbox"/>				
Min partner	<input type="checkbox"/>				
Mit barn (børn)	<input type="checkbox"/>				
Mine venner	<input type="checkbox"/>				
Mit arbejde	<input type="checkbox"/>				
Materiel velstand	<input type="checkbox"/>				
Min fysiske sundhed	<input type="checkbox"/>				
Personlig vækst og udvikling	<input type="checkbox"/>				
Kærlighed	<input type="checkbox"/>				
Tro	<input type="checkbox"/>				
Seksualitet	<input type="checkbox"/>				
Naturen	<input type="checkbox"/>				
Fred i verden	<input type="checkbox"/>				
Frihed	<input type="checkbox"/>				
Social retfærdighed	<input type="checkbox"/>				
Fritidsinteresser	<input type="checkbox"/>				

23. Er du medlem af folkekirken eller et andet trossamfund?

- Den danske folkekirke
- Andet trossamfund: \_\_\_\_\_
- Ikke medlem

24. Hvor ofte går du i kirke (eller lign.: moske, synagoge)? Ved dette spørgsmål bedes du se bort fra kirkebesøg i forbindelse med bryllupper, begravelser og barnedåb.

- Oftere end 1 gang om ugen
- Ca. 1 gang om ugen
- Ca. 1 gang om måneden
- Ved særlige højtider (f.eks. jul og påske)
- Ca. 1 gang om året
- Sjældnere end 1 gang om året
- Aldrig
- Ved ikke

25. Mener du, at det er vigtigt at holde en ceremoni i forbindelse med følgende begivenheder af trosmæssige årsager:

	Ja	Nej	Ved ikke
Fødsel (f.eks. dåb)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ægteskab (f.eks. bryllup)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Døden (f.eks. begravelse)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

26. Mener du, at det er vigtigt at holde en ceremoni i forbindelse med følgende begivenheder af kulturelle årsager:

	Ja	Nej	Ved ikke
Fødsel (f.eks. dåb)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ægteskab (f.eks. bryllup)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Døden (f.eks. begravelse)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

27. Uanset om du går i kirke eller ej, vil du da mene, at du er:

- Et troende menneske
- Et ikke troende menneske
- Overbevist ateist, gå til spørgsmål 33
- Ved ikke

28. Tror du på et liv efter døden?

- Ja
- Nej
- Ved ikke

29. Tror du på reinkarnation, det vil sige at sjælen efter døden får et nyt liv i et andet legeme?

- Ja
- Nej
- Ved ikke

30. Hvilket af disse udsagn kommer nærmest din tro?

- Der er en personlig Gud
- Der er en særlig åndelig kraft
- Jeg tror ikke, der er nogen form for åndelig kraft eller personlig Gud
- Jeg ved ikke, hvad jeg skal tro

31. Hvilket af disse udsagn kommer nærmest din tro på Gud?

- Jeg tror ikke på Gud nu, og det har jeg aldrig gjort
- Jeg tror ikke på Gud nu, men det gjorde jeg tidligere
- Jeg tror på Gud nu, men det har jeg ikke gjort tidligere
- Jeg tror på Gud nu, og det har jeg altid gjort
- Ved ikke

32. Hvor godt passer følgende udsagn på dig? *"Jeg har min egen måde at være i forbindelse med det guddommelige på uden at gå i kirke eller til gudstjeneste".*

- I høj grad
- I nogen grad
- I lille grad
- Slet ikke
- Ved ikke

33. Hvor ofte beder eller mediterer du?

- Hver dag
- Oftere end 1 gang om ugen
- Ca. 1 gang om ugen
- Ca. 1 gang om måneden
- Ved særlige højtider (eks. jul og påske)
- Sjældnere end 1 gang om året
- Aldrig, gå til spørgsmål 35
- Ved ikke

34. Angiv om der er tale om bøn eller meditation eller andet (sæt gerne flere kryds).

- Bøn, i kirken eller ved andre religiøse samlinger
- Bøn, som en indre dialog henvendt til Gud
- Bøn, som en indre dialog henvendt til "noget større end mig selv"
- Bøn, som en aktiv fysisk handling, f.eks. at knæle, folde hænderne eller lignende
- Bøn, som musik, f.eks. lovsang
- Meditation, som en fysisk aktivitet
- Meditation, som en åndelig praksis
- Meditation, som en mental praksis
- Andet

Nu følger nogle spørgsmål om at have været involveret i et traumatisk fødselsforløb. Et traumatisk fødselsforløb defineres her som en fødsel, hvor der opstår formodede varige og/eller livstruende skader på mor eller barn, eller hvor mor eller barn ikke overlever fødslen.

35. Har du nogensinde været involveret som jordemoder eller læge i et traumatisk fødselsforløb?

- Ja
- Nej, gå til spørgsmål 47

36. Hvor mange gange har du været involveret i et traumatisk fødselsforløb?

\_\_\_\_\_

*Hvis du har oplevet flere traumatiske fødselsforløb, så tænk på det, der har gjort mest indtryk på dig, når du svarer på de følgende spørgsmål.*

37. Skete det på din nuværende arbejdsplads?

- Ja
- Nej

38. Fødselsforløbet skete for

- mindre end 6 måneder siden
- mellem 6 og 12 måneder siden
- mellem 1 og 3 år siden
- mere end 3 år siden

39. Hvem talte du med om forløbet? (Sæt gerne flere kryds).

- Kollega i afdelingen
- Kollega udenfor afdelingen
- Psykolog
- Præst
- Partner / ægtefælle
- Familiemedlem
- Ven
- Risk manager el.lign.
- Person fra ledelsen
- Andre
- Jeg talte ikke med nogen om det

40. Var du sygemeldt efter fødselsforløbet?

- Ja
- Nej, gå til spørgsmål 42
- Ved ikke/husker ikke

41. Hvor længe var du sygemeldt?

- Under 1 uge
- Mellem 1 og 2 uger
- Mellem 2 og 4 uger
- Over 4 uger
- Ved ikke/husker ikke

42. I hvor høj grad passer følgende udsagn til din oplevelse af tiden efter det traumatiske fødselsforløb?

	I høj grad	I nogen grad	I ringe grad	Slet ikke	Ved ikke
Jeg fik tilstrækkelig information om 'næste skridt' igennem hele processen i forhold til de gængse procedurer efter et traumatisk hændelsesforløb.	<input type="checkbox"/>				
Tanker om hvad der var sket med patienten blev ved med at vende tilbage til mig længe efter hændelsesforløbet.	<input type="checkbox"/>				
Jeg bekymrede mig meget om, hvad mine kolleger tænkte om mig efter hændelsesforløbet.	<input type="checkbox"/>				
Jeg vidste, hvor og hvordan jeg kunne få adgang til fortrolig emotionel støtte gennem min arbejdsplads.	<input type="checkbox"/>				
Afdelingen havde en tydelig procedure for indrapportering af utilsigtede hændelser.	<input type="checkbox"/>				
Jeg havde svært ved at fortsætte mit kliniske arbejde efterfølgende.	<input type="checkbox"/>				
Jeg bekymrede mig om en efterfølgende klagesag (eller risikoen for en).	<input type="checkbox"/>				
Jeg følte mig flov over at søge psykologisk hjælp efter hændelsesforløbet.	<input type="checkbox"/>				
Mine kolleger gav mig meningsfuld og vedvarende støtte efter hændelsesforløbet.	<input type="checkbox"/>				
Der var perioder, hvor jeg følte mig mindre i stand til at udføre	<input type="checkbox"/>				

	I høj grad	I nogen grad	I ringe grad	Slet ikke	Ved ikke
mit arbejde sikkert og effektivt på grund af min oplevelse med det traumatiske hændelses-forløb.					
Min nærmeste overordnede gav mig meningsfuld og vedvarende støtte efter hændelsesforløbet.	<input type="checkbox"/>				
Jeg følte, at nogle af mine kolleger undgik mig eller udstødte mig i en tid efter hændelsesforløbet.	<input type="checkbox"/>				
Jeg overvejede at skifte ansættelsessted efter hændelsesforløbet.	<input type="checkbox"/>				
Jeg overvejede at skifte fag efter hændelsesforløbet.	<input type="checkbox"/>				
Jeg fik hjælp til at kommunikere med patienten og/eller pårørende efter hændelsesforløbet.	<input type="checkbox"/>				
Jeg fik mulighed for at tale med patienten og/eller pårørende efter hændelsesforløbet.	<input type="checkbox"/>				
Jeg frygtede at skulle tale med patienten og/eller pårørende efter hændelsesforløbet.	<input type="checkbox"/>				
Jeg tror, at afdelingen (organisationen) lærte af hændelsesforløbet, og at der er blevet foretaget de nødvendige ændringer for at reducere risikoen for et lignende hændelsesforløb.	<input type="checkbox"/>				

	I høj grad	I nogen grad	I ringe grad	Slet ikke	Ved ikke
Afdelingen/organisationen sørgede for at patienten og/eller pårørende fik den støtte, de havde behov for efter hændelsesforløbet.	<input type="checkbox"/>				
Patienten og/eller pårørende bebrejdede mig hændelsesforløbet.	<input type="checkbox"/>				

43. Har du oplevet, at hændelsesforløbet blev omtalt i pressen?

- Ja  
 Nej

44. Følgende udsagn handler om, hvordan du har oplevet at være involveret i et traumatisk fødselsforløb, og hvilken betydning det har haft for dig efterfølgende. Sæt kryds alt efter hvor enig du er i det enkelte udsagn.

	Helt enig	Enig	Uenig	Helt uenig	Ved ikke
Det traumatiske fødselsforløb har gjort, at jeg har tænkt mere over meningen med livet.	<input type="checkbox"/>				
Det traumatiske fødselsforløb har gjort, at jeg har tænkt mere over trosmæssige spørgsmål.	<input type="checkbox"/>				
Det traumatiske fødselsforløb har gjort, at jeg betragter mig selv som mere troende, end jeg var før.	<input type="checkbox"/>				
Det traumatiske fødselsforløb har gjort, at jeg betragter mig selv som mindre troende, end jeg var før.	<input type="checkbox"/>				

	Helt enig	Enig	Uenig	Helt uenig	Ved ikke
Mine erfaringer fra fødselsforløbet har gjort mig til en bedre jordemoder eller læge.	<input type="checkbox"/>				
Fødselsforløbet affødte en mulighed for personlig udvikling af følelsesmæssig og/eller spirituel karakter.	<input type="checkbox"/>				
Før jeg første gang oplevede at være involveret i et traumatisk fødselsforløb, havde jeg følelsen af, at det ikke ville kunne ske for mig.	<input type="checkbox"/>				
I starten følte jeg skyld over, at det gik, som det gjorde.	<input type="checkbox"/>				
Jeg vil altid blive ramt af en vis grad af skyldfølelse, når jeg tænker på forløbet.	<input type="checkbox"/>				
En eller flere kollegers udtalelser eller adfærd efter fødselsforløbet gav mig større skyldfølelse og/eller mindre selvværd.	<input type="checkbox"/>				

45. *Det følgende er en gentagelse af spørgsmålene i spørgsmål 12. Her vil vi imidlertid bede dig svare ud fra, om du oplever, at det er relateret til det traumatiske fødselsforløb.*

Hvordan havde du det efter det traumatiske fødselsforløb?

	Hele tiden	En stor del af tiden	En del af tiden	Lidt af tiden	På intet tidspunkt	Husker ikke
Hvor tit sov du dårligt og uroligt?	<input type="checkbox"/>					
Hvor tit følte du dig udkørt?	<input type="checkbox"/>					
Hvor tit følte du dig fysisk udmattet?	<input type="checkbox"/>					

	Hele tiden	En stor del af tiden	En del af tiden	Lidt af tiden	På intet tidspunkt	Husker ikke
Hvor tit følte du dig trist til mode?	<input type="checkbox"/>					
Hvor tit følte du dig svag og modtagelig overfor sygdom?	<input type="checkbox"/>					
Hvor tit følte du dig følelsesmæssigt udmattet?	<input type="checkbox"/>					
Hvor tit vågnede du for tidligt og havde svært ved at kunne falde i søvn?	<input type="checkbox"/>					
Hvor tit følte du dig træt?	<input type="checkbox"/>					
Hvor tit oplevede du at vågne flere gange og have svært ved at falde i søvn igen?	<input type="checkbox"/>					
Hvor tit tænkte du: "Nu kan jeg ikke klare mere"?	<input type="checkbox"/>					
Hvor tit havde du problemer med at slappe	<input type="checkbox"/>					
Hvor tit havde du koncentrationsbesvær?	<input type="checkbox"/>					
Hvor tit følte du dig irriteret?	<input type="checkbox"/>					
Hvor tit følte du, at du manglede selvtillid?	<input type="checkbox"/>					
Hvor tit havde du ondt i maven?	<input type="checkbox"/>					
Hvor tit havde du svært ved at tænke klart?	<input type="checkbox"/>					
Hvor tit følte du dig anspændt?	<input type="checkbox"/>					
Hvor tit havde du ondt i hovedet?	<input type="checkbox"/>					
Hvor tit havde du svært ved at træffe beslutninger?	<input type="checkbox"/>					
Hvor tit følte du dig stresset?	<input type="checkbox"/>					
Hvor tit havde du hjertebanken?	<input type="checkbox"/>					

	Hele tiden	En stor del af tiden	En del af tiden	Lidt af tiden	På intet tidspunkt	Husker ikke
Hvor tit havde du dårlig samvittighed eller skyldfølelse?	<input type="checkbox"/>					
Hvor tit havde du svært ved at huske	<input type="checkbox"/>					
Hvor tit manglede du interesse for de ting, du normalt foretager dig i hverdagen?	<input type="checkbox"/>					
Hvor tit havde du muskelspændinger?	<input type="checkbox"/>					
Hvor tit havde du drømme (evt. mareridt) om det traumatiske fødselsforløb?	<input type="checkbox"/>					
Hvor tit havde du invasive tanker om det traumatiske fødselsforløb? (Her menes tanker, der forstyrrer eller afbryder ens øvrige tanker eller gøremål).	<input type="checkbox"/>					

46. Hvis du har svaret 'Hele tiden' eller 'En stor del af tiden' i nogle af felterne i det foregående spørgsmål, hvor længe vil du da mene, at du havde det sådan?

- Under 1 måned
- Mellem 1 og 3 måneder
- Mellem 3 og 6 måneder
- Mellem 6 og 12 måneder
- Over 12 måneder
- Ved ikke - symptomerne er ikke gået over endnu
- Ved ikke

Til sidst følger nogle spørgsmål, der handler om din opfattelse af fejl og utilsigtede hændelser.

47. Det anslås, at 5.000 patienter dør årligt som følge af utilsigtede hændelser begået i det danske sundhedsvæsen. Hvor enig er du i følgende udsagn vedrørende dette?

	Helt enig	Enig	Uenig	Helt uenig	Ved ikke
Det tal er alt for højt, det må vi kunne gøre bedre.	<input type="checkbox"/>				
Det tal er meget højt, men jeg tvivler på, at det kan blive meget lavere.	<input type="checkbox"/>				
Jeg mener, at tallet er forventeligt i forhold til, hvor mange mennesker, der hvert år behandles i det danske sundhedsvæsen.	<input type="checkbox"/>				
Jeg tvivler på, at tallet er korrekt.	<input type="checkbox"/>				

48. Fra 1992 til 2004 var der i Danmark 841.168 fødsler. Patientforsikringen modtog i denne periode 153 anmeldelser om skader som følge af iltmangel under fødslen. Heraf blev 127 anerkendt, hvilket vil sige at en obstetrisk ekspert vurderede, at en erfaren specialist ville have handlet anderledes, således at skaden kunne have været undgået. Ud af disse døde i alt 38 børn (29 i neonatal perioden, 9 i alderen 1 til 6 år), mens alle 89 overlevende havde varig funktionsnedsættelse i form af blandt andet cerebral parese, syns- og hørehandicap, epilepsi og nedsat intelligens. Hvor enig er du i følgende udsagn vedrørende udfaldet for de 127 børn?

	Helt enig	Enig	Uenig	Helt uenig	Ved ikke
Det tal er alt for højt, det må vi kunne gøre bedre.	<input type="checkbox"/>				
Det tal er meget højt, men jeg tvivler på, at det kan blive meget lavere.	<input type="checkbox"/>				
Jeg mener, at tallet er forventeligt i forhold til, hvor mange fødsler der er samlet set.	<input type="checkbox"/>				
Der må ikke ligge menneskelige fejl til grund for, at et barn dør eller bliver hjerneskadet.	<input type="checkbox"/>				
Bedre uddannelse og efteruddannelse af jordemødre og læger vil kunne nedsætte antallet af disse forløb.	<input type="checkbox"/>				
Vi skal blive bedre til at acceptere, at det er menneskeligt at begå fejl. Også i fag hvor det kan have alvorlige konsekvenser for andre mennesker.	<input type="checkbox"/>				

Denne spørgeskemaundersøgelse vil blive efterfulgt af en kvalitativ interviewundersøgelse blandt udvalgte besvarelser for at sikre den bedst mulige undersøgelse af området. I den forbindelse vil vi til sidst spørge, om vi må kontakte dig på et senere tidspunkt med henblik på et kvalitativt interview. Hvis vi må, bedes du skrive dit telefonnummer her:

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Har du kommentarer til undersøgelsen, er du meget velkommen til at skrive dem her:

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**Spørgeskemaundersøgelsen er nu slut.**

**Tak for din tid!**

Du kan følge med i undersøgelsens resultater på [www.triobs.dk](http://www.triobs.dk).

## **Appendix I**

### **Information and consent, interviews**

## Skriftlig information til interviewdeltager

Du har sagt ja til at deltage i denne interviewundersøgelse, som omhandler traumatiske fødselsforløb fra jordemoderens og lægens perspektiv. Undersøgelsen er godkendt af Datatilsynet og følger gældende retningslinjer herfra. Alle oplysninger vil blive behandlet fortroligt og vil blive anonymiseret, når de inddrages i publikationer. Når projektperioden er slut destrueres personoplysninger (navn og telefonnummer), men indtil da vil jeg gerne beholde dem, således at jeg har mulighed for at kontakte dig i tilfælde af behov for uddybende spørgsmål.

Hvert interview varer ca. 1 time og optages på bånd.

Du kan til hver en tid trække dit tilsagn om deltagelse tilbage, også efter interviewet er foretaget.

Hvis du har spørgsmål, er du velkommen til at kontakte mig.

Med venlig hilsen

Katja Schrøder  
Jordemoder, ph.d.-studerende  
Syddansk Universitet  
Tlf: 23 83 43 27 / [kschroeder@health.sdu.dk](mailto:kschroeder@health.sdu.dk)

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Jeg har læst ovenstående skriftlige information og er indforstået hermed.

Dato: \_\_\_\_\_

Underskrift: \_\_\_\_\_

## **Appendix J**

**Debriefing guideline from an obstetric department in Denmark**

**“Handling employee reactions after critical incidents or adverse events”**

<b>I</b>	<p><b>Formål</b> Formålet er at sikre, at alle implicerede personaler ved dødsfald eller anden traumatisk hændelse i arbejdet med patienter indlagt i afd. D får mulighed for at bearbejde oplevelsen og få den nødvendige krisehjælp såvel akut som i tiden efter hændelsen. Endvidere at sikre anmeldelse af eventuel psykisk arbejdsskade med baggrund i forløbet, jf. Arbejdsskadestyrelsens vejledning nr. 175 af 30.11.00 om anmeldelse af psykiske lidelser.</p>
<b>II</b>	<p><b>Hvem er omfattet af indsatsen?</b> <i>Alt impliceret personale.</i></p>
<b>III</b>	<p><b>Hvornår anvendes krisehåndteringen?</b> Ved pludselig opstået krisesituation eller anden traumatisk hændelse, som opleves psykisk belastende og evt. kriseudløsende for de implicerede personaler.</p>
<b>IV</b>	<p><b>Metode</b> Indsatsen er delt i to faser, idet der anvendes dels en "defusing" dels en "debriefing", hvilket nedenstående betegnes som <b>A) akut krisehåndtering/krisesamtale (defusing) og B) debriefing.</b></p>
	<p><b>Akut krisehåndtering (defusing)</b> <i>giver de implicerede professionelle mulighed for at udveksle umiddelbare indtryk, således at de ikke forlader deres vagtperiode med en masse uafklarede oplevelser. Den akutte krisehåndtering bør gøres forholdsvis kort men dog så lang, at det er muligt for den ansvarlige leder eller kollega at vurdere, om der er behov for yderligere samtale (krisehjælp) og/eller efterfølgende bearbejdningssamtale.</i></p>
	<p><b>Debriefing</b> <i>Gennemføres af en leder med særlig erfaring på området eller evt. psykolog. Debriefingen finder sted ved et tværfagligt møde, hvor tanker, følelser og reaktioner tales grundigt igennem – enten enkeltvis eller i gruppen af deltagere i hændelsen. <b>Afbud til mødet kan kun ske via nærmeste leder.</b> Debriefingen finder sted inden for nogle få døgn efter hændelsen og er af længere varighed end den akutte krisesamtale.</i></p>
<b>A</b>	<p><b>Akut krisehåndtering (defusing)</b></p>
1	Afdelingssygeplejerske/jordemoder eller ansvarshavende sygeplejerske/jordemoder, som ikke er direkte impliceret i forløbet, tager initiativ til og har ansvaret for at samle <b>alle</b> de involverede parter til en <b>akut krisesamtale</b> umiddelbart efter hændelsen, inden nogen tager hjem fra pågældende vagt.
2	Hun sørger for ro og rum omkring de involverede personer og er om muligt behjælpelig med at tilkalde afløsende personale, så de involverede kan afslutte forløbet i forhold til patienten og friholdes fra andre opgaver. I svære tilfælde, ved udpræget travlhed eller hvis den ansvarlige er i tvivl om håndteringen, kontaktes afdelingsledelsen
3	Under samtalen udveksles de umiddelbare indtryk og følelser omkring hændelsen, og den ansvarlige kollega vurderer, om der er behov for akut krisehjælp.

4	Det skal sikres, at den kriseramte forbliver i afdelingen, indtil han/hun er i stand til at tage hjem og skal helst ikke være alene. Det kan være nødvendigt at informere pårørende og/eller at benytte taxa til hjemkørsel.
5	Afdelingssygeplejersken/jordemoder eller den ansvarlige kollega sikrer sig i samarbejde med vagthavende læge, at hændelsesforløbet er beskrevet fyldestgørende i journalmaterialet.
6	Den enkelte opfordres til at beskrive egen oplevelse af og tanker om hændelsen derhjemme, hvilket kan blive nyttigt efterfølgende dels i forhold til at blive afklaret omkring tanker, følelser og reaktioner dels i forhold til evt. senere fagligt efterspil.
7	Med mindre de allerede er blevet kontaktet, informeres afdelingssygeplejersken/jordemoderen og afdelingsledelsen skriftligt med beskrivelse af hændelsen og kort beskrivelse af den akutte krisehåndtering samt navne og telefonnumre på de involverede. Disse bliver informeret om, at de vil blive kontaktet af afdelingssygeplejerske/afdelingsledelse inden for de næste 24-48 timer mhp. debriefing, som alle forventes at deltage i.
<b>B</b>	<b>Debriefing</b>
1	Afdelingssygeplejersken/jordemoderen kontakter alle involverede parter, og ved behov også den person, som forestod den akutte krisehåndtering til en fælles samtale inden for 48 timer efter hændelsen.
2	Afdelingssygeplejersken/jordemoderen informerer lederne for de involverede medarbejdere om, at samtalen finder sted. Den specialeansvarlige overlæge, afdelingssygeplejersken/jordemoderen og den ledende social- og sundhedsassistent deltager så vidt muligt i samtalen; der skal være mindst 1 ledelsesperson fra den implicerede faggruppe til stede.
3	Afdelingssygeplejersken/jordemoderen sørger for velegnet lokale og fremskaffelse af det relevante journalmateriale.
	Hensigten med samtalen er, at de involverede parter får mulighed for at reflektere over det skete og bliver afklaret med de tanker og følelser, som er opstået i forbindelse med hændelsen. Endvidere at lederen har mulighed for at vurdere, om der er behov for yderligere krisehjælp og/eller andre interventioner.
	<b>Selve samtalen</b>
	<ul style="list-style-type: none"> <li>▪ Ledelsespersonen er mødeleder og tager kortfattede notater til eget brug i koordinationen af det videre forløb.</li> <li>▪ Formålet med samtalen præciseres. Det forventes, at alle udviser respekt og forståelse for hinanden og hinandens reaktioner, selvom de kan være meget forskellige. Det understreges, at der er tavshedspligt omkring indholdet af samtalen.</li> <li>▪ Der lyttes til den enkeltes oplevelse af hændelsesforløbet, og metoderne fra kollegial supervision med spejling, anerkendelse af følelser og "mening" kan med fordel anvendes. Det primære er, at deltagerne får lejlighed til at formulere egne oplevelser af forløbet og de tanker og følelser, som er opstået i forbindelse dermed.</li> <li>▪ Der er ikke tale om at placere skyld; men at deltagerne reflekterer over og bearbejder hændelsen.</li> <li>▪ I det tilfælde hvor der er tale om en fejl/utilsigtet hændelse, som skal indberettes til Sundhedsstyrelsen, og/eller der er behov for faglig påtale, sker dette efterfølgende og ikke i forbindelse med bearbejdningssamtalen.</li> </ul>
	<b>Opfølgning</b>
	Det er de faglige lederes ansvar at følge op på den enkelte medarbejder efter hændelsen. Det skal overvejes, om de implicerede parter skal mødes igen, når evt. chokfase er gennemlevet til yderligere refleksion og bearbejdning. I fald der er behov for yderligere hjælp, kan ansatte via personalechefen trække på klin. psyk. afd., her.
	<b>Arbejdsskadeanmeldelse</b>
	I tilslutning til debriefingen udleveres skadesanmeldelsesblanket samt "Bilag til arbejdsskadeanmeldelse vedr. psykisk belastende hændelse". Der informeres om, at leder og evt. sikkerhedsrepræsentant vil være behjælpelig med udfyldelse af skadesanmeldelsen hvis ønsket. Anmeldelsen skal indsendes så tidligt som muligt i forløbet helst senest 3 dage efter hændelsen, men det er muligt at anmelde en psykisk arbejdsskade senere, hvis der viser sig uventede tegn på psykisk belastning, som kan henføres til én bestemt hændelse.